

GFDRR

BRINGING RESILIENCE TO SCALE



Bringing resilience to scale

© 2016 Global Facility for Disaster Reduction and Recovery

1818 H Street, N.W., Washington, D.C., 20433, U.S.A.

The text in this publication may be reproduced in whole or in part and in any form for educational or nonprofit uses, without special permission, provided acknowledgement of the source is made. The GFDRR Secretariat would appreciate receiving a copy of any publication that uses this report as a source. Copies may be sent to the GFDRR Secretariat at the above address.

No use of this publication may be made for resale or other commercial purpose without prior written consent of the GFDRR Secretariat. All images remain the sole property of the source and may not be used for any purpose without written permission from the source.

Notes: Fiscal year (FY) runs from July 1 to June 30; the financial contributions and expenditures reported are reflected up to June 30, 2015; all dollar amounts are in US dollars (\$) unless otherwise indicated.

Design: Miki Fernández/ULTRAdesigns, Inc.

Cover photo: Jim Holmes/AusAID

GFDRR MEMBERS



AUSTRALIA



AUSTRIA



DENMARK



DJIBOUTI



GERMANY



INDIA



ITALY



JAPAN



LUXEMBOURG



MEXICO



NEPAL



NIGERIA



NORWAY



SAUDI ARABIA



SWEDEN



SWITZERLAND



UNITED KINGDOM



UNITED STATES



AFRICA, CARIBBEAN & PACIFIC (ACP) SECRETARIAT



EUROPEAN UNION



UNISDR
UNITED NATIONS OFFICE
FOR DISASTER RISK
REDUCTION



WORLD BANK GROUP

OBSERVERS



BRAZIL



CANADA



CHINA



FINLAND



FRANCE



INDONESIA



IRELAND



KOREA, REPUBLIC OF



KUWAIT



NETHERLANDS



PHILIPPINES



QATAR



RUSSIA



SPAIN



TURKEY



UNITED ARAB
EMIRATES



THE GLOBAL
NETWORK OF
CIVIL SOCIETY
ORGANISATIONS
FOR DISASTER
REDUCTION



INTERNATIONAL
FEDERATION OF
RED CROSS AND
RED CRESCENT
SOCIETIES



ISLAMIC
DEVELOPMENT
BANK



ORGANIZATION
OF ISLAMIC
COOPERATION



UNITED
NATIONS
DEVELOPMENT
PROGRAMME



WMO
WORLD
METEOROLOGICAL
ORGANIZATION

Table of Contents

FOREWORD	6
EXECUTIVE SUMMARY	9
How GFDRR Works	11
Supporting the Sendai Framework for Disaster Risk Reduction 2015–2030	18
CHAPTER 1: COUNTRY PROGRAMS	21
In Focus: From Identifying Risks to Guiding Recovery in Malawi	22
Risk Identification	23
In Focus: Keeping Students Safer in Nepal	26
Risk Reduction	27
In Focus: Sharing Knowledge, Building Resilience in Indonesia	30
Preparedness	31
In Focus: Expanding Financial Protection in Central America	34
Financial Protection	35
In Focus: Bouncing Back from Cyclone Pam in Vanuatu	38
Resilient Recovery	39
Major Post-Disaster and Post-Conflict Assessments Supported by GFDRR in FY15	41
GFDRR Country Program Evaluation (2015)	42
Monitoring Cross-Cutting Themes	44
• Resilience to Climate Change	44
• Gender and Social Inclusion	45

CHAPTER 2: THEMATIC PROGRAMS	47
Innovation Lab	48
Disaster Risk Financing and Insurance	50
Inclusive Community Resilience	52
Safer Schools	54
Hydromet Services	56
Resilient Cities	58
Resilient Recovery Program	60
In Focus: Supporting Response, Recovery, and Resilience in Nepal	61
CHAPTER 3: SPECIAL PROGRAMS	63
ACP–EU Programs	64
Japan Program	67
CHAPTER 4: KNOWLEDGE AND COLLABORATION	71
International Events	72
Knowledge Products	74
GFDRR Communications	77
ANNEXES	
Annex 1: Supporting implementation of the Sendai Framework	80
Annex 2: Results Monitoring Report	81
Annex 3: Financial Review	82
Annex 4: Acronyms	88
Endnotes	90

Foreword

Through targeted interventions, GFDRR worked to maximize impact and enable countries to design and implement comprehensive approaches to disaster risk management, helping embed resilience directly into development policies and planning.

The topic of risk is everywhere. In the new global community, everything connects, and so everything is vulnerable—economic shocks, political instability, and ecological catastrophe reverberate around the world as never before. At the forefront of this emerging landscape is rising disaster and climate risk, which is imperiling efforts to end poverty and reach important development goals.

Take climate risk alone—over the last 20 years, extreme weather events have impacted more than four billion people, claiming over 600,000 lives and bringing nearly \$1.9 trillion in economic losses. Worryingly, there were nearly twice as many weather-related disasters over the last decade as in the 1980s, and population growth, uncontrolled urbanization, and climate change are driving exposure to these risks even higher. Missing from these numbers are the substantial impacts from earthquakes and volcanic events, both of which have caused enormous devastation over the last year in Nepal, Indonesia, and elsewhere.

The Sendai Framework for Disaster Risk Reduction, the Agenda 2030, and the recent Paris Agreement, all agreed upon in 2015, set ambitious targets for building resilience and mitigating losses. The Global Facility for Disaster Reduction and Recovery (GFDRR) among other international organizations will be decisive to contribute to the successful implementation of these remarkable agreements.



John Roome (Chair), Senior Director, Climate Change, World Bank Group



Ingrid-Gabriela Hoven (Co-Chair), Director-General, BMZ

This Annual Report highlights the results of GFDRR's grants, technical assistance, and knowledge sharing activities in fiscal year 2015 (FY15). Through its growing program, GFDRR worked to maximize impact and enable countries to design and implement comprehensive approaches to disaster risk management, helping embed resilience directly into development policies and planning. GFDRR helped leverage more than \$3 billion in investments from the World Bank alone, catalyzed resilient recovery in Nepal and 12 other disaster- and conflict-affected regions, and helped more than 89 countries improve their disaster risk management capacity—with nearly half of all grants contributing to addressing climate risk.

GFDRR has also created special thematic initiatives to tackle specific resilience challenges. The Safer Schools Program, for example, is saving lives and reducing disruptions in education through better construction practices and risk management strategies. The Innovation Lab continues to harness the power of new technology to improve risk identification, partnering with major players like OpenStreetMap, Google, and others. And impressive strides are being made in the Disaster Risk Financing and Insurance program, which saw expanded financial protection in Peru, the Philippines, Uruguay, and elsewhere in FY15.

Moreover, GFDRR's portfolio actively supports 85 of the 91 key activities under the four Priorities for Action in the new Sendai Framework—showing the Facility is well-situated to guide and support the international effort to bring resilience to scale, especially in the poorest and most vulnerable countries. In FY15, GFDRR also increased the number of grants directly engaging gender issues and those engaging civil society, showing good momentum in scaling up investments in these important areas.

The next 12 months will be decisive for the international development community. The World Humanitarian Summit and Habitat III will heavily inform the direction of the resilience agenda, and further embed disaster risk management as an integral part of sustainable development. We are confident that GFDRR is strengthening both the expertise and key partnerships it will need to help guide and implement this process in the year to come.

John Roome

Ingrid-Gabriela Hoven





EXECUTIVE SUMMARY

ST. LUCIA

Community members help identify specific disaster risks.
Photo Credit: World Bank

In fiscal year 2015, GFDRR awarded \$70 million in grants to support capacity building, knowledge sharing activities, and targeted technical assistance for investment programs in more than 89 countries.

This report highlights the results achieved during fiscal year 2015 against the work plan presented to the GFDRR Consultative Group in May 2013. It provides an overview of GFDRR grant making activities along the five Pillars of Action identified in GFDRR's strategy for 2012–2015, and how these activities support the newly approved Sendai Framework for Disaster Risk Reduction. The report also highlights progress under various Thematic Programs launched since then, as well as GFDRR's contribution to international events and knowledge areas in the disaster risk management (DRM) field. Finally, the report provides a comprehensive overview of GFDRR's financial performance during the year.

Stronger Foundations, Growing Partnerships

Fiscal year (FY) 2015 marks the third year of operation since GFDRR's Consultative Group (CG) endorsed the Facility's strategy in 2013. This strategy aimed at reshaping the Facility's program to help support resilience interventions at scale. In FY15, GFDRR completed the restructuring of its operational framework, in particular, to strengthen the planning and prioritization of resources and activities, and provide a stronger system for monitoring, evaluation, and reporting of results. These changes have contributed to the growth of GFDRR this year, and helped to catalyze partnerships to support larger and more complex interventions. Increased cooperation with United Nations (UN) agencies, in particular the United Nations Office for Disaster Risk Reduction (UNISDR), the United Nations Development Programme (UNDP), and the World Meteorological Organization (WMO), as well as multilateral financial institutions, including the African Development Bank, the Asian Development Bank (ADB), and the Islamic Development Bank, have also helped elevate the profile of GFDRR's program. GFDRR is now in a better position to carry out its mandate as a long-term partnership with a clear mission, strong technical expertise, and delivery mechanism.

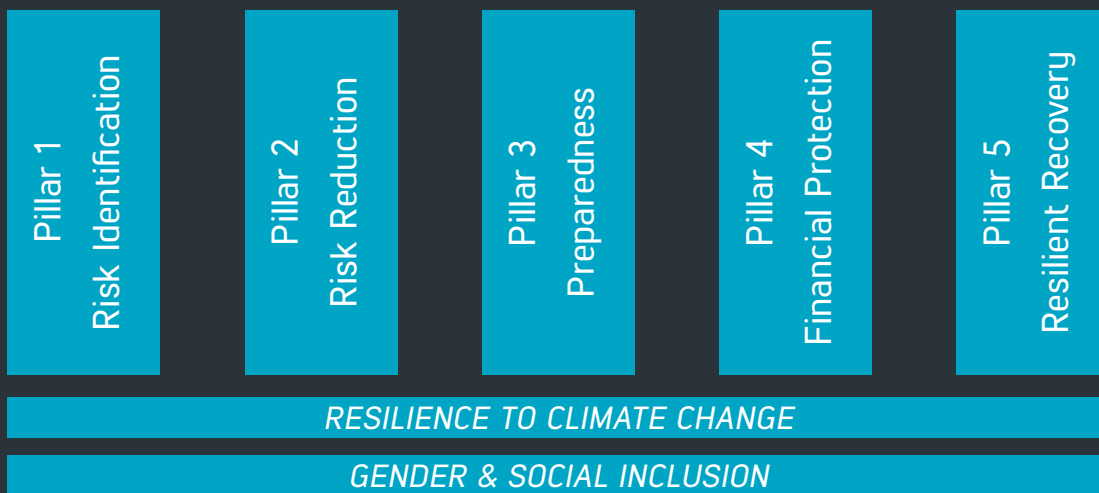
GFDRR's impact this year was enhanced by the strength of its growing and diverse partnerships, including welcoming Mexico, Nigeria, and Saudi Arabia as full members to the CG. The year has also shown GFDRR expanding its network more deeply into civil society, the private sector, foundations, academia, and research institutions. For example, GFDRR worked closely with

How GFDRR Works

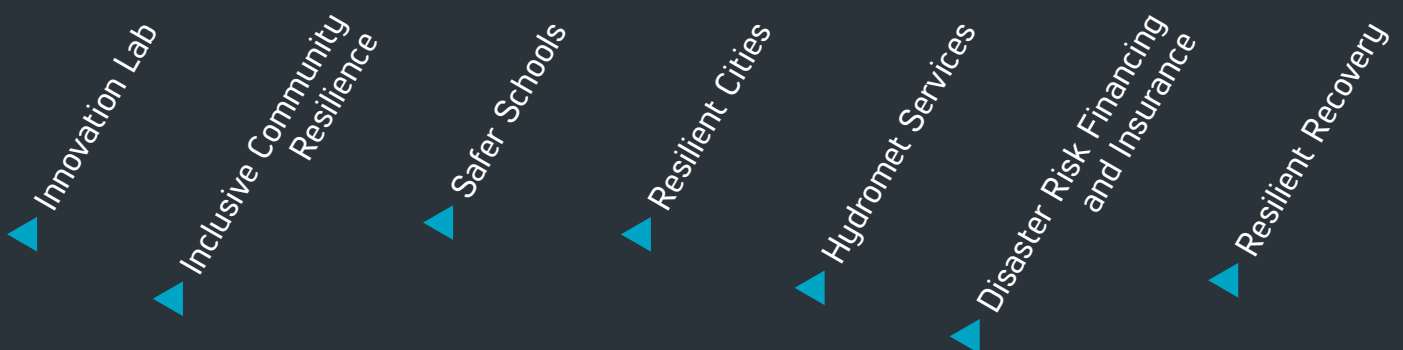
FINANCING GFDRR finances activities through a Multi-Donor Trust Fund and two Special Programs: the Africa Caribbean Pacific–European Union Programs and the Japan–World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries.



MONITORING GFDRR monitors its activities through five Pillars of Action, including cross-cutting themes such as resilience to climate change and gender & social inclusion, and their contribution to the Sendai Framework for Disaster Risk Reduction (SFDRR) Priority Areas of Action and Targets.



THEMATIC PROGRAMS Through its Thematic Programs, GFDRR provides tailored technical support to implementing partners. The Thematic Programs, which cut across the five Pillars of Action and underpin country programs, help ensure the quality of GFDRR grants, and lead capacity development and knowledge activities.



GFDRR aims to carry the momentum of FY15 forward by better enabling its network of partners to support vulnerable communities at scale.

Save the Children, a non-governmental organization (NGO), to promote the construction of safer schools in Nepal, and also teamed up with NASA and other space agencies to help the Government of Vanuatu conduct the first-ever agricultural impact assessment after Cyclone Pam devastated the country in March. The skills, knowledge, and leveraging potential these types of partnerships bring have enabled GFDRR to improve on its existing program, as well as help launch several innovative initiatives.

The impact of these partnerships was especially evident in the lead-up to the Third UN World Conference for Disaster Risk Reduction (WCDRR) held in Sendai, Japan in March 2015. GFDRR informed a number of important discussions, including playing a significant role supporting the preparation of the 2015 Global Assessment Report (GAR15) and organizing the Second World Reconstruction Conference (WRC2), which gathered delegates from around the world to shape a common position on how to integrate resilient recovery in the proposed Sendai Framework. At the WCDRR, GFDRR facilitated the participation of delegates from 18 low-income countries and five regional economic commissions to help frame the disaster resilience agenda for years to come. The newly adopted Sendai Framework for Disaster Risk Reduction (SFDRR) will now help guide GFDRR's interventions.

A Growing Program

GFDRR has continued to grow and focus its program toward bringing scale to DRM efforts around the globe. In fiscal year 2015, GFDRR awarded \$70 million in grants to support capacity building, knowledge sharing activities, and targeted technical assistance for investment programs in more than 89 countries. These new commitments brought GFDRR's active portfolio to \$216 million (a 29 percent increase from FY14), marking the highest level since GFDRR's establishment. Collectively, this growth contributed to the delivery of over 220 analytical products and the training of at least 11,000 individuals on DRM-related topics. It has also enabled significant leveraging of larger investments in resilience—including more than \$3 billion from the World Bank alone in FY15. An independent evaluation conducted this past year by ICF International, a consultancy, identified over \$3.6 billion in investments informed by GFDRR in the five countries studied, highlighting the continued success of the Facility's strategy.

FY15 saw the expansion and launch of several key initiatives. The Africa Caribbean Pacific–European Union (ACP–EU) Natural Disaster Risk Reduction (NDRR) Program deepened its engagement in Africa through an additional \$48 million commitment to “build disaster resilience to natural hazards in sub-Saharan African regions, countries, and communities.” The program aims to strengthen the coordination capacity of African Regional Economic Communities and help countries develop disaster management strategies at regional, national, and local levels. GFDRR also launched the Small Island States Resilience Initiative, which aims to increase support to island states for which resilience and climate change increasingly represent an existential challenge, as well as a Challenge Fund to help bridge the gap between technology innovation and on-the-ground users in the field of risk assessment.

The Japan–World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries also expanded its reach with 21 new grants. Leveraging Japan's expertise, the program seeks to help vulnerable countries incorporate DRM into their national development planning and investment programs. The program receives the support of the DRM Tokyo Hub,

which organized multiple knowledge sharing events and visits, actively engaging government agencies, technical experts, academia, and the private sector to share support knowledge exchange and on the ground activities. DRM Tokyo Hub staff were also particularly instrumental in fostering partnerships among the Japan International Cooperation Agency (JICA), the World Bank, and other development agencies in support of larger investment programs on resilience.

Responding to Disasters

FY15 saw its share of devastating natural events. GFDRR sent specialized teams to support national governments in response to ten disasters caused by natural hazards, supporting the coordination of damage and needs assessments and informing recovery and reconstruction efforts. In Nepal, following the April and May earthquakes, which affected almost one-third of that country's population, GFDRR released funding and mobilized staff within 24 hours. Along with a coalition of over 40 partners, GFDRR staff helped coordinate and assist the government in carrying out a post-disaster needs assessment (PDNA) that was finalized within six weeks after the earthquake. The timely completion of the assessment helped Nepal secure \$4.4 billion in support of its reconstruction effort at an international conference held in late June. GFDRR resources and expertise are now supporting the government to structure its reconstruction efforts.

FY15 also saw particular recognition of GFDRR expertise in post-disaster assessments, with multiple requests for assistance supporting post-conflict exercises in Iraq, Syria, Ukraine, and the West Bank and Gaza. Applying post-disaster methodologies and remote sensing techniques to these conflict areas, GFDRR enhanced critical information on how these ongoing conflicts have impacted populations, infrastructure, and delivery of services, as well as helped provide recommendations for reconstruction and recovery efforts.

Impact through Outreach and Collaboration

Finally, GFDRR will continue to work with partners to shape and influence the global dialogue on DRM through knowledge sharing and capacity building. To help inform key fora in the coming year, such as the 2015 Paris Climate Conference (CoP21) and the World Humanitarian Summit (WHS), it will release a series of flagship publications that will address critical issues, including the economic benefits of resilience, the evolution of risk, and development flows toward DRM. Among its activities to support knowledge exchange, GFDRR will also host the next iteration of its biennial Understanding Risk conference in May 2016, release an innovative interactive risk screening platform, and expand its global trainings on conducting post-disaster assessments.

Looking ahead, a changing development landscape provides new opportunities for countries to access greater investments in disaster and climate risk management. Resilience remains well-integrated in the Global Goals for Sustainable Development, signaling the international community's growing awareness of its importance in development gains. Additionally, CoP21 will hopefully bring international agreement on how the global community will support vulnerable countries to adapt to a changing climate. Resilience will also have an important role to play at the WHS next year. Throughout these international discussions, it will be critical for GFDRR to continue strengthening partnerships to help countries manage their risks and recover quickly from disaster events.

The Road Ahead

GFDRR aims to carry the momentum of FY15 forward by better enabling its network of partners to support vulnerable communities at scale. To this end, the Facility will work in concert with larger development frameworks, particularly the newly-adopted SFDRR that sets an ambitious disaster risk reduction agenda over the next fifteen years. GFDRR has been hard at work to align its overall program with SFDRR's goal and targets, and will continue to do so in the coming year. Together, these efforts will further GFDRR's mission to protect lives and livelihoods threatened by climate and disaster risk.

GFDRR's total portfolio at the end of FY15 was \$216 million, a 29% increase from FY14, with 280 total grants.

GLOBAL

27 grants
\$43.5 million committed
20.1% of portfolio

LATIN AMERICA AND CARIBBEAN

38 grants
\$19.0 million committed
8.8% of portfolio



MIDDLE EAST AND NORTH AFRICA

9 grants
\$3.8 million committed
1.7% of portfolio

EUROPE AND CENTRAL ASIA

22 grants
\$9.5 million committed
4.4% of portfolio

EAST ASIA AND PACIFIC

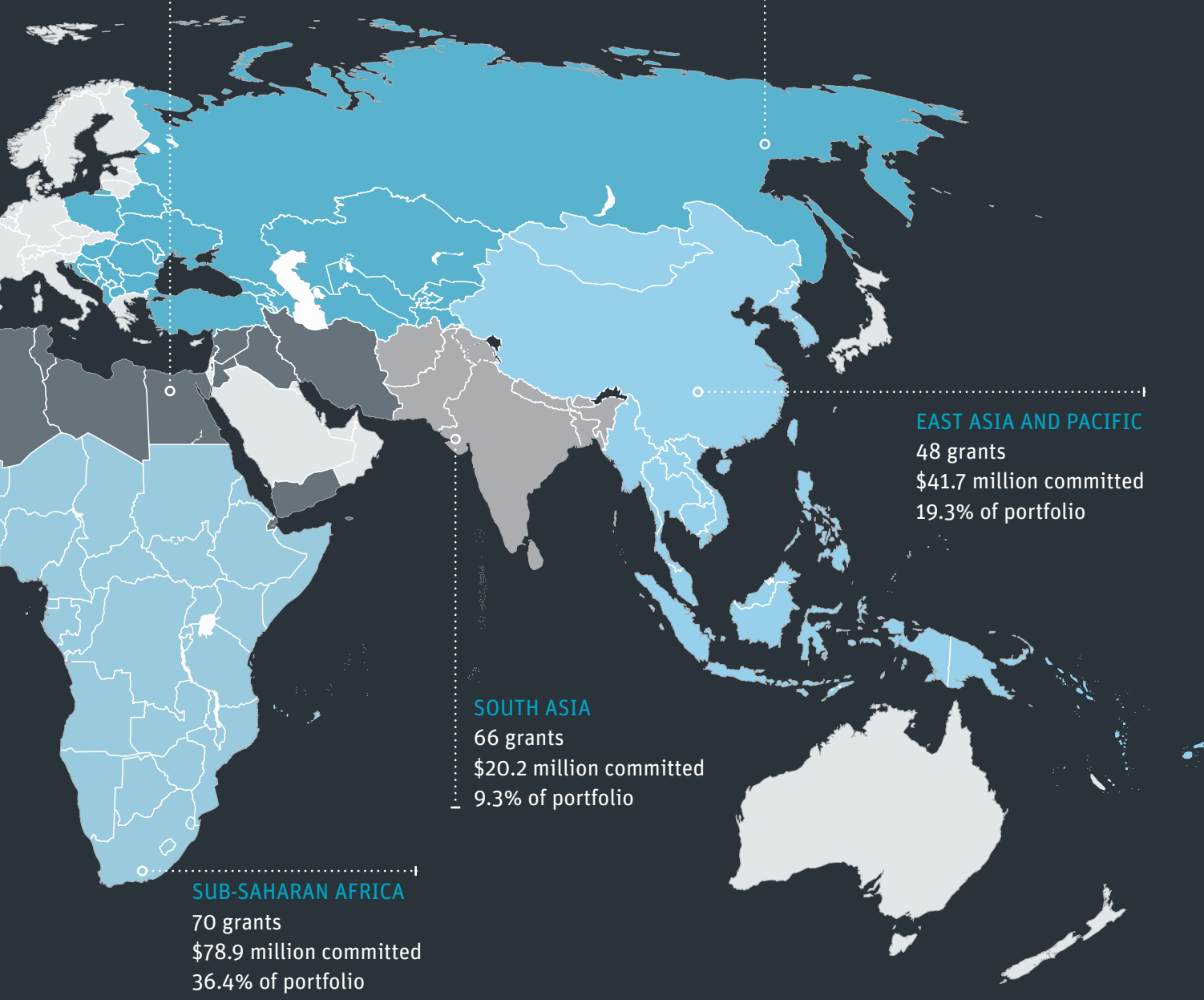
48 grants
\$41.7 million committed
19.3% of portfolio

SOUTH ASIA

66 grants
\$20.2 million committed
9.3% of portfolio

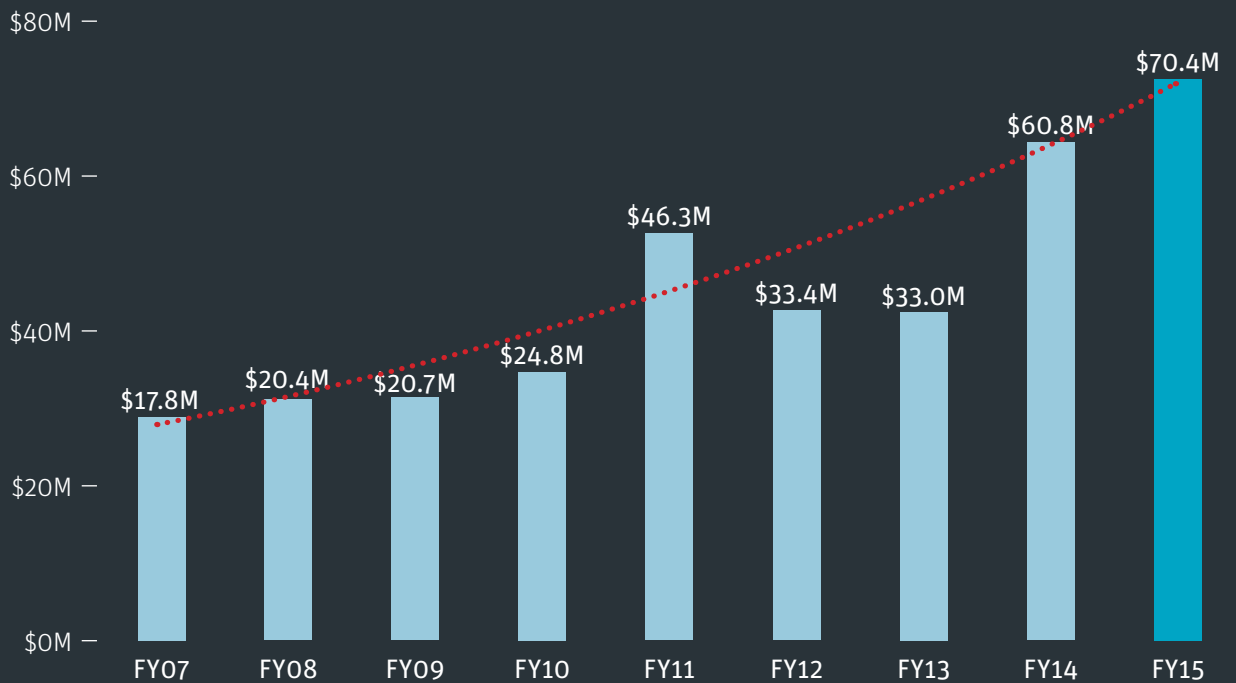
SUB-SAHARAN AFRICA

70 grants
\$78.9 million committed
36.4% of portfolio

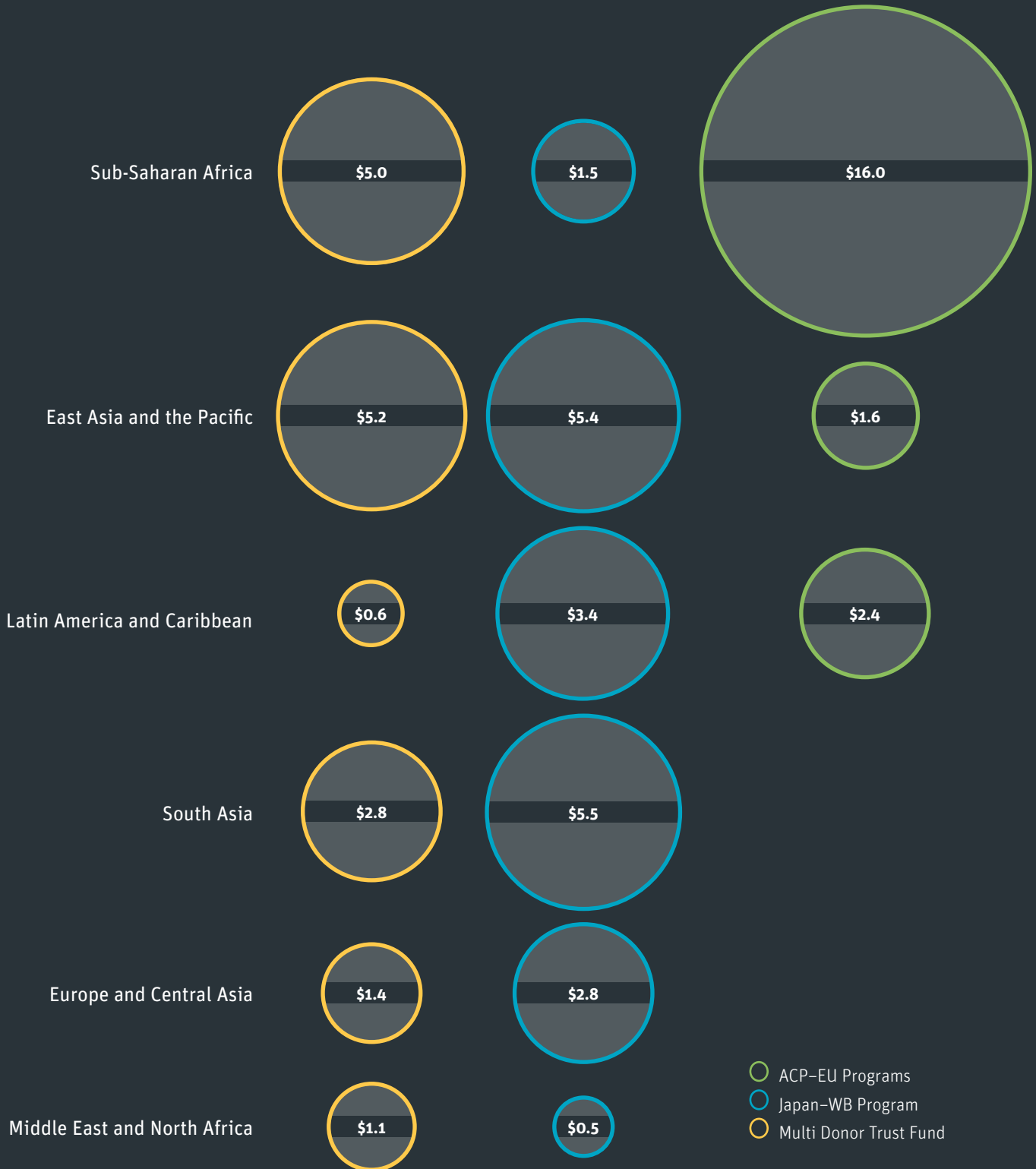


Overview of FY15 Portfolio

On average, GFDRR's annual commitments to operations has climbed steadily since inception, with FY15 marking a record high when compared to prior fiscal years.



In FY15, GFDRR grants received funding through 3 main financial windows: the ACP–EU Programs, the Japan–World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries, and the Multi–Donor Trust Fund.



Supporting the Sendai Framework for Disaster

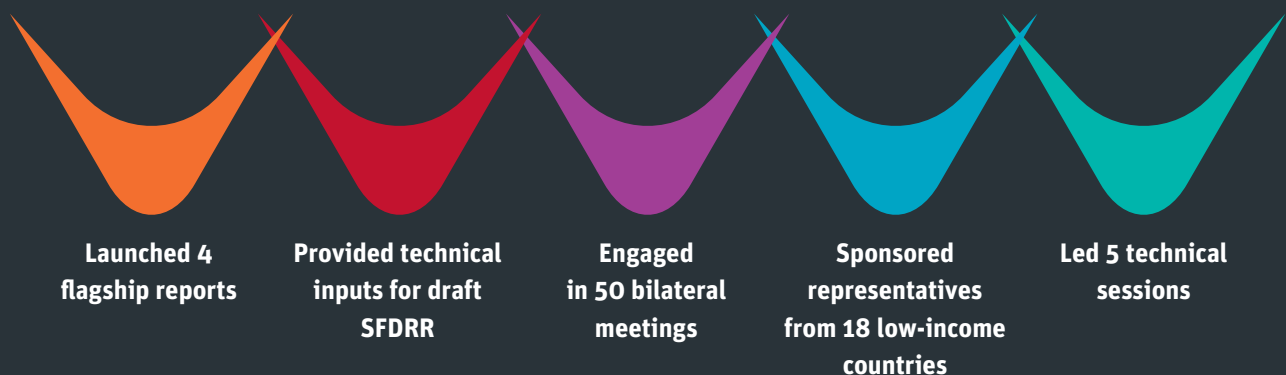
GFDRR was established in 2006 to support implementing the Hyogo Framework for Action (HFA) 2005–2015, a decade-long plan to help make the world safer from disasters caused by natural hazards. Its successor instrument, the Sendai Framework for Disaster Risk Reduction 2015–2030 (SFDRR), was adopted at the Third UN World Conference on Disaster Risk Reduction (WCDRR), held on March 14–18, 2015 in Sendai, Japan, and will guide action on disaster risk reduction for the next 15 years.

Supporting the International Dialogue on Disaster Risk Management

GFDRR's engagement at WCDRR showcases its capacity to leverage partnerships to manage disaster risk at the global and regional levels:

- GFDRR produced four flagship reports on risk assessment, financial protection, social protection, and resilient recovery as a core input to GAR15, the 2015 edition of a biennial report that provides a comprehensive review and analysis of disaster risk and risk management.
- In the lead-up to the conference, GFDRR worked alongside UNISDR and other partners to provide technical inputs to inform the draft document of the SFDRR.
- During the conference, GFDRR deepened engagement with donors and low-income countries through more than 50 bilateral meetings and discussions with key counterparts that helped catalyze action.
- GFDRR sponsored representatives from 18 low-income countries and five regional economic commissions, and facilitated their participation at multiple ministerial roundtables and working sessions.
- In partnership with the World Bank, GFDRR led five technical sessions, including on the DRF Guide, prepared in partnership with the EU and UNDP.

GFDRR made significant contributions to the World Conference on Disaster Risk Reduction (WCDRR).







CHAPTER 1

COUNTRY PROGRAMS

To monitor its program, GFDRR classifies its activities in three broad categories: analytical work, capacity building, and technical assistance. GFDRR monitors its programs through five Pillars of Action and two cross-cutting themes. The five Pillars encompass the following: 1. Risk Identification; 2. Risk Reduction; 3. Preparedness; 4. Financial Protection; and 5. Resilient Recovery.

NEPAL

The April and May 2015 earthquakes caused over \$5 billion in damages, according to an assessment by GFDRR. The Facility has been working closely with the government since the disaster, helping secure half a billion dollars in recovery funding on behalf of the World Bank.

Photo credit: David Ramos

In Focus: From Identifying Risks to Guiding Recovery in Malawi

Malawi frequently suffers from heavy rains and storms that result in flash floods, which devastate livelihoods and set back development. In fiscal year 2015, GFDRR worked with the Government of Malawi and other stakeholders to help the country better identify disaster risks, as well as recover from some of the worst flooding events on record.

Recognizing how the global open data movement and community mapping exercises can reduce Malawi’s vulnerability to natural hazards, GFDRR launched the open source Malawi Spatial Data Platform (MASDAP, www.masdap.mw) GeoNode in 2012. This GFDRR-supported Open Data for Resilience Initiative, or OpenDRI, helps ensure risk data sets are compiled, shared, and utilized more effectively. In FY15, OpenDRI worked with the Shire River Basin management team and Malawi’s Department of Disaster Management Affairs to strengthen the GeoNode platform, adding additional datasets to better ensure historical and current project data remain electronically accessible and useful in DRM efforts.

This fiscal year, GFDRR also facilitated local community mapping activities in Nsanje and Chikwawa, where participants from the Government of Malawi and the Humanitarian OpenStreetMap Team mapped nearly 450 residential areas. Missing data was also collected to assist identifying at-risk infrastructure and other assets

for future flood preparedness and response. In Nsanje, these exercises allowed for collaboration between government units and villages, as well as the collection of more than 15,000 waypoints (e.g., village locations, road access, dwellings, and village facilities). This data will ultimately be uploaded onto OpenStreetMap and made available on the MASDAP GeoNode to inform disaster preparedness efforts.

In January 2015, Malawi experienced one of the most devastating floods in its history. Affecting 1,150,000 people, 106 died, 336,000 were displaced, and countless livelihoods were lost from crop destruction in a country relying heavily on subsistence farming. In the aftermath of the disaster, data from the MASDAP GeoNode was used along with InaSAFE, another GFDRR-supported tool, to help identify and document exposed infrastructure and facilities.

GFDRR also supported the Government of Malawi’s recovery efforts. Shortly following the disaster, Malawi’s Department

of Disaster Management Affairs conducted a PDNA, in partnership with GFDRR, the EU, UNDP, and the World Bank. The assessment estimated a loss of approximately \$335 million and recovery and reconstruction needs at about \$494 million.

Using a grant from the ACP–EU NDRR Program, GFDRR and partners are supporting Malawi in developing a recovery framework, based on the model and methodology in the Disaster Recovery Framework Guide. GFDRR has learned from its post-disaster work that coordinating national, district, and local priorities is essential for effective recovery. To support this need, GFDRR, along with the World Bank, helped DoDMA convene a series of workshops to lay the groundwork for the recovery framework, defining a central recovery vision, objectives, and funding priorities for all 17 flood-affected districts. Drawing on the PDNA findings, the overall recovery framework, once completed, will help the government prioritize and implement investments to achieve a sustainable and resilient recovery.

Snapshot of GFDRR’s Engagement in Malawi, 2007–2015

INFORM 2015 Risk Index

Rating **4.2**

Rank **72**

SOURCE OF FUNDING

ACP–EU NDRR Program

No. of grants **1**

Resources committed **\$370,000**

Multi-Donor Trust Fund

No. of grants **4**

Resources committed **\$4,342,413**

Risk Identification

People in vulnerable countries will have improved access to information about disaster and climate risks, and greater capacity to create, manage, and use this information.

Recognizing, assessing, and understanding risks are the first steps toward reducing the harmful effects of natural hazards and climate change. GFDRR promotes risk identification as fundamental to manage disaster risk, as well as a means to help leverage larger investments in risk reduction, preparedness, financial protection, and resilient recovery. Working with its partners, GFDRR builds capacity that allows governments, communities, and other stakeholders to better quantify and anticipate the potential impacts of disasters on society and the economy, as well as carry out risk-sensitive decision-making.

In fiscal year 2015, GFDRR continued to enable increased access to risk information through developing and implementing data sharing, mapping, and modeling methods. For example, a new country disaster risk profile toolkit was developed for **Central America**. This toolkit provides a data-driven national overview of risk exposure to hazards including earthquakes, windstorms, and floods, allowing for more accurate estimates of potential damage to property and infrastructure. Central American

countries are now making use of these profiles, including **Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama**.

The Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) provides **Pacific Island countries** with state-of-the-art disaster risk information and tools. Through the support of GFDRR, representatives from eight Pacific Island country governments were trained on risk modeling, risk profiles, pre- and post-disaster assessments, and post-event loss calculations.

GFDRR also supported the Caribbean Risk Information Program, which has strengthened the quality of national-level data on hazards and risks for **Belize, Grenada, Dominica, St. Lucia, and St. Vincent and the Grenadines**. The program trained officials in the Caribbean region on risk fundamentals, hazard mapping, and multi-hazard risk assessment. It also produced the *Caribbean Handbook for Risk Information Management*, which guides generating and applying risk information to inform recovery and reconstruction projects.

Launched in 2014, the Southwest Indian Ocean Risk Assessment and Financing Initiative (SWIO RAFI) works with **Comoros, Madagascar, Mauritius, Seychelles, and Zanzibar** to improve understanding and availability of disaster risk financing solutions, such as insurance or contingent credit. Building on UN efforts, in FY15, the initiative has been working to collect local data, such as disaster risk exposure and weather-related information, which will serve as a basis for mechanisms that strengthen fiscal resilience.

In **Dominica**, a risk data management platform, DomiNode, was strengthened with additional datasets. This represents Dominica's first step toward mitigating continued data loss and is now helping to identify the schools and shelters most vulnerable to disasters.

Figure 1: Outputs delivered in FY15 from GFDRR funded projects under Pillar 1: Risk Identification¹

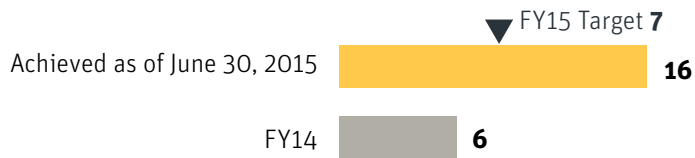
Data platforms established



Risk assessments conducted



Hazard mapping conducted





PAKISTAN New technologies can help identify climate and disaster risk more effectively.

Photo credit: NASA



Pillar 1 Risk Identification:

GFDRR supports improving access to disaster and climate risk information, and the capacity to create, manage, and use this information.

In Focus: Keeping Students Safer in Nepal

Among the massive devastation from earthquakes in Nepal this April and May, more than 2,000 schools collapsed and over 5,000 were damaged. In the aftermath, GFDRR mobilized funding and expertise to assist with relief and recovery needs, including restoring the significantly disrupted educational services.

In response, GFDRR's Safer Schools Program has become a leading partner in Nepal's school recovery efforts by raising grant resources and offering technical support to improve the safety and quality of the country's education facilities. The Safer Schools Program is now poised to support the Nepal Safer Schools Technical Assistance program. This \$1.5 million grant will provide technical advice and support to Nepal's Department of Education, informing the reconstruction and rehabilitation of affected education facilities. This program also seeks to collect information on education infrastructure in 14 districts, individually assessing over 5,000 public schools.

Prior to the earthquake, Nepal's inadequate enforcement of building standards and insufficient technical supervision left the country's educational infrastructure

vulnerable to disasters caused by natural hazards. Much of it now needs to be rehabilitated or rebuilt. Programs working in this area now require detailed information on existing infrastructure, as well as technical support that adapts international best practices to the local context.

The Safer Schools Program will support the Government of Nepal's needs in these areas by implementing technical assistance through three components:

- *Structural Integrity and Damage Assessment (SIDA)* to inform the Department of Education's preliminary investment plan, as well as reconstruction of the education sector and the rehabilitation programs of other development partners;
- *Prioritized Preliminary Investment Plan (PIP)* for reconstruction, seismic retrofitting, and repair of education facilities; and
- technical input on the planning, construction, retrofitting, operation, maintenance framework, and policy reform.

Teams have made good progress—the final results of the SIDA are expected by the end of 2015. Additional technical assistance will be completed in fiscal year

2016. This will help the government establish a post-earthquake education infrastructure baseline through a web-based, interactive platform that provides information to policymakers and technical staff; develop a prioritized investment plan for reconstruction, seismic retrofitting, and repair; and determine recommendations for improved management of education infrastructure.

Development partners, including ADB, JICA, UNICEF, and USAID, have also agreed that continued collaboration and information sharing will be critical to support the government as it moves forward. The baseline information found in the SIDA results will be of use not only to the Nepal government, but also to additional reconstruction projects in the country's most affected districts financed by ADB and JICA.

Investing in school infrastructure is a critical aspect of building resilience to disasters. As Nepal recovers, the Safer Schools program's efforts to acquire and share knowledge and finance improvements will ensure that the country's children will learn in safety, experiencing fewer disruptions when the next disaster hits.

Risk Reduction

People in vulnerable countries will be better protected through improved planning, better building practices, and increased investments in vulnerability reduction.

Once risk information has been gathered and made accessible, it becomes a crucial resource for mitigating the harmful effects of natural hazards and climate change. Through technical advice, capacity building, and implementation assistance, GFDRR helps countries create and improve policies and legislation needed to reduce existing risks and prevent the creation of new ones.

In **Mongolia**, GFDRR has provided ongoing technical assistance to strengthen the country's legal and institutional framework for managing disaster risk, as well as increase the resilience and safety of public schools. With GFDRR funding, a preliminary vulnerability assessment of Ulaanbaatar's public school buildings was conducted in November 2014, revealing that up to 80 percent of schools have high seismic vulnerability. A follow-up risk assessment is planned, which will prioritize schools for hazard-resistant retrofitting and estimate the cost of these efforts.

In **Bangladesh**, the Urban Resilience Project is working to address the complex issue of urban vulnerability to recurrent and large-scale disasters. This new initiative, prepared in FY15,

is a collaborative effort among GFDRR, the World Bank, and the Government of Bangladesh and provides government agencies with improved emergency management systems and equipment, as well as improved building construction planning, design, permitting, and oversight systems in the cities of Dhaka and Sylhet.

In FY15, GFDRR also supported **Timor Leste** as part of a two-phased World Bank program designed to build climate and disaster resilient road infrastructure on the Dili-Ainaro corridor, as well as improve the livelihoods of communities that will benefit from increased connectivity and accessibility. Additionally, GFDRR supported efforts to identify hazard vulnerability in communities by conducting risk assessments that collect key data on floods, landslides, and strong winds in 49 municipalities. This work, in conjunction with the development of community-based guidelines for managing disaster risk, has helped leverage a \$2.7 million community-based DRM project with the Government of Timor Leste and the World Bank.

GFDRR is helping the **Solomon Islands** carry out reforms to

strengthen national institutional arrangements for climate change and DRM. During FY15, GFDRR provided the Solomon Islands' Rural Development Program with specialized training on these subjects. This engagement has also enabled the government to begin implementing investments in resilience at the provincial and community levels, and continue supporting its efforts to establish volcano and seismic monitoring systems.

In **Mali**, a country that is particularly vulnerable to floods and droughts, GFDRR assisted the government in implementing a DRM and climate change adaptation (CCA) strategy. Supported by a \$1.26 million grant, the project has enhanced and strengthened institutional frameworks and raised stakeholder and community awareness. GFDRR also helped to establish a national DRM platform, as well as update and align the existing National Contingency Plan with a National Emergency Rescue Plan. The latter has subsequently been introduced to the government for adoption by presidential decree.

In **Togo**, activities like the GFDRR-funded Integrated Disaster and Land Management Project have supported

community cleaning efforts leading to significant flood reductions in villages along the five-kilometer canal between the Boko and Zowla lakes. It has enabled those who were forced to abandon their homes after disasters to return and resume their livelihoods.

Southern Africa’s Technical Centre for Disaster Risk Management, Sustainability, and Urban Resilience (DIMSUR), managed by UN-HABITAT, has been set up in Maputo, **Mozambique**. Now operational with GFDRR technical support, the center has made

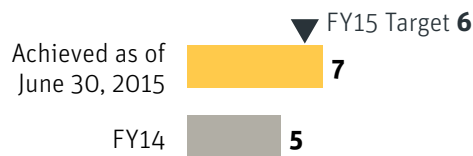
progress in developing urban risk reduction and resilience training tools, which will be tested in five selected cities during FY16.

Figure 2: Outputs delivered in FY15 from GFDRR-funded projects under Pillar 2: Risk Reductionⁱ

Policies and legal frameworks strengthened



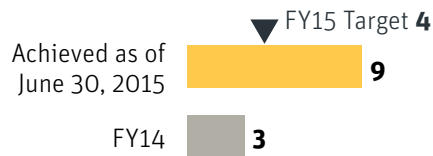
Building codes developed



Risk reduction investment strategies developed



Land use planning systems strengthened





NEPAL In Nepal, the Safer Schools Program is working closely with the government and partners like the ADB, JICA, UNICEF, and USAID to help protect the lives of students and keep educational disruptions to a minimum.

Photo credit: NayanTara Gurung Kakshapati



Pillar 2 Risk Reduction: GFDRR works with governments, civil society organizations, and the private sector to help improve the planning, building practices, policies, and investments to reduce disaster and climate risk.

In Focus: Sharing Knowledge, Building Resilience in Indonesia

Indonesia is among the most disaster prone countries in the world, averaging 381 disaster events annually over the past five years. Last year, more than 30,000 people were directly affected by a total of 293 disasters. As an archipelago comprised of over 17,000 islands with more than 500 administrative districts and municipalities, Indonesia’s geographic and political complexities pose a significant challenge to managing disaster risk.

With the support of GFDRR, the World Bank’s collaboration with Indonesia’s National Board for Disaster Management (BNPB) has strengthened local capacity to reduce disaster risk through knowledge exchange initiatives focused on capacity building. This initiative aims to support BNPB’s aspiration of making Indonesia a living laboratory to improve DRM, with the overall goal of strengthening more than 460 provincial and local disaster management agencies spread throughout the archipelago in disaster preparedness, response, and post-disaster recovery. Drawing on experiences from over 50

disaster events, such as the 2004 Aceh tsunami and annual flooding in Jakarta, this partnership has helped BNPB develop valuable knowledge products and delivery platforms for widespread sharing, as well as inform future disaster planning.

This initiative uses a range of multimedia tools to bring together disparate stakeholders throughout Indonesia. By storing, cataloging, and sharing learning materials through video conferencing, targeted site visits, distance learning, and other channels, partners are able to maximize the lessons learned from each disaster. This knowledge has been, and will continue to be, shared internationally as a tangible

contribution of Indonesia to achieving SFDRR’s goals and targets.

The benefits of this knowledge sharing approach are many. For example, while Indonesia’s geography is a sizeable obstacle to providing conventional training techniques for local DRM personnel, this initiative has provided shared knowledge training to over 752 practitioners from 53 districts in the past year alone. Through the combination of financial and intellectual assets, Indonesia has become the first country in which knowledge sharing at scale is an integral part of managing disaster risk.

Snapshot of GFDRR’s Engagement in Indonesia, 2007–2015

INFORM 2015 Risk Index

Rating **4.9**

Rank **37**

SOURCE OF FUNDING

Multi-Donor Trust Fund

No. of grants **7**

Resources committed **\$6,852,392**

Preparedness

People in vulnerable countries will be better protected through more accurate and timely early warning, and through civil protection agencies capable of mobilizing a quick response in the event of a disaster.

Recognizing that risk can never be fully eliminated, a robust framework for managing risk should focus on saving lives and protecting livelihoods in the event of a disaster. GFDRR collaborates with governments and other partners to anticipate, prepare for, and respond to disasters. This requires improving and modernizing forecasting, early warning, and hydrological information systems, as well as preparing contingency and emergency response plans.

These types of investments pay off. A recent World Bank report shows that modernizing early warning systems in developing countries can help curb climate and disaster impacts, potentially saving an average of 23,000 lives annually and providing between \$3 billion and \$30 billion per year in economic benefits.

In FY15, GFDRR provided design support for a \$100 million World Bank program to improve the management and development of the Ayeyarwady River Basin in **Myanmar**, expecting to benefit millions of poor people whose livelihoods are based on water-dependent sectors like agriculture. This project includes

the modernization of hydromet observation and early warning systems, helping to protect vulnerable populations and improving farmer productivity through increased accuracy of agricultural advisories.

The World Bank and the WMO signed a Memorandum of Understanding (MOU) in June 2015 to strengthen climate and disaster resilience in **Sub-Saharan Africa**, with GFDRR recognized as a key partner. In support of implementing the Global Framework for Climate Services, the MOU is designed to encourage collaboration on projects that increase the capacity of national and regional meteorological and hydrological centers and early warning systems.

Africa is particularly vulnerable to droughts, flooding, tropical cyclones, landslides, and other hydrometeorological-related disasters. To address these natural hazard risks, GFDRR—in partnership with the African Development Bank, the WMO, and the World Bank—developed a regional framework program to increase hydromet services in Sub-Saharan Africa at the national, sub-regional, and continental levels. The program,

new in FY15, aims to reduce disaster risk and protect social and economic progress by modernizing and strengthening hydromet service delivery in 15 countries and four regional centers through better forecasting, accessible weather data, and improved international collaboration.

In drought-prone **Niger**, 80 percent of the population relies on agriculture, and livelihoods are highly dependent on seasonal rainfall. GFDRR supported capacity building to incorporate CCA and DRM principles into 10 municipal development plans. Additionally, this project has enabled a community-based participatory risk analysis, which was developed along with the development of community early warning, contingency planning, and emergency response systems. Moreover, over 4,100 households have benefited from small community project activities, which include guidance for the prediction of drought impact on crops.

In May 2014, **Serbia** was affected by the most severe flooding in 120 years, causing economic hardship and disproportionately affecting the more vulnerable and

economically disadvantaged sectors of society. In FY15, GFDRR and the EU partnered to assist Serbia in developing a national framework to institutionalize DRM, focusing on disaster risk identification, risk monitoring, and early warning systems. The framework will lead to additional activities to strengthen the country’s fiscal resilience, as

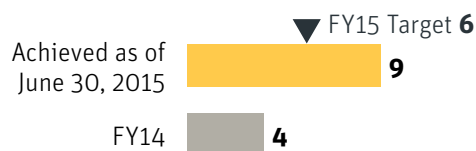
well as support collaboration among different government institutions in responding more efficiently to disasters.

Through the support of GFDRR and other partners, the World Bank provided \$32.3 million in financing to support a series of projects to increase resilience to disaster caused by natural hazards in the

Pacific Island region. This support will strengthen early warning and preparedness measures, retrofit key public assets to meet international resilience standards, create a framework for smarter investment in resilience activities, and improve financial resilience by enabling access to an immediate injection of cash for post-disaster recovery.

Figure 3: Outputs delivered in FY15 from GFDRR-funded projects under Pillar 3: Preparednessⁱ

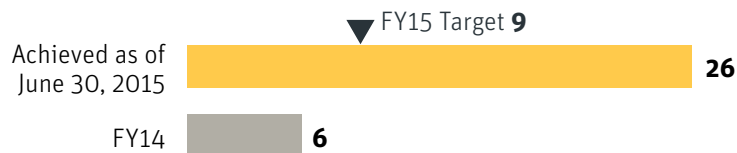
Forecasting and service delivery strengthened



Early warning systems strengthened



Contingency planning and emergency preparedness services strengthened





INDOENSIA Women involved in a knowledge sharing session on disaster risk.

Photo credit: Nugroho Nurdikiawan Sunjoyo / World Bank



Pillar 3 Preparedness: Working with in-country partners, hydro-meteorological agencies and civil society organizations, GFDRR helps strengthen early warning, forecasting, contingency planning, and emergency preparedness for disaster response.

In Focus: Expanding Financial Protection in Central America

Countries in Central America are highly vulnerable to the adverse effects associated with earthquakes, tropical cyclones, and excess rainfall. Since 1980, several countries in the region have experienced a disaster event with an economic impact above 50 percent of their annual GDP. In 1998, for example, when Hurricane Mitch hit Nicaragua, it left unprecedented damage in its wake. Over 3,000 people lost their lives and hundreds of thousands were left homeless from related flooding and mudslides, with estimated economic damage totaling \$1 billion.

The significant costs and damages caused by disasters contribute to large fiscal deficits and debt accumulation, potentially requiring public debt restructuring. They also often limit a country's ability to finance risk reduction activities. Given these realities, Central American countries determined it was necessary to implement a cost-effective solution to strengthen their financial resilience to disasters caused by natural hazards.

At the request of the Council of Ministers of Finance of Central America, Panama, and the Dominican Republic (COSEFIN), and in partnership with the United States Department of the Treasury, a World Bank team analyzed financial risk transfer options to manage fiscal vulnerability to disasters. An ongoing GFDRR grant allowed the team to undertake technical, legal, and financial assessments of possible risk transfer options and solutions for these COSEFIN countries.ⁱⁱ

Of the possible risk transfer options, joining the Caribbean Catastrophe Risk Insurance Facility (CCRIF) looked to be the most financially beneficial for COSEFIN countries, as CCRIF provides cost-effective

and fast-disbursing liquidity in the immediate aftermath of a disaster. It affords Central American countries savings of approximately 36 percent of the total premium volume and allows Caribbean countries savings equivalent to 25 percent if the countries approach the reinsurance market and capital markets together through CCRIF. Since its founding in 2007, CCRIF has made 12 payouts amounting to \$35.6 million to its Caribbean members. These payouts have proven useful in managing budget volatility in the immediate aftermath of a disaster.

On April 18, 2015, this agreement was publicly formalized when COSEFIN members and the new CCRIF Segregated Portfolio Company (SPC) gathered to formally sign a MOU, allowing Central American countries access to low-cost sovereign catastrophe risk insurance. During the ceremony, the Government of Nicaragua also signed an agreement to become the first Central American country to formally join CCRIF SPC, with the World Bank having provided \$20 million for premium support.

GFDRR support in FY15 has helped enable:

- technical support and capacity building to COSEFIN countries to enhance their understanding of CCRIF products;
- technical advisory services to CCRIF to open the Facility to COSEFIN countries, including its restructuring as a SPC;
- additional analytical work and continued dialogue with each country regarding insurance coverage and pricing options;
- the better understanding of Central American countries about contingent liabilities and the use of disaster risk financing and insurance (DRFI) instruments as part of a wider disaster risk management framework; and
- mobilizing resources toward financing earthquake insurance and climate risk insurance premiums for COSEFIN countries through CCRIF.

GFDRR support will continue to enhance Central American countries' understanding of disaster risk financing tools, and other COSEFIN countries are expected to join CCRIF SPC during 2015 and 2016.

Financial Protection

Vulnerable countries will have improved financial resilience to the impact of disasters caused by natural hazards, with improved post-disaster financial response capacity and stronger domestic catastrophe insurance markets.

Over the past 30 years, economic losses from disasters caused by natural disasters in low and middle income countries have totaled \$1.2 trillion—equivalent to 1/3 of all development assistance over that same time frame.

GFDRR works with vulnerable countries to develop and implement tailored strategies that strengthen their financial resilience to natural hazards and climate change. In FY15, GFDRR continued to provide funding and expertise to help governments at all levels, as well as businesses, farmers, and households, access disaster risk financing strategies that aim to reduce economic and fiscal shocks.

In FY15, with support from GFDRR, the Government of **Kenya** was able to protect the livelihoods of the poorest by responding rapidly to the early stages of a drought event in its northern region. Using an analytic tool developed to help understand the financial costs of various strategies to scale cash assistance support, the government provided 165,000 vulnerable households through its safety net program with cash transfers directly into their bank accounts, an additional 90,000 beyond those receiving regular assistance. This marked the country's first-ever disaster-linked scalable payout.

Panama, a major driver of economic growth in the Latin America region, has worked with GFDRR since 2010 to increase its financial resilience. Its engagement with GFDRR has helped pave the way for institutional reforms through technical support for public investment planning, public funding for risk management, and risk retention and transfer instruments. Supported by these efforts, Panama adopted a National Strategic Framework for Disaster Risk Financing and Insurance, becoming the first country in the world to adopt such a framework by law.

The PCRAFI pilot insurance program began its third season in FY15, scaling up efforts and impact. Supported by GFDRR, country-specific analytics packages were delivered to all five Pacific Island country members—the **Cook Islands, Marshall Islands, Samoa, Tonga, and Vanuatu**—for their selection of insurance coverage. Following the devastating Tropical Cyclone Pam in March 2015, Vanuatu received a cash injection of \$1.9 million from the PCRAFI pilot program within 10 days of the disaster, ensuring funds would be available for immediate post-disaster needs.

During FY15, as part of GFDRR's efforts to help countries strengthen financial resilience, **Morocco** received technical assistance to

draft a catastrophe risk insurance law, part of a \$200 million World Bank operation. In **Serbia**, technical assistance was launched to support the government establishing a fiscal risk management unit within the Ministry of Finance. This included support for the government's fiscal risk assessment and assistance to initiate developing a disaster risk and financing strategy.

With GFDRR support, assistance to Southeast Asia focused on strengthening the financial resilience of countries throughout the region. Initiatives included support to the Government of **Vietnam's** request to improve insurance of public assets, as well as strengthen budget protection against disasters caused by natural hazards. In **Lao People's Democratic Republic (Lao PDR)**, donor aid was provided to develop the new State Reserve Fund's standard operating procedures and a country diagnostic was initiated to develop a DRFI strategy. There was also renewed engagement in **Indonesia** with the new Jokowi Government on potential sovereign DRFI and advisory services, with regard to insurance of public assets. With GFDRR support, a \$140 million World Bank regional project for FY16 is now in the pipeline covering **Cambodia, Lao PDR, and Myanmar.**

Figure 4: Outputs delivered in FY15 from GFDRR-funded projects under Pillar 4: Financial Protectionⁱ

Sovereign disaster risk financing strategies strengthened



Catastrophe risk markets strengthened





BANGLADESH Monsoon clouds rise near Dhaka. Extreme weather is the cause of over 75 percent of all disaster losses, and is a main focus for financial protection strategies, especially in areas prone to seasonal typhoons.

Photo credit: NASA



Pillar 4 Financial Protection:

GFDRR supports vulnerable countries, businesses, and households to develop and implement tailored strategies that strengthen their financial resilience to natural hazards and climate change.

In Focus: Bouncing Back from Cyclone Pam in Vanuatu

In March 2015, Tropical Cyclone Pam, a category 5 cyclone, struck 22 of Vanuatu’s 83 islands, causing unprecedented destruction. 188,000 people—67 percent of the population—were affected, 75,000 were left in need of emergency shelter, and 11 lives were lost. The economic toll was also significant, with damages and losses totaling over \$449 million, or approximately 64 percent of Vanuatu’s GDP.

In the cyclone’s aftermath, GFDRR, through its ACP–EU NDRR Program, quickly moved to support post-disaster recovery efforts. Working closely with the Government of Vanuatu and in partnership with the EU, the Secretariat of Pacific Communities, the UN, the World Bank and GFDRR supported the government to conduct a PDNA, with additional inputs from other bilateral and multilateral partners.

The PDNA estimated recovery and reconstruction costs at nearly \$318 million, with total public sector recovery needs at approximately \$140 million, largely to rehabilitate public infrastructure. The assessment’s findings, which provided comprehensive recommendations for funding Vanuatu’s recovery and reconstruction, have allowed the government to:

- develop a comprehensive national action recovery plan to guide reconstruction;
- access financial resources to finance infrastructure rehabilitation and reconstruction, as well reduce exposure to disaster risk; and
- inform and guide disaster recovery projects and programs, including \$70 million in World Bank support.

Reconstruction efforts are under way, aligned with Vanuatu’s new national recovery and economic strengthening plan, such as improving the safety and efficiency of the country’s airport facilities which were damaged in the cyclone, with World Bank funding support. In the medium-to-long term, the government aims to increase the resilience of its vulnerable

population and sectors in line with its existing disaster risk reduction action plan. It will do so in part through participation in the regional Pacific Resilience Program (PREP). Supported by GFDRR, PREP aims to strengthen disaster resilience, early warning and preparedness, and improve post-disaster response capacity of participating Pacific Island countries.

Vanuatu’s experience underscores how a cohesive and coordinated approach by GFDRR and its partners is crucial to support governments in undertaking a comprehensive assessment of a disaster’s impact, as well as helping to formulate and finance a timely and targeted recovery strategy.

Snapshot of GFDRR’s Engagement in Vanuatu, 2007–2015

INFORM 2015 Risk Index

Rating 4.4

Rank 60

SOURCE OF FUNDING

ACP–EU NDRR Program

No. of grants **2**

Resources committed **\$3,160,692**

Resilient Recovery

Disaster-hit countries seeking GFDRR support will improve the quality and timeliness of recovery and reconstruction.

GFDRR helps developing countries with the necessary technical assistance, skills, training, and resources to implement post-disaster planning, recovery, and reconstruction activities allowing them to build back better after a disaster. Partnering with the EU, the UN, and other organizations, this past fiscal year, GFDRR continued to provide technical support and funding that supports countries to conduct post-disaster assessments, plan recovery frameworks, promote knowledge sharing and exchange, and mainstream DRM into development policies.

In FY15, GFDRR helped enable 14 post-disaster and post-crisis assessments. These include PDNAs in **Malawi** following the January 2015 flooding; in **Cape Verde** following the winter 2014 Pico do Fogo volcano eruption; in **Vanuatu** following the March 2015 Tropical Cyclone Pam; and in **Nepal** following the April and May 2015 earthquakes.

These assessments have helped leverage additional funding and activities from partners. This includes four World Bank projects with a combined value of nearly \$900 million for recovery and reconstruction-related initiatives in India, Malawi, Nepal, and Vanuatu.

GFDRR has also supported trainings on the PDNA methodology, with over 550 government officials from more than 14 countries benefitting during FY15.

Following intense flooding in Tbilisi, **Georgia** in June 2015, at the government's request, GFDRR in partnership with UNDP and the World Bank, supported a targeted needs assessment on the transport, water, and housing sectors, as well as a zoo that was completely destroyed during the flooding. A preliminary report was presented in July 2015 and discussions have ensued on potential World Bank funding to target the needs identified by the assessment.

GFDRR was also active in **India** in FY15. After tropical Cyclone Hudhud hit the coast of Andhra Pradesh in October 2014, affecting more than nine million people, GFDRR joined ADB and the World Bank to support a rapid damage and needs assessment. This assessment helped mobilize reconstruction and recovery efforts, including a \$250 million World Bank loan to restore, improve, and enhance the resilience of public services and the livelihoods of those affected.

Following severe flooding in 2013, the Government of **Mozambique** mobilized resources from

development partners to help communities reconstruct livelihoods and repair essential roads, particularly the main north-south link. To assist with this need, GFDRR has supported a recovery project focused on resilient transport infrastructure. In FY15, over 520 km of roads were rehabilitated through this project, a significant increase over the 13 km rehabilitated during FY14.

In a growing area of support, in FY15, GFDRR also applied its post-disaster assessment methodology and expertise to complex conflict and fragile situations. The Facility provided technical assistance for assessments in **Iraq, Syria, Ukraine, and the West Bank and Gaza**, helping to expand its support capacity beyond disaster situations caused by natural hazards.

Following the 2014 conflict in **Gaza**, GFDRR, along with the UN and EU, provided technical assistance to the Palestinian Authority to develop a detailed needs assessment and recovery planning across all sectors. This engagement marked the first post-crisis application of the Disaster Recovery Framework (DRF) guide, demonstrating its utility in multiple contexts.

Following a request from the government of **Iraq**, GFDRR helped

assess infrastructure damage in key cities where government control had recently been reestablished. Findings and recommendations from this remotely conducted assessment informed the World Bank’s \$300 million emergency funding for the country. In addition, GFDRR extended support to conduct a damage assessment in **Syria** to inform how the country’s crisis impacts its population,

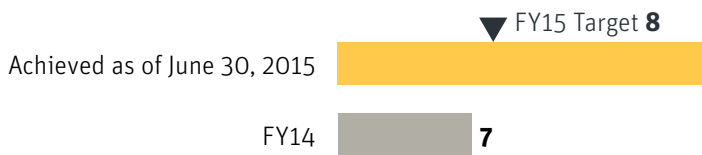
infrastructure, and quality of service delivery. As part of the joint UN-World Bank Syria Information and Research Initiative, this assessment also identified conditions and factors potentially allowing for refugees and the internally displaced to return to the country.

This past fiscal year, GFDRR also supported an assessment

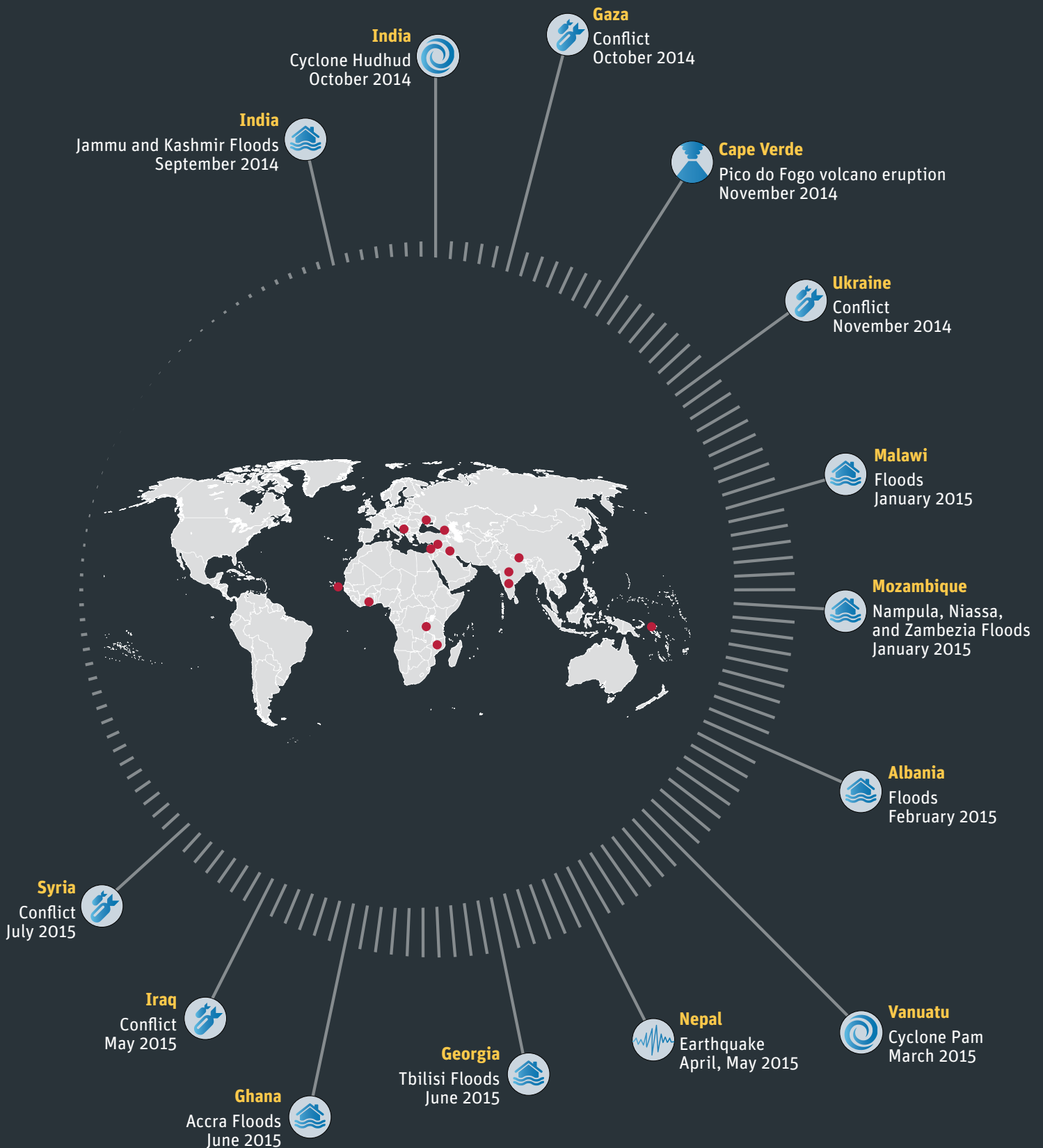
of **Ukraine’s** conflict-affected regions at the request of the government. This assessment examined immediate recovery, rehabilitation, and social cohesion needs, providing recommendations on restoring critical infrastructure and services; improving access to economic livelihoods; and strengthening social resilience, initiating reconciliation, and peace-building.

Figure 5: Outputs delivered in FY15 from GFDRR-funded projects under Pillar 5: Resilient Recoveryⁱ

Post disaster assessments conducted / recovery planning strengthened



Major **Post-Disaster** and **Post-Conflict** Assessments Supported by GFDRR in FY15



GFDRR Country Program Evaluation (2015)

Each year, GFDRR commissions an independent consultant to assess the impact of its program in selected countries. In FY15, ICF International conducted a technical evaluation of selected GFDRR programs and activities in Bangladesh, the Eastern Caribbean (Saint Lucia and Dominica), Ethiopia, and Indonesia. The evaluation had two objectives: 1) to analyze and evaluate the overall impact of GFDRR activities; and 2) to generate a better understanding of how and why GFDRR has contributed to enhanced country resilience. After reviewing project documents and interviewing over 220 individuals in national and local governments, staff of bilateral and multilateral institutions, and members of academia and civil society, the report produced several findings on GFDRR's strengths and opportunities.

Findings: The report recognizes GFDRR support for PDNAs and technical assistance as being instrumental in leveraging greater resources for countries, including leading to new World Bank projects targeting disaster risk reduction activities. Additionally, it highlights GFDRR's strategic engagement with partners and high levels of government, which increases GFDRR's potential to achieve results at scale. While GFDRR continues to develop innovative solutions through its technical expertise and partnerships, the report points to a key constraint GFDRR faces in lacking readiness or capacity to use some of its pilot technologies.

Next Steps: The report puts forward a set of recommendations that will be useful in helping GFDRR improve overall program effectiveness. In light of the report's findings and coupled with the evolving landscape for CCA and DRM, GFDRR will continue to monitor and evaluate its programs to better support countries.

GLOBAL FACILITY FOR DISASTER REDUCTION
AND RECOVERY COUNTRY EVALUATION:
TECHNICAL EVALUATION REPORT

SEPTEMBER 2015



BANGLADESH | EASTERN CARIBBEAN | ETHIOPIA | INDONESIA

Monitoring Cross-Cutting Themes

Resilience to Climate Change

Building resilience to climate change is a key component of GFDRR's commitment to mainstreaming DRM into development strategies. With 87 percent of the reported disasters and 74 percent of the losses between 1980 and 2012 caused by weather extremes, the links between DRM and CCA are increasingly apparent. Furthermore, the impacts of climate-

related disaster risk are often felt most acutely by the poorest and most marginalized populations, who commonly live in the highest-risk areas and possess the least ability to recover from recurrent events.

Since establishment, about a third of GFDRR's activities have contributed to adaptation to climate change. In FY15, 49 percent of GFDRR grants contained components relevant to resilience to climate change in

countries exposed to cyclones, storms, floods, landslides, periods of intense rainfall, sea level rise, and glacial melt. In addition, GFDRR supported activities that make an explicit attempt to anticipate future climate change scenarios, and adapt to their inherent uncertainties. Efforts like these helped leverage an estimated \$1.2 billion in World Bank adaptation financing in FY15.

Promoting Resilience to Climate Change

In FY15, GFDRR in partnership with the Swiss Agency for Development and Cooperation's Global Program for Climate Change (SDC-GPCC), launched a four-year \$15 million program to support resilience to climate change. The program responds to increasing demand from countries for technical assistance to help them formulate enabling policies and investment programs for integrating climate and disaster risk into their development strategies, as well as Just-in-Time expert advice or training to governments to help them address specific climate resilience or weather-related DRM issues. To build the knowledge base,

the program also develops high priority analytical work on climate resilience.

The program supported a technical assistance project aimed at strengthening the capacity of national hydrological services in Sub-Saharan Africa. Currently underway, this project is seeking to improve the ability of governments in Cameroon, Madagascar, Senegal, Tanzania, and Zambia to inform, plan, and make cost-effective investments in climate resilient development.

This fiscal year, the program also supported seven Just-in-Time

projects for Bangladesh, Central Asia, Morocco, Myanmar, Southeast Asia, Sri Lanka, and Vietnam. This support included a grant for rapid assistance to the Moroccan Ministry of Interior in its first open call for proposals related to formulating an emerging resilience fund for climate and disaster resilience activities. With GFDRR's support, the government refined criteria for project selection and evaluated 90 proposals, of which 23 have now been selected for funding at a total cost of \$100 million.

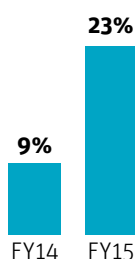
Gender and Social Inclusion

Natural hazards affect different groups of people in different ways. Vulnerable groups such as women, children, the elderly, people with disabilities, and migrants are affected the most. For example, in the 2004 Indian Ocean tsunami, more than 70 percent of those who died were women, and after Cyclone Nargis hit Myanmar in 2008, an estimated 87 percent of unmarried women and 100 percent of married women lost their livelihoods. In Japan's Miyagi prefecture, figures from the 2011 Great East Japan Earthquake indicate a general mortality rate of 0.8 percent. For people with disabilities, the mortality rate jumped to 3.5 percent. GFDRR recognizes the importance of addressing different vulnerabilities through DRM, as well as of advancing opportunities to promote gender equality and empower marginalized communities as key agents of resilience. In its overall activities, GFDRR strives to incorporate inclusive approaches to building broader community resilience that contribute to longer-term development goals.

In FY15, the Facility continued to make progress implementing and monitoring activities that support

Grants undertaking specific actions to address gender inclusion

Active portfolio in FY (%)



specific actions targeting gender issues. To this effect, GFDRR is working alongside its implementing partners to help integrate gender dimensions and social inclusion into DRM, and to promote national programs and strategies that ensure gender equity during recovery and reconstruction planning. Beginning in FY15, implementing partners provided GFDRR with an initial assessment on whether an activity under development considers gender dimensions, with 100 percent of grant requests receiving this gender-informed screening. In addition, GFDRR now utilizes the World Bank's screening system to gather additional information on the following three gender dimensions:

- incorporating gender analysis and/or consultations on gender related issues;
- supporting specific actions to address the distinct needs of women and girls, or men and boys, or positive impacts on gender gaps; and
- incorporating mechanisms to facilitate monitoring and/or evaluation of gender impacts.

Using this criteria as an indication of the growing importance the Facility places on this area, an analysis of GFDRR's active portfolio in FY15 indicates that 23 percent of all activities included one or more of the three gender dimensions described above, an increase from 19 percent of the active portfolio in FY14.

In addition to addressing broader gender issues, GFDRR increasingly supports specific activities that promote women as resilience champions. For example, in FY15,

in partnership with the Community Practitioners Platform for Resilience, GROOTS International, and the Huairou Commission, GFDRR supported research to document eight case studies where women-led community-based organizations have worked in collaboration with their local and national governments to effectively manage disaster and climate risk in poor communities. The resulting report, which incorporated gender analysis and consultations into its research methodology, covered community platforms in Honduras, India, Kenya, Nepal, the Philippines, and Uganda, and helps demonstrate the value of women's leadership in DRM to build broader community resilience.

In FY15, GFDRR also began monitoring its activities to promote civil society and citizen engagement during implementation. As the Facility recognizes the particular importance of these partners' expertise in building resilience, the share of activities engaging at this level saw a sizeable increase across the active portfolio to 36 percent in FY15, compared to about 29 percent during FY14.

Going forward, GFDRR will continue to strengthen its efforts to support gender, social inclusion, and citizen engagement in all of its activities.

Share of grants engaging civil society and citizens during implementation

Active portfolio in FY (%)







CHAPTER 2

THEMATIC PROGRAMS

Through its Thematic Programs, GFDRR provides tailored technical support to implementing partners. These programs also assure the quality of GFDRR grants and lead capacity development and knowledge activities. GFDRR's Thematic Programs primarily underpin country programs and cut across the five Pillars of Action.

NEPAL

Volunteers and experts work side-by-side on a major community mapping project in Kathmandu.

Photo credit: World Bank

Innovation Lab

Supports the use of science, technology, open data, and innovation to empower decision-makers to increase resilience.

Across the disaster risk management cycle, relevant and appropriate data is frequently unavailable to decision makers, an absence felt acutely in the moments after a disaster strikes. GFDRR's Innovation Lab addresses this challenge by making disaster risk information more accessible, thus strengthening evidence-based decision-making through the innovative use of science, technology, and open data. Recognizing that risk identification is the first step in disaster risk management, the Innovation Lab provides expertise in risk assessment and risk identification, facilitating developing risk information in over 60 countries.

For example, in fiscal year 2015, GFDRR supported the development of disaster risk profiles to raise risk awareness across **Europe and Central Asia**, helping 32 countries access and better understand their exposure to natural hazards. The Innovation Lab led the creation of flood and earthquake risk assessments as a means of initiating dialogue with ministries of finance on prioritizing disaster risk management, securing access to national and sub-national risk analytics.

Through its **OpenDRI**, the Innovation Lab facilitates continued access to cutting-edge open-source tools, such as open data

platforms like GeoNode, community mapping and crowdsourcing, and risk communication and analysis. It also supports capacity building activities, like using smartphones and GPS to create hazard maps that advance a community's ability to understand and respond to natural hazards, including in FY15 where mapping contributed to post-disaster activities in both Malawi and Nepal.

In 2010, GFDRR established **Understanding Risk (UR)**, an open global community of risk identification professionals, which has become a major worldwide platform for collaboration, knowledge sharing, and innovation in identifying and assessing disaster risk. In FY15, almost 1,000 risk assessment experts and practitioners gathered in London for UR's third biennial forum. Under the theme "Producing Actionable Information," the forum explored the creation of risk information for decision-making. Currently, the UR community is made up of over 3,300 members from more than 125 countries representing government agencies, the private sector, multilateral organizations, NGOs, research institutions, academia, and civil society.

During FY15, GFDRR's **Code for Resilience** initiative, which connects local technologies and

disaster risk experts to create digital and hardware solutions to build resilience, laid the groundwork for new fellowship programs to support the better use of technology and code sprints in **Indonesia, Haiti, Sri Lanka, Tanzania, and Togo**. Among its other activities in FY15, the initiative supported an Asia Resilience Forum in partnership with the Japan Foundation and the World Bank. This brought together over 150 technologists from the region who engaged in developing civic apps for community-based disaster resilience.

GFDRR launched in FY15 a new competitive **Challenge Fund** to help bridge the gap between technology and on-the-ground user needs in the field of disaster risk identification. The fund will provide selected projects grant funding of \$25,000 to \$100,000, with 15 winners announced in November 2015.

During FY15, as an emerging area of support, the Innovation Lab used geospatial techniques, including satellite imagery and local spatial datasets, to evaluate the extent of a disaster's damage and facilitate developing financial estimates for recovery. For example, an Innovation Lab team was mobilized to provide a spatial impact assessment following the April and May earthquakes in Nepal.

“The Understanding Risk community, founded by GFDRR, has been instrumental in connecting the different sectors of the disaster risk identification field, particularly in finance and disaster risk management. Willis and the Willis Research Network are pleased to be a partner of UR Forums, as the events energize and connect communities and serve to advance our understanding of disaster resilience.”

—Rowan Douglas, Chief Executive Officer of Capital, Science & Policy Practice,
Willis Group and Chairman, Willis Research Network

Disaster Risk Financing and Insurance

Supports activities that aim at strengthening the financial resilience of governments, businesses, and households.

Disasters can have serious short- and long-term economic and fiscal impacts. On average, GDP is two percent lower even five years after a disaster caused by natural hazards in developing countries. The Disaster Risk Financing and Insurance (DRFI) Program, a partnership between GFDRR and the World Bank's Finance and Markets Global Practice, works in collaboration with the public sector, private sector, and civil society to strengthen the financial resilience of governments, businesses, and households against the budgetary and economic shocks of disasters caused by natural hazards.

In FY15, the DRFI Program supported developing comprehensive financial protection strategies to strengthen financial resilience in vulnerable countries. This assistance also helped countries secure sovereign disaster risk financing and insurance and build government capacity to better plan, prepare for, and manage the financial impacts of disasters caused by natural hazards.

For example, in **Peru**, the DRFI Program provided technical expertise that helped the government reduce the impact of disasters, particularly seismic events. In FY15, Peru began implementing mechanisms to improve its catastrophe financial reserves. It also performed a cost-

benefit analysis of DRFI instruments to reduce seismic hazard risks and assess potential emergency and reconstruction costs. This work led to the structure of a \$400 million World Bank Catastrophe Deferred Drawdown Option (Cat DDO) that secured immediate financing in the event of a disaster.

In FY15, the Government of the **Philippines** took steps to build a comprehensive financial resilience strategy at national, subnational, and local levels. Informed by extensive technical assistance from the DRFI Program, this strategy includes sovereign risk transfer and contingent credit mechanisms to better protect the national government's budget, subnational risk pooling to support provincial governments with emergency liquidity, private property catastrophe risk insurance pooling for homeowners and small- and medium-sized businesses, as well as emergency income support for the most vulnerable. The DRFI Program is now providing the government with expertise to implement this strategy across all levels. Its advisory services have informed two World Bank lending operations for the country under preparation: a \$500 million Cat DDO and a \$300 million catastrophe risk transfer transaction.

Disaster risk finance analytics are used to provide information and

tools to support informed decision-making on disaster risk insurance and other financing instruments. For example, in **Uruguay**, the DRFI Program advised a \$200 million World Bank loan to protect against climate-related fluctuations in energy prices. The program provided financial analysis that supported payout triggers for contingent investment financing. This work enabled the World Bank to use such a mechanism for the first time as a risk management tool in the energy sector.

The DRFI Program has also prioritized knowledge management and global partnerships to provide information to help build financial resilience. In FY15, it released a flagship report examining global progress on financial protection against disasters caused by natural hazards over the last decade, as well as the latest thinking on DRFI. This report also informed GAR15.

Additionally, in FY15, the program launched an examination of the effectiveness and efficiency of its sovereign financial protection instruments through testing and finalizing a framework for quantitative impact appraisal. It also began exploring new ways to enhance social protection mechanisms to offer rapid and timely assistance to vulnerable households affected by disasters, including in **Kenya** and **Uganda**.



Inclusive Community Resilience

Supports activities that aim to promote community driven development, gender equality, and women's empowerment, as well as increase civil society engagement in policy dialogues.

Vulnerability to the impacts of natural hazards and climate change is socially differentiated. The suffering and losses that people experience from extreme events are not only a consequence of their exposure to a natural hazard, but are also shaped by social, political, and economic factors. Despite decades of investment in policies and programs to reduce disaster risk, the costs of disasters continue to rise, particularly among poor communities in developing countries. A much stronger focus is needed on addressing the underlying causes of vulnerability and empowering communities to lead a disaster and climate risk management agenda supporting development goals.

GFDRR recognizes communities and civil society are critical partners in achieving effective DRM. Integrating gender considerations, social inclusion, and citizen engagement are also key to implementing projects that fully address the needs of a community. Building on the learning from the 2012–2014 Pilot Civil Society Partnership Strategy, GFDRR's Consultative Group formally endorsed the establishment of the thematic program on

Inclusive Community Resilience (ICR), which initiated activities in FY15.

The ICR program aims to strengthen community level resilience at a large scale by leveraging country investment programs that put resources directly in the hands of poor households and communities. It also supports civil society and citizen engagement in DRM efforts for greater accountability and impact, as well as innovation, knowledge, and learning to promote the voice of vulnerable communities in national and global policy dialogues.

During FY15, the ICR Program commissioned analytical work to provide an evidence base for empowering communities for disaster risk management. These include the GFDRR flagship publication, *Building Social Resilience: Protecting and Empowering Those Most at Risk*, which was prepared for the GAR15.

At WCDRR in Sendai, Japan, the ICR Program launched two publications: *Community-Led Partnerships for Resilience* and *Elders Leading the Way to Resilience*. The focus of the latter was also produced into

an ICR-supported documentary entitled *Elders Leading Resilience*, showcasing how elders in Ofunato, Japan were empowered to help their community recover after the March 2011 Great Eastern Japan Earthquake and Tsunami. The film and the accompanying report discuss the experience of the “Ibashi” approach to post-disaster recovery and strengthening social capital, and how the elders from Japan engaged with Typhoon Haiyan affected communities in Ormoc, Philippines to share what they learned.

In fiscal year 2015, 36 percent of GFDRR's grants directly involved civil society, while almost a quarter incorporated gender considerations into project design and implementation. Examples include engagements in **Indonesia** and **Malawi**, among others. As the ICR Program rolls out, it will contribute to enhancing GFDRR's capacity to promote citizen engagement and social inclusion in DRM investments, and facilitate relationships between empowered communities and their local and national authorities to strengthen resilience.



Safer Schools

Supports activities that aim to integrate risk into existing education sector investments by leveraging long-established relationships with ministries of finance, public works, and education.

Launched by GFDRR in 2014, the Safer Schools Program works to make school facilities and the communities they serve more resilient to natural hazards by reducing the physical impacts of disaster on school infrastructure. Designed to support GFDRR's risk reduction efforts, the Safer Schools Program works with ministries of finance, public works, and education to integrate risk considerations into new and existing educational investments to increase resilience on a large scale.

Addressing the problem of unsafe schools is a multi-faceted endeavor, requiring concerted and sustained efforts by many partners. The Safer Schools Program works with a wide range of international collaborators, including UN agencies such as UNICEF, UNESCO, and UNISDR; international NGOs such as Save the Children; and private sector companies including Arup. Additionally, the Safer Schools Program is aligned with the Global Comprehensive School Safety (CSS) Framework and will support the implementation of the Worldwide Initiative for Safe Schools (WISS), launched in March 2015 at the WCDRR.

During fiscal year 2015, the Safer Schools Program worked with Save the Children to build an evidence base in support of safer school construction at the community level. This partnership facilitated in-depth consultations with over 40 leading experts in community-based approaches to school construction, culminating in the development of the publication *Towards Safer School Construction: A Community-based Approach*, a comprehensive package of guidance material for development practitioners and governments to support good practice approaches to building safer schools. The Save the Children-Safer Schools partnership has also provided significant proactive leadership and support to the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector by defining and advancing common agendas for school safety. This has resulted in draft global targets and indicators for the CSS framework. It also provides a solid foundation for the WISS, which has 26 countries participating as 'champions' of school safety. In addition, the partnership is also working on a global online mapping tool to collect school locations, with half a million schools mapped so far.

During FY15, the Arup-Safer Schools partnership focused on developing a safer schools roadmap. Arup, an independent firm of designers, planners, and engineers, was brought on board to provide technical expertise and support. The roadmap, still under review, aims to guide the interactions of project managers with ministries of education with regard to school infrastructure safety. The first pilot of the roadmap will be undertaken in the **Pacific** in FY16.

Additionally, at the country-level, Arup and the Safer Schools Program conducted technical assessments of the safety of school construction in **Mongolia, Indonesia, and Nepal**. To date, GFDRR has supported activities on school safety in seven countries: **Armenia, El Salvador, Peru, the Philippines, Nepal, Mozambique, and Indonesia**. In FY15, activities have begun in **Peru, the Philippines, and Nepal**.

“The GFDRR–Save the Children partnership is a tremendous example of what can be achieved by working together to advance school safety globally. The ‘Towards Safer School Construction: a Community-Based Approach’ guidance material, jointly developed as part of the partnership, clearly demonstrates the benefits of harnessing community engagement and improved approaches for highly vulnerable children. Together we can protect children from the enormous risks posed by natural hazards.”

–Paul Ronalds, Chief Executive Officer, Save the Children Australia

Hydromet Services

Supports activities that aim to modernize weather, climate, and hydrological information systems, working in close collaboration with the World Meteorological Organization (WMO).

With more than 75 percent of disaster losses attributable to weather extremes, understanding how and when these events form is vital to curbing their growing impacts. As a result, the importance of weather, climate, and hydrological information and services is growing to minimize economic losses and help in adaptation to climate change policies and action.

GFDRR's Hydromet Program provides knowledge sharing and technical assistance through the integrated modernization of national meteorological and hydrological services (NMHSs). Improvements in such services benefit a wide range of stakeholders—from rural communities to key socio-economic sectors—to mitigate the adverse impacts of hydromet hazards and make better-informed decisions.

Launched in 2011, the Hydromet Program works in close partnership with the WMO, leading NMHSs and development partners (Austria, China, the EU, Finland, France, Japan, Korea, Norway, Switzerland, the United Kingdom, and the United States, among others), and a range of national, regional, and multilateral stakeholders.

As of FY15, 12 projects have been launched with technical expertise from the Hydromet Program, including in **Mozambique, Nepal, the Pacific Islands, and Central**

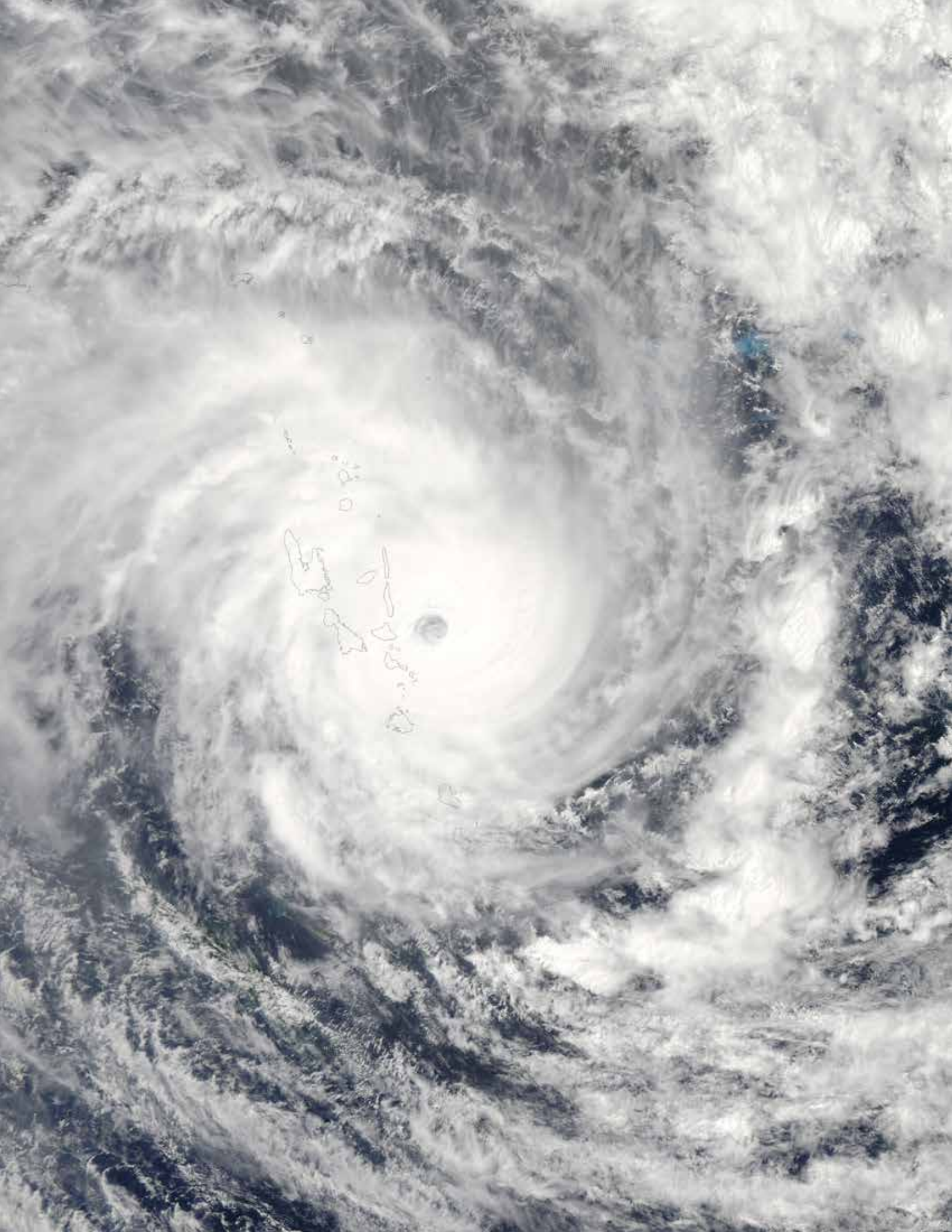
Asia. Three upcoming projects in Bangladesh, Bhutan, and Ethiopia are also in the planning stage and will provide critical improvements in hydromet and early warning service delivery, as well as more accurate and timely weather forecasts and climate services.

In **Mozambique**, the GFDRR Hydromet Program is providing technical expertise to World Bank efforts to modernize the country's NMHS and introduce impact-based forecasting techniques. This investment, jointly supported with the WMO, the United Kingdom Meteorological Office, and the South Africa Weather Service, aims to increase uptake of weather and climate information for effective decision-making and mitigate the adverse impacts of extreme weather conditions.

Jamaica experienced six storm events between 2002 and 2007, including three major hurricanes and several floods. Total damages and losses from these disasters have been estimated at about \$683 million, equivalent to 3.2 percent of its GDP. Early warning is an integral part of DRM and effective use of weather radar is particularly important. To help with this, the Hydromet Program supported a Pilot Program for Climate Resilience project to replace an obsolete radar with a new Doppler radar and better integrate its observing capability in forecasting and early warning systems.

In concert with its partners, the program prepares analytical work and helps to build technical capacity through workshops, training sessions, and knowledge sharing on hydromet issues. In FY15, for example, the Hydromet Program contributed to the preparation and publishing of a study in partnership with USAID and WMO titled *Valuing Weather and Climate: Economic Assessment of Meteorological and Hydrological Services*. It also launched a joint research initiative with the WMO and the Graduate Institute to examine the public benefits of global weather and climate forecasting, as well as continued work on a global assessment on the status of national hydrological services with recommendations for improvements, which will be released in early 2016.

In FY15, the Hydromet team actively participated in 12 international fora, sharing expertise in ways to improve the accuracy and timeliness of hydrometeorological services. The program also helped to organize the InterMetAsia 2015 Conference, and provided support for the participation of 15 NMHSs from developing countries. This conference gathered NMHS representatives and suppliers of meteorological equipment and services, providing an opportunity to engage directly on new technologies.



Resilient Cities

Supports cities to prepare and adapt to changing conditions, and to withstand and recover rapidly from disruptions related to climate change, disasters caused by natural hazards, and other systemic shocks.

More than 1.4 million people per week are moving to cities and rapid urban expansion is dramatically raising exposure to natural hazards. This is particularly true in Africa and Asia where 90 percent of global population growth will take place through 2050. GFDRR is helping countries to mitigate this trend, which exacerbates disaster risk. Overall, more than 43 percent of GFDRR grants in FY15 supported urban resilience. Spanning every region, projects included developing innovative subnational financial protection and resilient infrastructure investment strategies in the **Philippines**, applying geospatial analysis techniques for urban resilience in **Brazil**, and supporting resilient urban recovery in the Indian states of Andhra Pradesh and Odisha.

Launched in 2014, GFDRR's Resilient Cities program is a multi-year initiative that seeks to help cities strengthen their ability to prepare for and adapt to these changing conditions, as well as withstand and recover rapidly from disruptions related to disasters caused by natural hazards, climate change, and other systemic shocks. Economic crises, health epidemics, and uncontrolled urbanization affect a city's ability to sustain growth and provide services to its citizens, underscoring the need for a new approach to resilient urban development.

In FY15, the program continued to develop and implement the **CityStrength Diagnostic**, a rapid diagnostic methodology created to help city leaders improve their understanding of risk and the performance of urban systems, as well as identify priority actions and investments that will enhance resilience. This tool has now been used twice—for Addis Ababa, Ethiopia and Can Tho, Vietnam.

The first CityStrength Diagnostic was conducted for Can Tho, **Vietnam** in June 2014 and has informed a more than \$250 million urban resilience investment project, currently in progress. This project is focused on flood-prone areas, with work to advance flood prevention infrastructure, improve important services such as sanitation and transport, and upgrade living conditions.

The second diagnostic was carried out for Addis Ababa, **Ethiopia** in February 2015. This engagement brought together multiple partners and allowed the city government an opportunity to engage in open dialogue with specialists and key stakeholders. It also established a foundation for current and future integrated urban development projects that will inform sectoral work for Addis Ababa in the pipeline, such as a transport project that will integrate recommendations from the diagnostic.

As part of the Medellín Collaboration on Urban Resilience, the Resilient Cities program also supported the Financing Urban Resilience Forum in April. This workshop explored the challenges impeding the flow of finance to cities for resilience, as well as the changing notion of resilience and its influence on financing, with participants presenting innovations to help overcome current impediments.

GFDRR is continuing to broaden and strengthen its coalition of international partners in the urban resilience area, including UN-Habitat, UNISDR, the Inter-American Development Bank, the World Bank, C40 Cities Climate Leadership Group, the Rockefeller Foundation, 100 Resilient Cities, and global association of local governments, who form the Medellín Collaboration on Urban Resilience.

In FY15, a program also began supporting a World Bank knowledge product on resilient building code regulation, with guidance and technical contributions from UN-Habitat, UNESCO, and JICA. It will be released as a practical handbook in FY16 and is expected to drive new opportunities to meaningfully engage developing countries on managing the safety and resilience of their building stock.



Resilient Recovery Program

Supports post-disaster assessments and recovery frameworks to mainstream disaster risk management and recovery readiness into development policy.

In the aftermath of a major disaster event caused by a natural hazard, even conservative numbers estimate a 16 percent increase in poverty in urban areas and a 12 percent increase in rural areas among developing countries.ⁱⁱⁱ Resilient recovery focused on “building back better” can help countries avoid these major development setbacks and sustain hard-earned development gains. In FY15, to address these needs, GFDRR established the Resilient Recovery thematic program, which seeks to provide tailored technical expertise and knowledge management to support post-disaster assessments and recovery frameworks, as well as help mainstream DRM into development policies.

During the past fiscal year, the Resilient Recovery program provided support to 10 post-disaster assessments, including PDNAs in **Cape Verde, Malawi, Nepal, and Vanuatu**, as well as four post-conflict assessments. Following a government-led PDNA, the program has also been providing support to **Malawi** on developing a recovery framework, informed by the assessment’s findings.

Knowledge sharing and exchange have been at the core of the Resilient Recovery Program during FY15. In September 2014, the program hosted the second World Reconstruction Conference (WRC2), held in partnership with the EU, UNDP, and the World Bank under the theme “Resilient Recovery: an Imperative for Sustainable Development.” This conference gathered over 500 global participants from more than 60 countries, including government officials, disaster recovery practitioners, and other development partners, for discussions on how countries and communities can put in place the necessary tools to facilitate and enhance resilient recovery from disasters. One of the key outcomes of the conference was advancing consensus on resilient recovery as an imperative for sustainable development and poverty reduction.

WRC2 also served as an early launch for the PDNA Guide, the DRF Guide, and nine related country case studies. These guides, developed in partnership with the EU, UNDP, and the World Bank, are helping to inform countries

following disaster situations on how to assess, manage, prioritize, monitor, and finance the recovery process. Additionally, the DRF guide was featured at WCDRR, along with the flagship GFDRR report *Resilient Recovery: An Imperative for Sustainable Development*, which introduces new ways to achieve sustainable development gains throughout the resilient recovery process.

As the Resilient Recovery Program develops in the coming year, it will continue to provide targeted expertise to help disaster-stricken countries assess damage, loss, and needs, as well as plan, prioritize, and fund sustainable recovery and reconstruction. The program will also look to continue developing and sharing related knowledge with partner organizations and vulnerable countries, including a roll-out and piloting of the disaster recovery framework, conducting trainings with partners on the PDNA process, and promoting local-level resilient recovery.

In Focus: Supporting Response, Recovery, and Resilience in Nepal

When earthquakes rocked Nepal in April and May 2015, the world's attention turned to the extent of the damage. The devastation of an initial 7.6 magnitude earthquake on April 25 was compounded by a second major earthquake on May 12 of 6.8 magnitude and over 300 aftershocks. With 8,790 lives lost, 22,300 injured, and an estimated eight million people—almost a third of the population—affected, early estimates supported by GFDRR suggested that an additional one million Nepalis were likely to be pushed into poverty as a direct result of the earthquake.

Immediate Response

When the earthquakes struck, GFDRR had already laid the groundwork to help Nepal be more disaster resilient. Through its support to the OpenCities Kathmandu program launched in 2012, GFDRR had helped to survey schools and health facilities in the Kathmandu Valley using community mapping techniques. Additionally, a regional innovation lab, Kathmandu Living Labs (KLL), was created with GFDRR support.

Within hours of the earthquake, KLL organized dozens of local and global technologists to fill in information gaps of baseline mapping using OpenStreetMap, mapping over 70–80 percent of the earthquake-hit zones. In total, 2,400 volunteers from around the world contributed to this effort. The information

collected was used by the Nepal military, the Red Cross, and many other organizations to provide on-the-ground assistance.

Additionally, with financial support from Luxembourg, GFDRR rapidly provided an emergency grant to the government of Nepal to facilitate critical advisory and technical support to conduct a PDNA exercise and initiate recovery-planning processes in several key sectors, in partnership with ADB, the EU, JICA, the UN, the World Bank, and other organizations.

All told, the assessment estimated the damage at \$5.15 billion, losses at \$1.9 billion, and recovery needs at \$6.7 billion, or about a third of Nepal's economy. The housing sector was the most heavily impacted, accounting for about three-fifths of the damage and half of total recovery needs.

Reconstruction Financing

The PDNA was released in time for the June 25 International Conference for Nepal's Reconstruction, where its findings helped Nepal secure urgently needed funding by highlighting the extent of the damage to the economy and offering constructive input on how the country could effectively rebuild and recover. Organized by the Government of Nepal, this conference coordinated efforts among partner governments and organizations involved in the reconstruction. As a result, the

international community pledged \$4.4 billion toward Nepal's recovery and reconstruction.

Sustained Engagement

Since FY15, GFDRR has continued to provide technical assistance to Nepal's lead agency for resilient recovery planning. Addressing the widespread destruction of Nepal's housing and human settlements is a key focus area for cooperation. With nearly 500,000 houses destroyed and more than 250,000 partially damaged, there is a pressing need for specific and accurate information on the full extent of damage.

GFDRR's Innovation Lab facilitated and collected results from near real-time remote damage assessments for the housing sector, as well as mapped landslide locations. This was the first time a joint effort was made by multiple international geological agencies to map all landslides throughout an impacted area using satellite data.

To also assist in rebuilding the housing sector, GFDRR provided funding for a survey to identify households that qualify for reconstruction from the 14 most-affected districts. This funding will also help develop an information management system to enable cash transfers to identified beneficiaries and serve as the foundation for a disaster-linked social protection system that could be triggered in the event of future disasters.





CHAPTER 3

SPECIAL PROGRAMS

GFDRR manages two special programs designated by members providing large-scale financial support. These special programs are: (i) the Africa Caribbean Pacific (ACP)—European Union (EU) Program, and (ii) the Japan—World Bank Program for Mainstreaming DRM in Developing Countries. Through their complementary geographic and technical approaches, these two programs enable GFDRR to maintain specialized expertise, reach the necessary scale, and leverage specific partnerships to support focused DRM and climate change adaptation efforts.

MOZAMBIQUE

Community school.
Photo credit: World Bank

ACP–EU Programs

The ACP–EU Natural Disaster Risk Reduction (NDRR) Program

The ACP–EU NDRR Program, established in 2011, is an initiative of the ACP Group of States, funded by the EU, and managed by GFDRR. It aims to build resilience to disasters caused by natural hazards through enhancing DRM and CCA in these countries. In fiscal year 2015, \$9 million was committed for 21 new projects, bringing the program’s total portfolio up to 73 projects worth \$43 million.

The program is carried out through regional, national, and post-disaster activity windows.

Regional projects aim to strengthen regional and sub-regional cooperation to advance the national agendas of ACP countries for managing disaster risk.

National level projects provide technical assistance for DRM and CCA policy development and implementation.

Post-disaster projects offer a fast-track mechanism to support ACP countries in the aftermath of a disaster with rapid technical assistance to build back better, boost capacity for post-disaster needs assessments, and integrate DRM into recovery planning.

In FY15, GFDRR signed with the EU a \$48 million commitment

to support DRM activities in Africa. This funding is part of the ACP–EU Program, “Building Resilience to Natural Hazards in Sub-Saharan African Regions, Countries and Communities,” which is implemented by partners each responsible for a “result area,” namely the African Development Bank, African Union Commission (AUC), UNISDR, and GFDRR, in coordination with the World Bank.

The African Regional Economic Communities Program

As part of the African Regional Economic Communities Program, the EU contributed \$24 million to develop the coordination capacity of African Regional Economic Communities (RECs). Participating RECs include the Economic Community for Central African States, the Economic Community of West African States, the Intergovernmental Authority on Development, and the Southern African Development Community. Thanks to their involvement, African governments, decision-makers, and communities of practice will be able to leverage additional expertise, technical knowledge, and best operational practices from a wide range of stakeholders.

Through this “R2” result area, these economic communities will develop coordination, planning, and policy

advisory capacities to support their national, regional, and sub-regional membership on DRM. African universities, research centers, river basin authorities, and technical organizations are also engaged in this effort. Throughout the year, GFDRR and the World Bank worked in close collaboration with each REC to finalize work plans and explore areas of cooperation. As of FY15, two of four planned REC projects, which are focused on policy dialogue, flood management, risk management, preparedness, and capacity building, are now in place and operational.

The Africa Disaster Risk Financing Initiative

Funded by a five-year \$24 million EU grant, the Africa Disaster Risk Financing Initiative (ADRF)—part of the “R5” result area—supports the development of multi-risk financing strategies at regional, national, and local levels to enable African countries to make informed decisions, improve financial response capacity after disasters happen, and mitigate the socioeconomic, fiscal, and financial impact of disasters.

The ADRF is working under three main components to catalyze the uptake of innovative risk identification, assessment, and financing tools through the development of policy frameworks

GFDRR's Partnership with the European Union



NEPAL

GFDRR partners closely with the European Union in conducting post-disaster needs assessments following major disaster events.

Photo credit: Jessica Lea/DFID

The European Union is a key GFDRR partner at the international policy level. This ongoing partnership pushes for the effective integration of DRM into the global development agenda and cements the strong links among DRM, poverty reduction, and climate change adaptation. Since 2008, the EU has contributed \$133 million to GFDRR. \$117.5 million of these funds are dedicated to improving climate and disaster resilience in ACP countries through the ACP–EU NDRR Program, as well as the ADRF Program.

In FY15, EU leadership strongly supported the DRM agenda at major international events alongside GFDRR and other key partners, including at the WCDRR and the Resilience Dialogue series, where EU representatives took an active role in shaping the discussions.

The EU also closely coordinates on post-disaster needs assessments in cooperation with GFDRR, the World Bank, and the UN. In response to floods, tropical cyclones, volcanic eruptions, and earthquakes, teams from these organizations work together to help inform and implement resilient recovery efforts. In the past year, this includes developing a recovery strategy in **Nepal** in response to the devastating earthquakes, and in **Vanuatu** following Tropical Cyclone Pam. Other recipients of joint assistance include **Georgia**, **Malawi**, **Cape Verde**, and **Mozambique**. More than 35 post-disaster assessments have been jointly undertaken since 2008.

Resilience Dialogue

The Africa Disaster Risk Financing Initiative

Post-Disaster Needs Assessments (PDNA)

The African Regional Economic Communities Program

The ACP–EU Natural Disaster Risk Reduction (NDRR) Program

and agendas for several middle and low-income African countries.

Within the first component, the ADRF is developing multi-hazard risk profiles in **Senegal, Ethiopia, Uganda, Niger**, and **Kenya**. It has also studied the impact of disasters on poverty in **Uganda** and **Malawi** and begun flood risk modeling in Northern Malawi.

Under the second component, the ADRF helps countries develop financial decision-making tools and integrate risk-financing strategies to enhance their post-disaster

response capacity. This includes mobilizing resources both before and after disasters. In this first year of implementation, the ADRF has worked to identify country needs and priorities and formulate these priorities into action plans.

Under the last component, a specific focus has been given to enhancing regional knowledge-sharing initiatives to manage physical and financial risks. The ADRF is emphasizing this priority in holding the upcoming Understanding Risk & Finance conference in Addis Ababa,

Ethiopia, a regional follow-up event to the biennial UR forum, where key findings from funded projects will be shared. This knowledge-sharing opportunity is the result of close cooperation with the EU, the AUC, the Government of Ethiopia, and other partners.

Additional activities include hands-on training on risk assessment within the SWIO RAFI, training on the establishment, maintenance, and use of geospatial platforms, and the collection of OpenStreetMap data in **Malawi** and **Madagascar**.

The Japan–World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries

The Japan–World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries

The GFDRR-managed Japan–World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries was launched in 2014. Funded by a \$100 million contribution by the Government of Japan to be implemented over five years, the program seeks to scale-up technical assistance, pilot projects, knowledge and capacity building activities, and thematic initiatives to support developing countries.

The objective of the program is to help countries incorporate DRM into their national development planning and investment programs, including World Bank-financed operations. It also seeks to leverage knowledge management activities connecting the wealth of Japanese and other global experience in managing disaster risks with these programs. These will be led by a recently-established hub office in Tokyo.

The Japan Program’s mission is carried out through two work streams: a Country Program, and a Program to Connect Knowledge, Expertise, and Technology (CKET).

The Country Program

The Country Program provides grants to assist preparing and implementing operations that address disaster risks either directly

through mitigation actions or as part of risk-sensitive, sector-based investments, such as disaster-linked social protection mechanisms. Since its launch, the program has funded 21 new projects worldwide.

Project partners are diverse, from disaster management agencies to city authorities, public works departments, water authorities, and education ministry counterparts. These relationships provide the basis for future knowledge exchange with experts from Japan and around the world.

One key criteria of the Country Program’s work is the potential of the proposed activities to leverage or influence large scale investment in resilient policies and projects. Projects are already making an impact in tangible ways. In the **Pacific**, the Country Program has helped finance a regional project with the Pacific Power Association to support the development of resilience strategies in energy sector operations in the islands, which will reduce power outages and increase the capacity of vulnerable island economies to bounce back after a disaster.

In **Bangladesh**, support is helping the Dhaka Water Supply and Sewerage Authority develop and apply a framework for business continuity planning to improve the reliability of water supply and sanitation after flooding occurs.

Other projects, even if not directly influencing a planned investment project, are creating an important enabling environment with partners to facilitate future investment.

In **Armenia**, a grant from the program is supporting the Ministry of Territorial Administration and Emergency Situations to address bottlenecks in effective risk management policy and investment. Despite progress in legislative and institutional arrangements, Armenia faces capacity gaps, which must be filled before large-scale investment can follow, such as building national consensus on the operating modalities for the national DRM program.

Connecting Knowledge, Expertise, and Technology (CKET)

The CKET Program, led by the DRM Hub Tokyo, focuses on building resilience in developing countries by connecting them with appropriate knowledge, expertise, and technology in sectors ranging from infrastructure to social risk management. The program supports knowledge management and analytical work, capacity building, preparation of solution products, and engagement in outreach and networking activities. The DRM Hub knowledge program builds linkages between the needs expressed by partners in developing countries in mainstreaming

disaster risk management, as well as the challenges identified by the operational staff when designing and implementing projects, with the solutions that are available in Japan and across the world. It also works to identify innovations in reducing disaster risk from Japan that can be tested and deployed in developing countries.

The CKET Program Is Built upon a Foundation of Partnerships

CKET partners with teams from various sectors and regions that work directly in developing countries to design and implement projects. These partnerships are essential to ensure knowledge and solution products generated are relevant, effective, practical, and user-friendly. The priority sectors for the knowledge program were identified from demands recognized through proposals that teams

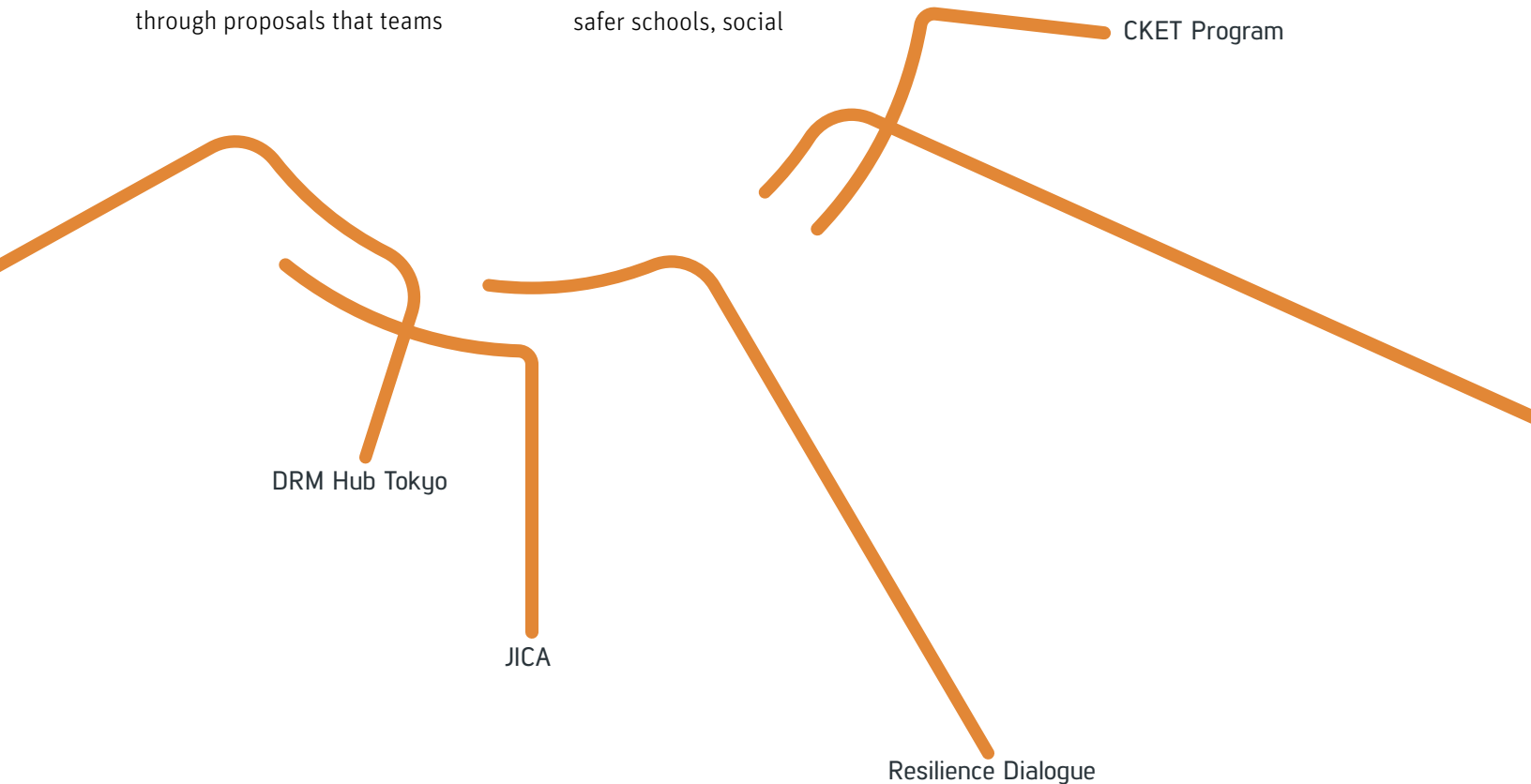
submitted to the DRM Hub Tokyo Country Program for funding. The design and outputs of each of the solution products prepared are made in close consultation with end users and the final toolkits or handbooks are field tested by the sector teams in their respective projects and countries.

CKET also partners with external organizations involved in Japan's DRM activities, beginning with government agencies, technical agencies, academia, and the private sector. Through these networks, the CKET Program identifies the DRM needs and demands of developing countries and gathers established Japanese knowledge, expertise, and technology to meet them. Analytical study topics and solution areas in the initial year of the CKET program have included roads and DRM, modernizing hydromet services, safer schools, social

risk management, and assessing data and risk.

Each program has developed close collaboration with various agencies in Japan, including the Ministry of Land, Infrastructure, Transport and Tourism, Japan Meteorological Agency, Ministry of Education, Culture, Science, Sports and Technology, Ministry of Health, Labour and Welfare, the Ministry of Internal Affairs and Communication, Geospatial Information Authority of Japan, International Sabo Association of Japan, and JICA.

Essential partnerships have also been fostered with universities, including the University of Tokyo and Aoyama Gakuin University, and with the private sector through platforms like the Japan Bosai Platform.



GFDRR's Partnership with Japan



THE PHILIPPINES

Families take shelter in temporary tents provided by the Government of Japan.

Photo credit: Asian Development Bank

Collaborating on Resilience

Cooperation and coordination with Japanese organizations is essential, both to maximize the impact of Japanese overseas development aid and to identify opportunities to apply operational good practices and experiences from Japan's domestic expertise.

JICA has been particularly engaged on aspects of portfolio development. In the **Philippines**, where the program supports long-term technical assistance to the government, close dialogue among the World Bank, JICA, and government agencies—including the Department of Finance and the Ministry of Housing and Public Works—have united diverse actors considering investments in risk reduction and risk financing. The country is considering more comprehensive strategies to protect people and assets from harm, and putting in place the necessary financial mechanisms for the country to recover when disasters occur, including insuring public assets. JICA and the World Bank are critical partners of GFDRR in this effort, and effective coordination and cooperation has been key to achieving impact at scale.

Leveraging Knowledge

An important role of the DRM Hub Tokyo is to share knowledge and expertise for enhanced disaster resilience. In 2014, it helped organize a study tour in Japan for the GFDRR-supported Uttarakhand Disaster Recovery project. It also coordinated Japanese participation in the “International Symposium on tackling the challenges of slope stabilization and landslide prevention” the following April, sharing Japanese expertise with a broader global audience. The DRM Hub has also assisted in connecting Japanese experts with technical assistance projects implemented through the DRM Hub Tokyo Country Program, including a project that strengthens DRM in Egypt.

Another priority is to link knowledge and expertise in Japan and globally with World Bank operations. Toward this end, the DRM Hub Tokyo has conducted public seminars for the Japanese general public, private sector roundtables, workshops in Washington D.C., and events with the Hydromet and Urban Flood Community of Practices.

These events have raised awareness within the Japanese public on GFDRR's activities to support DRM, increased understanding of Japan's experience and expertise, and linked operations with DRM partners.

Country Program

Sendai Japan
2015.3.14/18

WCDRR

RESILIENCE DIALOGUE

レジリエンス・ダイアログ ～災害に強い社会に向けて～

A PUBLIC FORUM EVENT OF THE
UN World Conference on
Disaster Risk Reduction
2015



HOSTED BY
GFDRR
EU
UN
JP

政策担当者と防災実務者によるパブリック・フォーラム。ポスト2015年開発目標に向けた強靱性強化

BRINGING RESILIENCE TO SCALE FOR POST-2015 GOALS



CHAPTER 4

KNOWLEDGE AND COLLABORATION



JAPAN

The Resilience Dialogue in Sendai, Japan was one of GFDRR's flagship events at WCDRR. From left to right: Thomas Staal, Assistant Administrator, USAID; Helen Clark, Administrator, United Nations Development Programme; P.K. Mishra, Principal Secretary to the Prime Minister, India; Anote Tong, President, Kiribati; Rachel Kyte, Vice President and Special Envoy for Climate Change, World Bank Group; and Claus Sørensen, Director-General, Directorate-General for Humanitarian Aid and Civil Protection.
Photo credit: World Bank

International Events

In 2015, GFDRR contributed to a large number of knowledge-building activities to advance the global agenda on disaster risk management and provide the international community with a deeper understanding of the challenges and opportunities of resilience building. This section lists core meetings and events that received substantial support from the Facility.



2014

JULY

- Understanding Risk Forum:** Organized by the GFDRR Innovation Lab and other partners, 800 experts and practitioners from more than 60 countries convened in London to collaborate on innovative approaches in identifying and assessing disaster risk. www.understandrisk.org/2014URFORUM

SEPTEMBER

- Second World Reconstruction Conference (WRC2):** From September 10–12, over 500 government officials, disaster recovery practitioners, and development partners gathered in Washington, D.C. to engage in discussions on how countries and communities can put the necessary tools in place to facilitate and enhance resilient recovery from disasters. This conference also launched the PDNA Guide, the DRF Guide, and nine related country case studies, developed in partnership with the EU, UNDP, and the World Bank. www.gfdrr.org/wrc2



OCTOBER

- Fall Consultative Group Meeting:** The Fall GFDRR Consultative Group Meeting took place in Washington, D.C., from October 29–30, 2014. The group discussed GFDRR priorities, including the Work Plan, Post-2015 Development Frameworks, and resource prioritization.



- Resilience Dialogue—Financing Resilience for Sustainable Development in Post-2015 Frameworks:** GFDRR, the EU, the Government of Japan, USAID, and the World Bank jointly hosted the seventh meeting in the Resilience Dialogue series, during the IMF and World Bank Annual meetings. The meeting explored emerging and innovative financing strategies to help implement disaster and climate resilience programs and build resilience in poor and vulnerable countries.

2015

MARCH

- Third UN World Conference on Disaster Risk Reduction:** DRM practitioners, policymakers, donors, and thought-leaders convened at the WCDDR in Sendai, Japan to advance disaster risk reduction and resilience on a global scale. GFDRR organized and participated in more than 30 events and coordinated 50 high-level bilateral meetings with government representatives and

partners. WCDRR concluded with the adoption of the new Sendai Framework for Disaster Risk Reduction 2015–2030, which was formed in part through GFDRR guidance and input.

www.gfdr.org/wcdrr

- **Challenge Fund Launch:** GFDRR and Department for International Development (DFID) partnered to launch a new competitive Challenge Fund, which pilots innovative approaches to overcome difficulties related to information, communication, and behavior to strengthen disaster and climate risk decision-making in developing countries. The Fund is set to provide small grants in FY16 to projects bridging the gap between technology and on-the-ground user needs in the field of disaster risk identification.



- **Resilience Dialogue—Bringing Resilience to Scale for Post-2015 Goals:** GFDRR, the EU, the Government of Japan, USAID, and the World Bank hosted the eighth round of the Resilience Dialogue series as part of the WCDRR. To better safeguard aid and development against disasters, this high-level dialogue explored how to scale up and sustain funding and implementation of disaster and climate risk programs to advance post-2015 resilience goals.

www.gfdr.org/resilience-dialogue-wcdrr

- **Asian Resilience Forum:** Held during WCDRR, this two day forum, supported by GFDRR's Code for Resilience and the Japan–World Bank DRM program, gathered technology professionals and experts from Indonesia, Japan, Pakistan, the Philippines, and Taiwan to present their work in developing civic applications and community mapping activities, as well as participate in a software-building session and ideathon.

APRIL

- **Resilience Dialogue—The Road to Addis: Financing Resilience in the Post-2015 World:** The ninth round of the Resilience Dialogue was hosted in partnership by GFDRR, the European Union, the Government of Japan, USAID, and the World Bank during the Spring IMF and World Bank meetings to explore options to secure financing of the priorities and targets set by the new Sendai Framework for Disaster Risk Reduction and guide resilience efforts going forward.

- **Insurance Development Forum:** On April 16, GFDRR convened the inaugural Insurance Development Forum in Washington, D.C., with participants from 29 organizations representing the private sector, international institutions, and governments. The forum was a product of the Political Champions Group for Resilience and serves to optimize and extend the use of insurance-related facilities to protect populations, companies, and public institutions against natural hazards.



- **InterMetAsia Conference:** From April 22-24, GFDRR supported the InterMetAsia 2015 conference in Singapore. The only dedicated meteorology event in the Asia-Pacific, this conference provided an opportunity for partner countries to engage with and discuss new technologies for meteorological observation. <http://www.internet.asia/>

MAY

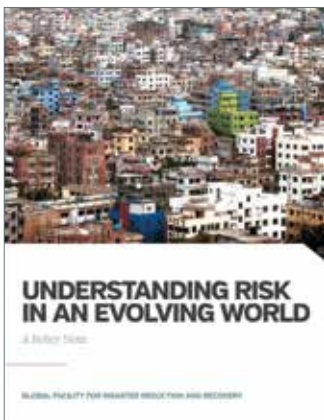
- **16th Consultative Group Meeting:** The 16th GFDRR Consultative Group Meeting took place in Washington, D.C., on May 6–7. The group reviewed the GFDRR Work Plan for 2016–2018 and discussed GFDRR priorities, including implementing the Sendai Framework for Disaster Risk Reduction.
- **National Meteorological and Hydrological Services Training Workshop:** In early May, GFDRR joined USAID, the WMO, and the World Bank in holding a training workshop in the Seychelles for national meteorological and hydrological services of Southern African Development Community members. The focus of the workshop was on designing socio-economic benefits studies of meteorological and hydrological services and products.

Knowledge Products

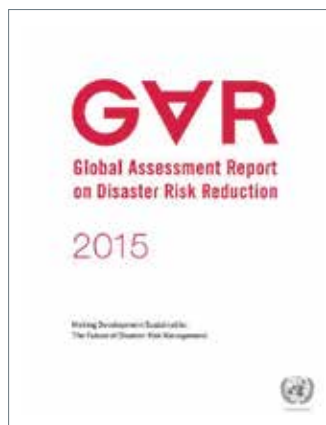
GFDRR serves as a knowledge hub for the disaster risk management community. In FY15, it released or contributed to over 60 major publications, fact sheets, success stories, and infographics, providing thought-leadership in the disaster and climate resilience space.

Highlights include the release of seven flagship publications and five other major publications in FY15:

- **Understanding Risk in an Evolving World: Emerging Best Practices in Natural Disaster Risk Assessment** (2014)—This report contains case studies spanning 40 countries that showcase emerging best practices, demonstrate how risk assessments are being used to inform DRM and broader development, and highlight lessons learned through these efforts. www.gfdrr.org/sites/default/files/publication/Understanding_Risk-Web_Version-rev_1.8.0.pdf



- **Financial Protection Against Natural Disasters** (2014)—This report, designed to inform the drafting of GAR15 and deliberations for the Sendai Framework, takes stock of the global progress on financial protection against disasters caused by natural hazards over the last decade and brings together the latest thinking on disaster risk financing and insurance. www.gfdrr.org/Financial-Protection-Against-Natural-Disasters



- **Global Assessment Report on Disaster Risk Reduction** (2015)—GFDRR contributed to this biennial report issued by the UN, which examines the role of disaster risk reduction in sustainable development. www.preventionweb.net/english/hyogo/gar/2015/en/gar-pdf/GAR2015_EN.pdf



- **Investing in Resilience** (2015)—This report, prepared for WCDRR, discusses the ways investments in resilience can lead to better managed climate and disaster risk, thereby boosting shared prosperity and ending extreme poverty sooner. www.gfdrr.org/sendai-report-2015
- **Unlocking the Triple Dividends of Resilience—Why Investing in DRM Pays Off** (2015)—The risk of a disaster can cause economic losses even before they occur. This report showcases that investing in disaster



resilience can yield a triple dividend: unlocking development potential by reducing “background risk”; enjoying the benefits of investments to reduce risk years prior to a disaster occurrence; and avoiding losses when disaster strikes.

www.gfdr.org/Unlocking-Triple-Dividends-of-Resilience

- **Resilient Recovery: An Imperative for Sustainable Development** (2015)—This report introduces new ways to achieve sustainable development gains throughout the resilient recovery process.



www.gfdr.org/sites/default/files/publication/Resilient-Recovery-An-Imperative-for-Sustainable-Development.pdf



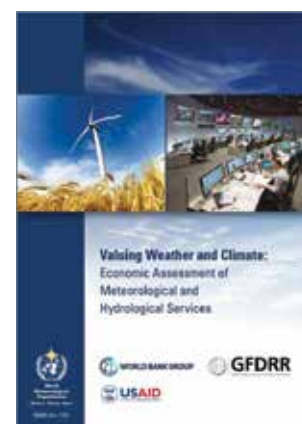
- **Building Social Resilience: Protecting and Empowering Those Most at Risk** (2015)—This report, prepared for GAR15, focuses on the need to address the underlying causes of vulnerability to reduce the impacts of disaster on poor communities. It highlights practical ways of funneling disaster and climate risk financing directly to those most in need and offers approaches to empowering poor communities to drive their own risk management efforts.

www.gfdr.org/sites/default/files/publication/Building-Social-Resilience-Protecting-and-Empowering-Those-Most-at-Risk.pdf



- **Post-Disaster Needs Assessment Guide** (2014)—This guide, developed in collaboration with the EU, UNDP, and the World Bank, provides detailed guidance on conducting comprehensive post-disaster needs assessments that enable affected governments and their partners to channel appropriate levels of funding based on needs for recovery and reconstruction.

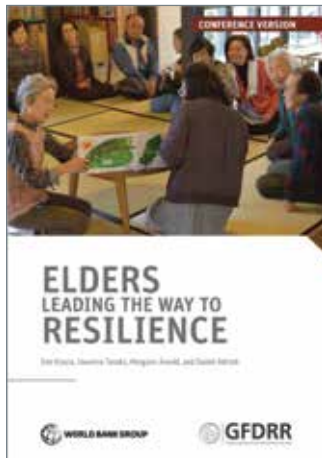
- **Valuing Weather and Climate: Economic Assessment of Meteorological and Hydrological Services** (2015)—



This report was released as a collaborative effort among USAID, WMO, the World Bank, and GFDRR to serve as a guide for future hydromet investments. <https://www.gfdr.org/sites/default/files/publication/SEB%20HYDROMET.pdf>



- **Disaster Recovery Framework (DRF) Guide** (2015)—This guide, developed in collaboration with the EU, the UNDP, and the World Bank, provides guidance and recommendations to countries on how to better plan, design, and implement effective post-disaster recovery and reconstruction programs. www.gfdr.org/sites/gfdr/files/publication/DRF-Guide_FINAL_small_REVISIED_FULL-disclaimer.pdf



- **Elders Leading the Way to Resilience** (2015)—This report, prepared for WCDRR, describes and assesses the experience of Ofunato, Japan, which was devastated by the 2011 Great Eastern Japan Earthquake and tsunamis. With elders leading the operation of Ibasho Café, the space is strengthening social capital and resilience. www.gfdr.org/sites/gfdr/files/publication/Elders-Leading-the-Way-to-Resilience.pdf



- **Community-Led Partnerships for Resilience** (2015)—This report, prepared for WCDRR, documents a number of case studies where community based organizations are working in partnership with their local or national governments to effectively manage disaster and climate risk in poor communities. www.gfdr.org/sites/default/files/publication/Community_led_partnership_JUNE24.pdf

GFDRR Communications

■ This past fiscal year, GFDRR continued to expand its media outreach efforts, including targeted campaigns around major events including the UR Forum, WCDRR, and WRC2. GFDRR was mentioned nearly 70 times in prominent and specialized media outlets, including *Devex*, *The Guardian*, *The Japan Times*, *Thomson Reuters*, *The Times of India*, and *Scientific American*.

■ In FY15, GFDRR continued its use of innovative tools and social media to disseminate information and awareness of its work on mitigating disaster and climate risk to a broad audience. Regular web and social media content, as well as targeted campaigns, resulted in a 22% increase in visits to the GFDRR website (www.gfdr.org), to close to 300,000 individual views in FY15, as well as a 62% increase in Twitter followers.

■ The GFDRR communications team leveraged partner relationships to increase its visibility. In FY15, partner channels that featured GFDRR publications, Stories of Impact, and blogs included DFID, the EU, Overseas Development Institute, PreventionWeb, UNISDR, and the WMO. The World Bank's external homepage also regularly highlighted high-profile GFDRR activities and initiatives.





ANNEXES



NEPAL

A GFDRR-supported post-disaster needs assessment helped secure a \$500 million dollar recovery package on behalf of the World Bank.

Photo credit: Getty Images

Annex 1: Supporting Implementation of the Sendai Framework

Table 1: The following table shows how GFDRR’s five Pillars of Action are aligned with the four Priorities for Action of the Sendai Framework for Disaster Risk Reduction.

Priority for Action	GFDRR Pillar of Action	GFDRR Outputs	SFDRR Reference Text
Understanding risk	Risk Identification	Data platforms facilitated	Paragraphs 24(a), 24(f), 25(a), 25(c), 25(g)
		Risk assessments conducted	Paragraphs 23, 24(i), 25(b), 25(g)
		Hazard mapping conducted	Paragraphs 24(k), 24(n), 25(a)
Strengthening disaster risk governance to manage disaster risk	Risk Reduction	Policies and frameworks developed	Paragraphs 26, 27(a), 27(g), 28(g)
		Building codes developed	Paragraph 27(d)
		Land use planning systems strengthened	Paragraph 30(f)
Investing in disaster risk reduction for resilience	Risk Reduction	Risk reduction investment strategies	Paragraphs 29, 30(a), 30(b)
	Financial Protection	Sovereign disaster risk financing strategies strengthened	Paragraphs 30(b), 31(b)
		Catastrophe risk markets strengthened	Paragraphs 30(b), 31(b)
Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction	Preparedness	Forecasting services strengthened	Paragraph 33(b)
		Early warning systems strengthened	Paragraphs 33(b), 34(c)
		Contingency planning and emergency preparedness services strengthened	Paragraphs 33(a), 33(b)
	Resilient Recovery	Post disaster assessments conducted/recovery planning strengthened	Paragraphs 32, 33(c), 33(j), 34(a)

ANNEX 2: Results Monitoring Report

FY15 Total: 280 grants, \$216 million committed

Table 2: The following table summarizes the results that GFDRR supported across the Five Pillars of Action in FY15.

Outputs		FY14	FY15 Target	Achieved as of June 30, 2015
Pillar 1	Data platforms established	11	13	30
	Risk assessments conducted	12	14	27
	Hazard mapping conducted	6	7	16
Pillar 2	Policies and legal frameworks strengthened	22	32	36
	Building codes developed	5	6	7
	Risk reduction investment strategies developed	23	27	26
	Land use planning systems strengthened	3	4	9
Pillar 3	Forecasting and service delivery strengthened	4	6	9
	Early warning systems strengthened	8	10	17
	Contingency planning and emergency preparedness services strengthened	6	9	26
Pillar 4	Sovereign disaster risk financing strategies strengthened	13	18	28
	Catastrophe risk markets strengthened	8	14	12
Pillar 5	Post disaster assessments conducted/recovery planning strengthened	7	8	19

Table 3: The following table summarizes the number of large scale programs enabled by GFDRR activities in FY15.

	FY14	FY15 Target	FY15
Enabling large scale programs in disaster risk management	9	10–15	13

Table 4: The following table summarizes the number of flagship reports delivered by GFDRR in FY15.

	FY14	FY15 Target	FY15
Flagship Reports published	5	6	7

ANNEX 3: Financial Review

STATEMENT OF RECEIPTS, DISBURSEMENTS, AND FUND BALANCE

Expressed in U.S. dollars

	Notes	For the fiscal year ended June 30, 2015	For the fiscal year ended June 30, 2014	For the fiscal year ended June 30, 2013
Opening Balance:		185,212,182	130,318,913	117,381,816
Receipts:				
Donor contributions	1	98,766,363	95,217,814	47,760,965
Net investment and other incomes	2	543,505	441,169	352,010
Transfers-in from Development Grant Facility	3	500,000	500,000	2,000,000
Total Receipts		99,809,868	96,158,983	50,112,975
Disbursements:				
Project disbursements	4	46,362,026	32,503,477	29,409,685
World Bank administration fee		2,033,893	3,359,431	2,035,852
Program management and administration expenses	5	5,395,535	4,654,750	3,730,266
Refund to donor	6	1,050,767		
Transfers-out from Development Grant Facility	7	500,000	500,000	2,000,000
Total Disbursements		55,342,221	41,017,659	37,175,803
Excess of (disbursements over receipts)/receipts over disbursements		44,467,647	55,141,324	12,937,171
Ending Balance:				
Ending Balance		229,679,828	185,460,237	130,318,987
Less: Undisbursed Commitments	8	127,121,685		
Uncommitted Fund Balance	9	102,558,144		

Note 1—Donor Contributions

GFDRR received \$98,766,363 from 15 donors in the fiscal year ended June 30, 2015. Commitment Receivable in the amount of \$104,928,088 are outstanding as of June 30, 2015, which will be transferred to GFDRR as per the payment schedules in the signed Administration Agreements.

The following table provides details of contribution received and contribution receivable by donor.

Donor	For the fiscal year ended June 30 th , 2015		For the fiscal year ended June 30 th , 2014		For the fiscal year ended June 30 th , 2013		Contribution Receivable *	
	Contribution currency	Amount received in contribution currency	Amount received in contribution currency	Amount received in \$	Amount received in contribution currency	Amount received in \$	Amount received in contribution currency	Amount received in \$
Australia	AUD	4,000,000	3,188,800	4,055,552	3,500,000	3,652,400		
Austria	EUR	2,000,000	2,445,420		425,000	555,178		
Denmark	DKK	10,000,000	1,417,354	20,000,000	3,681,219	3,446,415		
European Union	EUR	20,000,000	25,377,000	10,900,000	15,028,920	16,969,800	25,950,000	29,064,000
France	EUR					45,906		
Germany	EUR	2,253,337	2,617,249	4,000,000	5,437,300	4,500,000	6,018,450	1,221,581
India	USD	166,000	166,000	167,000	167,000	167,000	167,000	
Ireland	EUR			600,000	825,300	500,000	663,650	
Italy	EUR	2,000,000	2,315,200	500,000	678,450			
Japan	USD	30,000,000	30,000,000	20,000,000	20,000,000		55,000,000	55,000,000
Korea	USD					630,000	630,000	
Luxembourg	EUR	400,000	518,185	300,000	408,510	400,000	530,340	
Mexico	USD	138,240	138,240					361,760
Netherlands	USD					2,142,857	2,142,857	
Nigeria	USD						500,000	500,000
Norway	NOK	25,000,000	4,024,663	18,000,000	2,901,775	6,000,000	1,070,301	
Saudi Arabia	USD	500,000	500,000					
Spain	EUR							347,847
Switzerland	CHF	9,300,000	9,592,628	800,000	878,966	1,061,000	1,133,171	8,806,500
United Kingdom	GBP	10,146,350	15,965,624	24,718,650	41,154,823	5,625,000	8,735,498	7,896,400
United States	USD	500,000	500,000			2,000,000	2,000,000	1,730,000
Total			98,766,363	95,217,814	47,760,965	104,928,088		

* The US\$ equivalent of Contribution Receivable is reevaluated based on the exchange rate on October 6th, 2015.

The actual US\$ equivalent is based on the exchange rate on the date of the fund transfer.

The following table provides details of contributions received by main fund.

Main Fund	For the fiscal year ended June 30, 2015	For the fiscal year ended June 30, 2014	For the fiscal year ended June 30, 2013
Track II-SDTF-Australia (TF070807)			1,550,800
Track II-MDTF (TF070611)	2,984,937	30,393,656	29,148,968
Track III-MDTF-Callable (TF070868)	518,185	27,959,242	530,340
Track III MDTF - TA (TF070948)		1,835,996	2,142,857
Japan Program (TF072129)	30,000,000	20,000,000	
Core MDTF (TF072236)	39,886,240		
Africa Disaster Risk Financing (ADRF) SDTF (TF072281)	12,686,000		
ACP-EU SDTF (TF071630)	12,691,000	15,028,920	14,388,000
Total	98,766,363	95,217,814	47,760,965

Note 2—Investment and other Income

Net investment and other incomes in the amount of \$543,505 for the fiscal year ended June 30, 2015 consists of GFDRR's share in the interest income earned by the Bank's trust fund portfolio including realized gains/losses from sale of securities and other incomes.

Note 3 and 7—Transfer in and Transfer out from Development Grant Facility

In the fiscal year ended June 30, 2015, the World Bank's Development Grant Facility provided grants amounting to the \$500,000 to Overseas Development Institute (\$250,000) and Development Gateway (\$250,000) to implement Track 1 activities of GFDRR.

Note 4—Project Disbursements (Disbursements of the program's operational activities)

Project Disbursements in the amount of \$46,362,026 were made from the Program for the fiscal year ended June 30, 2015.

The following table provides details of the project disbursements by main fund.

Main Fund	For the fiscal year ended June 30, 2015	For the fiscal year ended June 30, 2014	For the fiscal year ended June 30, 2013
Track II-SDTF-Spain (TF070806)	50,586	207,362	455,760
Track II-SDTF-Japan (TF070809)	338,172	748,540	826,092
Track II-SDTF-Australia (TF070807)	1,518,116	2,483,086	1,954,135
Track II-MDTF-South South (TF070952)	-	17,887	208,786
Track II-MDTF (TF070611)	19,375,189	20,342,506	20,502,747
Track III-MDTF-Callable (TF070868)	14,309,095	459,023	983,714
Track III MDTF - TA (TF070948)	1,954,389	2,198,689	1,564,991
Japan Program (TF072129)	1,726,555	-	-
Core MDTF (TF072236)	519,148	-	-
Africa Disaster Risk Financing (ADRF) SDTF (TF072281)	407,650	-	-
ACP-EU SDTF (TF071630)	6,163,126	6,046,384	2,913,460
Total	46,362,026	32,503,477	29,409,685

The following table provides details of the project disbursements by region.

Region	For the fiscal year ended June 30, 2015	For the fiscal year ended June 30, 2014	For the fiscal year ended June 30, 2013
Sub-Saharan Africa	21,905,604	8,096,861	8,797,806
East Asia and Pacific	6,053,633	7,637,095	5,994,259
Europe and Central Asia	2,020,735	1,231,206	939,964
Latin America and Caribbean	3,467,791	3,811,255	4,348,790
Middle East and North Africa	1,356,450	1,530,308	1,290,987
South Asia	3,379,986	3,800,635	3,325,064
Global	8,177,827	6,396,118	4,712,816
Total	46,362,026	32,503,477	29,409,685

The following table provides details of the project disbursements by execution type.

Execution Type	For the fiscal year ended June 30, 2015	For the fiscal year ended June 30, 2014	For the fiscal year ended June 30, 2013
Bank Executed	25,522,545	24,681,429	22,112,026
Recipient Executed	20,839,481	7,822,048	7,297,659
Total	46,362,026	32,503,477	29,409,685

Note 5—Program Management and Administration Disbursements

Program management and administration expenses for the year ended June 30, 2015 were in the amount of \$5,395,535. In addition to the administrative fee paid to the Bank as trustee, the Program also pays for costs incurred to support the GFDRR Secretariat's program management and administration activities.

The following table provides details of the program management and administration disbursements by expense category.

Expense Category	For the fiscal year ended June 30, 2015	For the fiscal year ended June 30, 2014	For the fiscal year ended June 30, 2013
Staff Cost	4,243,240	3,120,199	3,420,682
Short Term Consultants/Temporary	567,940	854,002	144,812
Travel	313,746	502,030	98,345
Other Expenses	270,609	178,519	66,427
Total	5,395,535	4,654,750	3,730,266

Staff Costs included salaries and benefits for GFDRR staff and Extended Term Consultant and Extended Term Temporary.

Other Expenses included overhead expenses, contractual services (e.g. editing, graphic design, translation, publishing, and printing), representation, and hospitality.

Note 6—Refund to Donor

Refund to the Netherlands in the amount of \$1,050,767 was made during the fiscal year ended June 30, 2015 following the donor's early exit from TF070611 and TF070948.

The refunds were based on donor's share of the donor of the uncommitted balances of the two main funds at the time of exit.

Note 8—Undisbursed Commitments

Commitments in the amount of \$127,121,685 are outstanding as of June 30, 2015. These are the remaining balance of the funds that GFDRR has approved and committed to implementing units and recipients.

The following table provides details of undisbursed commitments by main fund.

Main Fund	As of June 30, 2015
Track II- SDTF-Spain (TF070806)	338,961
Track II-SDTF-Japan (TF070809)	1,617,009
Track II-SDTF-Australia (TF070807)	2,812,726
Track II-MDTF-South South (TF070952)	90,253
Track II-MDTF (TF070611)	41,364,961
Track III-MDTF-Callable (TF070868)	13,057,655
Track III MDTF - TA (TF070948)	1,296,541
Japan Program (TF072129)	20,509,895
Core MDTF (TF072236)	8,403,532
Africa Disaster Risk Financing (ADRF) SDTF (TF072281)	11,026,343
ACP-EU (TF071630)	26,603,810
Total	127,121,685

The following table provides details of undisbursed commitments by region.

Region	As of June 30, 2015
Africa	46,297,197
East Asia and Pacific	25,465,598
Europe and Central Asia	5,422,272
Latin America and Caribbean	10,464,446
Middle East and North Africa	1,952,895
South Asia	10,510,872
Global	27,008,405
Total	127,121,685

The following table provides details of undisbursed commitments by execution type.

Execution Type	As of June 30, 2015
Bank Executed	97,775,773
Recipient Executed	29,345,911
Total	127,121,685

Note 9—Uncommitted Fund Balance

Uncommitted fund balance in the amount of \$102,558,144 are outstanding as of June 30, 2015, which can be used to finance new operational grants, and program management and administration activities.

The following table provides the uncommitted fund balance by trustee.

Main Fund	As of June 30, 2015
Track II- SDTF-Spain (TF070806)	1,298,327
Track II-SDTF-Japan (TF070809)	593,794
Track II-SDTF-Australia (TF070807)	250,741
Track II-MDTF-South South (TF070952)	55,972
Track II-MDTF (TF070611)	4,789,052
Track III-MDTF-Callable (TF070868)	1,693,122
Track III MDTF - TA (TF070948)	1,591,997
Japan Program (TF072129)	25,948,015
Core MDTF (TF072236)	30,244,163
Africa Disaster Risk Financing (ADRF) SDTF (TF072281)	617,707
ACP-EU SDTF (TF071630)	35,475,253
Total	102,558,144

ANNEX 4: Acronyms

ACP–EU NDRR	Africa Caribbean Pacific–European Union National Disaster Risk Reduction
ADB	Asian Development Bank
ADRF	Africa Disaster Risk Financing Initiative
AUC	African Union Commission
BNPB	Indonesia’s National Board for Disaster Management
CAPRA	Central American Probabilistic Risk Assessment
Cat DDO	Catastrophe Deferred Drawdown Option
CCA	Climate change adaptation
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CG	Consultative Group
CKET	Connect Knowledge, Expertise, and Technology
CoP21	2015 United Nations Climate Change Conference aka the 2015 Paris Climate Conference
COSEFIN	Council of Ministers of Finance of Central America, Panama, and the Dominican Republic
CSS	Global Comprehensive School Safety Framework
DFID	United Kingdom Department for International Development
DIMSUR	Technical Centre for Disaster Risk Management, Sustainability, and Urban Resilience
DRFI	Disaster Risk Financing and Insurance
DRM	Disaster risk management
EU	European Union
GAR	Global Assessment Report
GDP	Gross domestic product
GFDRR	Global Facility for Disaster Reduction and Recovery
ICR	Inclusive Community Resilience
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
JP–WB PMDRM TF	Japan–World Bank Program for Mainstreaming Disaster Risk Management Trust Fund
KLL	Kathmandu Living Lab
M&E	Monitoring & evaluation
MASDAP	Malawi Spatial Data Platform
MDTF	Multi-Donor Trust Fund

MOU	Memorandum of Understanding
NASA	United States National Aeronautical Space Administration
NGO	Non-government organization
NMHS	National meteorological and hydrological services
OpenDRI	Open Data for Resilience Initiative
PCRAFI	Pacific Catastrophe Risk Assessment and Financing Initiative
PDNA	Post-disaster needs assessment
PREP	Pacific Resilience Program
REC	Regional Economic Communities
SDC-GPCC	Swiss Agency for Development and Cooperation's Global Program for Climate Change
SIDA	Structural Integrity and Damage Assessment
SPC	Segregated Portfolio Company
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UN-HABITAT	United Nations Human Settlements Programme
UNICEF	United Nations Children's Fund
UNISDR	United Nations Office for Disaster Risk Reduction
UR	Understanding Risk
USAID	United States Agency for International Development
WCDRR	Third United Nations World Conference on Disaster Risk Reduction
WISS	Worldwide Initiative for Safe Schools
WMO	World Meteorological Organization
WRC2	Second World Reconstruction Conference

Endnotes

- i These figures are based on targets outlined in GFDRR's Work Plan 2015-2017. The data is reported by implementing task teams that manage and execute GFDRR-supported grants in FY15.
- ii World Bank Group. 2013. Main report Vol. 1 of Building resilience: integrating climate and disaster risk into development—the World Bank Group experience. Washington DC; World Bank. <https://hubs.worldbank.org/docs/imagebank/pages/docprofile.aspx?nodeid=18513435>
- iii Ahmed, S., N.S. Diffenbaugh and T.W. Hertel. 2009. Climate volatility deepens poverty vulnerability in developing countries. Environmental Research Letters 4 (3).<http://iopscience.iop.org/1748-9326/4/3/034004/fulltext/>



www.gfdr.org The Global Facility for Disaster Reduction and Recovery (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 9 international organizations.