



Building Resilience to Disasters—Delivering Results

Global Facility For Disaster Reduction And Recovery **ANNUAL REPORT 2011**

# Building Resilience to Disasters— Delivering Results

GFDRR ANNUAL REPORT 2011



1818H Street, NW  
Washington, DC 20433, USA  
Telephone: 202-458-0268  
Facsimile: 202-522-3227  
Web site: [www.gfdrr.org](http://www.gfdrr.org)

# GFDRR Partners

Special thanks and appreciation are extended to the partners who support GFDRR's work to protect livelihoods and improve lives:



# ABOUT GFDRR

Since its establishment in September 2006, the Global Facility for Disaster Reduction and Recovery (GFDRR) has evolved into a partnership of 38 countries and seven international organizations that are committed to helping developing countries reduce their vulnerability to natural hazards and adapt to climate change. GFDRR's core mandate is to mainstream disaster risk reduction (DRR) and climate change adaptation (CCA) in country development strategies by supporting a country-led and managed implementation of the Hyogo Framework for Action (HFA)—an internationally agreed guideline to reduce vulnerabilities to natural hazards. As a multi-donor financial mechanism, GFDRR helps to coordinate international efforts to improve disaster resilience in key disaster hotspots throughout the world.

Housed in the World Bank, GFDRR provides grant financing and offers a range of disaster risk management analytical and advisory services that are directly impacting on the ability of high-risk, low income countries to understand and act on the hazards they face, and adapt to a changing climate. GFDRR divides its work program into three interlinked financing tracks that support disaster-prone countries, assist regional and international organizations and ensure sustainable recovery when disasters occur.

**Track I** works to enhance global and regional advocacy to promote the implementation of the Hyogo Framework for Action in partnership with the United Nations. This cooperation builds upon a joint annual work program, which is implemented by the UN International Strategy for Disaster Reduction (UNISDR), and financed by the World Bank's Development Grant Facility. Through its Track I partnership, GFDRR supports UNISDR system coordination and builds the disaster and climate risk management capacity of international and regional organizations throughout the world to help reduce risks from natural hazards.

**Track II** provides disaster prevention assistance to developing countries to mainstream and expand their disaster and climate risk management. This assistance is focused on 20 countries, based on their high vulnerability to natural hazards and low economic resilience. Two thirds of the countries are least developed countries and 12 are highly indebted poor countries; nine are from Africa and several others are small island states. In addition, 11 countries selected by donors are supported through dedicated single donor trust funds<sup>1</sup>.

**Track III** is the Standby Recovery Financing Facility which offers fast track assistance to developing countries to recover quickly in the aftermath of a disaster. Track III assists countries with post-disaster needs assessments (PDNA), enabling quick access to global expertise, building back better planning (that is, resilient reconstruction, the right sites and the right size) and financing livelihood and infrastructure rehabilitation activities.

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1. GFDRR focuses its work on 31 countries in total (focus countries). These include **20 priority countries**: Burkina Faso, Djibouti, Ethiopia, Ghana, Haiti, Indonesia, Kyrgyz Republic, Madagascar, Malawi, Mali, Marshall Islands, Mozambique, Nepal, Panama, Papua New Guinea, Senegal, Solomon Islands, Togo, Vietnam and the Republic of Yemen. In addition there are **eleven donor earmarked countries**: Bangladesh, Cambodia, Philippines, Vanuatu (earmarked by Australia); Lao People's Democratic Republic (Lao PDR), Pakistan and Sri Lanka (earmarked by Japan); Colombia, Costa Rica, Ecuador and Guatemala (earmarked by Spain).

# Member Pledges/Contributions (in US\$)

From its inception in 2006 up to October 31, 2011, the Global Facility for Disaster Reduction and Recovery (GFDRR) has received US\$320 million in pledges and contributions from the following donors:



Australia  
\$28,623,648



Brazil  
\$1,750,000



Canada  
\$3,113,010



Denmark  
\$13,177,597



EU  
\$88,496,626



France  
\$1,536,130



Germany  
\$14,270,660



Ireland  
\$674,450



Italy  
\$8,494,638



Japan  
\$12,000,000



South Korea  
\$900,000



Luxembourg  
\$7,461,236



The Netherlands  
\$6,600,000



Nigeria  
\$500,000



Norway  
\$10,656,728



Spain  
\$12,234,733



Sweden  
\$26,388,911



Switzerland  
\$7,948,984



United Kingdom  
\$45,423,658



United States  
\$3,040,000



The World Bank  
\$28,500,000

Finland, France, Italy, Norway, Sweden and Switzerland are also supporting special assignments of international disaster risk reduction experts in the GFDRR Secretariat in Washington DC and Geneva. The ACP/EU Natural Disaster Risk Reduction Program made a contribution of Euro 59.5 million. Sweden's Ministry of Foreign Affairs made a contribution of SEK 35 million in 2010-11. Dollar conversion varies due to exchange rate fluctuation until funds are booked and deposited into GFDRR accounts.

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Notes: Fiscal Year (FY) runs from July 1 to June 30; the financial expenditures reported are reflected up to June 30, 2011; the financial contributions reported are reflected up to October 31, 2011; all dollar amounts are in US dollars (\$) unless otherwise indicated.



Part I

# Foreword

# Letter from the World Bank



You may not know who Jeanne Bousiko is, but the 72 year old Haitian grandmother certainly knows about the work of GFDRR. It has profoundly impacted her life. Jeanne Bousiko's home was one of the 400,000 houses assessed after the devastating Haitian earthquake of 2010, to determine if they were still livable—hers was.

Within weeks Jeanne was able to return home with her six children and grandchildren, because of the GFDRR initiative.

While human casualties are the most tragic pictures to emerge when natural hazards strike, there are less visible effects of disasters which are just as devastating and need long term countermeasures—all those things that happen outside that brief moment a country is in the spotlight of international media attention. When schools collapse during an earthquake, there is not only the immediate risk to those who may be trapped inside—the disaster can also deal a severe long term blow to a country's education system. Following the earthquake in Haiti, the loss of over 4,000 schools and more than 1,000 teachers as well as staff at the Ministry of Education compounded pre-earthquake problems such as a shortage of schools, trained teachers and effective governance mechanisms. Managing the risks of natural hazards and preventing disasters is critical to sustainable development. Protecting development gains is indispensable to achieving the Millennium Development Goals.

Celebrating its five year anniversary, this is a time for reflection for the Global Facility for Disaster Reduction and Recovery (GFDRR). Since 2006 it has established itself as a leading mechanism

to support the implementation of the Hyogo Framework for Action, the global blueprint for disaster risk reduction, and to assist countries in minimizing the risks of natural hazards. As a center of excellence housed inside the World Bank, GFDRR—a partnership of 38 countries and seven international organizations—helps to ensure that disaster risk management becomes a core consideration of all development work. As a global partnership, it brings the long term development perspective to assessing the needs for sustainable recovery and reconstruction in the aftermath of a disaster.

This report highlights the results of fiscal year 2011, but also documents the impact of some of the major achievements over the last five years. As you will read, those achievements are not just recorded in numbers or statistics, but also in the impact on human lives and communities. They range from early warning systems supported by GFDRR, to innovative risk financing instruments, to climate adaptation mainstreaming in country assistance strategies.

The work of the last five years showed the importance of partnerships at all levels, from the global to the local, in developed and developing countries alike. As permanent co-chair of the Consultative Group, I look forward to help lead this partnership in order to meet the challenges of the next five years.

A handwritten signature in black ink, appearing to read "rachel kyte".

Rachel Kyte  
Vice President Sustainable Development  
The World Bank  
Chair, Consultative Group, GFDRR

# Letter from the Co-chair of the Consultative Group of GFDRR



As co-chair of the Consultative Group of the Global Facility for Disaster Reduction and Recovery, I am pleased to commend this 2011 annual report to readers who engage with disaster and climate change risk in a range of capacities. This report provides insights into the diverse

world of disaster risk reduction and demonstrates the considerable progress that, in the relatively short time that it has been in operation, GFDRR has made in helping countries and other partners implement the Hyogo Framework for Action.

This report shows how GFDRR's use of the leveraging power of the World Bank is starting to bear fruit. This is manifest in the incorporation of disaster risk reduction and climate adaptation into the planning frameworks of priority countries, the increasing numbers of risk assessments being conducted, more sophisticated early warning systems, the development of risk financing instruments and education outreach programs.

Australia recognizes the work undertaken—at the request of the Consultative Group—to provide concrete evidence of results arising from the financial investment of donors and the wide range of contributions that so many other collaborators have made to the Facility's work. It is encouraging to read that the end users of disaster risk reduction, people whose lives, families, assets and communities are at risk from natural hazards, have been made less vulnerable as a result of GFDRR initiatives. The report provides numerous and varied examples

of how this is happening across the globe. Australia is pleased to be part of this effort in its collaboration with GFDRR in priority countries like Indonesia and the Philippines.

The annual report also highlights GFDRR's ability to mobilize expertise from around the world and respond in real time to disaster-stricken countries with needs assessments. Australia has been pleased to support a number of post-disaster needs assessments and we appreciate the training in needs assessment methodologies that GFDRR delivered to the Australian Civilian Corps and AusAID staff this year. It is encouraging to read in this report that needs assessments conducted in Haiti for example, will be helping to guide the reconstruction effort.

The GFDRR results framework on show in this report tells a story of achievement but also highlights how much more needs to be done. I am sure that all Consultative Group members will join me in congratulating GFDRR on this report but will also be looking to GFDRR and all its partners in the International Strategy for Disaster Reduction secretariat to work together even more closely in the future to build a world community more resilient to natural hazards.

A handwritten signature in black ink that reads "Alan March". The signature is fluid and cursive, with a distinct "A" and "M".

Alan March  
AusAID Assistant Director General and  
Australian Humanitarian Coordinator  
Co-chair Consultative Group, GFDRR

# Letter from the UN International Strategy for Disaster Reduction



In conversation recently with the chairman of Lebanon's Council for Reconstruction and Development, Nabil El-Jisr, he told me that he once lived in a new building where everything worked smoothly for about three years until the day the elevator broke down. He eventually learned that the landlord had stopped paying for its maintenance as "it was a waste of money because the elevator never gave any problem."

It was an aptly chosen metaphor to underline the importance of risk reduction, by a man who oversees 80 percent or more of the public investment in one of the most heavily urbanized countries in the world and in a capital city, Beirut, which was once destroyed by an earthquake and a tsunami.

Those events happened so long ago that the last time a major earthquake threatened Beirut people ran to the beach for safety. Tragic events like the East Japan and Haiti earthquakes remind us that we forget basic lessons about disaster risk reduction at our own peril.

That is partly why the remaining four years of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA) is so critical if we are to bring about a permanent change in attitudes and meet the overarching HFA objective of a "substantial

reduction of disaster losses, in lives and in the social, economic and environmental assets of communities and nations."

As the UN office responsible for disaster reduction, UNISDR is tasked by the UN General Assembly with supporting HFA implementation. Over 130 countries are now reporting on their HFA implementation in the HFA Monitor providing us with the clearest insight yet into the state of disaster risk reduction worldwide. This together with the creation, so far, of 38 national disaster loss databases shows that there is growing political commitment to the HFA priorities.

However, much remains to be done and the UNISDR partnership, including the Global Facility for Disaster Reduction and Recovery which finances best practice and mainstreaming of disaster risk reduction, is galvanizing itself to meet the "maintenance" challenges of a world which has yet to understand fully that integrating disaster risk reduction into development planning is as essential to poverty alleviation as it is to reducing loss of life in disasters.

I can only emphasize, invest today for a safer tomorrow.

A handwritten signature in blue ink that reads "Wahlstrom".

Margareta Wahlstrom  
Special Representative of the United Nations  
Secretary General for Disaster Risk Reduction



## ABOUT THIS ANNUAL REPORT

This year's annual report features a detailed analysis of the cumulative impact and results GFDRR has achieved over the five-year period since its inception in 2006. Based on advice received from its Consultative Group (CG) over the last year, the analysis presented in this annual report incorporates evidence-based and anecdotal "results stories" during the 2006-11 period, collected and compiled by various regional disaster risk management teams, country offices and GFDRR staff.



Part II

# Results At A Glance

Building resilience in communities and nations—both today and for tomorrow—is and will remain essential to reduce risks to human life, as well as to protect social and economic development gains. Reducing the risk of humanitarian crisis by strengthening resilience is a prerequisite for sustainable development and the achievement of the Millennium Development Goals.

# GFDRR Highlights 2006-11

GFDRR's interventions towards mainstreaming and institutionalization of the disaster risk reduction agenda in its focus countries, and towards sustainable and resilient recovery in post-disaster countries, are beginning to reap dividends in the form of leveraging tangible and sizeable investments towards community risk and vulnerability reduction in these countries. These investments in turn are increasingly influencing and complementing the impact of longer-term country development agendas, particularly by increasing community resilience and reducing poverty through increased disaster safety and improved access to social services, productive infrastructure and livelihood generation opportunities.

The following are the highlights of some of the immediate results and longer-term impacts for GFDRR between 2006 and 2011. Evidence in the form of analyses and case studies can be found in the 'Delivering Results—The Best of GFDRR' chapter. Further, the GFDRR Results Scorecard (Annex Page 76) presents quantitative results per GFDRR's Results Framework in light of the 2011 targets.

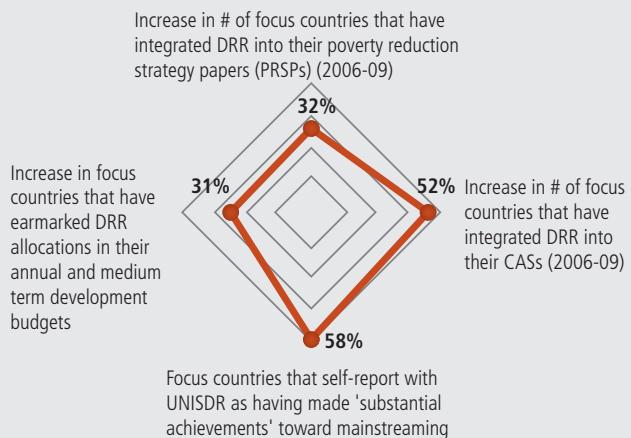
## 1 . DRR MAINSTREAMING AT THE COUNTRY LEVEL

GFDRR has significantly contributed towards the disaster risk reduction (DRR) mainstreaming objective of 'ensuring that DRR is a national and local priority with a strong institutional basis for implementation' in 13 (42 percent) out of its 31 focus countries. These include Bangladesh, Ethiopia, Guatemala, Haiti, Madagascar, Malawi, Pakistan, Panama, Philippines, Senegal, Togo, Vietnam, and Yemen.

Eighteen (58 percent) out of 31 focus countries have increased the level of DRR mainstreaming in their country assistance strategies (CAS)<sup>2</sup> since 2006. GFDRR reviewed 14 of these 18 CASs.

**39% of GFDRR focus countries have made significant progress towards the HFA priority of "ensuring that disaster reduction is a national and local priority with a strong institutional basis for implementation"**

### Country Performance for Focus Countries

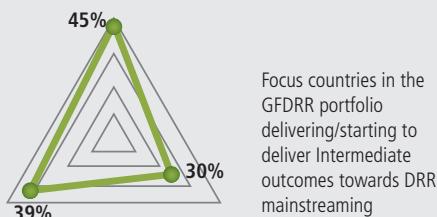


2. The country assistance strategy (CAS) is the key document that guides World Bank policy and operational engagement at a country level. As part of its broader role as disaster risk management anchor, GFDRR provides expert feedback and advice to regional and country teams at different stages of the development of new CASs. This review process is recognized as a cornerstone of the DRR mainstreaming agenda in the World Bank, and an important precursor to investment decision-making. To monitor mainstreaming progress, GFDRR reviews all new World Bank CASs and scores each based on set criteria for levels of mainstreaming.

**GFDRR has made significant contributions in 42% of its focus countries towards the HFA priority of “ensuring that disaster reduction is a national and local priority with a strong institutional basis for implementation”**

● GFDRR Contribution Toward Focus Countries

Focus countries where GFDRR’s contribution led to DRR Integration into CAs



Some examples of such ground level impact through the GFDRR Country DRR Mainstreaming Program (Track II Operations) include the following:

**Risk Assessment:** 14-15 million people are benefiting from their governments' increased access to data and improved risk management capacity as a result of national risk assessments facilitated by GFDRR.<sup>3</sup> Seventeen (55 percent) focus countries have carried out risk assessments with GFDRR support to underpin their risk reduction strategies. For example, 850,000 Colombians could benefit from GFDRR technical assistance in risk assessments.

**Risk Financing:** 11.4 million people are the potential beneficiaries of their countries' strengthened financial resilience to natural hazards. For example, in India, more than two million farmers received indemnity payments after localized droughts. GFDRR has engaged in active dialogue with governments on disaster risk financing and insurance in seven (23 percent) focus countries. Similarly, GFDRR introduced innovative risk financing strategies in three (10 percent) focus countries since 2006. GFDRR has also significantly contributed in other countries in this area.

- In Malawi, Marshall Islands, Mozambique, Nepal and Senegal, risk assessments have been completed and in Bangladesh, Costa Rica, Ghana, Madagascar and Yemen, these are nearing completion. Also risk assessments are at various stages of completion in Colombia, Ecuador, the Kyrgyz Republic, Lao PDR, Mali, Philippines, Sri Lanka and Vietnam.
- The risk assessment in Mozambique resulted in three outcomes: 1) A Drought and Flood Risk Atlas was prepared to display the risk distribution across geographical areas and administrative zones; 2) it informed disaster management planning; and, 3) it contributed to raising awareness of disaster risk management issues in-country.

3. The downstream impacts of GFDRR's interventions, reported in the above section, are based on preliminary desk-based review and analyses of information and data collected through various reliable internal and external sources, such as the World Bank Project Portal and the Donor Aid Database. However the assumptions, parameters and performance criteria used for arriving at these numbers currently reflect GFDRR's recently devised methodology for such downstream impact assessment, and may be subject to further, and in cases more rigorous corroboration through other validation techniques, such as triangulation and field verification planned in the next upcoming phase of results measurement by GFDRR, as advised by its Consultative Group.

- In Guatemala, following Tropical Storm Agatha, the government of Guatemala was able to provide immediate help to almost 400,000 people, thanks to the \$85 million Catastrophe Deferred Drawdown Option (Cat DDO) signed in 2009.
- The Costa Rican government drew down \$24 million of the Cat DDO to rebuild damaged infrastructure after a 2009 earthquake that affected more than 120,000 people.

**Early Warning Systems:** By conservative estimates, ongoing and recently initiated early warning system programs directly sponsored by GFDRR are expected to reduce disaster losses by over \$200 million and save between 400-500 lives in five of GFDRR's focus countries. Eighty-four percent of focus countries have now made investments in strengthening their early warning systems, up from 26 percent in 2006. Fourteen (45 percent) focus countries have early warning systems supported by GFDRR.

- GFDRR has designed and leveraged the Central Asia Hydromet Modernization Project whose main beneficiary countries are Kyrgyzstan and Tajikistan. The project also aims at integrating the National Meteorological and Hydrological Services (NMHSS) modernization into broader development frameworks, including for disaster risk management.
- In Ghana, GFDRR is supporting the development of the "Flood, Disaster Prevention and Water Resources Management Project" to strengthen weather and hydrological agencies.

**Urban Planning:** In GFDRR focus countries around three million urban dwellers are expected to be less vulnerable to natural disasters due to integrated urban disaster risk management programs supported by GFDRR. GFDRR has significantly contributed in three (10 percent) focus countries towards disaster risk management

in urban development. For example, over 700 buildings in Turkey are seismically more resilient through GFDRR-supported technical assistance. Besides this, GFDRR has also supported four (13 percent) countries in flood mitigation measures.

**Climate Adaptation Mainstreaming:** Twelve (39 percent) out of 31 focus countries have increased the level of climate adaptation mainstreaming in their country assistance strategies (CAS). GFDRR reviewed nine of these 12 CASs. Some examples of GFDRR impact in the climate change adaptation space are the reduction in the scope of uncertainty facing decision-makers in North Africa's coastal cities and the open access to an unprecedented level of country disaster risk data that GFDRR helped provide via the Country Climate Risk and Adaptation Profiles.

The results highlighted above demonstrate how disaster risk reduction capacity building and institutionalization can lead to sustained multiplier impacts through downstream investments.

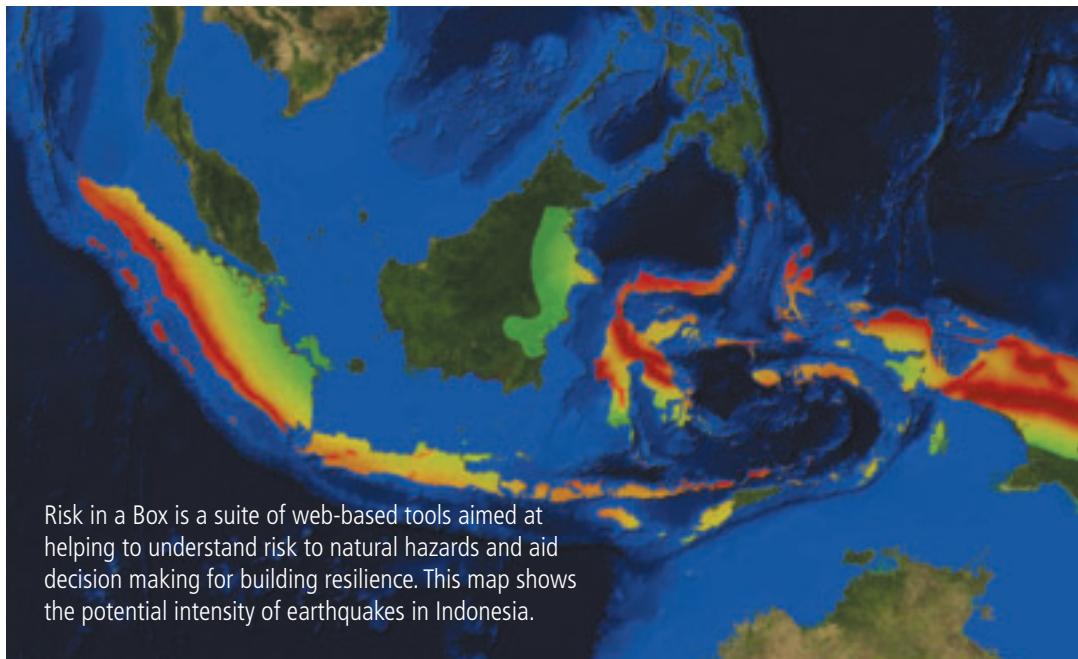


#### Nepal School Thanks GFDRR for Helping Reduce its Seismic Vulnerability

GFDRR has supported or developed seven knowledge products on among other things, safe schools and hospitals, from which four were developed in focus countries. Nepal, has institutionalized safe schools programs with GFDRR support.

**Opening Up Data:** Building upon the World Bank's Open Data Initiative, GFDRR is developing the Open Data for Resilience Initiative (OpenDRI). Sharing data and creating open systems promotes transparency and accountability, and ensures that a range of actors are able to participate in the challenge of building resilience. Through OpenDRI, GFDRR is currently implementing these

ideas in 25 countries around the world. GFDRR is also developing innovative products to ensure the information shared as part of these activities is targeted towards reducing vulnerability. For example, the Risk in a Box project in Indonesia facilitates community-level risk assessments to support resilient decision making.



## 2. SUSTAINABLE AND RESILIENT RECOVERY

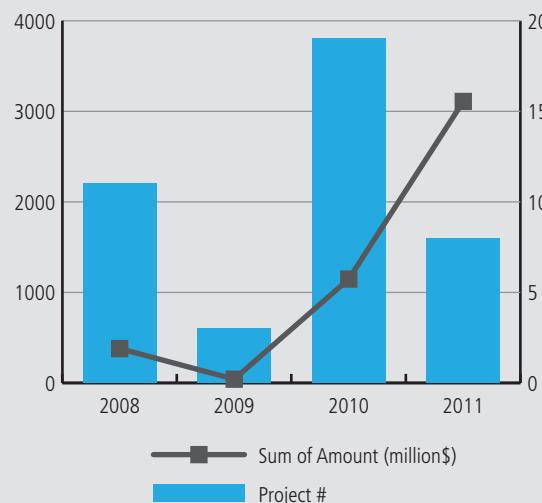
There are many examples of how GFDRR's Standby Recovery Financing Facility (SRFF—Track III of its operations) has helped disaster-affected communities rebound and recover from the devastating impacts of the string of natural disasters that have in particular hit the developing world very hard in recent years. Post disaster needs assessments (PDNAs) facilitated by the SRFF are becoming the cornerstone of reconstruction and recovery efforts in delivering a coordinated system of international assistance, financing strategies, program planning and implementation for disaster-affected countries.

GFDRR's Standby Recovery Financing Facility has assisted 45 disaster-hit countries in assessing medium- and longer-term disaster impacts and recovery needs for sustainable recovery. Since FY2008, there has been a threefold increase in demand for GFDRR involvement in post-disaster recovery operations.

In almost 90 percent of GFDRR-supported post-disaster countries in FY2010-11, there is evidence to suggest that recovery assessments are leading to programs and projects for strengthened recovery preparedness, compared to 67 percent of such countries in earlier years.

## RECOVERY IMPACT

- Since 2007, more than 25 disaster-hit countries have used GFDRR-supported PDNAs to leverage upwards of \$5 billion in social sector recovery investments and transport infrastructure alone. These investments are estimated to have helped reconstruct 1.7 million homes, 600 health facilities and 2,300 schools. As a result, this has permitted the return of some eight million displaced people to their homes and restored health and education services to around three million people.



- Donor investments of \$4 million in Track-III (SRFF) have leveraged over \$4.6 billion investment by the World Bank in 40 medium and long-term recovery projects. In a sample 22 World Bank projects, nearly 70 million people in 12 countries are expected to benefit from the recovery investments. These people will have benefited through recovery interventions in sectors such as housing, water and sanitation, physical and social infrastructure, agricultural productivity, education and livelihood support, such as cash-for-work. Moreover, these projects aim to allow 3600 kilometers of roads, 685 safe shelters and 1400 wells with hand pumps to live up to disaster resilient standards.
- SRFF has, along with its partners, become the single, largest provider of training activities for disaster risk management professionals. From 2007 to 2011, SRFF has offered 169 training and learning events, reaching more than 14,400 policy makers and technical experts who shape national development policies and risk reduction measures.

In five priority countries, where PDNAs have been conducted, more than \$9 million from GFDRR was leveraged for mainstreaming activities.

GFDRR support for disaster recovery goes well beyond assessment. In multiple countries, GFDRR and World Bank experts have actively supported governments in developing recovery programs and leveraging disaster risk reduction in existing development plans and projects. In 70 percent of the cases reviewed, countries are using post disaster needs assessments as a basis to develop recovery frameworks to guide and manage the overall process.

### 3. GLOBAL AND REGIONAL PARTNERSHIPS

As disasters by their very nature do not stop at national borders, neither should prevention and mitigation efforts. Engaging regional actors helps to translate such global commitments as the Hyogo Framework for Action (HFA) into national action plans. Through the UNISDR-GFDRR partnership, four of the World Bank's six regions now have a DRR/CCA focal point. Over 20 regional and sub-regional strategies, policies and action plans on disaster risk management are in place throughout the world. An increasing number (14) of regional organizations have dedicated disaster risk management experts or units to support member countries.

GFDRR has ensured significant growth and diversification of its partnership, financing base and governance structure, with CG membership growing sevenfold since inception.



Flagship initiatives such as the World Bank/UN report, *Natural Hazards, UnNatural Disasters: the Economics of Effective Prevention*, and the first ever World Reconstruction Conference have made a significant impact towards driving evidence-based disaster risk reduction and a strengthened international commitment towards developing an effective recovery and reconstruction framework.

The next chapter “Delivering Results—the Best of GFDRR” will fill in the details of the snapshots of GFDRR’s and its partners’ work described here.

**Support is being provided to regional institutions to build networks or mechanisms for disaster risk reduction data and/or knowledge sharing.**

- In Africa, cooperation with the Intergovernmental Authority on Development (IGAD) Climate Prediction and Applications Center is improving the ability to use regional modeling techniques to assist in the development of country-level adaptation and climate-risk-management programs. This support is being further scaled up in response to the 2011 drought in the Horn of Africa. The Intergovernmental Authority on Development has requested further support from GFDRR to develop a regional strategy to identify key needs for disaster risk management and a system for coordinating recovery and building resilience.
- Another example of partnerships leading to tangible programs that are designed to deliver impact is the launch of the Africa, Caribbean and Pacific-European Union (ACP-EU) Partnership which aims to reduce vulnerability and exposure, improve the resilience of ACP countries to the impact of natural disasters and ensure better preparedness of the populations in disaster-prone areas.

## Part III

# Delivering Results— The Best Of GFDRR



The goal of this chapter is to capture the breadth and depth of the results of GFDRR's work in countries and regions. GFDRR results have been captured through four lenses: (1) mainstreaming disaster risk reduction, (2) sustainable and resilient recovery, (3) regional cooperation and (4) evidence-based advocacy and learning.

The results documented here are not only analyzed through percentages or aggregate numbers, but also by illustrating the impact on human lives and vulnerable communities.

# Results Section 1: Mainstreaming Disaster Risk Reduction

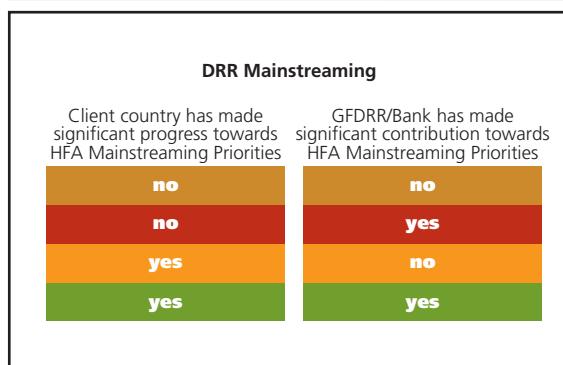
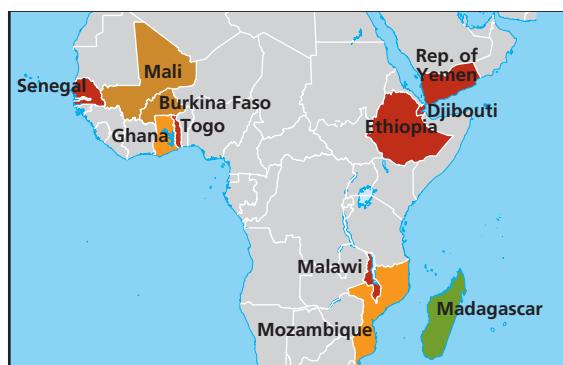
## Introduction

According to the 2010 independent evaluation of the Global Facility for Disaster Risk Reduction and Recovery<sup>4</sup>, GFDRR has contributed significantly to mainstreaming disaster risk reduction at the national level through its country programming portfolio. Overarching disaster risk reduction considerations that have been integrated into World Bank country assistance strategies or national development plans have provided a basis for national governments to take ownership of their disaster risk reduction mainstreaming priorities. The evaluation also noted that GFDRR has made contributions to the broadening of awareness, the integration of disaster risk reduction into planning and the building or strengthening of networks. In addition, it pointed out that GFDRR is viewed as a very effective development partner. Following are highlights and results of GFDRR's work in helping to mainstream disaster risk reduction.

## Performance Features and Milestones Achieved over 2010–11

In FY2011, GFDRR has continued to scale up its program interventions at the regional and country levels to elevate disaster risk management as a key focus for policy makers, governments and practitioners, building demand for more targeted country disaster risk management programs, particularly in high-risk, low- and middle-income countries. The Results Maps show some of the key results at the country level of GFDRR's efforts to mainstream disaster risk reduction.

### GFDRR DRM MAINSTREAMING RESULTS MAPS



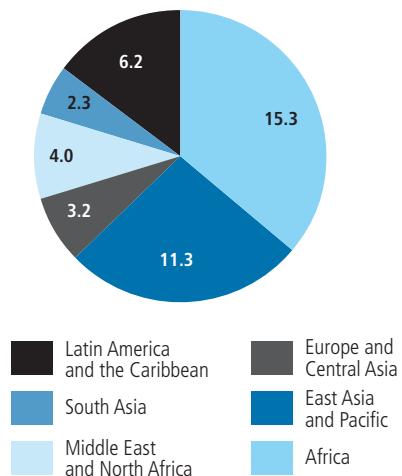
4. Source: Universalia, 2010

## GFDRR's Overall Results for Disaster Risk Reduction Mainstreaming and Institutionalization in its Focus Countries

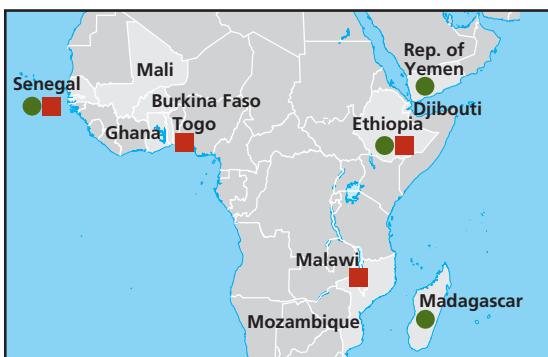
GFDRR's results-based analysis reveals that GFDRR has satisfactorily contributed towards the disaster risk reduction mainstreaming objective of "ensuring that disaster risk reduction is a national and local focus with a strong institutional basis for implementation" in 13 of the 16 focus countries it had targeted to achieve such impact by the years 2010–11. The analysis also reveals that 39 percent of GFDRR's focus countries have made significant progress towards the DRR mainstreaming objective stated above. This progress is manifested in the increase in the percentage of focus countries with substantial disaster risk reduction mainstreaming from 6 percent in 2006 to the current value of 39 percent.

Some highlights of GFDRR's work in disaster risk reduction mainstreaming and institutionalization from FY2011 are illustrated in the pages that follow.

GFDRR DRR Mainstreaming Support to Regions in US\$ million, 2010-11



### GFDRR DRM MAINSTREAMING RESULTS MAPS



- GFDRR Portfolio contributed significantly to DRR Mainstreaming
- World Bank Portfolio contributed significantly to DRR Mainstreaming

# RISK ASSESSMENTS

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Disaster and climate risk assessments are a foundation of decision-making in the public sector (e.g. land use planning), private sector (e.g. location of a factory) and the non-profit sector (e.g. targeting of vulnerable groups). Quantifying risk and expected future losses is not only the first step in any disaster risk reduction program but the outputs and scenarios of a risk assessment contribute to structuring overall development project and options. GFDRR supports the development of risk assessments in a number of ways, including through technical assessments, development of guidelines for governments, and supporting the opening up of data on natural hazards and risks through different platforms.

55% of GFDRR's Focus  
Countries have carried out  
systematic disaster risk  
assessments with support  
from GFDRR to underpin risk  
mitigation/reduction strategies

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In the case of risk assessments, both country performance and GFDRR contribution have seen a marked increase since 2006, with 21 focus countries now meeting the performance criteria set for this indicator, compared to four in 2006. The results above show that GFDRR has helped countries to make significant progress on certain fronts, such as the institutionalization of risk assessment tools in its focus countries. Examples of success achieved and lessons learned follow.

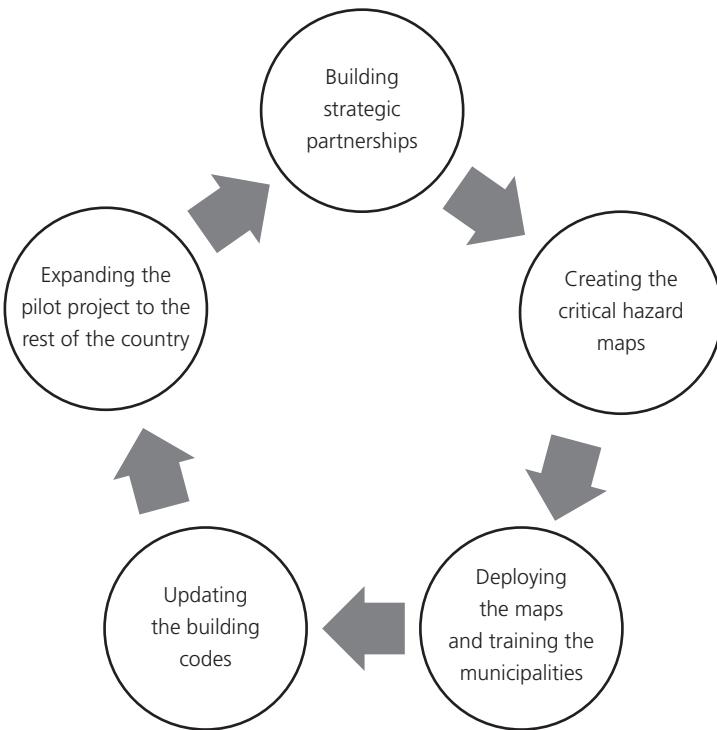
## **FOCUS:**

### **Guatemala: Building Resilience through Effective Land Use Planning**

Between 2008 and 2011, the government of Guatemala partnered with GFDRR and the World Bank to achieve key priority actions to make structured land use planning possible at the municipal level. A \$730,000 grant was used to generate scientific information, including hazard maps, on natural hazards and disaster risk in four different watersheds at permanent risk of floods and landslides. Land use planning is delegated by the national government to the municipalities. However, until recently, none of the country's 333 municipalities had access to information that would enable them to make informed decisions about land use planning while including disaster risk reduction measures.

## **IMPACT:**

- The generated information has been used to train decision makers from 12 pilot municipalities in disaster risk management-informed land use planning;
- Supporting the updating of the building code for Guatemala—in June 2011, the National Commission for Prevention and Risk Reduction approved the building code, which must now be applied to all new construction in the country.



*"It is important to have scientific information, so that decision makers do not increase the vulnerability of new settlements by placing them in hazard-prone areas instead of promoting preventive land use planning."*

—Rodolfo Chang, Mayor of Santa Lucía Cotzumalguapa, Guatemala

## QUICK FACT: A UNIQUE PARTNERSHIP FOR DRR/CCA

The work in Guatemala was accomplished through unprecedented multi-institutional and cross-sectoral cooperation among the following entities:

- Vice-Presidency of Guatemala
- Executive Secretariat of the National Coordinator of Disaster Reduction (SE-CONRED)
- Ministry of Environment and Natural Resources (MARN)
- Ministry of Agriculture (MAGA)
- Secretariat of Planning and Programming (SEGEPLAN)
- National Institute of Seismology, Volcanology, Meteorology and Hydrology (INSIVUMEH)
- National Geographic Institute (IGN)
- A number of consultants, as well as municipality leaders and community members



# RISK FINANCING

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GFDRR has supported development and application of unique risk financing instruments and has helped to develop market-based products, as well as worked with governments to adopt innovative risk financing frameworks.

Government dialogue has been initiated on risk financing mechanisms in 23% of GFDRR focus countries. 10% of focus countries have adopted innovative risk financing frameworks

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In Disaster Risk Financing and Insurance (DRFI), GFDRR has introduced or leveraged innovative work and/or knowledge products in 16 focus countries (52 percent). However, engagement of governments in active dialogue on risk financing has happened in only seven focus countries (23 percent). Similarly, GFDRR has been able to introduce innovative risk financing strategies in three focus countries (10 percent) since 2006. However, GFDRR has also been able to significantly contribute in non-focus countries in this area.

## **FOCUS:** India Crop Insurance— Developing Market-based Products

The vast majority of India's 116 million farms cultivate rain-fed crops and are particularly vulnerable to the vagaries of the Indian monsoon. An international disaster database estimates that 350 million people were affected by drought in the 10-year period ending in 2009. In this context, agricultural risk management products, particularly for small and marginal farmers, are

of critical importance. The National Agriculture Insurance Scheme of India is the largest in the world, benefiting 25 million people—yet 85 million farmer households are not covered. Issues in design, particularly related to delays in claims settlements, have contributed to the low coverage.

The government of India, through the Agriculture Insurance Company of India (AICI) requested technical assistance from the World Bank to create a modified crop insurance program, to improve equity, risk mitigation and claim settlements for farmers. GFDRR provided a critical component of this technical assistance that ultimately resulted in the launch of the Modified National Agriculture Insurance Scheme (MNAIS) with improved design, delivery and sustainability.

Under the technical assistance funded by GFDRR, prototype actuarial software was developed and intensive technical capacity building undertaken. This made the implementation of the MNAIS possible, featuring improved product design and rate-making based on sound actuarial principles. In addition, these actuarial and risk assessment tools were used as part of a policy dialogue with the government on the fiscal impact of agricultural insurance. In September 2010, the government of India approved the MNAIS, reflecting the suggestions generated from the technical assistance support—moving from a social crop insurance scheme to a market-based



crop insurance program involving the private insurance and reinsurance industry. The MNAIS was approved as a pilot in 50 states.

### **IMPACT:**

- For the 2010–11 spring (Rabi) harvest, more than 300,000 farmers benefited from the modified scheme;
- This number is anticipated to increase to 400,000 for the 2011 autumn (Kharif) harvest, with a total sum insured in excess of one billion rupees;
- In the longer term, it is expected that the MNAIS will increase benefits for millions of farmer clients covered under the original scheme, and, its better product design and delivery can be expected to lead to far greater coverage of the insurance program;
- The MNAIS was recently recognized for its innovative approach to contributing to farmer risk mitigation in 2011, through an Innovation Fund award, an initiative of the World Bank Institute.

### **FOCUS:**

#### **The Philippines: Innovative Financing Improves Rapid Response Capability to Disasters**

The Philippines is one of the most disaster-prone countries in the world, with annual damages amounting to 0.7 percent of gross domestic product (GDP) per year and deaths averaging 1,000 per year. Limited government budgets are the main source of post-disaster funding. Following the 2009 typhoons, the government decided to take a more proactive approach to disaster risk management.

*"This financing support will help ensure that affected populations, especially the poor who are the most vulnerable, receive adequate assistance as soon as possible after a disaster, and that important infrastructure facilities are restored a lot quicker, thus minimizing social and economic dislocation in affected communities."*

—Philippines Finance Secretary Cesar Purisima

In 2010, GFDRR extended analytical support to formulate a disaster risk financing strategy that aims to reduce the fiscal burden arising from the increasing costs of disasters.

In September 2011, the government of the Philippines signed an agreement with the World Bank to establish a \$500 million contingent loan facility or CAT-DDO. The placement of the Disaster Risk Management Development Loan with a Catastrophe Deferred Drawdown Option (CAT-DDO) built on the expert findings of the disaster risk financing study and the dialogue on risk financing that the study opened with the government.

This innovative financial instrument will provide rapid liquidity in the event of a disaster. The facility represents the culmination of a broader program of technical support to the government in advancing disaster risk management, for which GFDRR extended analytical and financial support.

### **IMPACT:**

#### **The CAT-DDO:**

- Opened the policy dialogue on disaster risk management with the government of the Philippines;
- Provides an affordable source of contingent credit for the government to finance recurrent losses caused by natural disasters;
- In addition to the Philippines, this financial instrument contributes to the resilience of six Latin American countries, including Colombia, Costa Rica, El Salvador, Guatemala, Peru and most recently Panama;
- Across all active CAT-DDO operations financed by the World Bank, a combined \$259 million has been drawn down to respond to disasters



**BOX #1:**  
**Building Blocks for Disaster Prevention**

In October 2009, following the devastating impacts of Tropical Storm Ondoy and Typhoon Pepeng, the government of the Philippines jointly with the World Bank and with support from GFDRR and partners, including the Asian Development Bank (ADB), the Australian Agency for International Development (AusAID), and the Japan International Cooperation Agency (JICA), undertook a post-disaster damage and needs assessment. The PDNA was followed by the development of a flood management master plan for Metro Manila to build the resilience of surrounding areas for future flood events. GFDRR is supporting the plan through a \$1.65 million grant in collaboration with AusAID and JICA. A GFDRR grant for \$500,000 was also approved in 2011, to support follow-on measures recommended by the PDNA.

# EARLY WARNING SYSTEMS

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The importance of weather, climate and hydrological information is growing in order to serve more elaborate societal needs, minimize growing economic losses from natural hazards and help in adaptation to climate change.

Responding to this need, in spring 2011 GFDRR launched a program on strengthening weather and climate information and decision-support systems (WCIDS).

**84% of focus countries have now made investments in strengthening their early warning systems, up from 26% in 2006. 45% of focus countries have these systems supported by GFDRR**

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## Work in Progress

The WCIDS program aims to help the World Bank and its client countries in three ways: (i) by providing analytical support and knowledge management of weather and climate information systems and services; (ii) by building capacity and providing technical assistance to World Bank teams through workshops, training sessions and advisory services; and (iii) by facilitating portfolio development and operations in focus countries.

## FOCUS:

### Hydrometeorology Modernization Project in Central Asia Initiated to Improve Early Warning Systems

GFDRR provided support in FY2011 for preparatory work associated with developing a regional cooperation program for modernization of hydromet services in Central Asia. Kazakhstan, Kyrgyz Republic, Tajikistan and Uzbekistan are participating in this project. This \$27.7 million project consists of country-level activities (investments and capacity building) as well as joint activities to be undertaken by a regional institution. This initiative responds to the need for improving severe weather warnings in terms of their accuracy, timelines and communication. It will develop recommendations and prioritization of improvement of weather and climate information service delivery to national users, and strengthen regional coordination and information sharing.

## IMPACT:

The expected results from this project include the following:

- Improved quality of weather and climate services in Central Asia, better forecasts and early warnings and better integration of a weather and climate information decision-support system in disaster risk management;
- Reduced economic losses related to weather/climate events;
- A more effective partnership among the national hydrometeorological services of Central Asia;
- Modernizing basic infrastructure of hydromet services, institutional strengthening, capacity building and orientation towards service provision.

# DEVELOPMENT PLANNING

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GFDRR supports design and implementation of programs to help reduce the vulnerability of communities and cities that face increasing exposure due to rapid and uncontrolled urbanization in hazard-prone areas. GFDRR supports cities to develop and implement disaster risk reduction plans as an integral element of their sustainable development agenda.

10% of GFDRR focus countries have integrated disaster risk management in urban development planning of one or more cities

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GFDRR helps to develop urban planning which reflects the risks of earthquakes and promotes earthquake resistant design for infrastructure, buildings and houses in urban areas.



## **FOCUS:**

In Turkey, over 700 Buildings are Seismically more Resilient through GFDRR-supported Technical Assistance

Turkey is no stranger to devastating earthquakes. To improve Istanbul's preparedness for a potential earthquake, the World Bank's Seismic Risk Mitigation Project aims to enhance the institutional and technical capacity for disaster management and emergency response, strengthen critical public facilities for earthquake resistance and support measures for better enforcement of building codes and land use plans.

To support this project, GFDRR approved \$400,000 for a technical assistance program that produced the following: (i) institutional analysis and recommendations for strengthening of national capacity for disaster risk management; (ii) country-wide prioritized list of seismic mitigation investments; and (iii) a status analysis, needs assessment and recommendations for enhancing the emergency information and communication systems.

## **IMPACT:**

As a result of this support,

- 590 buildings were retrofitted;
- 46 facilities were reconstructed;
- 86 public buildings are now more seismically resilient;
- 2,660 engineers were trained in the new requirements for retrofitting design.

# MAINSTREAMING CLIMATE CHANGE ADAPTATION

Climate change adaptation has been firmly established as an integral part of GFDRR's business plan. The focus is on providing country-level climate change information, strengthening weather and climate information systems, helping countries assess climate risks (including post-disaster), promoting climate risk financing and transfer solutions and scaling up community adaptation.

**GFDRR has contributed towards climate change adaptation mainstreaming in country assistance strategies (CAs) in 29% of focus countries**

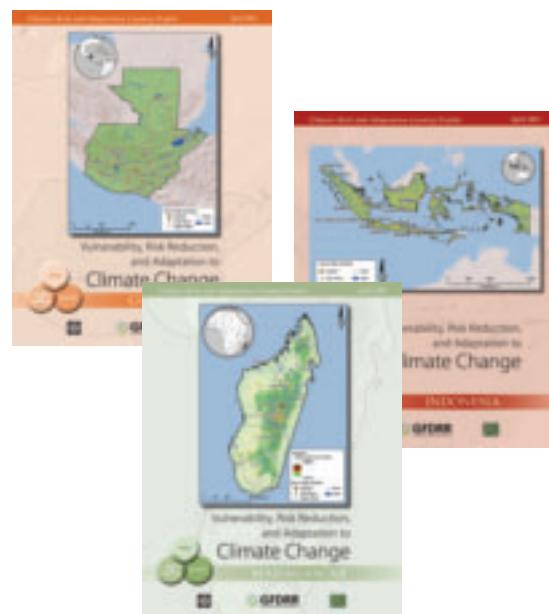
According to early estimates, the GFDRR portfolio is beginning to deliver climate change adaptation/climate risk management (CCA/CRM) mainstreaming results in 26 percent of its focus countries. A preliminary analysis shows that GFDRR has played a role in helping to mainstream climate change adaptation into country assistance strategies in 29 percent of focus countries. The resulting climate risk management approach generates social and economic impacts in the short term, while reducing vulnerability to long-term changes in climate. GFDRR is fostering (a) development of institutions and methodologies that maximize synergies between disaster risk reduction and climate change adaptation; (b) facilitation of links and information exchange between disaster risk reduction and climate change bodies; and (c) investments in programs that tackle climate change through, for example, strengthening the quality and reliability of climate and weather data for early warning systems, risk assessments or risk financing solutions.

## FOCUS:

### Country Climate Risk and Adaptation Profiles

While most climate data is available at global and regional scales, most decisions are taken at the country level. Partner countries increasingly call for real-time access to basic climate risk information at the country level that allows for exploring, evaluating and learning about risk reduction in a changing climate.

Country Adaptation Profiles have been produced for all 31 GFDRR focus countries through a partnership with the climate change team of the World Bank's Environment Department. Users are able to evaluate climate-related vulnerability and risks by interpreting climate and climate-related data at multiple levels of detail. Designed as a quick reference source for development practitioners, the profiles provide a common platform to guide access, synthesis and analysis of the most up-to-date and relevant information for disaster risk reduction and climate change adaptation (<http://www.countryadaptationprofiles.gfdrr.org>).



**IMPACT:**

- Both the Climate Investment Funds' (CIF) knowledge program and World Bank regional departments have adopted the model.
- The World Bank Climate Change Knowledge Portal is now being linked with the OpenDRI initiative to provide open access to an unprecedented level of information on country disaster risks—including historical and future climate data—starting with GFDRR's 31 focus countries.

**FOCUS:****Preparing North Africa's  
Coastal Cities for Climate Change**

North Africa's coastal cities, long benefitting from their ready access to commerce and culture, also face distinct vulnerabilities to natural hazards and climate change because of their location. The southern Mediterranean and Middle East have already seen a measurable rise in natural hazards. From an average of three disasters a year in 1980, the region experienced a steady increase to an average of more than 15 in 2006. The region has been hit by 276 disasters in this 25-year period, of which 120 occurred in the last five years. Climate change and associated increased climate variability, as well as increasing population and assets exposure will only exacerbate this trend.

The study, "Climate Change Adaptation and Natural Disasters Preparedness in the Coastal Cities of North Africa", analyzed the exposure of the coastal cities Alexandria (Egypt), Casablanca (Morocco), and Tunis (Tunisia) to natural hazards, such as floods and storm surges, earthquakes and tsunamis, as well as to the increasingly frequent weather extremes associated with climate change. The study, which took place from June 2009 to June 2011, has identified specific risks within each of the urban areas, and proposed adaptive actions that would mitigate potential damages and losses. It has also provided tools for evaluating the risks, costing out potential losses and moving toward specific reforms and investments designed to adapt the cities to a changing climate and increase their resilience to natural hazards.

**IMPACT:**

The study's findings are already informing specific planning and investment decisions:

- Risks have been quantified, along with the costs of adaptive and climate-resilient actions, so that planners can calculate the costs and benefits associated with the particular courses of action recommended;
- The study has generated "adaptation cost curves," which rank the cost effectiveness of each remedial measure proposed. Many of the measures pass the cost-benefit test and are confirmed to be economically effective and promise to deliver high returns in terms of risk reduction;
- The study reduces the scope of uncertainty facing decision makers with regard to future planning and investment decisions.

**BOX #2:**

## GFDRR Supports Gender Mainstreaming in Disaster Risk Management

In Southeast Asia, GFDRR funded a gender and disaster risk management project focusing on the welfare impacts and vulnerability of specific social groups within disaster risk management programs.

Conducting extensive field work in Lao People's Democratic Republic (Lao PDR) and Vietnam, the task team developed operationally relevant tools for World Bank staff, clients and development partners to address key issues and bottlenecks to mainstreaming gender into disaster risk management projects. The tools also help teams design and implement gender dimensions into disaster risk management work across the East Asia and Pacific Region. With \$135,000 in funding from GFDRR and the Gender in Action Program (GAP), the project produced a literature review and field report, culminating in a series of five guidance notes focusing on practical elements of mainstreaming gender considerations into disaster risk management programs.

The second phase of this initiative seeks to mainstream gender concerns into existing and future World Bank operations. Stretching over two years, it seeks to disseminate and integrate the key messages of the guidance notes across selected East Asia and Pacific countries into policy dialogue and investment programs in Indonesia, Lao PDR, the Philippines and Vietnam. Aiming to integrate women's needs into the World Bank's and clients' investments, the initiative will focus on three sets of activities: (a) capacity building for Bank staff, government counterparts and development partners; (b) country-level policy analysis of the existing legislation and the Bank's portfolio to determine action points; and (c) establishment of a funding window to provide resources to World Bank teams to include gender in ex-ante and ex-post disaster risk management investment programs, with resources earmarked to ensure post-disaster damage and needs assessments are more gender balanced.

# MAINSTREAMING DRM WITHIN THE WORLD BANK: GFDRR FOCUS COUNTRIES

The World Bank is responding to the growing demand from its clients for assistance after natural disasters and support to prepare for future disasters. Between fiscal years 2006 and 2011, the World Bank committed an estimated \$10.5 billion to projects or project elements related to disasters<sup>5</sup>, most often in urban, water, agriculture or rural development sectors. This is based on the knowledge that—if done right—preventive measures not only save lives, they are cost-effective, too. The demand from governments for assistance in disaster risk management—and their increasing ownership of the issue—is illustrated by the increasing integration of DRM into poverty reduction strategy papers and other national development strategies.

The country assistance strategy (CAS) is the key document that guides World Bank policy and operational engagement at a country level. As part of its broader role as a disaster risk management center of excellence, GFDRR provides expert feedback and advice to regional and country teams at different stages of the development of new CASs. This review process is recognized as a cornerstone of the DRM mainstreaming agenda in the World Bank. It is an important precursor to investment decision-making. To monitor mainstreaming progress, GFDRR reviews all new World Bank country assistance strategies and scores each based on set criteria for levels of mainstreaming.

As compared to 2006, the World Bank demonstrates a greater level of strategic commitment to disaster risk management in 18 out of 31 focus countries (see Figure 1). Of these, seven present DRM as a core pillar of their strategy; no focus country CAS demonstrated this highest level of commitment in 2006. This mirrors the trend in increasing government ownership of DRM. For example, Malawi, Senegal and Togo all now acknowledge disaster risk management as a strategic priority in their poverty reduction strategy papers

(PRSPs). Initiated by the World Bank and the IMF in 1999, the PRSP approach results in a comprehensive country-based strategy for poverty reduction.

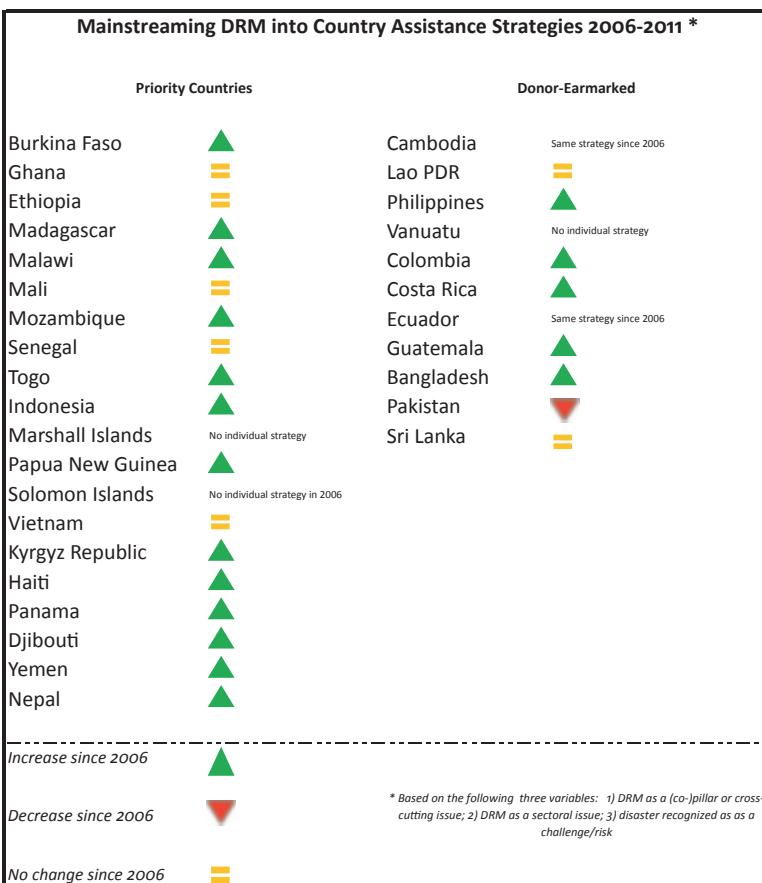
Progress is not uniform across the board. Many development issues are competing for attention, and the nature of institutional mandates and relationships at a country level mean changes in strategic direction can be slow. Despite this, many countries, including Mozambique and Yemen, have demonstrated rapid progress in DRM mainstreaming (see Figure 2).

The FY2004–07 country assistance strategy for Mozambique, for example, acknowledged that the country is prone to natural disasters, and that this is a threat to development. The upcoming strategy advances the World Bank's strategic commitment to disaster risk management in the country. The strategy is expected to include a pillar fully dedicated to vulnerability and resilience, which will call for, among other things, modernized weather radar systems and more weather stations.

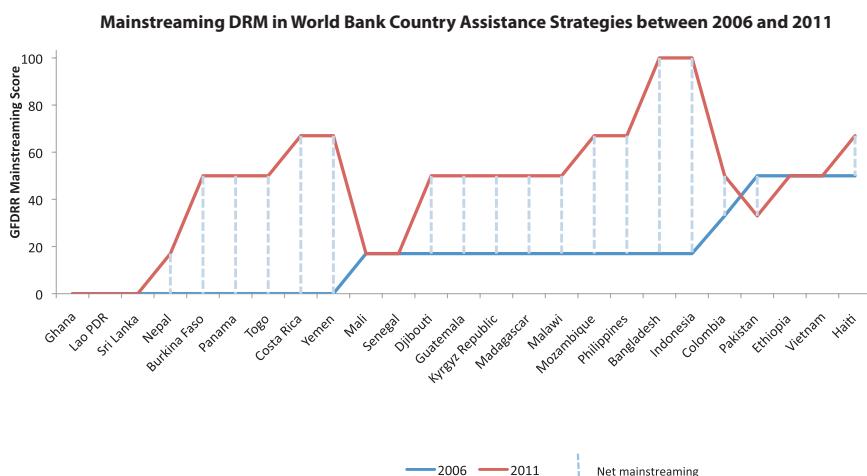
Increasingly, governments and their development partners realize that ignoring climate change in investments today could have serious consequences in the future. As a result, climate change is becoming a major driver for the integration of disaster risk management into development strategies. In this context, GFDRR also assesses the extent to which climate change adaptation is mainstreamed in World Bank country assistance strategies. Four focus countries identified climate change adaptation as a strategic priority in 2011; no strategy did this in 2006, which is a significant step forward in that short time frame. For example, the new Colombia country assistance strategy identifies “sustainable growth with enhanced climate change resilience” as a strategic theme.

5. Source: GFDRR Disasters Portfolio Database (data as of June 30, 2011).

**FIGURE 1**



**FIGURE 2**



## Results Section 2: Sustainable and Resilient Recovery

### SRFF Strategy and Impact

GFDRR's Standby Recovery Financing Facility (SRFF) provides rapid technical and financial assistance for sustainable disaster recovery primarily in low-income countries. Since its inception, SRFF has assisted 45 disaster-hit countries in assessing medium and longer-term socioeconomic disaster impacts and determining needs for sustainable recovery. This year has seen a rise in the number of countries building capacity to conduct impact assessments and working with GFDRR to customize the approach to post-disaster needs assessments. GFDRR disaster risk management investments are also resulting in World Bank regional offices having greater capacity to support disaster recovery efforts in affected countries.

The goals of supporting resilient recovery and post-disaster risk reduction are achieved through a five-pillar approach focusing on the following major impacts from GFDRR's work in the disaster recovery arena:

- Strengthened and coordinated disaster recovery planning;

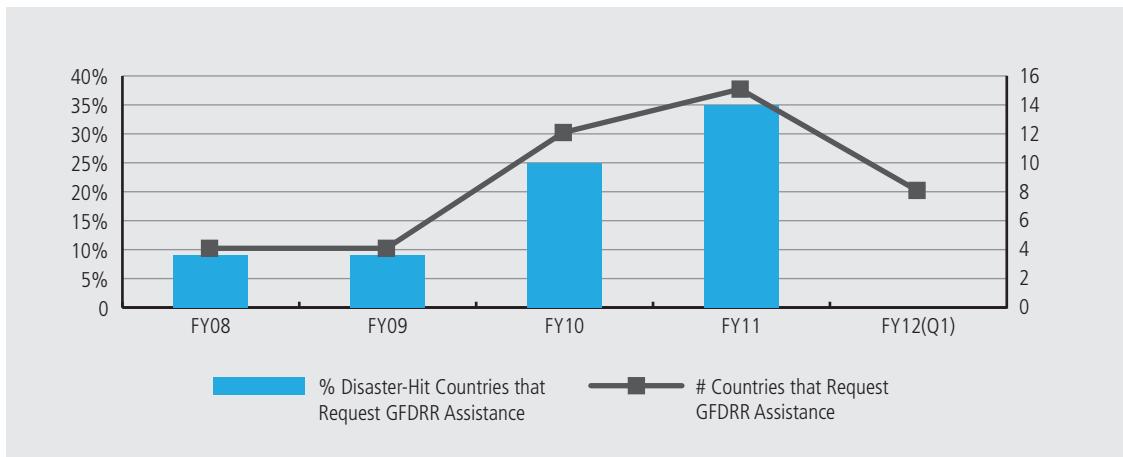
- Systematization of disaster recovery experiences into knowledge products and tools;
- Strengthened in-country capacity for recovery preparedness and response;
- Accelerated, sustainable and more predictable recovery financing;
- Promotion of greater disaster risk reduction.

The aim of this section is to report and evaluate SRFF performance in respect to these five strategic pillars or sets of intermediate outcomes—through both quantitative and qualitative information.

### Strengthened and Coordinated Disaster Recovery Planning

GFDRR efforts to strengthen and bolster coordinated disaster recovery planning have grown from around 10 percent to 35 percent of countries hit by major disasters annually. This marks a threefold increase in demand since FY2008 for GFDRR involvement in global post-disaster recovery operations. Fifteen countries requested GFDRR assistance in FY2011, a significant increase from four in FY2008.





A key result is that the FY2010–11 period saw the PDNA being increasingly recognized as the internationally accepted standard post-disaster assessment methodology for government-led assessments to verify the impacts and identify the needs for recovery and reconstruction. Similarly, FY2011 has seen countries that have received PDNA capacity building taking even greater ownership of the assessment process and customizing the post-disaster needs assessment to increase its utility for recovery planning and project implementation. GFDRR continues to significantly contribute towards converting disaster recovery experiences into knowledge products and tools. These serve as globally relevant references for swift and effective post-disaster recovery efforts, and apply to various phases of recovery such as needs assessments, designing institutional setups and frameworks that support building back better and smarter, financing instruments and multi-sectoral recovery strategies and implementation models.

## Partnerships for Recovery

Throughout FY2011, the SRFF's Quick Reaction Team (QRT) continued to provide expeditious responses to various post-disaster situations through its expert locator, post-disaster knowledge resources and sharing of best practices—particularly in the case of the 2010 West Africa floods where a regional study was conducted into the causes of the floods. Under QRT's mandate of fostering a global network of disaster experts, GFDRR also formalized agreements and organized knowledge exchange events with the Norwegian Geotechnical Institute (NGI), the Italian Civil Protection and the Swedish Civil Contingency Agency (MSB) to facilitate emergency deployment of experts from these agencies. The aim is to develop regional networks of trained experts that will allow for emergency mobilization in response to major disaster events in countries that do not have recovery capacity.

# ASSESSING ECONOMIC AND SOCIAL IMPACTS OF DISASTERS

Post disaster needs assessments have significantly contributed towards delivering a coordinated system of international assistance to disaster-affected countries and have also provided unique opportunities for mainstreaming disaster risk reduction into country development strategies. For coordination, PDNAs have served as blueprints for international cooperation in reconstruction efforts, drastically reducing the coordination burden on the strained resources of disaster-affected governments. The PDNA has also catalyzed major reform in the way at-risk countries manage and plan financing for reconstruction and recovery—national disaster funds have been established in Indonesia, Madagascar and Yemen as a result of World Bank assistance. Through the training of over 2,300 officials in the PDNA and damage and loss assessment methodology, PDNAs have reduced government reliance on international assistance by increasing the capacity of national authorities to prepare themselves to respond to disasters and plan a sustainable recovery.

**GFDRR has consistently organized swift and effective responses for post-disaster recovery assessments, in the wake of all major disasters in low-income countries in recent years**

Some examples of strengthened and coordinated recovery planning in FY2011 include the Greater Horn of Africa Drought and Indonesia volcano eruption recovery. The brief case studies on these post-disaster recovery efforts highlight the value of collaboration and using disaster as an opportunity

to advance both the development and risk reduction agendas of countries and regions.

## **FOCUS:**

**Greater Horn of Africa  
Drought Recovery Programs**

From July through October 2011, SRFF activities in the greater Horn of Africa focused on assessing the impacts of the severe drought. GFDRR, through SRFF, committed \$2 million in technical and financial resources to provide rapid response technical assistance to support country governments in assessing the full socioeconomic impact of the drought and to formulate recovery needs for the short, medium and long-term. From September to October 2011, a PDNA was conducted in Djibouti, an Integrated Rain Variability Impact and Needs Assessment (IRVINA) in Uganda, and a comprehensive drought impact and needs assessment in Kenya. The Intergovernmental Authority on Development (IGAD) and Ethiopia also requested the financial and technical support of GFDRR for developing regional and local approaches to drought resiliency.



# ENHANCED IN-COUNTRY CAPACITY IN RECOVERY PREPAREDNESS AND RESPONSE

GFDRR has continued to support recovery assessments, which are spurring national governments to improve and strengthen recovery preparedness in post-disaster countries.

GFDRR has supported post-disaster countries through recovery programs, which have led to strengthened recovery preparedness and response

From FY2010-11, in almost 90 percent of GFDRR supported post-disaster countries, programs and projects for strengthened recovery preparedness got underway, in comparison to 67 percent of such countries in earlier years. GFDRR's heightened focus on recovery preparedness as part of PDNAs, and sustained engagement after the assessment phase of recovery by both GFDRR and the World Bank, is bolstering countries' interest and capacity to design and implement projects and programs for emergency response and recovery preparedness.

## FOCUS:

GFDRR Co-funded Project Constructs 230 Safe Havens in Bangladesh for Protection against Cyclones

The Emergency 2007 Cyclone Recovery and Restoration Project (ECRRP) is supporting the construction, reconstruction and improvement of existing shelters in the 13 districts that were classified as severely and moderately damaged by Cyclone Sidr. GFDRR has provided a \$2.96 million grant toward this project, out of which \$1 million has gone towards the cyclone shelter reconstruction component.



*"The memory of Cyclone Sidr still haunts me. I do not want my people to go through that horror ever again. There were warnings, but nothing could really prepare us for what happened. Cyclone Sidr hit my hometown, Barguna, with ferocious intensity. Powerful gusts of winds and heavy rainfall frightened the helpless people, many of whom had left their homes and possessions to seek the protection of cyclone-shelters, like my school."*

*—Hasina Begum, Headmistress of Paschim Napitkhali Primary School in Barguna, Bangladesh.*

The Paschim Napitkhali Primary School, a nondescript two storied building had played a life-saving role in 2007, when Barguna and other coastal regions were hit hard by the storm surge of over five meters (16 feet). During the year, the primary school bustles with children, but during cyclones and other natural disasters, the building doubles as a shelter. In 2007, this cyclone shelter alone helped save more than 800 people.

Massive construction of cyclone shelters started in Bangladesh after a 1970 cyclone, leading to multipurpose cyclone shelters being constructed in 15 out of 19 coastal districts. At present, there are about 2,133 multipurpose cyclone shelters and perhaps 200 refuge sites for livestock (called Killas), but the estimates range widely. Nevertheless, the existing shelter capacity is grossly inadequate compared to the requirements.

### **IMPACT:**

- Construction of 230 new multipurpose shelters to build greater protection for future disaster events;
- Repairs and improvement of about 450 existing shelters that are damaged or cannot be used because of inadequacies;
- Reconstruction of the road and communications network to the shelters to make them more accessible and effective;
- Consulting services for surveys, design, environmental and social impact assessments, environment and resettlement management plans and construction supervision of multipurpose disaster shelters.

The dividends of PDNA training and other types of disaster recovery capacity building are becoming evident. This past year Lao PDR was again impacted by disasters and has taken steps toward tailoring the PDNA concept to its unique context. The country began developing a cadre of professionals capable of supporting disaster impact assessments.

Joint PDNA exercises were preceded by training workshops in Benin, Lesotho, Moldova, Pakistan and Togo. More than 240 professionals received basic training in assessment methodology.



**BOX #3:**

## Capacity Building Examples From GFDRR SRFF

- GFDRR's Capacity Development and Learning Strategy aims to strengthen the institutional capacity at national, regional and global levels for increased disaster resilience. The important, shared objective of the partners is to assist countries in professionalizing DRM. The knowledge and learning team of GFDRR developed new resources such as the Damage, Loss and Needs Assessment (DaLA) Guidance Notes, translated these guidance notes into Arabic, Chinese, French, Russian and Spanish, and systemized and consolidated training materials and publicly available self-paced online DaLA courses for high risk countries. These newly developed multimedia products succinctly introduce GFDRR, its business lines, objectives and accomplishments. The comprehensive on-line courses in specific aspects of disaster risk management had more than 36 offerings, reaching over 3,000 participants;
- Joint PDNA exercises were preceded by training workshops in Benin, Lesotho, Moldova, Pakistan and Togo. More than 240 professionals received basic training in assessment methodology;
- During FY2011, GFDRR-supported capacity building for PDNAs, and recovery planning enabled some countries to institutionalize PDNAs in their national systems. Training offered to government officials in Nigeria, the Philippines, Thailand, Vietnam and Yemen raised awareness of basic disaster risk management issues by exposing participants to conceptual frameworks, technical aspects and applications of the assessment methodology. More than 300 professionals received training in conducting damage and loss assessments;
- During FY2011, GFDRR continued to support capacity development in regional organizations in recovery planning. To ensure that regional organizations are able to cater to the countries they serve, GFDRR initiated capacity development initiatives with UN-ESCAP (facilitated by UN-ECLAC), ASEAN, IRP, CADRI, NEMA, Arab Academy, EC, ADB, SAARC, ACC, NGI, ADPC, ADRC, SOPAC, IGAD<sup>6</sup>, and many others.



6. UN-ESCAP—United Nations Economic and Social Commission for Asia and the Pacific; (facilitated by UN-ECLAC—The United Nations Economic Commission for Latin America and the Caribbean); ASEAN—The Association of Southeast Asian Nations; IRP—International Recovery Platform; CADRI—Capacity for Disaster Reduction Initiative; NEMA—National Emergency Management Agency; Arab Academy, EC—European Commission; ADB—Asian Development Bank; SAARC—South Asian Association for Regional Cooperation; ACC—ACC International Relief; NGI,—Norwegian Geotechnical Institute; ADPC—Asian Disaster Preparedness Center; ADRC—Asian Disaster Reduction Center; SOPAC—The SPC Applied Geoscience and Technology Division; IGAD—Intergovernmental Authority on Development.

# RECOVERY PLANNING AND PROGRAMMING

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Restructuring existing development projects to incorporate resiliency principles and assisting affected countries to leverage finances to sustain recovery helps governments prioritize disaster risk reduction in their overall reconstruction and development agendas. Facilitating programs and projects after a disaster not only assists the government in incorporating risk reduction into recovery and reconstruction, but also helps in aligning the development objectives of partners behind those of the affected government. This post-assessment assistance therefore serves to reduce duplication of efforts, enhance future resilience to disasters, and helps to streamline the recovery among all partners to make it a more timely and efficient process.

**GFDRR has supported governments to go beyond PDNAs by facilitating the development of recovery programs and projects after a disaster**

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In multiple countries, GFDRR and World Bank experts have actively supported governments in developing new recovery programs and leveraging existing development and DRM-related projects.

## **FOCUS:**

### **Indonesia: Leveraging Pre-disaster Programs for Recovery Planning**

Located just north of the ancient tourist city of Yogyakarta, Mount Merapi is one of the most active volcanoes in the world. In the 20th century the volcano erupted at least 28 times. On 26 October 2010 the volcano began an increasingly strong series of eruptions. More than 250 people died during this latest eruption, and at the peak of the volcanic activities, around 320,000 people had to be evacuated in a 20 kilometer radius from the crater. More than 2,600 homes were destroyed.

GFDRR's support to Indonesia following the eruption of Mount Merapi provides a best practice example of how new disaster specific efforts can leverage on-going government projects to catalyze and drive rapid and resilient recovery.

GFDRR initially provided capacity-building support to strengthen the disaster risk reduction element of the housing and settlement reconstruction



program called "REKOMPAK," which was financed by other multidonor funds managed by the World Bank operation in Indonesia, and implemented by the Ministry of Public Works and local governments.

GFDRR supported the National Agency for Disaster Management (BNPB) and the National Development Planning Agency (BAPPENAS) in conducting a post-disaster needs assessment and in the preparation of the rehabilitation and reconstruction plan for Merapi.

GFDRR provided support to the coordination of the recovery efforts in addressing the complex issues of housing and settlement reconstruction and land use and zoning in the old settlement that had been wiped out by the primary impacts of the eruption. The support provided included expert advice, facilitation of high level policy dialogue, and technical inputs to provincial and local governments and field project personnel in the form of training and technical assistance consultants.

## **IMPACT:**

Efforts to leverage the Indonesian government's PNPM (National Program for Community Empowerment) poverty reduction program resulted in the following:

- Benefits to more than 50,000 urban and rural villages;
- A reduction in the risk of falling into poverty that vulnerable households near the poverty line face;
- Construction or rehabilitation of over 62,000 kilometers of roads, 11,000 clean water supply units, 11,000 irrigation schemes, 6,500 kilometers of drainage, 17,500 village health posts and 10,000 new schools.



# THE LEVERAGING POWER OF PDNAS

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The post-disaster needs assessment (PDNA) continues to be a very important tool to leverage recovery and reconstruction financing, and in integrating risk reduction measures in disaster recovery frameworks and programs. In some cases, the PDNA has helped governments to identify and address systemic weaknesses with knowledge support from GFDRR and the World Bank Global Expert Team on Disaster Risk Management (GET-DRM). In cases where the PDNA did not yield immediate or direct institutional outcomes, it still led to institutional readjustments in governments. In these situations, the PDNA helped to clarify the allocation of business among agencies and ministries for enhanced disaster response preparedness and longer term mainstreaming of disaster risk reduction in country development strategies.

**GFDRR has helped countries incorporate disaster risk reduction into recovery programs and longer-term development policy making**

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A recent review of post-disaster needs assessments concluded that PDNAs effectively informed and influenced the governments' approach towards planning and financing post-disaster recovery and reconstruction.

For instance, in the aftermath of the devastating Tropical Storm Ondoy and Typhoon Pepeng, the government of the Philippines with the World Bank, GFDRR and other development partners prepared a post-disaster needs assessment. One of the PDNA's recommendations was to develop a comprehensive finance strategy to reduce the fiscal burden arising from the increasing costs of disasters. Extended analytical support was provided to the Philippines to help formulate

a risk financing strategy. The contingent loan facility—CAT-DDO—signed by the World Bank and the Philippines in September 2011 has directly benefited from the study, being able to build on the expert findings and on the dialogue on risk financing options that the study has started.

Building back better is a core principle of all GFDRR post-disaster support to countries. The PDNA report, for example, is influential in a country's institutional strategy for reevaluating policies, prioritizing disaster risk reduction and determining options for recovery, reconstruction and risk reduction. The PDNA's assessment of the strengths and weaknesses of the existing disaster risk management frameworks assists governments in taking timely steps to address institutional and policy weaknesses with the support of the international community.

Using PDNA outcomes, GFDRR has undertaken demand-driven projects to strengthen the disaster risk management frameworks in several at-risk focus countries. PDNAs have thus served to bring the disaster response preparedness agenda into sharp focus both at in-country and international levels.

## **FOCUS:**

### **Haiti Damage Assessments Pave the Way for Earthquake Risk Reduction**

Just weeks after the catastrophic magnitude 7 earthquake struck Haiti in January 2010—killing or injuring more than half a million people and leaving more than a million people homeless—GFDRR, with its development and civil society partners, undertook one of the largest building damage assessments ever.

Many buildings were quickly identified after the quake as a result of an unprecedented “virtual” initiative to assess earthquake damage. From a “situation room” at the World Bank’s headquarters in Washington, DC, experts coordinated with thousands of volunteer developers from around the globe to provide a post-disaster geo-map and state-of-the-art

satellite imagery that cut down the time needed for preliminary damage assessment from weeks to just 36 hours. Just five weeks after the disaster, GFDRR and its partners had 300 trained engineers going door-to-door to gauge whether buildings were safe for occupancy. If they tagged them RED they were too dangerous for occupation, YELLOW if the building could be repaired, and GREEN for totally safe.



**That green lettering means everything to 72 year old Jeanne Bousiko; she can now go home—her house is safe to live in.**

### **IMPACT:**

- About 400,000 buildings were assessed in a year;
- This data now provides information for reconstruction and relocation. Phase two of the program will focus on retrofitting yellow-tagged buildings and decongesting slums;
- The guidelines from phase one are helping craft the national building norms for Haiti;
- Following this assessment, residents and homeowners have also benefited from financial and technical support for repair and reconstruction, drawing on a \$30 million World Bank grant.

### **FOCUS:**

**Support for China's Earthquake Recovery Results in Greater Focus on DRR in Reconstruction**

The 2008 earthquake that struck Wenchuan, China, resulted in 374,000 people injured and 18,000 people listed as missing. There were over 69,000 recorded deaths with 68,000 of them in Sichuan province alone.

One million dollars was made available from GFDRR to the government of China to undertake a comprehensive damage, loss and reconstruction needs assessment of key sectors, formulate sustainable post-disaster recovery and reconstruction plans and develop a strategy to integrate disaster prevention and risk reduction into the reconstruction program—which would include housing, dams, roads and bridges

In 2008, the World Bank/GFDRR provided an emergency recovery loan for \$710 million, in part, to restore infrastructure and health and education services to at least levels existing prior to the Wenchuan earthquake and, where appropriate, to provide for expansion of services. \$200 million of this loan is to be used by Gansu Province to finance infrastructure and services, including seven schools in five counties (Kang, Hui, Wen, Cheng and Xihe). The Longnan Education Capacity Building Project was designed with the main aim of strengthening the education system to provide better schooling service to the people in the earthquake struck areas in Longnan Municipality. By doing so, the public education service was greatly improved, much beyond the level before the earthquake.

### **IMPACT:**

- Building back better has been a focus for the reconstruction effort. The World Bank and GFDRR have shared global good practices on earthquake recovery and reconstruction with the government of China during the planning stages of the earthquake recovery;
- In addition, the long term development of the affected areas and their sustainable social and economic development have been promoted by the government for integration at all points in the planning and implementation of the recovery and reconstruction program;
- The World Bank would like to continue strengthening the partnership with the government of China on disaster risk mitigation and management activities and disseminate China's experience and expertise in disaster preparedness and relief to other countries in the region and worldwide.

## Results Section 3: Regional Cooperation

As outlined in its partnership strategy (2009-12), strengthening regional networks of disaster risk reduction actors and building the capacity of regional inter-governmental organizations for disaster risk assessment, financing and adaptation are key priorities for GFDRR.

### Introduction

As disasters by their very nature do not stop at national borders, neither should prevention and mitigation efforts. Approaching disaster risk reduction at the regional level offers many unique advantages. These include realizing economies of scale in early warning systems, the promotion of standards, and lowering entrance barriers to risk insurance markets for developing countries, as well as avoiding unintended negative consequences of disaster prevention investments in one country on disaster vulnerability in another.

Engaging regional actors helps to translate such global commitments as the Hyogo Framework for Action into national action plans. Regional organizations play an important role in strengthening capacity, facilitating dialogue and cooperation and advocating for political support to mainstream disaster risk reduction.

GFDRR's strategic approach to regional engagement is threefold:

- Through the partnership with UNISDR, GFDRR finances regional advocacy to strengthen political commitments to disaster risk reduction and provides capacity support to regional organizations.

- Via the Multi-Donor Trust Fund mechanism, GFDRR supports regional work linked to trans-boundary risk management programs and technical assistance to national and regional institutions.
- As part of the GFDRR knowledge and learning program, GFDRR works to strengthen the training and education capacity of regional organizations and centers of excellence.

The close partnership with UNISDR is central to GFDRR's regional engagement. Preliminary data indicates that the UNISDR-GFDRR partnership, on a relative scale across all regions, has contributed in at least 50 percent of the six regions (Africa, East Asia and Pacific, Europe and Central Asia, Latin America and the Caribbean, the Middle East and North Africa and South Asia) and sub regions toward "enhanced disaster risk reduction and climate change adaptation capacity, resources and portfolios." This is up from 33 percent in 2007. Four of the six regions now have a DRR/CCA focal point that is supported by GFDRR, and at least three regions have projects that are significantly delivering on the disaster risk reduction agenda. Following are some results and examples of GFDRR's strategic approach to regional engagement.



# SUPPORTING DEVELOPMENT OF REGIONAL STRATEGIES AND PROGRAMS

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Through advocacy and continuous engagement with key regional organizations, GFDRR funding has helped UNISDR to elevate disaster risk management as a key priority for policy-makers, governments and practitioners, building a demand for more targeted country disaster risk management programs, particularly in high-risk, low- and middle-income countries.

## Increase in the number of regional strategies and programs adopted by GFDRR-supported regional organizations to address disaster risk reduction and climate change adaptation

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Over 20 regional and sub regional strategies, policies and action plans on disaster risk management are in place throughout the world. For example, this includes the Incheon regional roadmap for disaster risk reduction through climate change adaptation, which was adopted at the 4th Asian Ministerial Conference on DRR. Such engagements have also contributed to the successful ministerial adoption of the Extended Programme of Action for the Implementation of the Africa Regional Strategy for Disaster Risk Reduction (2006–15). The Africa Programme of Action led to such concrete projects as the feasibility study for the Pan-African Drought Risk Pool undertaken by the World Food Program (WFP) with direct support from GFDRR Track II funding. The discussion also led to increased awareness and commitment for safer hospitals and safer schools that will help make communities resilient to natural hazards. The African Union Commission has already started its

internal planning to support its member states in strengthening national capacity for disaster risk reduction.

GFDRR has contributed toward turning political commitments and strategies into action, and in particular, has leveraged support for this purpose through the World Bank's offices throughout the world. This has helped augment the technical expertise of the growing regional networks of disaster risk management specialists to actively support the realization of regional work plans and regional initiatives, and work towards implementation at the national level.

### **FOCUS:**

#### Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI)

The Pacific region is prone to many natural hazards that threaten populations and cause significant economic losses because of damage to the built environment and crops. GFDRR is contributing to an effort to effectively leverage a state-of-the-art risk assessment to reduce risk in the region and build countries' financial response capacity.

*"[The Pacific Risk Information System has] the potential to provide a rapid estimate of damage within hours of an extreme natural event occurring. It will provide governments with valuable, timely and necessary information to mount an effective response in recovery from the disaster."*

*—Loti Yates, the Solomon Islands Government's Director of the National Disaster Management Office (NDMO)*

The Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) is a joint initiative among the Secretariat of the Pacific Community SPC/SOPAC, the World Bank and the Asian Development Bank, with financial support from the government of Japan and GFDRR. Detailed risk assessments were conducted for 15 nations in the Pacific region quantifying potential disaster losses from earthquakes, tsunamis and tropical cyclones. This includes the most comprehensive analysis of buildings, infrastructure and cash crop exposure ever conducted for the region.

Compiling the database involved intensive field visits to 11 countries to survey more than 80,000 buildings, digitizing the footprints of 450,000 buildings from satellite imagery, as well as inferring from satellite imagery 2,900,000 buildings and other assets. Exposure, hazard and risk maps that will be shared through the Pacific Risk Information System are powerful visual tools for informing disaster risk management decisions. To promote the best use of this data, the results will be shared in the Pacific Risk Information System using an open-source web-mapping platform.

## **IMPACT:**

- The PCRAFI has developed a Pacific Risk Information System (including a regional geospatial database and country-specific catastrophe risk models), which offers technical tools for the development of sustainable and affordable disaster risk financing and insurance solutions for the Pacific Island Countries.
- By drawing from one of the most comprehensive geographic information system (GIS) data sets ever compiled for the Pacific, containing comprehensive data and information on population, land use and land cover, topography, bathymetry, soils and their engineering properties, assets including infrastructure and buildings, satellite images as well as historical catalogues and information on cyclones, earthquakes and tsunamis, risk models and risk profiles can be generated for the participating countries.
- The GIS database provides full coverage of the entire landmass of Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor Leste, Tonga, Tuvalu and Vanuatu.

The data will form the basis of three core areas of focus for implementation in the next phase of the project: macroeconomic planning and disaster risk financing; mitigation investments, including urban land and infrastructure planning; and rapid post-disaster damage and loss estimation.

# STRENGTHENING DISASTER RISK REDUCTION AND CLIMATE CHANGE ADAPTATION CAPACITY IN REGIONAL ORGANIZATIONS

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An increasing number (14) of regional organizations have dedicated disaster risk management experts or units to support member countries. This is a process that GFDRR is supporting financially through the joint work with UNISDR.

## Increase in GFDRR-supported regional and sub-regional organizations with enhanced disaster risk reduction and climate change adaptation capacity, resources and portfolios

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In Africa, disaster risk reduction experts were financed in the Economic Community of Central African States (ECCAS), the Southern African Development Community (SADC), the Economic Community of West African States (ECOWAS) and the African Union, which have facilitated the integration of disaster risk reduction into the organizations' work programs for 2011.

Thanks to this support, the DRR Unit in SADC, for example, has supported a number of member states—like Angola, Namibia and South Africa, among others—affected by the trans boundary floods. The DRR Unit assisted affected member states with the sharing of trans boundary rainfall and river flow data and analyses. It also supported flood-affected areas of southern and eastern Angola, where discussions are now ongoing with the Angola Civil Protection Unit on how to integrate protection and prevention measures into new programs going forward.

SADC is also considering how as a region it can come up with a regional program to assist member states to better prepare themselves for future disasters.

To complement this support, the GFDRR capacity development and learning strategy aims to strengthen national, regional and global institutional capacity for increased disaster resilience. Implemented in partnership with the UN Capacity for Disaster Reduction Initiative (CADRI), the GFDRR knowledge and learning program develops tools, products and programs to professionalize disaster prevention. The program works to strengthen the training and education capacity of like-minded regional organizations and centers of excellence in Africa, Asia, Latin America and the Caribbean, the Pacific and the Middle East and North Africa for widespread training outreach and disaster risk management knowledge dissemination.

For example, GFDRR is assisting the Regional Centre for Disaster Risk Reduction at the Arab Academy to become a "center of excellence" in disaster risk reduction, to ensure complementarity with other regional centers in the region and to promote close partnerships with international organizations and centers of expertise to facilitate exchange of lessons learned, best practices and experiences. With GFDRR support, the Arab Academy delivered three online training courses in disaster risk management and climate change in disaster risk management, which benefitted 50 students from 11 different countries from the Middle East and North Africa region.

**BOX #4:**

## South Asia Disaster Knowledge Network (SADKN)

The South Asian Association for Regional Cooperation (SAARC) established in 1985, is the regional intergovernmental organization for the eight countries in the South Asia region. In line with its aim to accelerate the process of economic and social development in its member states, the SAARC Disaster Management Centre (SDMC) was set up in October 2006. The centre has the mandate to serve member countries by providing policy advice and facilitating capacity developing services including strategic learning, research, training, system development and exchange of information for effective disaster risk reduction and management in South Asia.

UNISDR has provided support to the centre through the World Bank funding to Track 1. This support includes knowledge management on disaster risk reduction, and essential support in a region which has such a large number and proportion of its population vulnerable to natural hazards.

One result of this support has been the establishment of the South Asia Disaster Knowledge Network (SADKN). The initiative was identified as a priority by the SAARC Secretariat in order to service the countries in the sub-region with a mechanism for sharing and learning for improved disaster risk management. To date the software and network has been established and the technical capacities of the focal points from all eight SAARC countries strengthened. The focal points are operating the web portal and have in turn trained partner organizations at the national level.

The networking platform has the potential to:

- Create a one stop source of information on disaster risk reduction in South Asia;
- Facilitate a network of governments, research, academic institutions, and non-government organizations to share their experience and resources;
- Assist SAARC countries to provide coordinated inputs into the Asia Ministerial meeting and UNISDR Asia Partnership meetings;
- Link with global networks such as *preventionweb* and regional initiatives such as Asia Pacific Gateway;
- Become a repository for the HFA reports from the SAARC region and enable a biennial regional HFA report.



# ENHANCED REGIONAL AND TRANSBOUNDARY TECHNICAL CAPACITY FOR DISASTER RESILIENCE

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To build on the political momentum and commitments to disaster risk management engagement that the UNISDR-GFDRR partnership generates, GFDRR finances technical assistance to specific trans boundary risk assessment and risk management projects and programs, where specific technical expertise is required, and where there is real potential for leveraging World Bank investments.

## Increase in/strengthening of, regional disaster risk reduction and climate change adaptation support systems of GFDRR-supported regional organizations

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GFDRR financing has contributed to identifying and reducing disaster risks and building the capacity of regional and sub-regional organizations to better manage trans-boundary disaster risks and climate impacts through activities, such as regional risk identification, risk financing and insurance instruments. For example:

### **FOCUS:**

850,000 Colombians could Benefit from Technical Assistance in Risk Assessments

*"The Central American Probabilistic Risk Assessment (CAPRA) initiative helps to bring knowledge of probabilistic risk management to many different types of people working in the public sector (not only to experts), which will help public administrators develop informed public policies on disaster risk management."*

—Julian Escallón, Civil Engineer of the Office for Disaster Risk Management, Colombia

Following the devastating Popayan earthquake of 1983 in Colombia, major efforts were made to improve the monitoring of natural hazards, the enforcement of building codes and the organization of local disaster response capacity. This has led to success in reducing the loss of lives in disasters. However, the damages and losses to property and livelihoods because of natural hazards are still growing every year.

In 2010, the World Bank and GFDRR agreed with Colombia on the implementation of four municipal technical assistance projects—and approved a total grant amount of \$500,000. CAPRA activities began in February 2011 and will be completed by June 2012.

## **IMPACT:**

The impacts for probabilistic risk modeling for the Galeras Volcano (Pasto, Colombia) are the following:

- Strengthening capacity on probabilistic risk modeling of all the institutions in charge of volcanic risk management;
- Significantly increasing the quality of the vulnerability analysis on volcanic ash and pyroclastic flows;
- Potentially benefiting the 400,000 inhabitants of the municipalities of Consaca, La Florida, Pasto, Sandona, Tangua and Yacuanquer.

The impacts for probabilistic modeling for seismic risk for the Municipality of Pereira are the following:

- Updating the seismic micro-zonification for the municipality of Pereira;
- Gaining knowledge about the more than 100 public buildings to inform the education and health portfolio and defining strategies to reduce risk in public buildings;
- Potentially benefiting the 450,000 inhabitants of the municipality of Pereira, Colombia.



## **BOX #5:**

### **The Central American Probabilistic Risk Assessment (CAPRA)**

The CAPRA initiative is rooted in the expressed interest of Central American countries to address the region's high vulnerability to a variety of natural hazards, which challenge their sustainable development. CAPRA consists of a GIS-based platform for risk analysis where probabilistic techniques are applied to the analysis of earthquakes, tsunamis, hurricanes, floods, landslides and volcanoes. Funded by GFDRR, this initiative is led by the Central American Coordination Center for Disaster Prevention (CEPREDENAC), in collaboration with Central American governments, UNISDR, the Inter-American Development Bank and the World Bank. The methodology is now being used outside of Central America as well—Colombia is a prominent example.

# Results Section 4: Evidence-based Advocacy and Learning

The severity and the increased frequency of disasters make it urgent to re-examine our approach to disaster prevention. The number of people exposed to storms and earthquakes in large cities could double to 1.5 billion by 2050. Through its evidence-based advocacy work, GFDRR seeks to inform the broader thinking related to disaster risks and disaster occurrence, raise awareness of the potential to reduce disaster costs, provide guidance on the implementation of disaster risk reduction interventions and stimulate country-level thinking supported by additional downstream research.

## Increase in client countries where DRR prioritization and financing is strengthened inter-alia based on economic evidence generated and disseminated by GFDRR

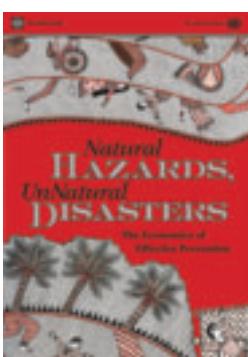
Following are some examples of GFDRR's evidence-based advocacy work:

### **FOCUS:**

#### **Changing Mindsets Toward a Culture of Prevention**

That concept is the starting point of the joint United Nations-World Bank/GFDRR landmark report published in FY2011, which documents that prevention pays, if done right. Since its official launch in November 2010, *Natural Hazards, UnNatural Disasters: the Economics of Effective Prevention* has been presented

in a series of high-level events around the world to more than two dozen governments, international organizations, academic institutions and think tanks. The report is aimed specifically at finance ministers.



The report outlines what it takes to achieve effective prevention. *Natural Hazards* focuses on the role that institutions play at all levels, particularly in the context of private incentives or disincentives citizens face for prevention. In the analysis conducted in the report, three common threads (the three "i's") emerge: the role of information, incentives and infrastructure. Timely information, incentives that do not get skewed by public policy and infrastructure that is reliable—underpinned ultimately by institutions that are credible, effective and responsive—can all help ensure that natural hazards need not turn into unnatural disasters.

*"Preventing and managing disasters is as much a development issue as a humanitarian one. That fundamental understanding underpins this analysis which goes a long way in changing mindsets towards a culture of effective prevention."*

—Justin Yifu Lin, World Bank Senior Vice-president and Chief Economist

### **IMPACT:**

The report's findings are already making a difference:

- One of the main recommendations of the report is to collect, share and make hazard-related information easily accessible. This finding has supported the launch of GFDRR's Open Data for Resilience Initiative (OpenDRI) to assist countries in publishing their hazard and risk maps online.

- The same recommendation has been instrumental in setting up the Regional Integrated Multi-hazard Early Warning System for Africa and Asia (RIMES), convincing the finance and planning ministers of the member states of the economic rationale of a regional early warning system.
- Results from the report are quickly finding their way into other major publications and are already part of the 2011 Global Assessment Report (GAR) released in May, 2011 in Geneva. At least seven recently released publications cite findings from Natural Hazards.
- GFDRR is actively mainstreaming findings from the report and more generally, disaster risk reduction, into country assistance strategies with the goal to integrate disaster risk reduction considerations into development planning.



#### **BOX #6:**

#### **Global Handbook on Urban Flood Risk Management**

Funded by GFDRR, and prepared in partnership with the Japan International Cooperation Agency (JICA) and the World Meteorological Organization (WMO), the Global Handbook on Urban Flood Risk Management provides practical technical guidance to key policy and decision makers and technical specialists in cities in developing countries. The handbook takes a comprehensive view of flooding, including storm, river and coastal flooding. It includes such parameters as urban watershed modeling and management, urban planning, infrastructure codes and scenario forecasts, drainage networks and links to solid waste management and sewerage and flood barriers.

The handbook also focuses on resettlement and relocation, institutional and policy/regulatory frameworks (including coordination across local government administrative boundaries), early warning systems, community-based flood risk management and financing mechanisms. Based on global experiences and extensive local consultation, the Handbook includes a series of practical tools, checklists, templates and links to resources.

## **BOX #7:**

### Resilient Cities Campaign

The role of local governments is crucial in addressing the challenges of urban risks in an increasingly urbanized world. The UNISDR Making Cities Resilient Campaign, launched in 2010, focuses on addressing this issue. As a follow up to its support to the biennial campaign on Safe Hospitals, GFDRR extended its Track 1 support to UNISDR for this campaign in 2010 and 2011.

Grounded in the Hyogo Framework for Action, the campaign aims to create a global network of cities of different sizes, characteristics, risk profiles and locations. The campaign promotes media and public awareness activities, and facilitates access to existing knowledge, tools and experience.

A Ten Point Checklist of Essentials to Make Cities Resilient, developed for the campaign, has served as the basis for the commitments towards the objectives. Local governments that sign up to the campaign are requested to undertake a self-assessment in these 10 essentials. An online local government self-assessment tool was developed for this purpose by UNISDR in 2011 following a pilot with 23 cities in 16 countries.

The campaign is guided by an advisory panel, which has held meetings in Bonn, Kobe, and Shanghai. "We've never had something like this before," said Piyush Ranjan Rout, co-founder and Executive Director of Local Governments Network in Bhubaneswar, India—one of the pilot cities. He commended the initiative for providing an opportunity for local governments to bring several institutions to the table to discuss disaster risk reduction and become familiar with the underlying principles for action.

Directions for the next phase of the campaign (2012-15) are set out in the Mayors Statement of the 3rd Session of the Global Platform for Disaster Risk Reduction (May 2011) and the Chengdu Declaration for Action (August 2011). To build on the success to date, UNISDR is now expected to provide cities and local governments with practical tools, resources and partnership opportunities to live up to the commitments they made through the campaign.

There is a growing demand for city-to-city collaboration in the context of the campaign. There is also a clear understanding that the integration of disaster risk reduction into urban planning requires concerted action among different stakeholders, including national governments, parliamentarians, civil society and the private sector.

#### Highlights

- More than 900 local governments have signed up to the campaign since its launch;
- 14 Role Model Cities have emerged, offering concrete examples to be shared with other participating cities and local governments;
- 10 leaders have also been appointed as "Making Cities Resilient" campaign champions;
- In addition to GFDRR, the International Council for Local Environmental Initiatives (ICLEI) and UNHABITAT, around 20 other partners are actively contributing to the campaign;
- UNISDR and ICLEI, have just completed a four-month pilot test of the local government self-assessment tool (LG-SAT).

# STRENGTHENING DISASTER RISK REDUCTION AND CLIMATE CHANGE ADAPTATION CAPACITY IN NATIONAL ORGANIZATIONS

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Since 2009, the distance learning disaster risk management seminar series for government officials, policy makers and practitioners has been organized through the Global Development Learning Network (GDLN) in close collaboration with the World Bank's regional partner organizations, including the Tokyo Development Learning Center (TDLC).

## Enhanced disaster risk reduction and climate change adaptation capacity of national organizations through active participation of national, provincial and local level officials and key stakeholders

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GFDRR supports distance learning by providing technical experts and funding. In this way, GFDRR helps to create a vibrant network and community of practice that delivers global and regional expertise and good practice in disaster risk management and climate change adaptation to World Bank projects. The distance learning helps to build the capacity of professionals involved in disaster risk management activities and helps to drive the agenda for disaster risk management activities in their respective countries.

### **FOCUS:**

#### **Distance Learning to Strengthen Capacity**

Currently in its third year, the series comprises of six specific thematic sessions delivered via video. The seminar series addresses a variety of disaster risk management issues: post-disaster response and recovery planning; disaster risk assessment, prevention and mitigation; emergency preparedness and early warning systems; risk financing and the World Bank's new financial instruments; local and indigenous knowledge and approaches to disaster risk management.

### **IMPACT:**

- The program has proved to be a very effective platform for building capacity and enhancing knowledge on disaster risk management, and helping to drive the agenda for DRM activities in the respective countries
- Since 2009, 13 events were conducted with over 1,103 participants across 25 countries and in 36 cities
- Collaboration with leading DRM experts from around the world has helped to enrich the quality of the sessions
- Collaboration among World Bank staff, country offices and GDLN centers has facilitated effective sharing of local and international experience as well as enabled the creation of communities of practice
- A post-production package (video footage, summary, presentations and reference materials, useful links and event information) of all the events is produced and freely available online

Part IV

# Looking Ahead: Challenges and Opportunities



## **GFDRR to take Advantage of Opportunities for Strategic Analysis and Course Correction**

This first results-based annual report provides GFDRR the opportunity for strategic analysis and course correction, by consolidating what it has achieved, and improving where it has faltered, over the five-year time period since inception. This section provides an account of the strengths, weaknesses, lessons learned and areas of improvement for the various lines of GFDRR's business—in light of the rigorous results analyses and case studies that have served as the primary information source for this annual report. It also looks at the way forward for GFDRR.

### **Dealing with Challenges and Externalities through Collaborative Multi-partner Action:**

It is important to remember that many extraneous factors beyond the immediate control of GFDRR play an equally decisive role in the results. At the country level, these can include political instability and overlay of political crises, inherent shortcomings of existing institutions and governance structures, fiscal and budgetary constraints including donor fatigue in financing recovery, competing development priorities, and competing or diverging donor priorities. Looking forward, collective action by key international DRR stakeholders can help alleviate or mitigate some of these restraining factors and their impact. Two key areas with considerable room for further international collaborative action include: (a) harmonization of ex ante disaster risk reduction aid and results across various international partners; and (b) sustained coordination and joint advocacy for good practice recovery in post-disaster countries by international partners and donors.

### **Lessons Learned and Areas of Improvement for the DRR Mainstreaming Program**

The operationalization of Track II indicators has helped in laying the groundwork for a decision-support system for more results-oriented portfolio management by GFDRR of its country programs and activities for disaster risk reduction mainstreaming. Some key decisions

that can be supported from the analysis of existing results data include: (a) determining the appropriateness of GFDRR's overall resource allocations, geographic priorities and its thematic focus; (b) identifying the need for any strategic course corrections and re-prioritization of the Track II portfolio; (c) determining specific country-level improvements and actions in GFDRR's focus countries, and; (d) setting targets for GFDRR's mainstreaming program.

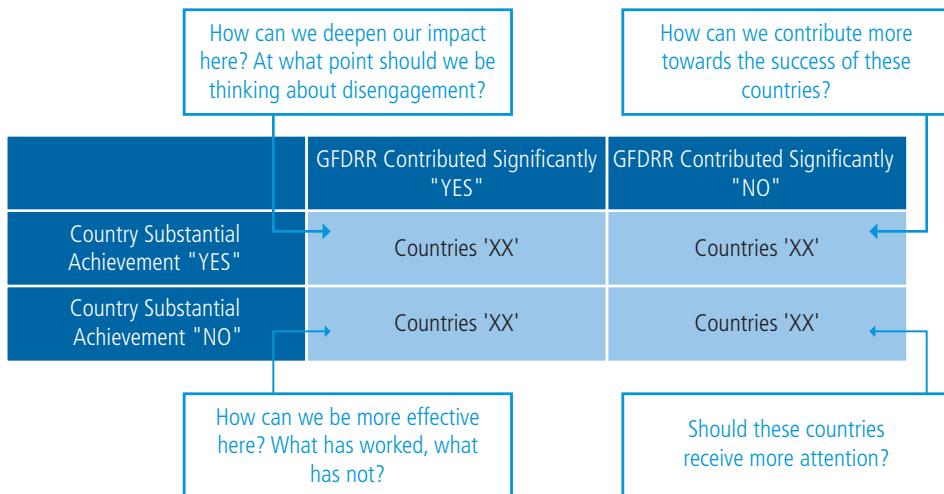
In priority countries that are not doing well on disaster risk reduction mainstreaming, or where GFDRR may not yet have begun contributing significantly towards the same, the following range of measures may be adopted, depending of course upon specific country context:

- The chart on the next page allows GFDRR to identify the countries where disaster risk reduction needs to be better integrated into strategic documents and other development planning, and the countries that need to make specific disaster risk reduction allocations in their development budgets. This can be achieved through more active and coordinated policy dialogue, advocacy and collaborative action by key national and international DRR stakeholders.
- GFDRR should focus more on and undertake additional interventions—over and above its existing portfolio—in the following specific HFA priority areas, in countries where adequate progress towards disaster risk reduction mainstreaming is not being made: (a) national policy and legal frameworks for disaster risk reduction with decentralized responsibilities; (b) establishment of national multi-sectoral platforms for disaster risk reduction; (c) implementation of economic and productive sectoral policies and plans to reduce vulnerability; (d) incorporation of disaster risk reduction elements in the planning and management of human settlements, including enforcement of building codes; and (e) integration of disaster risk reduction measures into post-disaster recovery and rehabilitation processes.

## Strategic Decision Matrix for GFDRR Focus Countries

Based on Country and GFDRR DRR Mainstreaming Performance (HFA Priority 1)

"Ensuring that DRR is a national and local priority, with a strong institutional basis for implementation"



- In the countries where GFDRR may not yet have begun contributing significantly towards disaster risk reduction mainstreaming and institutionalization, the following options could be considered for improvement of GFDRR performance:
  - GFDRR could strengthen and refocus its disaster risk reduction portfolio towards a stronger emphasis on capacity building and institutionalization of various disaster risk reduction agendas.
  - Instead of broadening its scope of engagement, GFDRR should focus on deepening the impact of its existing initiatives in these countries, particularly those related to national capacity building and policy development for disaster risk reduction.

### Lessons Learned and Areas of Improvement for the Sustainable Disaster Recovery Program

- Improving SRFF's performance in 'informing recovery' through the conduct of PDNAs: Both the PDNA tool and the way it is applied to post disaster situations still have room for improvements that would increase the PDNA's efficiency and deepen the impact and sustainability of recovery operations that it leverages. A recent PDNA review concludes that such improvements could be effective towards making PDNAs more results oriented in their promotion of: (a) strengthened institutional arrangements for recovery; (b) strengthened post-disaster response and recovery preparedness; and, c) disaster resilient reconstruction.

- Deepening SRFF's post-PDNA engagement to ensure a more consistent translation into greater downstream impacts and benefits for disaster affected communities, the Track III results analysis concludes that GFDRR and its partners need to in particular, deepen and expand their post-disaster engagement to increasingly focus on supporting: (a) development of sector recovery strategies and policies, compatible with international good practices; (b) capacity building and national skill enhancement for efficient and resilient recovery; and (c) development of sound and context-specific institutional frameworks and predictable financing instruments for future disasters and improved disaster preparedness.
- GFDRR donors can help SRFF sustain, deepen, and widen the impacts it is creating in post-disaster countries. Sustaining and strategically deepening SRFF's post-disaster engagements over the coming months and years will require, at the minimum, maintaining existing SRFF resources and operational budgets, and preferably warrant additional investments for deepening its post-PDNA engagement in the realm of supporting developing countries in planning, implementing and monitoring recovery operations. Maintaining current levels of SRFF's post-disaster engagements and pre-disaster preparedness capacity-building interventions requires an annual funding of around \$3.3 million—whereas factoring-in a gradual deepening and widening of SRFF's engagement poses annual SRFF funding requirements of around \$5.1 million.

## **Lessons Learned and Areas of Improvement for the Regional and Global DRR Partnership Programs**

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### **Regional Cooperation:**

It is clear that the outputs of GFDRR's engagements at a regional level, implemented by UNISDR, have strengthened the capacity of regional organizations and encouraged the adoption of regional strategies and action plans. The enabling environment that such engagements generate can support disaster resilience at the national level.

**Strategic Direction for GFDRR's Engagement for Enhanced Local and Community Action:** Building on the progress of GFDRR's engagement at the country level, donors have requested that GFDRR consider a deeper engagement with civil society organizations throughout its operations. In this light GFDRR is in the process of developing a strategy for systematizing its engagement with civil society across all of its business lines, through a multi stakeholder consultation with a wide array of actors, including international NGOs, local civil society organizations and local governments, from developed and developing countries. A proposal for engagement, along with possible funding modalities to support this, will be presented to donors in 2012.

### **Global Advocacy:**

At the international level, disaster resilience is reaching the very top of the political agenda. In addition to the World Bank Annual Meetings, Mexico—as the 2012 G20 President—will prioritize catastrophe risk management at the G20 Summit in June 2012, while Russia as the incoming APEC Presidency is also putting disaster risk management at the top of its agenda. GFDRR is anchoring the World Bank's support to these processes on disaster resilience and will work to ensure that this political momentum is translated into action in countries and communities throughout the world.

### **GFDRR Governance—Inclusive Partnership for Disaster Risk Reduction:**

GFDRR is a unique partnership and financing mechanism pioneering an inclusive governance model among developed and developing countries and international organizations. GFDRR will continue to harness the momentum of this growing partnership and facilitate greater coordination and aid effectiveness. GFDRR is catalyzing national policy shifts, the institutionalization of disaster resilience, leveraging large-scale disaster risk reduction investments and building resilient communities throughout the world.

### **Looking Ahead:**

GFDRR will continue to strengthen and diversify its partnership. Having successfully catalyzed

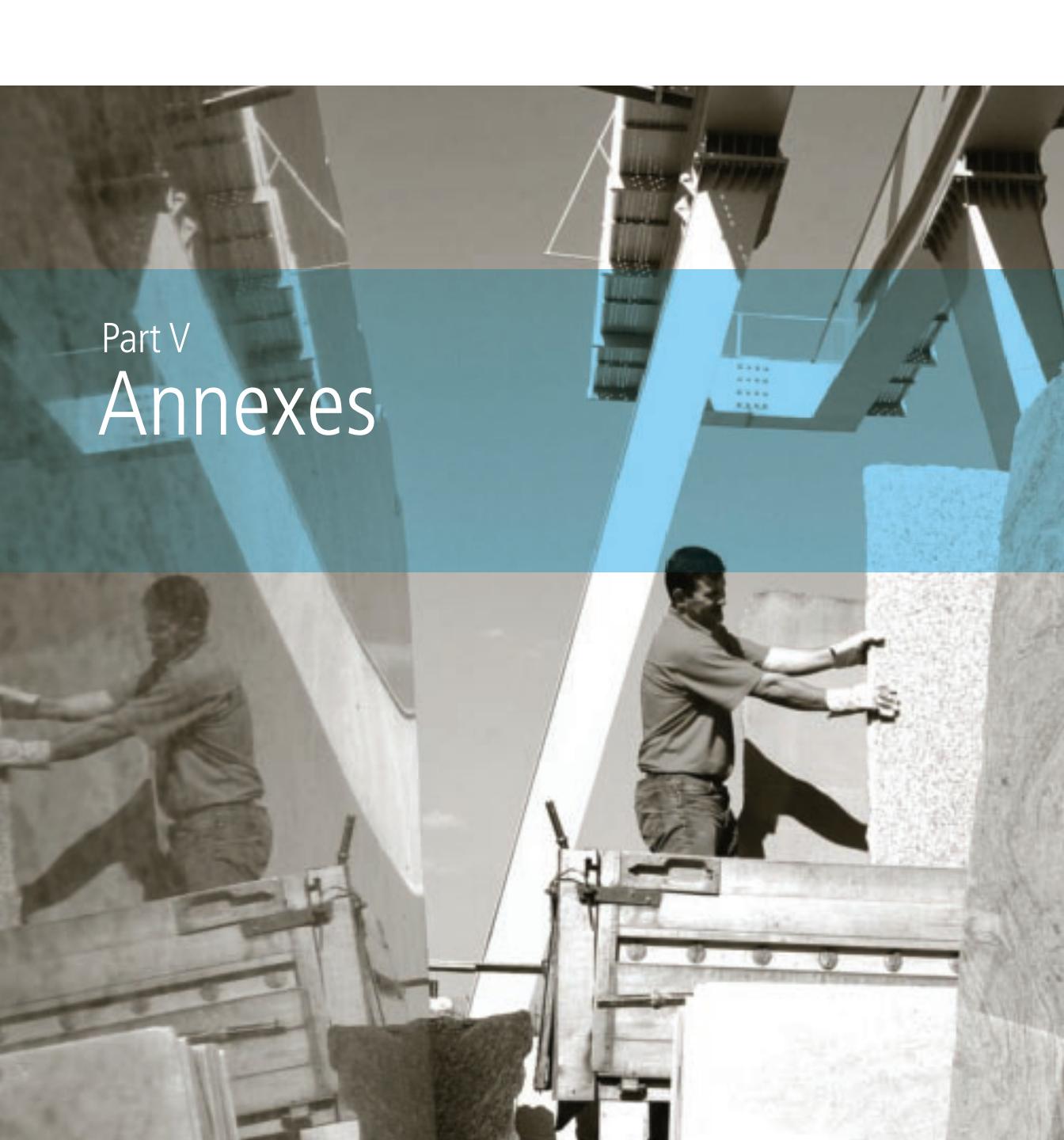


As part of the 2011 World Bank Annual Meetings, a high-level event "Closing the Loop: Integrated Action for Disaster Resilience," jointly organized by the European Union, Japan and the World Bank/GFDRR, brought seven key global humanitarian and development leaders together in an unprecedented commitment to collaborate on the planning and financing of disaster risk reduction and resilience strategies in critical disaster hotspots around the world.

national policy shifts and institutionalization towards greater disaster risk reduction in many of its focus countries, in sync with the priorities set out under the HFA 2005-15, GFDRR needs to place greater focus on consolidating and building upon these existing gains for leveraging larger-scale disaster risk reduction investments from national governments and the international community alike. Such investments in structural mitigation hold the key to effectively addressing and reducing the underlying structural risk factors that pose the biggest present-day challenge to disaster risk management financiers, policy makers and practitioners, particularly throughout the developing world. GFDRR's donors have recently encouraged the facility to start looking beyond

traditional institutional barriers, creating new avenues of grassroots support and strengthening partnership bases—in a global push towards creating less risk-exposed, less vulnerable and more resilient communities throughout its focus countries and beyond.

With the continued support of its donors, GFDRR will continue to strive towards meeting these expectations, and extending direct outreach to more localized levels of engagement—an effort that has been kick started with GFDRR's renewed and revitalized engagement in areas such as civil society collaboration, gender-focused mainstreaming interventions and climate risk mitigation initiatives.



## Part V Annexes

# ANNEX 1: FINANCIAL REPORTING

## GFDRR's Overall Fiscal Framework

### Pre-track Country Programs

From January 2007 to June 2009, GFDRR committed \$53 million to support the mainstreaming of the disaster risk reduction agenda. This support resulted in strengthening evidence-based country policy dialogue on disaster risk reduction in 54 countries, assisting 14 countries after disasters to undertake post-disaster needs assessments and catalyzing greater regional and global cooperation on the disaster risk reduction and climate change adaptation agendas.

### Track II Country Programs

Following a decision of the 5th Consultative Group (CG, Nov. 2008), GFDRR adopted a programmatic approach to national disaster risk reduction with a focus on selected low-income high-risk countries. Currently, GFDRR is deepening its engagement in 20 core countries that account for 80 percent of GFDRR Track II Multi-Donor Trust Fund (MDTF) resources. The remaining 20 percent is allocated to flexible grant-making to leverage impact in targeted sectors to test innovative approaches to disaster risk reduction and climate change adaptation, such as investments in local risk reduction planning through bottom-up community initiatives. In addition there are 11 donor earmarked countries, funded by donors who have specifically designated these countries for their "earmarked" contribution Single-Donor Trust Funds (SDTF).

The 6th CG (June 2009) endorsed the GFDRR fiscal envelope for the next three years (the World Bank fiscal years 2010–12, beginning July 1, 2009 and ending June 30, 2012)—for Track II Country Programs: \$247,927,000 (programmatic).

### The Financing Gap

For the estimated \$248 million for 2010–12 required to implement the envisaged Country Programs in Track II, donor pledges amounted to \$137 million (of which \$126 million has been contributed), leaving a financing gap of \$111 million.

The Track III Standby Recovery Financing Facility has been increasingly called upon by countries to support post-disaster needs assessments and build back smarter planning. For the estimated \$45 million for 2010–12 required to meet projected Track III business needs, \$16 million has been pledged, leaving a financing gap of \$29 million. Current and prospective partners are therefore encouraged to consider expanding support to meet the Facility's Track II and III projected programming needs, which face a total financing gap of \$140 million. Please refer to Tables 1 and 2 for details.

**TABLE 1: TRACK II FINANCIAL OVERVIEW  
FY2010 – FY2012 (US\$M)**

	MDTF	SDTF <sup>1</sup>	Total
Country Programs budget	135		135
Flexible envelope budget	35		35
Donor earmarked budget		78	78
Total budget	170	78	248
Pledged funds	124	13	137
/of which funds received	58	11	69
Current financing gap	46	65	111

1. Does not include the EU Africa Caribbean and Pacific SDTF

**TABLE 2: GFDRR 2010-12 BUDGET PLAN**

No.	(in \$ million)	Global & Regional Partnerships	Country Programs				DRR in Recovery	Total
			Track I	Track II (MDTF)	Track II (SDTF)	Track II Total		
1	Approved Budget Envelop	N/A	170	78	248		45	307
2	Pledged	14	124	13	137	78**	16	167
3	Contributions*	14	114	12	126		14	154
4	Resource Committed***	14	48	3	51	tbd	12	77
5	Financing Gap (2 minus 1) excluding ACP/EU	N/A	(46)	(65)	(111)	- -	(29)	(140)

\*with Administration Agreement

\*\* based on currency exchange rate of 1.448 dollar to one Euro

\*\*\* Resource committed to projects from FY2010-11

Note: From the approved budget envelope for FY2010-12, \$77 million has been committed up to FY2011 with a planned commitment of the financing gap of \$140 million in FY2012-14

Note: Track II (SDTF) covers 11 donor earmarked countries

**TABLE 3: ESTIMATED FUTURE COMMITMENTS - FINANCING GAP AND AVAILABLE RESOURCES**

Planned Commitment - for available resources and resources to be made available against funding gap (in \$ million)			
	Track II	Track III	Total
FY12	93	10	103
FY13	56	10	66
FY14	37	10	48
Total	186	30	217

**TABLE 1. MEMBER CONTRIBUTIONS<sup>v</sup> TO GFDRR RECEIVED AS OF JUNE 30, 2011 (IN US\$ THOUSANDS)**

MEMBER	Track II			Track III			ALL TOTAL
	CORE	NON-CORE	South-South	SUB-TOTAL	TA	CALLABLE	
Australia	13,765	6,268		20,033	3,056	1,550	3,056
Brazil			0				1,550
Canada	3,113		3,113			0	3,113
Denmark	6,364		6,364		1,984		8,348
EC			0	1,598		1,206	2,803
France	1,397		1,397				0
Germany	11,305		11,305				0
Ireland	547		547	127			11,305
Italy	4,314		1,057	5,371	558		674
Japan	6,000	6,000		12,000			5,929
Luxembourg	4,817			4,817			0
Netherlands	4,400			4,400			12,000
Norway	5,018		394	5,412	3,797		246
Spain	3,024		3,210	6,235			5,062
Sweden	17,283			17,283	5,200		4,400
Switzerland	2,338			2,338			3,833
United Kingdom	13,110			13,110			13,110
United States			0				0
World Bank	24,250			24,250			0
<b>TOTAL</b>	<b>121,047</b>	<b>15,479</b>	<b>1,451</b>	<b>137,976</b>	<b>13,777</b>	<b>5,833</b>	<b>1,206</b>
						<b>20,816</b>	<b>158,792</b>

1/ NOTE: Contributions received referred to donor funds deposited to the World Bank GFDRR trust accounts.

a/ US\$5 million per year for four years (FY2007-10) and US\$4.25 million for FY2011 were provided as a grant to the United Nations International Secretariat for Disaster Recovery (UNISDR) under Track I financing

**TABLE 2. GFDRR MEMBER PLEDGED CONTRIBUTIONS AS OF OCTOBER 31, 2011 (IN US\$ THOUSANDS)**

MEMBER	CORE	NON-CORE	SOUTH-SOUTH	SUB-TOTAL	TA	CALLABLE	EC-SDTF	Sub-Total	All Total
Australia	17,510	8,110 <sup>a/</sup>		25,620	3,004	1,750		3,004	28,624
Brazil			0				1,750	1,750	
Canada	3,113		3,113			0		0	3,113
Denmark	11,194		11,194			1,984		1,984	13,178
EC	7,172	76,585	83,757	2,316		2,424	4,740	4,740	88,497
France	1,536		1,536					0	1,536
Germany	14,271		14,271					0	14,271
Ireland	547		547	127				127	674
Italy	6,879		1,057	7,936		558	558	8,494	
Japan	6,000	6,000 <sup>b/</sup>		12,000				0	12,000
Korea	900			900				0	900
Luxembourg	6,124		6,124						7,461
Netherlands	6,600		6,600					0	6,600
Nigeria	500		500					0	500
Norway	5,018		394	5,412	5,245			5,245	10,657
Spain	6,024		6,211 <sup>c/</sup>	12,235				0	12,235
Sweden	19,663		19,663	6,727			6,727		26,389
Switzerland	6,454		6,454			1,495		1,495	7,949
United Kingdom	45,424		45,424					0	45,424
United States	3,040		3,040					0	3,040
World Bank	28,500 <sup>d/</sup>			28,500				0	28,500
<b>TOTAL</b>	<b>196,468</b>	<b>96,906</b>	<b>1,451</b>	<b>294,825</b>	<b>17,418</b>	<b>7,124</b>		<b>26,966</b>	<b>321,791</b>

**NOTE:** Amounts quoted at time of loan's pledged agreement or signed Administrative Agreement. Referred actual received contributions from Table 1. Depository schedules could spread from one year to three years.

a/ Targeted to the following specific countries: Bangladesh, Cambodia, Philippines and Vanuatu

b/ Targeted to the following specific countries: Lao PDR, Pakistan and Sri Lanka

c/ Targeted to the following specific countries: Colombia, Costa Rica, Ecuador and Guatemala

d/ US\$5 million per year for four years (FY2007-10) is provided as a grant to the United Nations International Secretariat for Disaster Recovery (UNISDR) under Track financing. FY2011-12 contributions are \$4.25 million per year.

**TABLE 3. GFDRR EXPENDITURES FOR PROGRAM ACTIVITIES, SECRETARIAT COSTS AND ADMINISTRATIVE FEES FROM FISCAL 2007 TO JUNE 30, 2011 (IN US\$ THOUSANDS)**

EXPENSE CATEGORY	2007		2008		2009		2010		(Jul - June)	
	6,762	5,000	11,696	5,000	19,655	5,000	24,450	4,250	28,733	91,297
Program Activities o/w Track I	5,000	5,776	11,696	11,599	13,710	13,710	17,058	4,250	24,250	49,905
Track II (Core)	1,762	0	10	994	1,399	1,399	1,396	1,396	3,799	13,343
Track II (Non-Core)	0	910	2,062	4,341	6,030	6,030	6,030	6,030	6,030	13,343
Track III										
Secretariat <sup>1</sup>	347	1,524	957	1,171	1,171	1,171	1,586	1,586	1,586	5,585
Administrative Fees	211	1,279	1,217	1,684	1,684	1,684	1,811	1,811	1,811	6,202
<b>TOTAL<sup>a</sup></b>	<b>7,320</b>	<b>14,500</b>	<b>21,829</b>	<b>27,305</b>	<b>32,131</b>	<b>32,131</b>	<b>103,084</b>	<b>103,084</b>	<b>103,084</b>	<b>103,084</b>

NOTE: Program Activities for Track II and III included global anchor operational support from GFDRR.

a) This would refer to actual payments made and contracts already entered in the Bank's SAP system.

1 Includes Program Management Unit staff costs (management, administration, evaluation of proposals, governance and donor relations).

**TABLE 4. GFDRR SECRETARIAT EXPENDITURES, FISCAL 2007 TO JUNE 30, 2011 (IN US\$ THOUSANDS)**

EXPENSE CATEGORY	2007	2008	2009	2010	(Jul - June) 2011	TOTAL
Administration						
Staff Costs <sup>1</sup>	225	977	601	870	1,247	3,921
Travel <sup>2</sup>	92	282	115	265	267	1,021
Overhead <sup>3</sup>	4	23	113 <sup>c</sup>	2	4	145
Other <sup>4</sup>	26	241	128	34	69	498
<b>TOTAL a) b)</b>	<b>347</b>	<b>1,524</b>	<b>957</b>	<b>1,171</b>	<b>1,586</b>	<b>5,584</b>

a) This would refer to actual payments made and contracts already entered in the Bank's SAP system.

b) Secretariat cost varied across 5 years. Higher start-up cost in FY08 and increased scope in regional coordination and trust funds administration support in FY11.

c) FY09 Overhead included the institutional trust funds indirect rates. Other years indirect rates captured under Staff Costs.

1 Staff Costs included salaries and benefits of PMU Headquarters staff (including ETC/EIT)

2 Travel included travel expenses of the PMU Headquarters staff, candidates/interviewees for GFDRR positions, Annual Meeting participants, other participants in GFDRR-sponsored events.

3 Overhead included office space, communications &amp; IT, computers, other office equipment of Washington-based PMU and trust funds indirect rates in FY09.

4 Other included the use of short-term consultants and other contractual services (e.g. editing, graphic design, translation, publishing and printing, representation, hospitality, etc.)

**TABLE 5A. APPROVED ACTIVITIES UNDER TRACK II FOR THE PERIOD FY07 - FY11 AS OF JUNE 30, 2011 (BY REGION) (IN US\$ THOUSANDS)**

REGIONS	APPROVED	TRANSFERRED	DISBURSEMENT <sup>a/</sup> (Actuals + Commitments)	BURN RATE <sup>b/</sup>
Africa	19,632	11,714	8,989	77%
East Asia and Pacific	20,233	14,587	9,756	67%
Europe and Central Asia	3,276	2,538	1,986	78%
Latin America and Caribbean	17,099	15,612	12,064	77%
Middle East and North Africa	6,291	5,556	4,150	75%
South Asia	6,183	4,344	3,179	73%
Global	20,305	18,503	16,953	92%
<b>TOTAL</b>	<b>93,017</b>	<b>72,854</b>	<b>57,077</b>	<b>78%</b>

a/ This would refer to actual payments made and contracts already entered in the Bank's SAP system.  
b/ Disbursement rate as a percentage of actual amount transferred from inception to June 30, 2011.

**TABLE 5B. APPROVED ACTIVITIES UNDER TRACK III FOR THE PERIOD FY08 - FY11 AS OF JUNE 30, 2011 (BY REGION) (IN US\$ THOUSANDS)**

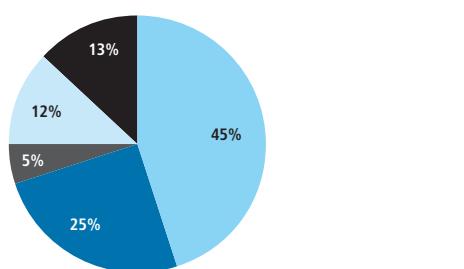
REGIONS	APPROVED	TRANSFERRED	DISBURSEMENT <sup>a/</sup> (Actuals + Commitments)	BURN RATE <sup>b/</sup>
Africa	2,344	2,268	2,102	93%
East Asia and Pacific	3,573	3,534	2,907	82%
Europe and Central Asia	275	175	139	79%
Latin America and Caribbean	3,897	2,867	1,651	58%
Middle East and North Africa			--	
South Asia	5,663	5,363	3,893	73%
Global	3,200	3,200	2,461	77%
<b>TOTAL</b>	<b>18,953</b>	<b>17,407</b>	<b>13,153</b>	<b>76%</b>

<sup>a/</sup>This would refer to actual payments made and contracts already entered in the Bank's SAP system.  
<sup>b/</sup>Disbursement rate as a percentage of actual amount transferred from inception to June 30, 2011.

HFA Priority for Action			
Priority Number and Primary Nature		GFDRR Total US\$	Co-Finance
1 Ensure that DRR is a national and local priority with a strong institutional basis for implementation		58,798,226	43,590,500
Institutional capacity and consensus building for disaster risk reduction			
2 Identify, assess and monitor disaster risks and enhance early warning		32,235,893	15,958,200
Disaster risk assessment and monitoring			
3 Use knowledge, innovation and education to build a culture of safety and resilience at all levels		6,728,053	590,000
Knowledge and capacity enhancement for disaster risk reduction			
4 Reduce the underlying risk factors		15,459,143	112,482,169
Disaster risk reduction and financing for sustainable development			
5 Strengthen disaster preparedness for effective response at all levels		17,661,943	478,332
Disaster preparedness and sustainable recovery			
<b>TOTAL</b>		<b>130,883,258</b>	<b>173,099,201</b>

HFA Priority for Action		
Priority Number and Primary Nature		%
1 HFA Priority 1: Ensure that DRR is a national and local priority with a strong institutional basis for implementation		45%
2 HFA Priority 2: Identify, assess and monitor disaster risks and enhance early warning		25%
3 HFA Priority 3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels		5%
4 HFA Priority 4: Reduce the underlying risk factors		12%
5 HFA Priority 5: Strengthen disaster preparedness for effective response at all levels		13%

**GRAPH 1: Distribution Of GFDRR Resources by HFA Priority**

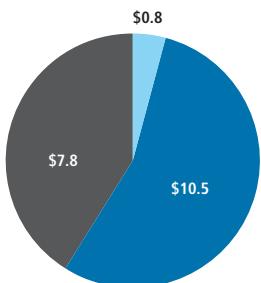


- █ HFA Priority 1: Ensure that DRR is a national and local priority with a strong institutional basis for implementation
- █ HFA Priority 2: Identify, assess and monitor disaster risks and enhance early warning
- █ HFA Priority 3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels
- █ HFA Priority 4: Reduce the underlying risk factors
- █ HFA Priority 5: Strengthen disaster preparedness for effective response at all levels

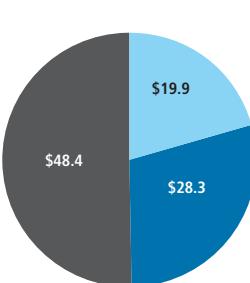
## GRAPH 2a: Track-wise Project Development Objective Breakdown

The project development objectives, which are based on projects' expected outcomes, are essentially a logical progression of disaster risk reduction mainstreaming. For example, a county can begin with projects related to "advocacy and analytical work" then progressively tackle projects related to "policy dialogue and legislation." Projects related to "capacity building and DRM institutionalization and financing" are considered the most advanced.

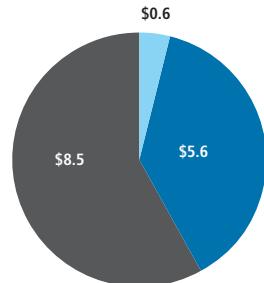
Track I Portfolio Breakdown by PDO (\$million)



Track II Portfolio Breakdown by PDO (\$million)



Track III Portfolio Breakdown by PDO (\$million)



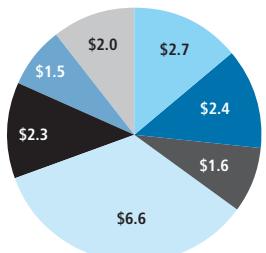
- █ Policy Dialogue and Legislation
- █ Capacity Building and DRM Institutionalization and Financing
- █ Advocacy and Analytical Work

- █ Policy Dialogue and Legislation
- █ Capacity Building and DRM Institutionalization and Financing
- █ Advocacy and Analytical Work

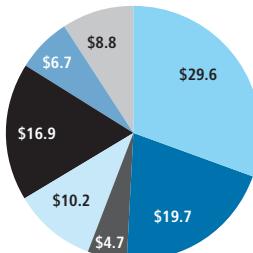
- █ Policy Dialogue and Legislation
- █ Capacity Building and DRM Institutionalization and Financing
- █ Advocacy and Analytical Work

## GRAPH 2b: Track-wise Breakdown on Projects by Regions

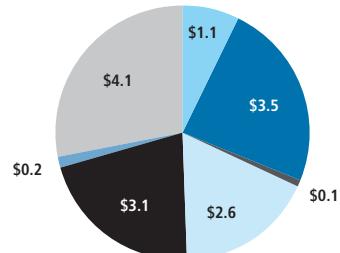
Track I Portfolio Breakdown by Region (\$million)



Track II Portfolio Breakdown by Region (\$million)



Track III Portfolio Breakdown by Region (\$million)

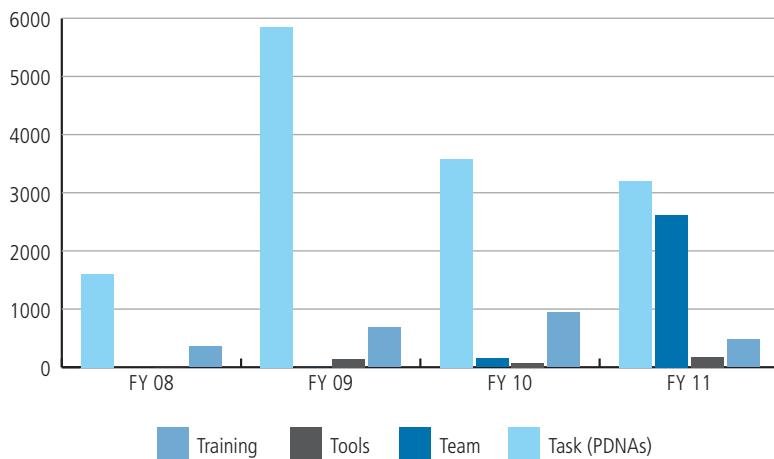


- █ Africa
- █ East Asia and Pacific
- █ Europe and Central Asia
- █ Global
- █ Latin America and the Caribbean
- █ Middle East and North Africa
- █ South Asia

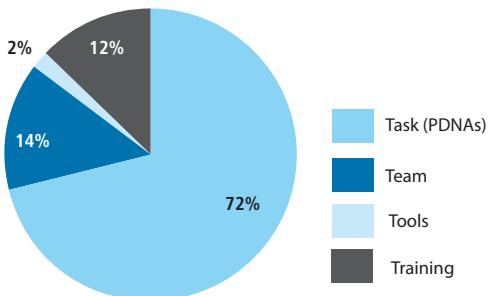
- █ Africa
- █ East Asia and Pacific
- █ Europe and Central Asia
- █ Global
- █ Latin America and the Caribbean
- █ Middle East and North Africa
- █ South Asia

- █ Africa
- █ East Asia and Pacific
- █ Europe and Central Asia
- █ Global
- █ Latin America and the Caribbean
- █ Middle East and North Africa
- █ South Asia

**GRAPH 3a: Track III Resource Allocation FY 2008-11**

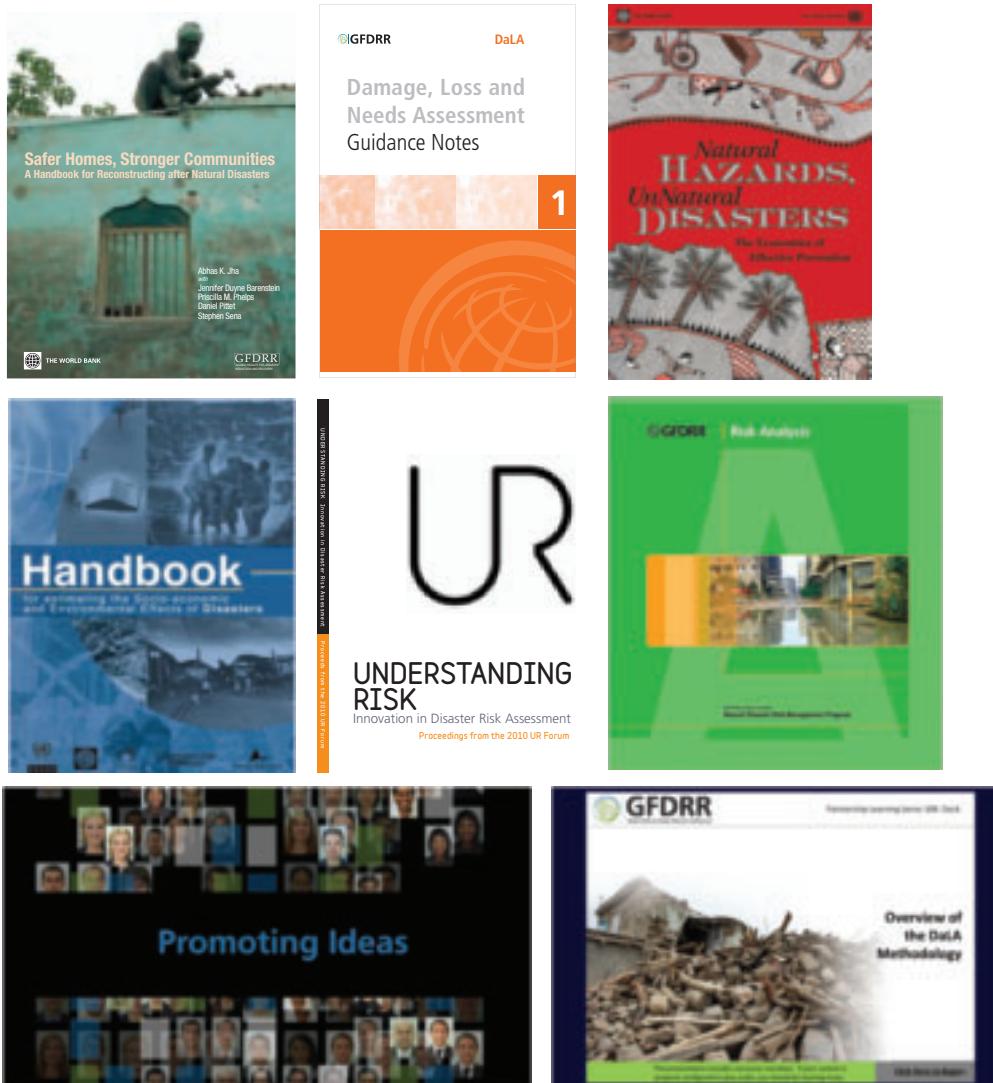


**GRAPH 3b: % Track III Resource Allocation - FY 2008-11**



# ANNEX 2: GFDRR KNOWLEDGE AND LEARNING PRODUCTS

The new GFDRR knowledge and learning products from this past year are organized by category (Partnerships, Risk Reduction and Recovery) and region (Africa, Asia, Latin America and the Caribbean, etc).



# PARTNERSHIPS

## GLOBAL

- **Natural Hazards, UnNatural Disasters: The Economics of Effective Prevention:** A World Bank-United Nations joint publication which looks at disasters through an economic lens. For more information, please visit: [www.worldbank.org/preventingdisasters](http://www.worldbank.org/preventingdisasters)
- **Understanding Risk: Innovation in Disaster Risk Assessment:** Understanding Risk (UR) is a global forum that brings together experts and practitioners in disaster risk assessment. For more information: <http://understandrisk.org/>
- **Handbook for Estimating the Socio-economic and Environmental Effects of Disasters:** A publication by the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC) and the World Bank, this handbook covers the conceptual and methodological aspects for measuring the damage caused by a disaster in the capital gains and output streams of goods and services. For more information: <http://go.worldbank.org/0I17H6KX40>
- **Volunteer Technology Communities: Open Development:** Technology communities collaborating together and with the World Bank, United Nations and others on web 2.0-related projects making their supercomputers and large storage arrays available for processing imagery, managing translation workflows, and serving large data sets. For more information: <http://www.gfdrr.org/gfdrr/volunteer-technology-communities-open-development>

# RISK REDUCTION

## AFRICA

- **Disaster Risk Reduction in Sub-Saharan Africa:** Over the last four decades, Sub-Saharan Africa has experienced more than a thousand disasters. This report covers how Sub-Saharan Africa's disaster profile is closely linked to the vulnerability of its population and economies and their often-low capacity to cope with natural hazards. For more information: <http://www.gfdrr.org/gfdrr/node/803>

## ASIA

- **Building Urban Resilience Issue 8, Eye on Asia, Economic Management and Poverty Reduction:** A report on building urban resilience in East Asia. For more information: [http://siteresources.worldbank.org/INTEASTASIAPACIFIC/Resources/2262621291126731435/EOEA\\_Abhass\\_Jha\\_April2011.pdf](http://siteresources.worldbank.org/INTEASTASIAPACIFIC/Resources/2262621291126731435/EOEA_Abhass_Jha_April2011.pdf)
- **Central Asia and Caucasus Disaster Risk Management Initiative:** This desk review presents an initiative that aims at reducing Central Asia and the Caucasus (CAC)'s vulnerability to the risk of disasters, in line with the Hyogo Framework for Action 2005–15. For more information: <http://www.preventionweb.net/english/professional/publications/v.php?id=11641>
- **East Asia Pacific Disaster Risk Management (DRM) Knowledge Notes:** The Knowledge Note series was launched by the Governor of Bali, Indonesia, on May 18, 2009, as part of the Association of Southeast Asian Nations (ASEAN)-UNISDR-World Bank Joint Forum on Disaster Risk Reduction. For more information: <http://go.worldbank.org/IQ7BMLM050>
- **It's Not Too Late: Preparing for Asia's Next Big Earthquake—with Emphasis on the Philippines, Indonesia and China:** This report focuses on how to prepare the Asia region for the next major earthquake. For more information: <http://www.gfdrr.org/gfdrr/node/288>

- **Mitigating the Adverse Financial Effects of Natural Hazards on the Economies of Central Asia:** A study of catastrophe risk financing options. For more information: [http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/CACDRM-Component2\\_CatRiskFinancingReport.pdf](http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/CACDRM-Component2_CatRiskFinancingReport.pdf)

## **LATIN AMERICA AND THE CARIBBEAN**

- **Disaster Risk Management in Latin America and the Caribbean Region: GFDRR Country Notes:** An extensive report on disaster risk management in Latin America and the Caribbean, including trends on disasters within the region. For more information: [http://www.gfdrr.org/gfdrr/sites/gfdrr.org/files/DRM\\_LAC\\_CountryPrograms.pdf](http://www.gfdrr.org/gfdrr/sites/gfdrr.org/files/DRM_LAC_CountryPrograms.pdf)

## **GLOBAL**

- **Capacity Building Online Learning Program:** This program, offered with partner organizations such as the Arab Academy, Earthquake Megacities Initiative (EMI), Middle East Technical University (METU), National Institute of Disaster Management of India (NIDM), has the following 10 courses:
  - **Comprehensive Disaster Risk Management Framework:** An introductory course for development practitioners, gives an overview of the major disaster risk management issues.
  - **Financial Strategies for Managing the Economic Impacts of Natural Disasters:** A course for policy makers addressing the financial, economic and development impact of disasters and the trade-offs involved in disaster risk financing.
  - **Safe Cities:** A course for urban managers and planners reviews the processes, regulations, enforcement issues and methods of reducing exposure to hazards and limiting the physical vulnerability of high-density settlements.
  - **Community-based Disaster Risk Management:** A course for community leaders and NGOs focusing on prevention, mitigation and the need for the participation of local actors in designing, developing, implementing and monitoring activities related to disaster risk reduction.

- **Damage and Reconstruction Needs Assessment:** Enhancing the participants' understanding of social, economic and environmental effects of natural disasters, the course introduces instruments for quantifying direct damages, indirect losses and the overall macroeconomic effects of catastrophic events to accurately estimate the resources needed for recovery and reconstruction.
- **Climate and Disaster Risk Management:** An introduction to the science of climate change, this course explores the linkage between disaster risk management and climate change adaptation, and outlines strategies, methods and tools for integrated climate risk management.
- **Earthquake Risk Reduction:** Linking the science and engineering of earthquakes to structural and nonstructural risk reduction practices, this course introduces the basic approaches to earthquake risk reduction by discussing their effectiveness in various regions.
- **Gender Aspects of Disaster Risk Reduction:** This course illustrates how the inclusion of women in disaster management results in more equitable and efficient outcomes during disaster recovery and reconstruction. It reviews those aspects of disaster management in which gender concerns arise, and introduces policies and tools for gender mainstreaming.
- **Risk Sensitive Land Use Planning:** The course demonstrates the benefits of incorporating disaster risk reduction objectives in land use planning.
- **Risk Analysis:** An analytical process for identifying disaster risk and for generating the information and data required to design risk reduction measures is presented in the course.

- **Disaster Risk Financing and Insurance (DRFI) Program:** An overview of the DRFI program; the initiative was established within GFDRR to support the implementation of the Hyogo Framework for Action 2005–15 (HFA)—as it relates to the fourth (of five) priority action: to reduce disaster losses is to reduce underlying risk factors. For more information: [http://www.gfdrr.org/gfdrr/sites/gfdrr.org/files/documents/DRFI\\_Program\\_TwoPager\\_Jan11.pdf](http://www.gfdrr.org/gfdrr/sites/gfdrr.org/files/documents/DRFI_Program_TwoPager_Jan11.pdf)
- **Landslide Handbook—A Guide to Understanding Landslides:** (Available in Spanish and Portuguese). This handbook is intended to be a resource for people affected by landslides to acquire further knowledge, especially about the conditions that are unique to their neighborhoods and communities. For more information: [http://www.gfdrr.org/gfdrr/sites/gfdrr.org/files/publication/Deslizamientos\\_M5DS.pdf](http://www.gfdrr.org/gfdrr/sites/gfdrr.org/files/publication/Deslizamientos_M5DS.pdf)
- **Using High Resolution Satellite Data for Identification of Urban Natural Risk:** A report about the cost of disasters in an urban context. For more information: <http://www.gfdrr.org/gfdrr/node/813>

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## RECOVERY

### ASIA

- **Pakistan Floods-2010: Preliminary Damage and Needs Assessment:** At the request of the government of Pakistan, the World Bank and the Asian Development Bank launched a damage and needs assessment (DNA) exercise in August of 2010 to assess and quantify flood damage, losses and resulting needs in order to address medium- to long-term post-flood reconstruction, recovery planning, prioritization and programming needs. For more information: <http://www.gfdrr.org/gfdrr/node/297>

### LATIN AMERICA AND THE CARIBBEAN

- **Haiti Earthquake Post-disaster Needs Assessment:** Assessment of damage, losses, general and sectoral needs and development of Haiti: annex to the action plan for national recovery. For more information, [http://gfdrr.org/docs/PDNA\\_Haiti-2010\\_Working\\_Document\\_EN.pdf](http://gfdrr.org/docs/PDNA_Haiti-2010_Working_Document_EN.pdf)
- **Haiti Earthquake Reconstruction:** Knowledge notes from the disaster risk management (DRM) global expert team for the government of Haiti. For more information, [http://www.gfdrr.org/gfdrr/sites/gfdrr.org/files/publication/GFDRR\\_Haiti\\_Reconstruction\\_KnowledgeNotes\\_0.pdf](http://www.gfdrr.org/gfdrr/sites/gfdrr.org/files/publication/GFDRR_Haiti_Reconstruction_KnowledgeNotes_0.pdf)

### GLOBAL

- **Safer Homes, Stronger Communities—The Handbook for Reconstructing after Natural Disasters:** A guide to how to reconstruct large-scale housing and communities. For more information: <http://www.housingreconstruction.org>
- **Risk Analysis Manual:** Provides facilitators with an overview of the risk analysis online course through presentations, case studies and readings. For more information, [www.gfdrr.org/gfdrr/learning](http://www.gfdrr.org/gfdrr/learning)
- **Earthquake Reconstruction Knowledge Note:** The “Earthquake Reconstruction” is the first piece among a series of knowledge notes GFDRR produces for different types of disasters for policymakers and practitioners potentially facing post-disaster situations. For more information, [www.gfdrr.org/gfdrr/learning](http://www.gfdrr.org/gfdrr/learning)
- **Post-disaster Needs Assessment (PDNA) Videos:** GFDRR produced three videos on Post-disaster Needs Assessment: 1) Why PDNA?; 2) What are the requirements for an efficient PDNA?; and 3) What are the challenges of PDNA Implementation? For more information, [www.gfdrr.org/gfdrr/learning](http://www.gfdrr.org/gfdrr/learning)
- **Partnership Learning Series (PLS) 101 on GFDRR; Multimedia Products:** GFDRR produced a series of short videos to introduce the main GFDRR activities: business lines and global programs. [www.gfdrr.org/gfdrr/learning](http://www.gfdrr.org/gfdrr/learning)

- DaLA (Damage, Loss and Needs Assessment) Knowledge Products:  
DaLA Related Knowledge Products: The damage, loss and needs assessment (DaLA) methodology, developed by the Economic Commission for Latin America and the Caribbean (ECLAC) in the 1970s, has evolved as a globally recognized and applied tool to quantify the impacts of disasters, and to determine the necessary financial resources to achieve full reconstruction and recovery. The following DaLA-related knowledge products have been created for practitioner training. For more information: [www.gfdrr.org/gfdrr/learning](http://www.gfdrr.org/gfdrr/learning)

- **DaLA Guidance Notes (3 Volumes):**  
Available in Arabic, Chinese, English, French, Russian, Spanish, the DaLA Guidance Notes were prepared by GFDRR to help practitioners and staff from national and international agencies to assess the impact of disasters and to develop the recovery and reconstruction framework.
- **PLS 106 Training Materials:** This introductory DaLA course introduces the damage, loss and needs assessment methodology.
- **PLS 308 Training Materials:** This advanced DaLA course includes concepts, methodology, processes and sector specific characteristics of the methodology.
- **DaLA Training Manual:** This manual provides instructors with a background of basic concepts, terminology, examples of real life cases and exercises to apply the new concepts and methodology, and step-by-step guidance for exercise implementation.
- **DaLA Course Videos:** These videos were recorded during the DaLA training at World Bank Headquarters. They are organized by sessions and keep the sequence of the actual training event in nine blocks.
- **DaLA Online Self-paced Course:** This self-paced online course is a conversion of the DaLA training materials into an online course platform.

**For more information, please visit the GFDRR website and following online portals:**

- GFDRR homepage: <http://www.gfdrr.org> and Learning page [www.gfdrr.org/gfdrr/learning](http://www.gfdrr.org/gfdrr/learning)
- Disaster Risk Management Programs for Priority Countries: <http://www.gfdrr.org/gfdrr/node/814>
- Climate Risk and Adaptation Country Profiles: <http://countryadaptationprofiles.gfdrr.org>

# ANNEX 3:

# RESULTS FRAMEWORK METHDLOGY

## The GFDRR Results Model: Methodological Features

Developmental impact evaluation for disaster risk management has until now remained relatively uncharted territory and conventional analysis techniques and data limitations pose significant challenges towards meaningful and quantitative results analyses. To meet these challenges, GFDRR's central results team has developed innovative operationalization techniques and a results model, specifically for measuring DRM mainstreaming performance. The GFDRR results model makes optimum use of the "contribution/partnership based approach" for measuring results for its multi-donor, multi-recipient DRM program. It has a strong focus on measuring both GFDRR contributions and country performance towards the mainstreaming of disaster risk reduction in its priority countries. Most mainstreaming results are currently assessed against the HFA priority of "ensuring that disaster reduction is a national and local priority with a strong institutional basis for implementation."

## Evolution and Operationalization of GFDRR's Results Framework

GFDRR is currently implementing the results framework (RF) over a 12-month time horizon since its endorsement by GFDRR's Consultative Group (CG) in October 2010. GFDRR has made significant strides toward the operationalization of key DRM mainstreaming indicators included in its results framework. The team has created standard business processes for results measurement that have enabled a rapid operationalization of the majority of the Track I and II indicators and a proportion of key indicators from Track III. Progress on operationalization of Track III has been slower than the other tracks, because it requires greater field data collection using various instruments and it requires substantiation through validation post-disaster impact. This in turn requires involvement of various stakeholders from the range of post-disaster countries that GFDRR has supported over the last five-year period.

## The GFDRR Results Framework

Developmental Goal [2009-12]	Program Outcome Indicators
Make substantial strategic progress/contributions towards increasing human security and prosperity through comprehensive national disaster risk reduction programs in client countries.	<p>Qualitative evidence[1] of contribution of GFDRR supported DRR-related policy development and program implementation towards poverty[2] and vulnerability reduction (across regions and overall client countries)</p>
	<p>Qualitative evidence[3] of contribution of GFDRR supported DRR-related policy development and program implementation towards climate sensitization and adaptation (across regions and overall client countries)</p>
	<p>% priority[4] countries successfully implementing/completing comprehensive national DRR programs that adequately address all five HFA priority areas—measured through independent measurements of GFDRR's contribution to country progress towards meeting HFA priorities, including:</p> <ul style="list-style-type: none"> <li>o Ensuring that disaster reduction is a national and local priority with a strong institutional basis for implementation</li> <li>o Identifying, assessing and monitoring disaster risks and enhancing early warning</li> <li>o Using knowledge, innovation and education to build a culture of safety and resilience at all levels</li> <li>o Reducing the underlying risk factors</li> <li>o Strengthening disaster preparedness for effective response at all levels</li> </ul>
	<p>% priority countries successfully implementing/completing comprehensive national DRR programs that adequately address at least three HFA priority areas, including:</p>
	<ul style="list-style-type: none"> <li>o Ensuring that disaster reduction is a national and local priority with a strong institutional basis for implementation</li> <li>o Identifying, assessing and monitoring disaster risks and enhancing early warning</li> <li>o Strengthening disaster preparedness for effective response at all levels</li> </ul>
	<p>% client[5] countries where DRR prioritization and financing is strengthened inter-alia based on economic evidence[6] generated and disseminated by GFDRR</p>
	<p>Increase in number of regional organizations, bilateral donors and multilateral development banks with strengthened DRR prioritization and financing inter-alia based on economic evidence generated and disseminated by GFDRR</p>
Intermediate Outcome Indicators	
	<p>% client countries where dialogue on DRR prioritization and financing is initiated or leveraged inter alia based on economic evidence generated and disseminated by GFDRR</p>
	<p>Increase in number of regional organizations, bilateral donors and multilateral development banks where dialogue on DRR prioritization and financing is initiated or leveraged inter alia based on economic evidence generated and disseminated by GFDRR</p>
	<p>Multi-stakeholder dissemination and recognition of GFDRR's global "Economic of DRR" initiative</p>

Track I: The Global and Regional Cooperation Program	
Developmental Objectives	Program Outcome Indicators
Expand, strengthen and deepen global and regional partnerships for supporting national disaster risk reduction and climate change adaptation.	<p>1. Increased value of joint or harmonized DRR and climate change adaptation (CCA) investments by donors and multilateral development banks</p> <p>2. % of GDRR-supported regional and sub-regional organizations with enhanced DRR and CCA capacities, resources and portfolios</p> <p>3. Increased institutionalization of innovative DRR technologies and products by GFDRR-supported regional partners[7]</p>
Intermediate Outcomes	Intermediate Outcome Indicators
1. Enhanced GFDRR sponsored global collaboration and aid effectiveness for DRR	<p>a. Broadening and diversification of GFDRR partnership base to include increased number of donor countries, emerging economies, developing countries and regional institutions</p> <p>b. Enhanced and strengthened[8] DRR and CCA partnerships between donors and multilateral development banks</p> <p>c. Enhanced and strengthened GFDRR partnerships with the private sector and civil society</p>
2. Enhanced regional capacities to address disaster risk reduction.	<p>a. Increase in the number of regional strategies and programs by GFDRR-supported regional organizations to address DRR and CCA</p> <p>b. Increase in, or strengthening of, regional DRR and CCA support systems[9] of GFDRR-supported regional organizations</p>
3. Increased regional uptake and use of innovative technologies for DRR	<p>a. Increase in the number of GFDRR-supported open source regional or sub-regional information hubs for DRR</p> <p>b. Increase in the number of innovative technologies and products by GFDRR partners</p>
Track II: The Disaster Risk Reduction Mainstreaming Program	
Developmental Objectives	Program Outcome Indicators
Contribute towards mainstreaming disaster risk reduction and climate change adaptation as key elements of sustainable development in priority countries.	<p>1. % of GFDRR priority countries that have earmarked DRR allocations in their annual and medium term development budgets</p> <p>2. % of GFDRR priority countries that have institutionalized and utilized disaster risk assessments for improved DRR; % of GFDRR priority countries which have invested in strengthening their early warning and emergency preparedness capacities</p> <p>3. % of priority countries which have adopted innovative risk financing frameworks</p> <p>4. % GFDRR priority countries that institutionalize safer school and hospital designs and operations</p>
Intermediate Outcomes	Intermediate Outcome Indicators
1. Tangible progress towards greater integration of disaster risk reduction in developmental policies and poverty reduction strategies in priority countries.	<p>a. % of GFDRR priority countries that have integrated DRR and CCA in their national development policies</p> <p>b. % of GFDRR priority countries where the World Bank has integrated DRR and CCA in its country assistance strategies</p>
2. Provision of enabling analytical tools and environment for countries to develop policies and investments for disaster risk reduction	<p>a. % of GFDRR priority countries that have carried out systematic disaster risk assessments with support from GFDRR to underpin risk mitigation/reduction strategies</p> <p>b. % of GFDRR priority countries where GFDRR has provided technical and capacity-building support for early warning systems and emergency preparedness</p>
3. Advancement of risk financing mechanisms	<p>a. % of GFDRR priority countries where GFDRR has introduced and/or leveraged innovative work/knowledge products in the area of risk financing</p> <p>b. % of GFDRR priority countries where active government dialogue has been initiated over risk financing mechanisms</p>
4. Tangible contributions towards enhancing the hazard resilience of cities, communities and critical infrastructure in priority countries	<p>a. % of GFDRR priority countries that have integrated DRM in urban development planning of one or more cities</p> <p>b. % GFDRR priority countries where GFDRR has helped develop safe construction and retrofitting guidelines for hospitals and schools</p>

### Track III: The Sustainable Recovery Program

Developmental Objectives	Program Outcome Indicators
Assist post-disaster countries in achieving efficient, effective and resilient disaster recovery, while promoting and leveraging greater disaster risk reduction.	<p>1. % disaster-hit countries per calendar year that request GFDRR support for recovery; % post-disaster countries where GFDRR organized swift responses for needs assessments (such as within 2-4 weeks of a disaster); % post disaster countries where GFDRR facilitated the development of recovery programs and projects within 3-5 months of a disaster</p> <p>2. % post-disaster countries supported by GFDRR where recovery programs led to (efforts for) strengthened recovery preparedness and response (such as emergency operations centers, standard operating procedures and protocols for emergency response, etc.)</p> <p>3. % post-disaster countries supported by GFDRR where recovery programs promoted incorporation of DRR in longer term development policy-making</p>
Intermediate Outcomes	Intermediate Outcome Indicators
1. Strengthened and coordinated disaster recovery planning	a. % post-disaster countries supported by GFDRR where PDNAs/DALAs are adopted as the common (national) strategic and financing platform across multiple sectors and stakeholders for subsequent disaster recovery
2. Enhanced and strengthened in-country capacities in recovery preparedness and response	<p>a. % post-disaster countries supported by GFDRR where recovery programs led to the creation or strengthening of dedicated disaster management institutions</p> <p>b. % post-disaster countries where training and workshops were conducted to improve in-country recovery capacities, specifically including training on post-disaster needs assessments</p>
3. Promotion of greater disaster risk reduction	a. % post-disaster countries supported by GFDRR which adequately addressed DRR in their disaster recovery strategies

- [1] Such evidence shall be collected through two means: (a) systematic aggregation, compilation and analysis of all related program and intermediate outcome indicators included in the Results Framework (RF); and (b) additional evidence and perceptions gathered through specially commissioned sample-based qualitative surveys.
- [2] Significant efforts are being made to better align GFDRR strategy and results with the achievement of the MDGs.
- [3] Such evidence shall be based on both existing related indicators included in the results framework, and possible new/joint DRM/CCA indicators to be developed in collaboration with major climate change actors/stakeholders.
- [4] This includes GFDRR priority and donor-earmarked countries
- [5] Including priority, donor-earmarked and post-disaster countries
- [6] The term economic evidence refers to global, regional and country-level evidence generated by GFDRR through its three tracks and its global "Economics of DRR" initiative.
- [7] The term partners refers to both regional organizations and other private sector and civil society partners.
- [8] Specific sub-indicators are being developed to capture the enhancement and strengthening of DRR partnerships as may be manifested in the institution of formal partnership arrangements, joint DRM programs and products, etc. The same applies to the next indicator on partnerships with private sector and civil society.
- [9] Such as trans-boundary or common risk assessments; early warning systems; South-South and other knowledge exchanges, etc.

# The GFDRR Results Scorecard 2006-11

The three complementary tracks of GFDRR—the Global and Regional Partnerships program (Track I), the Disaster Risk Reduction Mainstreaming Program (Track II), and the Standby Recovery Financing Facility (Track III)—all aim to help countries to make disaster risk reduction a key national development priority. The GFDRR scorecard (see next page) focuses mainly on Track II results indicators, which are at an advanced stage of being operationalized. These indicators are based on GFDRR's Consultative Group-endorsed Results Framework (see Annex 3, page 71). The information is generated via GFDRR's results model that combines information from the Hyogo Framework for Action Monitor and GFDRR's internal monitoring and evaluation system. The GFDRR results scorecard assesses GFDRR results against longer-term strategic goals envisioned under the GFDRR partnership strategy for a period of 10 years from program inception in 2006.

The GFDRR results model makes optimum use of the 'contribution/partnership based approach' for measuring results for its multi-donor, multi-recipient DRM program. There is a strong focus on measuring both 'GFDRR contributions' and 'country performance' towards the mainstreaming of disaster risk reduction in GFDRR's focus countries. Thus, while the 'Baseline 2006' and '2010 Indicator Value' measure country progress towards an indicator, the 'GFDRR Contribution 2010' measures GFDRR contributions towards the progress that the country has made. The 'GFDRR contribution vs. target (FY 2010)' puts the GFDRR contribution into perspective vis a vis the performance targets envisaged for the program.

## The GFDRR Results Scorecard 2006-11

### Track II: The Disaster Risk Reduction Mainstreaming Program\*

Developmental Objectives	Program Outcome Indicators	GFDRR Contribution 2010				GFDRR Contribution vs. Target (FY 2010)
		Baseline 2006	2010 Indicator Value	GFDRR Contribution 2010	GFDRR Contribution vs. Target (FY 2010)	
Program Outcome: Realizing HFA Priority 1	Priority countries make significant progress towards adequately addressing the HFA priority of "ensuring that disaster reduction is a national and local priority with a strong institutional basis for implementation"	2 (6%)	12 (39%)	13 (42%)	84%	
Contribute towards mainstreaming disaster risk reduction and climate change adaptation as key elements of sustainable development in priority countries.	1. #(% of GFDRR priority countries that have earmarked DRR allocations in their annual and medium term development budgets 2.a. #(% of GFDRR priority countries that have institutionalized and utilized disaster risk assessments for improved disaster risk reduction 2.b. #(% of GFDRR priority countries which have invested in strengthening their early warning and emergency preparedness capacities 3. #(% of GFDRR priority countries which have adopted innovative risk financing frameworks 4. #(% of GFDRR priority countries that institutionalize safer school and hospital designs and operations	10 (32%) 4 (13%) 8 (26%) 0 (0%) 9 (29%)	19 (66%) 21 (68%) 26 (84%) 8 (26%) 10 (32%)	10 (32%) 17 (55%) 14 (45%) 3 (10%) 1 (3%)	64% 110% 90% 45% 6%	
	Intermediate Outcome Indicators					
	a. #(% of GFDRR priority countries that have integrated DRR in their national development policies a. #(% of GFDRR priority countries that have integrated CCA in their national development policies b. #(% of GFDRR priority countries where the World Bank has integrated DRR in its country assistance strategies b. #(% of GFDRR priority countries where the World Bank has integrated CCA in its country assistance strategies	8 (26%) 4 (13%) 5 (16%) 3 (10%)	18 (58%) 13 (42%) 21 (68%) 12 (39%)	8 (26%) 4 (13%) 14 (45%) 9 (29%)	52% 26% 90% 58%	
	2. Provision of enabling analytical tools and environment for countries to develop policies and investments for disaster risk reduction					
	a. #(% of GFDRR priority countries that have carried out systematic disaster risk assessments with support from GFDRR to underpin risk mitigation/reduction strategies b. #(% of GFDRR priority countries where GFDRR has provided technical and capacity building support for early warning systems and emergency preparedness	4 (13%) 8 (26%)	21 (68%) 26 (84%)	17(55%) 14 (45%)	110% 90%	

## The GFDRR Results Scorecard 2006-11 continued

Track II: The Disaster Risk Reduction Mainstreaming Program*		Program Outcome Indicators			
Developmental Objectives		Baseline 2006	2010 Indicator Value	GFDRR Contribution 2010	GFDRR Contribution vs. Target (FY 2010)
Intermediate Outcomes	Intermediate Outcome Indicators				
3. Advancement of risk financing mechanisms	a. #(%) of GFDRR priority countries where GFDRR has introduced and/or leveraged innovative work/knowledge products in the area of risk financing b. #(%) of GFDRR priority countries where active government dialogue has been initiated over risk financing mechanisms		N/A	16 (52%)	103%
4. Tangible contributions towards enhancing the hazard resilience of cities, communities and critical infrastructure in priority countries	a. #(%) of GFDRR priority countries that have integrated DRM in urban development planning b. #(%) of GFDRR priority countries where GFDRR has helped develop safe construction and retrofitting guidelines for hospitals and schools	9 (29%)	11 (35%)	3 (10%)	45% 19%
<b>Track III: The Sustainable Recovery Program</b>					
1. Assist post-disaster countries in achieving efficient, effective and resilient disaster recovery, while promoting and leveraging greater disaster risk reduction	1. a #(%) of disaster-hit countries per calendar year that request GFDRR support for recovery 2. b. #(%) of post-disaster countries where training and workshops were conducted to improve in-country recovery capacities, specifically including training on post-disaster needs assessments		16 (21%)		
2. Enhanced and strengthened in-country capacities in recovery preparedness and response			6 (13%)		

[1] Please note that the Track II results framework indicators have been operationalized for all 31 GFDRR focus countries

# ANNEX 4: GLOSSARY

## **Adaptation**

The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

## **Building code**

A set of ordinances or regulations and associated standards intended to control aspects of the design, construction, materials, alteration and occupancy of structures that are necessary to ensure human safety and welfare, including resistance to collapse and damage.

## **Capacity development**

The process by which people, organizations and society systematically stimulate and develop their capacities over time to achieve social and economic goals, including through improvement of knowledge, skills, systems and institutions.

## **Climate change**

(a) The Inter-governmental Panel on Climate Change (IPCC) defines climate change as a change in the climate that persists for decades or longer, arising from either natural causes or human activity.  
(b) The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods”.

## **Disaster**

A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

## **Disaster risk**

The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.

## **Disaster risk management**

The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.

## **Disaster risk reduction**

The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.

## **Early warning system**

The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss.

## **Greenhouse gases**

Gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds.

## **Natural hazard**

Natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

## **Preparedness**

The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.

**Prevention**

The outright avoidance of adverse impacts of hazards and related disasters.

**Recovery**

The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.

**Resilience**

The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.

**Risk assessment**

A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.

**Sustainable development**

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

**Vulnerability**

The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

# ANNEX 5: ABBREVIATIONS AND ACRONYMS

ACP/EU	African, Caribbean and Pacific Group of States/European Union
ADB	Asian Development Bank
AUSAID	Australian Agency for International Development
CADRI	UN Capacity for Disaster Reduction Initiative
CAPRA	Central American Probabilistic Risk Assessment
CAS	country assistance strategy
CAT-DDO	Catastrophe Deferred Drawdown Option
CCA	climate change adaptation
CG	Consultative Group
DaLA	damage loss and needs assessment
DRFI	disaster risk financing and insurance
DRM	disaster risk management
DRR	disaster risk reduction
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
GAR	Global Assessment Report
GDLN	Global Development Learning Network
GFDRR	Global Facility for Disaster Reduction and Recovery
GIS	geographic information system
HFA	Hyogo Framework for Action
ICLEI	International Council for Local Environmental Initiatives
IGAD	Intergovernmental Authority on Development
JICA	Japan International Cooperation Agency
MDGs	Millennium Development Goals
MDTF	multi-donor trust fund
MNAIS	Modified National Agriculture Insurance Scheme
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
PRSPs	poverty reduction strategy papers
QRT	quick reaction team
RIMES	regional integrated multi-hazard early warning system
SAARC	South Asian Association for Regional Cooperation
SADC	Southern African Development Community
SADKN	South Asia Knowledge Network
SDTF	single donor trust fund
SRFF	Standby Recovery Financing Facility
TDLC	Tokyo Development Learning Center
UNECLAC	United Nations Economic Commission for Latin America and the Caribbean
UNISDR	United Nations International Strategy for Disaster Reduction
WCIDS	weather and climate information and decision-support systems
WFP	World Food Program
WMO	World Meteorological Organization

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