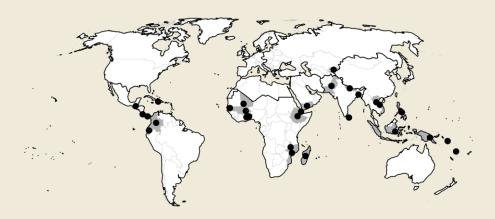


Country Updates GFDRR Engagement in 29 Focus Countries (2007–2012)



October 2012



Strengthened recovery preparedness in Lao PDR through a GFDRR project (Strengthening the in-country capacity for Recovery Planning in Lao PDR) pays of in the Government's response to typhoon Haima in 2011, and led to the quick development of a framework for resilient recovery and longer term risk reduction.



Country Updates GFDRR Engagement in 29 Focus Countries (2007–2012)

The objective of this document is to provide a quick snapshot of GFDRR programmatic engagement in 29 priority and noncore countries (hereafter referred to as "focus countries"). The compilation of the country updates was prepared for the 13th GFDRR CG meeting taking place in November 2012 in The Hague (Netherlands), and is based on the information available as of October 10, 2012. Inputs to the country updates were provided by the country GFDRR Disaster Risk Management (DRM) Specialists, the World Bank's DRM Regional Coordinators, projects' Team Leaders, regional DRM teams, and Country Management Units (see list in appendix 1). A complete description of the information available in the country updates, as well as the questionnaire developed for the collection of the information from the countries, are available in appendices 2 and 3.

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* Among the 29 focus countries in this compilation, those with an asterisk are GFDRR core priority countries; the rest are noncore countries selected by donors.

Acronyms

- AC Andean Community
- ACP-EU African, Caribbean, and Pacific Group of States
- ACTED Agency for Technical Cooperation and Development
 - ADB Asian Development Bank
- ADPC Asian Disaster Preparedness Center
- ADRA Adventist Development and Relief Agency
- AECID Spanish International Cooperation Agency for Development
 - AFD French Development Agency
- AfDB African Development Bank
- ASEAN Association of Southeast Asian Nations
- ASOCARS Autonomous Regional Corporations Association
 - AU African Union
 - AusAID Australian Government Overseas Aid Program
 - BOAD West African Development Bank
 - CABEI Central American Bank for Economic Integration
- Camacol Colombian Chamber of Construction
- CAPRADE Andean Committee for Disaster Prevention and Response
 - CAS World Bank Country Assistance Strategy
- CAT DDO Catastrophe Deferred Drawdown Option
 - CCA Climate Change Adaptation
 - CECI Centre for International Studies and Cooperation
- CEPREDENAC Central American Centre for Natural Disaster Risk Management
 - CG GFDRR Consulative Group
 - COOPI Cooperazione Internazionale
 - CRS Catholic Relief Services
 - CSO Civil Society Organization
 - CSP European Commission Country Strategy Paper

- DaLA Damage and Loss Assessment
- DFID United Kingdom Department for International Development
- DIPECHO Disaster Preparedness Program of the Humanitarian Aid and Civil Protection Department of the European Commission
 - DRM Disaster Risk Management
 - DRR Disaster Risk Reduction
 - EC European Commission
 - ECA Europe and Central Asia
 - ECHO Humanitarian Aid and Civil Protection Department of the European Commission
- ECOWAS Economic Community of West African States
 - EU European Union
 - FAO Food and Agriculture Organization
 - GEF Global Environment Facility
 - GFDRR Global Facility for Disaster Reduction and Recovery
 - GIIF Global Index Insurance Facility
 - GIZ German Agency for International Cooperation
 - HFA Hyogo Framework for Action
 - IADB Inter-American Development Bank
 - IBRD International Bank for Reconstruction and Development
 - ICCO Inter-Church Organization for Development Cooperation
- ICIMOD International Centre for Integrated Mountain Development
 - ICPM Joint Advocacy Initiative for DRM
 - IDA International Development Association
 - IDF Institutional Development Fund
 - IFRC International Federation of Red Cross and Red Crescent Societies
 - IOC Indian Ocean Commission
 - IOM International Organization for Migration

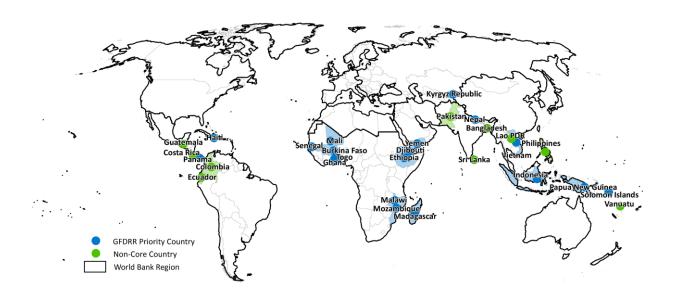
- ISF Integrative Strategies Forum
- IUCN International Union for Conservation of Nature
- JICA Japan International Cooperation Agency
- MDTF Multidonor Trust Fund for Mainstreaming
- NAPA National Adaptation Programme of Action
- NATO North Atlantic Treaty Organization
- NDF Nordic Development Fund
- NDRR Natural Disaster Risk Reduction
- NGO Nongovernmental Organization
- NSET National Society for Earthquake Technologies
- OCHA Office for the Coordination of Humanitarian Affairs
- PAHO Pan American Health Organization
- PDNA Post-Disaster Needs Assessment
- PHRD Japan Policy and Human Resources Development Fund
- PPCR Pilot Program for Climate Resilience
- PRSP Poverty Reduction Strategy Paper
- SAARC South Asian Association for Regional Cooperation
 - SAC Colombian Society of Farmers
- SADC Southern African Development Community
- SAWI South Asia Water Initiative
- SDTF Single-Donor Trust Fund
- SICA Central American Integration System
- SIDA Swedish International Development Cooperation Agency
- SPC Secretariat of the Pacific Community
- SPC/SOPAC Pacific Islands Applied GeoScience Commission, Applied Geoscience and Technology Division of Secretariat of the Pacific Community

- SPCR Strategic Program for Climate Resilience
- SPREP Secretariat of the Pacific Regional Environment Programme
 - SRFF Standby Recovery Financing Facility
 - UN United Nations
- UNDAF United Nations Development Assistance Framework
- UNDP United Nations Development Programme
- UNEP United Nations Environment Programme
- UNESCAP United Nations Economic and Social Commission for Asia and the Pacific
- UN-HABITAT United Nations Agency For Human Settlements
 - UNICEF United Nations Children's Fund
 - UNISDR United Nations International Strategy for Disaster Reduction
- UN-SPIDER United Nations Platform for Space-Based Information for Disaster Management and Emergency Response
 - UNW United Nations Women
 - VBA Volta Basin Authority
 - WAEMU West African Economic and Monetary Union
 - WB World Bank
 - WDI World Development Indicators
 - WFP World Food Programme
 - WHO World Health Organization
 - WMO World Meteorological Organization
 - WWF World Wildlife Fund
 - YWCA Young Women's Christian Association

SUMMARY PROGRESS REVIEW

ENGAGEMENT OVERVIEW

- 1. **GFDRR currently has programmatic engagements with 29 of its 31 focus countries.** As engagement has not yet started in Mongolia or the Marshall Islands, these two countries are not included in the current compilation. The remaining 29 countries are represented on the map and color-coded as follows in the list below: priority countries in blue (19), and *noncore countries selected by donors in green and italic (10)*.
 - SUB-SAHARAN AFRICA: Burkina Faso,
 Ethiopia, Ghana, Malawi, Mali, Madagascar,
 Mozambique, Senegal, Togo
 - EAST ASIA AND THE PACIFIC: Indonesia, Lao PDR, Papua New Guinea, Philippines, Solomon Islands, Vanuatu, Vietnam
 - EUROPE AND CENTRAL ASIA: Kyrgyz Republic
- LATIN AMERICA AND THE CARIBBEAN: Colombia, Costa Rica, Ecuador, Guatemala, Haiti, Panama
- MIDDLE EAST AND NORTH AFRICA: Djibouti, Yemen
- SOUTH ASIA: Bangladesh, Nepal, Pakistan, Sri Lanka



 The 29 focus countries where GFDRR has programmatic engagement encompass more than 1 billion people, with a total GDP of US\$2.01 trillion. Some 27% of the population lives under the national poverty line, 39% in urban areas. Activities are being designed and implemented in very variable country contexts, as reflected by the figures below¹.

Population in focus countries ranges from 246,000 inhabitants (Vanuatu) to 242 million (Indonesia). Half of the countries have a population of 6.3 million to 30.5 million.

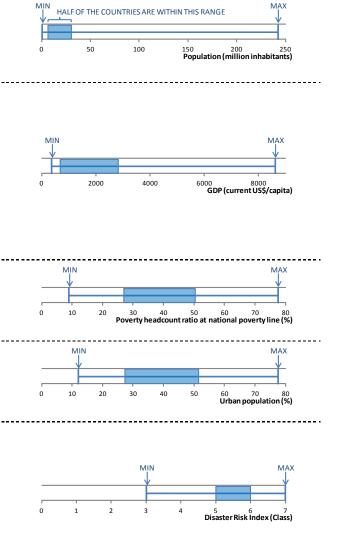
The minimum **Gross Domestic Product** is US\$371 per capita (Malawi), the maximum is US\$8,676 per capita (Costa Rica), and the average is US\$2,216 per capita.

Some 14 countries have low, 10 have lowermiddle, and 5 have upper-middle income; 18 are in the IDA lending category, 4 are blend, and 7 are IBRD countries.

The **poverty headcount ratio at national poverty line** spans from 9% (Sri Lanka) to 77% (Haiti).

The **population** ranges from 88% **rural** in Papua New Guinea to 77% **urban** in Djibouti.

Of the 29 countries, 21 are in **Disaster Risk Index (DRI)** classes 5, 6 or 7, which cover the 58 countries presenting the highest human exposure and vulnerability worldwide. The DRI class 7 includes 6 countries of which 5 are GFDRR focus countries (Mozambique, Ethiopia, Malawi, Philippines, Bangladesh).



Government agencies' capacities in DRM are highly variable. Each disaster risk reduction progress score falls between 1.75 and 4.75. This index is an average of self-assessment scores, ranging from 1 to 5, submitted by countries under Priority 1 of the Hyogo Framework for Action National Progress Reports. The indicator reflects the degree to which countries have mainstreamed disaster risk reduction in key sectors, strengthened relevant institutions, and developed coordination mechanisms.

^{1.} Sources of information are detailed in appendix 3.

IMPLEMENTATION PROGRESS AND CHALLENGES

3. Since 2007, GFDRR has committed US\$63.4 million for single-country projects in focus countries.

Programmatic resources have been allocated to a total of 97 projects (48 active and 49 completed). The average program allocation per country to date is US\$2.2 million. Of this resource deployment, 38% is for recipient-executed activities,² mostly directly implemented by government entities. Individual project size is within the range of US\$25,000 (Capacity building for PDNA in Bangladesh) to US\$3.04 million (rehabilitation in Cyclone Sidr–affected areas in Bangladesh). The table below provides key figures on single-country projects in the 29 focus countries.

	World Bank Regions						
	Sub- Saharan Africa	East Asia and the Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	South Asia	TOTAL
Number of focus countries with activities	9	7	1	6	2	4	29
Number of active projects	11	9	2	15	4	7	48
Number of completed projects	13	9	1	7	5	14	49
Funding awarded (million US\$)	16.6	17.4	1.8	13.6	3.0	11.0	63.4
Funds disbursed (million US\$)	7.2	6.5	0.2	9.7	2.0	5.8	31.4
Percentage recipient-executed	58%	26%	86%	12%	31%	0%	38%
Number of country- based DRM Specialists	5	7	0	3	0	4	19

- 4. In addition to engagements presented in the table above, GFDRR has also supported 95 multicountry projects that cover at least one focus country, for a total amount of US\$56.2 million. Some of these activities are mentioned in the country updates compiled in the next section; however, these projects are not included in any of the financial figures provided in this report.
- 5. The implementation and developmental impact of completed GFDRR activities in focus countries has generally received satisfactory ratings from the Bank's corporate management. The performance of completed GFDRR projects vis-à-vis expected outcomes reported under the Bank's corporate project management system is as follows: of the completed projects, 33% are rated as highly satisfactory, 62% as satisfactory, and 5% as moderately satisfactory.

^{2.} Recipient-executed activities are implemented by an agency external to the World Bank, typically a Government agency, and involve the signing of a Grant Agreement. The World Bank appraises and supervises activities, and its operational policies and procedures apply.

6. The hiring of GFDRR country-based DRM Specialists is supporting mainstreaming of DRM in the development strategies and programs of priority countries. Since the CG decision to finance GFDRR DRM Specialists during its fifth meeting, 19 have been hired in focus countries, and new

recruitments are in progress. The DRM Specialists not only support implementation of GFDRR-funded activities, but also provide critical strategic inputs for country programming (Country Assistance Strategy [CAS], Poverty Reduction Strategy Papers [PRSP], and other development strategies) and Government-donor coordination. A majority of them are providing DRM-related inputs to Government and World Bank operations funded outside of GFDRR's budget (e.g., in the housing, health, agriculture, transport, social protection, and education sectors). The focal points are also contributing to initiatives with regional economic and development cooperation communities.

7. GFDRR-funded analytical work and technical assistance is often used as a basis for leveraging World Bank,

Key Functions of GFDRR DRM Specialists in Focus Countries

- Oversee DRM program implementation
- Support mainstreaming of DRM in the Bank's and Country's Development Strategies
- Manage in-country sectoral dialogue with critical stakeholders on DRM mainstreaming
- Support government-led coordination on DRM and build critical capacities
- Keep GFDRR abreast of country developments in DRM and support progress of GFDRR program's knowledge management system

Government, and other partners' investments in DRM, and for incorporating disaster resilience in the preparation of activities. GFDRR's focus on leveraging in-country investments for DRM is both strategic and opportunity-driven. GFDRR-supported mainstreaming of DRM in the World Bank's assistance strategies and operations, and in the country's own development planning helps leverage investments on a broader strategic level. As shown in the box below, leveraging is also an important means of securing investments for structural and nonstructural risk reduction measures. GFDRRfunded activities in focus countries are thereby leveraging larger investments for DRM through (i) identification of opportunities and priorities for DRM investment through analytical and economic sector work; (ii) policy advocacy with national counterparts and international partners; (iii) pursuit of funding sources for the realization of such investments programs, including cofinancing through GFDRR resources; and (iv) provision of project preparation, implementation, and coordination support for such DRM investments.

GFDRR Work as Leverage—Examples

SENEGAL – A PDNA was conducted following flooding and coastal erosion in 2009. This led to the development of short-, medium-, and long-term strategies specifically for flood management and DRM, now being implemented through the Storm Water Management and Climate Change Adaptation Project (a project of over US\$70 million supported by World Bank and three other partners) in close collaboration with the EU delegation (providing US\$4 million to support the development of local integrated coastal management plans).

PHILIPPINES – Building upon the recommendations of the 2009 PDNA, a Master Plan for Flood Management in Metro Manila and surrounding areas has been developed, supported by a US\$1.65 million technical assistance from GFDRR. The Master Plan identifies structural and nonstructural investments, with proposals that would make the city and its 17 million residents protected from floods with up to a 100-year return period. On September 4, 2012, the Government (through the National Economic and Development Authority's Board, chaired by the President) approved the Master Plan and allocated US\$120 million for immediate investments for some of these proposals. In parallel, the Government of the Philippines and the World Bank signed a Catastrophe Drawdown Option (CAT DDO) to provide contingent financing up to US\$500 million in case of a disaster, attached to a DRM-specific Development Policy Loan (DPL). The CAT DDO was triggered and fully disbursed in December 2011 after Tropical Storm Sedong.

PANAMA – GFDRR financed the US\$500,000 Probabilistic Risk Assessment Project. In parallel, in October 2011, the World Bank launched a Development Policy Loan (DPL) with a CAT DDO (US\$66 million). As part of the DRM program connected to the DPL, Panama has carried out a series of DRM-related policy and legislative reforms, resulting in new disaster risk financing instruments and enhanced consideration of disaster risk in urban and land use planning.

NEPAL – The Hazard Risk Management Project (US\$914,000) supported coordination between stakeholders, and developed the first comprehensive countrywide hazard and risk assessment at the district level. Outputs were directly used by the Government, UNDP, and the National Society for Earthquake Technologies (NSET) for setting up early warning systems for Glacial Lake Outburst Floods (GLOF) for two lakes; for assessing public schools in two districts of Nepal, securing funding for retrofitting and reconstruction of over 300 schools; and for surveying of 14 hospitals in the Kathmandu Valley.

8. GFDRR activities in focus countries have helped in enhancing cross-sector and donor coordination

for disaster risk management (DRM) and climate change adaptation (CCA) at the national level. Twenty-four out of 29 countries have a DRM coordination mechanism (19 of the mechanisms are formally acknowledged by UNISDR as "national platforms" as defined under the Hyogo Framework for Action). In some countries, these mechanisms include participation by both Government institutions and development partners; the World Bank,

Supporting DRM Coordination—Examples

PAKISTAN – The World Bank is a member of a National Working Group on mainstreaming DRR in development and co-chairs the DRM Donor Coordination Group (DDCG) with the National Disaster Management Agency.

NEPAL – The World Bank, with support from GFDRR, is coordinating the "flood management in the Kosi River Basin" thematic group of the Nepal Risk Reduction Consortium (NRRC). This consortium brings Government agencies together with ADB, UN, IFRC, USAID, DFID, EU, and AusAID.

supported by GFDRR country-based DRM Specialists, is participating in such DRM coordination structures in 16 focus countries.

- 9. The most common challenges and factors delaying implementation in focus countries include the following:
 - Recipient-executed activities in low-income countries. While recipient-executed activities provide client ownership, capacity-building opportunities, and longer-term sustainability, the setting up and management of recipient-executed activities requires extensive and complex consultations with Government agencies related to implementation arrangements, procurement and financial management procedures, and safeguard policies. This has emerged

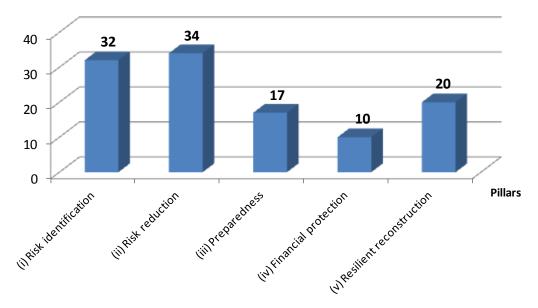
as a principal delaying factor toward the implementation of GFDRR activities in focus countries, and has been progressively addressed through more hands-on support by the deployment of country-based DRM Specialists. It is expected that DRM programs implemented with support from GFDRR and other donors will be implemented at a faster pace and gradually scale up over time as a result of the improved project management capacities being nurtured through the direct client implementation opportunities provided by such close engagement.

- Political instability. The complexities of operational procedures applicable in "dealing with de facto government" situations have had serious implications on project implementation. Yemen, Madagascar, and Mali are examples of countries where GFDRR-supported activities have been suffering from delays due to political turmoil and emerging crises.
- Growing demand from a wider group of developing countries. GFDRR has received an increasing number of government requests for technical assistance outside of its priority countries in nearly all regions. In addition, demand for GFDRR resources and staff inputs for the development of regional and global products has also multiplied over the years placing a high demand on the time to be devoted to the implementation of preplanned activities in priority countries. It is worth mentioning that although regional and global products can often entail considerable benefits for priority countries, achievements on these fronts cannot systematically be accounted for in these country updates.

KEY DELIVERABLES IN FOCUS COUNTRIES

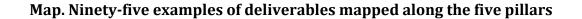
10. This section provides a **global analysis** as well as a list of **95 examples of deliverables** to date at the national or subnational level in the 29 focus countries.

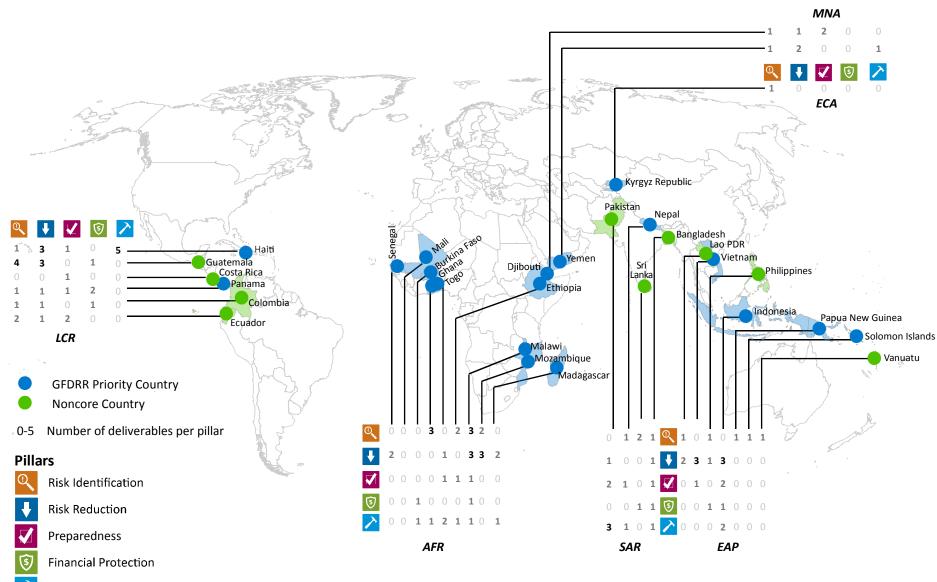
Global analysis of key deliverables to date



Number of outputs (out of 95 outputs; some contribute to 2 pillars)

- 11. The breakdown of key projects' deliverables to date across the five pillars is represented in the graph above. Support has been provided to a wide variety of activities within each of the above pillars as summarized below:
 - Thirty-two examples of deliverables primarily contribute to risk identification (pillar 1). These deliverables are often being used as inputs to drive major political developments (e.g., planning, building codes), investments, or technical programs (e.g., urban, agriculture, transportation, water resources, risk financing). Most recurrent examples include (i) risk assessment methodologies and products (e.g., hazard, exposure, and vulnerability mapping, future scenarios, loss probabilities, risk indices), (ii) forecasting and modeling tools and products, (iii) technical and cost-benefit analyses of disaster risk reduction measures, (iv) disaster risk information systems, (v) assessment of institutional or technical capacities, and (vi) training for risk identification.
 - Most of the thirty-four risk reduction (pillar 2) deliverables identified build on recommendations formulated through risk identification or resilient reconstruction exercises (pillars 1 and 5), and complement other preparedness or risk financing measures (pillars 3 and 4). They require long-term engagements and progressive involvement of various stakeholders across social, economic, and environmental sectors. Examples include (i) policies, strategies, action plans, operational manuals, and road maps, either cross-cutting or sector-specific, with enhanced disaster risk consideration; (ii) urban and land use plans; (iii) building norms and standards; (iv) scoping, identification, and design of DRR measures and project components; (v) DRR coordination mechanisms; (vi) risk reduction budget-classifying tools; and (vii) DRR-related education, awareness, training, and guidelines.
 - Seventeen preparedness deliverables (pillar 3) included design, implementation, or strengthening of (i) early warning systems, (ii) contingency and social protection plans and funds, (iii) response plans (protection and evacuation, search and rescue), (iv) training and simulation exercises, and (v) institutional strengthening for preparedness.
 - Ten deliverables were related to financial protection (pillar 4) in these areas: (i) risk financing and insurance feasibility studies, (ii) design and support for risk financing and insurance products, and (iii) policies and strategies for financial protection.
 - Twenty deliverables are supporting resilient recovery and reconstruction (pillar 5), mostly funded by the Standby Recovery Financing Facility (Track III) and provided in the form of technical assistance, along six subcategories: (i) Post-Disaster Needs Assessments; (ii) strategies and plans for resilient reconstruction; (iii) analysis of lessons learned from past recovery and reconstruction projects; (iv) training (and training of trainers) for PDNA and resilient reconstruction; (v) design or management support for recovery and reconstruction funds; and (vi) other emergency support in the aftermath of disasters (debris management sites, cholera-related sanitation programs, etc.).
- 12. Deliverables used as a basis for the above analysis are displayed on the map next page (p.8) and listed in a table (p.9-12). They are further detailed in the Country Updates (pages 15–117).





Resilient Reconstruction

Pillar Deliverable Country Natural hazard vulnerability database for flood exposed communities that serves as a predictor of ex-post needs and for quantifying flood and rainfall risks in every Ethiopia administrative unit Flood hazard assessment for the White Volta, with hazard maps for different return periods, and operational flood forecasting system Analysis of hydrometeorological services' capacities Ghana Cost-benefit analysis of potential structural and nonstructural measures, including specific investments in hydrological and meteorological services 1 Three studies that laid the grounds for policy dialogue on the incorporation of flood and drought risks in development planning: (1) Disaster Risk Situation Malawi Analysis; (2) Economic Vulnerability and Disaster Risk Assessment in Malawi; and (3) Flooding Study in the Lower Shire. Economic vulnerability and disaster risk management study Participatory climate hazard and risk mapping study Mozambique Drought and Flood Risk Atlas and detailed risk profiling on parameters and spatial distribution of such risks in Inhambane and Maxixe National Plan for Disaster Risk Management Madagascar Cyclone-resistant building norms and standards (enforced through adoption of a decree in April 2010) Education and housing sector structural assessment, recovery needs assessment, and safe housing guidelines Malawi Road map for seismic monitoring and mitigation program 2 Procedures manual for Inhambane and Maxixe on a methodology for vulnerability Mozambique mapping, identification of areas at risk, and adaptation options Identification of short-, medium-, and long-term strategies on flood management and DRM (some are getting funded by WB and partners) Senegal Study on mainstreaming climate variability and change in development planning in coastal zones (in three pilot zones and at the national level) Plans for development of contingency planning and early warning systems for 3 Ethiopia food security, droughts, and floods Feasibility study on weather index insurance to protect cotton producers against **Burkina Faso** rainfall variations 4 Disaster Risk Financing and Insurance (DRFI) country note Malawi Post-Disaster Needs Assessment (PDNA) identifying priority development needs **Burkina Faso** related to risk information and early warning after the 2009 flood events Joint progress review of response to flood emergency in Northern Regions, highlighting priority activities for mainstreaming DRR into the long-term Ghana 5 development process to reduce risk and vulnerability to floods Joint Damage, Loss, and Needs Assessment (JDLNA) following Cyclones Fame and Madagascar Ivan (2008) Damage and Loss Assessment (DaLA) training Malawi

Examples of deliverables in Sub-Saharan Africa (AFR)

Pillar	Deliverable	Country
	PDNA training conducted prior to the 2010 flooding event. PDNA conducted in the aftermath of the 2010 floods	Тодо
1&5	Courses on Post-Disaster Needs Assessment (PDNA) and risk/vulnerability analyses and management at Addis Ababa University	Ethiopia
	Integrated Flood Risk Management Plan (IFRMP) for Shire Basin	Malawi
2&3	Action plan for reducing flooding risks in the country (resulted in US\$1.2 million engagement from the Government for flood prevention and preparedness)	Тодо

Examples of deliverables in East Asia and the Pacific (EAP)

Pillar	Deliverable	Country		
	Risk atlases and DRM integrated plans for 22 pilot Local Government Units (LGUs) covering mitigation, preparedness, response, and rehabilitation/reconstruction	Philippines		
	Risk information and mitigation options available to populations in low-lying coastal cities and most vulnerable communities	Vietnam		
1	No deliverables have been produced at the national level. However these three Pacific countries are participating in the regional Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI), with the following deliverables to date: (a) Catastrophe risk models and (b) Country disaster risk profiles with detailed information on hazard, exposure, and vulnerability information (assets, probabilistic analyses of risk for residential buildings, major infrastructure, vegetation cover, crops, soil and topography, bathymetry, etc.	Papua New Guinea Solomon Islands Vanuatu		
	National Action Plan for DRR	Indonesia		
	Draft Prime Ministerial decree on DRM			
	DRM curriculum for schools	Lao PRD		
2	DRM strategy for the poverty reduction fund			
2	Framework for integrating DRR and CCA in local government systems and processes	Philippines		
	DRM mainstreamed into poverty reduction initiatives in the northern rural mountain provinces	Vietnam		
	Local Resilience Action Plans (LRAP) in the cities of Hanoi, Dong Hoi, and Can Tho			
3	Early warning strategy, standard operating procedures, and national disaster management plan for 2011–2015	Lao PRD		
4	Policy guidance for the creation of public sector–supported catastrophe insurance programs	Indonesia		
	Risk financing study	Philippines		
5	Post-Disaster Needs Assessment (PDNA) training	Indonesia		
2&3	Contingent and disaster risk mitigation components included in two World Bank lending projects	Indonesia		
2 & 5	Community settlement plans for 254 villages in Yogyakarta and Central Java, contributing to mainstreaming of DRM in housing reconstruction	Indonesia		

Pillar	Deliverable	Country
1	Report about natural hazard impacts on built infrastructure, delivered in the Russian language to the Kyrgyz authorities; the study is being used to enable more sustainable infrastructure planning, specifically in health and transportation sectors	Kyrgyz Republic

Examples of deliverables in Europe and Central Asia (ECA)

Examples of deliverables in Latin America and the Caribbean (LCR)

Pillar	Deliverable	Country		
	Methodology for a national inventory of settlements in high-risk areas	Colombia		
	Unified risk information system, utilized in water, sanitation, health, education, housing, and transportation sectors	Ecuador		
	Risk assessment report on the seismic microzonification for Quito Metropolitan District			
1	Methodologies for hazard and vulnerability analysis, used by the National Secretary for Planning (SEGEPLAN), Municipalities, and the National Secretariat for Risk Reduction (SE-CONRED)	Guatemala		
	Hazard flooding maps for four basins, covering 32 municipalities and 199 human settlements			
	Safe Hospital Index by PAHO implemented in four hospitals, and improvements identified			
	Safe School Index methodology for schools and educational centers			
	Seismic risk probabilistic analysis focused on housing, education, and health infrastructure for the City of David	Panama		
2	DRM awareness campaigns	Ecuador		
	Update of the national building code, adopted in four municipalities of the Metropolitan Area of Guatemala			
	National Platform for DRR	Guatemala		
	Budget-classifying tool for risk reduction for the use of the government			
	Technical Unit for Building Assessments within the Ministry of Public Works	11-141		
	Resilience guidelines for buildings	Haiti		
	Design of community Early Warning Systems for hydrometeorological hazards	Costa Rica		
	Simulation exercise with the Emergency Operations Center of Quito Municipality	Foundar		
3	Contingency plans for floods and landslides in eight administrative zones	Ecuador		
3	Establishment of the National Crisis Council and its Technical Secretariat	Haiti		
	Updated protocols for disaster preparedness and response for the Provinces of Bocas del Toro and Veraguas	Panama		
4	Analytical work to assess options for the improvement of insurance for public assets	Colombia		

Pillar	Deliverable	Country
	Disaster risk financing strategy	
	Guidelines for developing a disaster risk financial strategy	Panama
	Training of trainers and a social sanitation program, both at the beginning of the post-earthquake cholera outbreak	
	Strategy for recovery and reconstruction at national and city levels, including a strategy for Port-au-Prince	
5	Design of a debris management site	Haiti
	Joint Damage, Loss, and Needs Assessment after the Haiti Earthquake (including recommendations regarding mainstreaming of DRR in the reconstruction process)	
	Joint Damage, Loss, and Needs Assessment (JDLNA) after Hurricanes Fay, Gustav, Hanna, and Ike	
	Land use and urban zoning plans for 12 municipalities of one priority basin and incorporation of risk information in the National System for Territorial Planning	Guatemala
1&2	Hazard information database (including HaitiData.org) and formulation of recommendations for structural and nonstructural mitigation measures in priority areas	Haiti
2&3	Disaster Risk Management Development Policy Loan with a CAT DDO	Panama

Examples of deliverables in Middle East and North Africa (MNA)

Pillar	Deliverable	Country
1	Disaster risk assessments and maps at the national level as well as for Al-Mahara and Hadramout Governorates and for Sana'a to inform the mainstreaming of disaster risk reduction in urban, climate, food security, and water sector development policies	
2	Feasibility study and design of flood protection infrastructure and priority works in Sana'a Municipality DRM institutional framework for Sana'a local government	Yemen
3	Early warning system for floods supported by relevant equipment (automatic weather stations and hydrological monitoring systems)	Djibouti
5	Updated national emergency response plan Establishment of the Yemen Recovery and Reconstruction Fund	
1&2	Training programs (including a master's degree, specific training for resilient infrastructure, and e-learning modules serving the region) and a DRM research laboratory within the University of Djibouti	Djibouti

Pillar	Deliverable	Country
	Study of climate change impacts on future characteristics of floods and related future vulnerabilities in agriculture and food security sectors	Bangladesh
1	Hazard and risk assessment at the district level with national coverage	Nepal
	Methodology for vulnerability assessment for schools and hospitals	nepui
2	Guidance on cyclone-resistant infrastructure rehabilitation provided into the design of a PHRD grant and the US\$184 million WB Cyclone Recovery and Restoration Project	Bangladesh
	Assessment of capacity of social protection and livelihoods of disaster-affected population	Bangladesh
	Improvement in flood preparedness, search and rescue, and mass evacuation capabilities, including transportation of displaced persons to safer places	
3	Strengthening of Government's institutional and technical capacity to provide safety nets and effective and timely relief to the vulnerable in the aftermath of disasters	Pakistan
	Review of social protection programs for implementing post-disaster safety net and care services and creation of a Disaster Management Fund	Sri Lanka
4	Feasibility study and pilot projects on agricultural insurance products involving public and private stakeholders	Bangladesh
	Feasibility study for affordable and cost-effective agriculture insurance products	Nepal
	Analysis of the overall impacts of Cyclone Sidr together with a plan for resilient recovery and reconstruction	Bangladesh
5	Documentation about the design and implementation of the successful Bank- supported post-earthquake Rural Housing Reconstruction Program (RHRP)	Pakistan
	Damage and Loss Assessment following the 2008 floods	
1&5	Training of government staff on flood and landslide urban risk assessment techniques, on mainstreaming risk reduction into urban planning, as well as on Post-Disaster Needs Assessment (PDNA)	Sri lanka
2 & 5	Pakistan Development Forum 2010 trained government staff in DRR and recovery and facilitated DRR mainstreaming in national development strategies	

Examples of deliverables in South Asia (SAR)

The country updates are compiled in the following sections.

A reference about information available in the country updates is available as appendix 3.

Sub-Saharan Africa (AFR)

Burkina Faso

GFDRR ENGAGEMENT				
Source of F	unding			MDTF, SRFF
Resources A	warded	ł		US\$1,586,147
Resources [Disburse	d		US\$272,106
Number of	Projects		Ac	tive: 1; Completed: 2
Bank Executed	21%	Main Governn Counter		Ministry of Social Affairs and National Security (MASSN)
Recipient Executed	79%	Impleme Agency	ent.	National Council for Emergency Relief and Rehabilitation (CONASUR)

LNA SO **DRM SPECIALIST** Recruitment in progress

KEY PARTNERS	DRM/CCA IN F	POLICY PAPER	S
(as identified by the DRM Specialist)	(as assessed by th	he DRM Specialis	t)
NATIONAL: recovery, civil protection,	Mainstreaming:	Low Hig	h
development planning	NAPA		
	PRSP		
INTERNATIONAL: UNDP, WFP	UNDAF		
REGIONAL: ECOWAS	WB-CAS		
	Regional Dvt		
DONORS: Denmark, EU, France, USA	EU-CSP		

DRR Index	WDI: n/a DRI Class: 5/7
Income Group	Low
Population	17.0 million

WORLD DEVELOPMENT INDICATORS

DRR Index	WDI: n/a DRI Class: 5/7	NATIONAL PLATFORM	Declared to UNISDR. WB does participate. Focus: DRM and CCA; however, CCA is coordinated under the National Council on
Income Group	Low		
income Group	2011		Environment and Sustainable Development.
Population	17.0 million		
GDP	US\$600/capita		
Poverty	47% of population	NATIONAL	A project of law is planned to be drafted during project implementation.
Urban Population	27% of total		

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
Disaster Risk Management and Climate Adaptation Project US\$1.4 million 2012–2013 (Active)	The project supports the National Council for Emergency Relief and Rehabilitation (CONASUR) with its coordination mandate at both central and decentralized levels. It supports development and implementation of a national disaster risk reduction policy, strategy, and action plan. This first phase of the Country Plan addresses priority development needs related to risk awareness and early warning, and sets the stage for a next phase, planned to demonstrate operational efficiency at the local level. The pilot project will support structural (drainage, dike strengthening) and nonstructural (risk assessment, land use planning, early warning, contingency planning) investments in pilot zones exposed to multiple hazards.	
Post-Disaster Needs Assessment US\$136,698 2010 (Completed)	A Post-Disaster Needs Assessment (PDNA) was completed after floods. Total needs for recovery and reconstruction were estimated at US\$266 million. The assessment report has provided critical recommendations for the reconstruction phase in the medium term, and for disaster risk management in the longer term. These are being implemented by the Disaster Risk Management and Climate Adaptation Project (see above).	
Integrated Weather Risk Management for Sustained Growth in Burkina Faso US\$49,449 2008–2009 (Completed)	The project carried out a feasibility study on weather index insurance to protect cotton producers against rainfall variations. The findings of the study were disseminated during a workshop on weather risk management in the cotton sector, and used by the World Bank for a larger initiative to assess the feasibility of different types of insurance protection for the cotton sector.	

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS			
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes		
Community-Based Rural Development Project	The project is about to initiate a third phase, to support rural communes in planning and implementing local development activities in a participatory and sustainable manner. The promoted activities include sustainable land and water management.		
Partners	DRM- and CCA-Related Objectives and Outcomes		
UNDP	Is supporting 2 of the 13 regions in Burkina Faso with contingency planning, risk analysis, early warning, mainstreaming disaster risk and climate change in local development planning, and awareness raising campaigns. The approach addresses multiple hazards, with food security as primary focus.		
UNDP, JICA	UNDP and Japan (through Japan International Cooperation Agency) are supporting the national sustainable development council (CONEDD) for enhanced consideration for climate change in regional development planning.		
Danida, WWF	The Danish International Development Agency and the World Wildlife Fund provide assistance for strengthening the efficiency of the contribution of the civil society to climate change adaptation issues.		
IUCN	The International Union for Conservation of Nature is supporting climate change adaptation initiatives in communities, mainly through awareness-raising activities.		
FAO, Spain, Venezuela	Are contributing to the National Food Security Program.		

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)			
National Services Recovery, civil protection, development planning, sustainable development, food security, fight against locusts, meteorolo hydrology			
International Organizations	United Nations Development Programme (UNDP), United Nations International Strategy for Disaster Reduction (UNISDR), World Food Programme (WFP), Food and Agricultural Organization (FAO)		
Regional Organizations	Economic Community of West African States (ECOWAS)		
NGOs/CSOs	Red Cross, Catholic Relief Services		
GFDRR Donors	Denmark, European Union (EU), France, Japan, Sweden, United States (USA)		

The Disaster Risk Management and Climate Adaptation Project preparation in 2010 has generated a strong momentum among stakeholders. Coordination and clarity about respective roles of Government and donor agencies in DRM and CCA have critically improved, and all stakeholders have endorsed the Country Plan as a key strategic document. In 2011, UNDP started providing support to 2 regions using the approach set forth in the Country Program. GFDRR provides complementary support in the other 11 regions.

The political crisis of April 2011 and the subsequent nomination of a new Government did not affect project preparation. The DRM Specialist position in the WB country office has been vacant since February 2012. A new collaborative relationship in the country still has to be established.

CLIMATE CHANGE & DISASTER RISK PROFILE

Burkina Faso is exposed to multiple natural hazards, and is particularly vulnerable to droughts, floods (often caused by drainage and dam system failures), locust invasions (from neighboring countries), and storms.

Information about disaster risk is still at a very early stage. The country is currently developing a database of historical adverse natural events (DesInventar); however, probabilistic information related to future risks is still neither available nor integrated into development planning.

An early warning system is available for food security, with droughts and locust invasions as the primary focus. The

Government is willing to expand its early warning capacities in order to properly address flood and windstorm hazards, and to enhance linkages between hazard forecasting and response from stakeholders.

Most stakeholders have a clear understanding about increasing risks posed by unplanned settlement in high-risk areas, improper drainage, and poorly designed infrastructure. However, the country is missing a proper framework and both technical and financial resources to properly address sustainability of the development planning in the country.

PRIORITIES FOR GFDRR ENGAGEMENT

(as expressed by the DRM Specialist)

- 1. DRM/CCA policies, building codes, land use and urban plans
- 2. Understanding risks
- Enhancing links between climate adaptation, prevention, and emergency preparedness
- Enhancing the resilience of cities, communities, and critical infrastructure
- 5. Cost-benefit analysis about investments in disaster risk management

GFDRR engagement with Burkina Faso started in 2008 with the "Integrated Weather Risk Management for Sustained Growth" project (see description above). The PDNA carried out in 2010 with financial support from GFDRR provided clear directions for reducing risks related to flooding with short-, medium-, and longer-term activities. Some of these recommendations have already been incorporated in the portfolio of the World Bank and other development partners, while others are being implemented through the GFDRR Country Program.

The Burkina Faso Country Program was approved by GFDRR in December 2010. After extensive consultations with the Government related to implementation arrangements, procurement and financial management procedures, and safeguard policies, the project became effective in March 2012. However, activities are still on hold, since disbursement arrangements do not consider the Government eligible for advances, and the implementing agency's resources are not sufficient to start implementation on its own budget.

Ethiopia

GFDRR ENGAGEMENT					
Source of F	unding		1	MDTF, ACP-EU, SRFF	
Resources A	Awarded	ł	1	US\$2,847,738	
Resources I	Disburse	d	1 1 1	US\$1,139,735	
Number of Projects		Ac	Active: 2; Completed: 3		
Bank Executed	44%	Main Governn Counter		Ministry of Agriculture and Rural Development (MARD)	
Recipient Executed	56%	Impleme Agency	ent.	Early Warning and Response Directorate (EWRD)	

WORLD DEVELOPMENT INDICATORS

DRM SPECIALIST

Mr. Ahmed Mohammed amohmmed1@worldbank.org +251 115 176000

KEY PARTNERS

(as identified by the DRM Specialist)	(as as
NATIONAL: agriculture, food security, health, civil protection	Mains
INTERNATIONAL: WFP, UNDP, OCHA, UNICEF, FAO	
REGIONAL: AU, IGAD, ECA	
DONORS: EU, Germany, UK, USA	



DRM/CCA IN POLICY PAPERS			
(as assessed by the DRM Specialist)			
Mainstreaming:	Low	High	
PRSP			
WB-CAS			
UNDAF			
NAPA			
EU-CSP			

DRR Index	WDI: n/a DRI Class: 7/7	NATIONAL PLATFORM	Disaster Risk Management technical working group, which reports to the Joint Strategic Oversight Committee on Disaster Risk Management.
Income Group	Low	PLATFORIN	Not declared to UNISDR. WB is a member. Focus: DRM and CCA.
Population	84.7 million		
GDP	US\$374/capita	NATIONAL	National Policy on Disaster Management (1993). A revised National Policy and Strategy on Disaster Risk Management was
Poverty	39% of population	LEGISLATION	drafted in 2010 and is still awaiting endorsement from the
Urban Population	17% of total		Council of Ministers.

GFDRR-FUNDED	PROJECTS'	OUTCOMES
	FROJECIS	OUTCONILS

GFDKK-FOINDED FROJECTS OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
Ethiopia's Disaster Risk Management Country Plan— Phase 1 US\$1,750,000 2010–2012 (Active)	The Grant agreement was signed with the Government of Ethiopia in April 2012. The project, implemented by the Early Warning and Response Directorate (EWRD), contributes to strengthening early warning, risk assessment, and preparedness by means of (i) improved connectivity of national, regional, and 35 district (woreda)-level DRM offices, allowing for rapid exchange of data and contributing to an efficient food security, drought, and flood early warning system; (ii) disaster risk profiling; and (iii) contingency planning.	
Ethiopia: Capacity Building in Post-Disaster Needs Assessment ACP-EU US\$81,580 2012–2013 (Active)	The project trained officials from national and regional governments in the conceptual framework and practical application of the methodological tools for Post-Disaster Needs Assessment (PDNA). The training is important to initiate a discussion on mainstreaming PDNA methodology in the country's disaster response and preparedness efforts.	
Facilitating Provision of Baseline Vulnerability Information on Flood-Exposed Communities in Ethiopia US\$343,885 2008–2012 (Completed)	The project, implemented by the Institute for Applied Development Studies (FAFO) (i) produces vulnerability-related information on community livelihoods in a selected flood- exposed area to feed the national livelihoods database under development by the Disaster Prevention and Preparedness Commission (DPPC) and (ii) facilitates establishment of courses on risk/vulnerability analyses and management at Addis Ababa University. The natural hazard vulnerability database was developed following a FAFO methodology for risk profiling and for the scientific backstopping of the statistical selection of samples and survey data.	

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)
Weather Risk Management Framework Using Weather-Based Indices US\$329,086 2008–2010 (Completed)	The Project's objectives are (i) to enhance early warning systems for rural areas and (ii) to support an integrated weather management framework. The Project has delivered an economic vulnerability and disaster risk assessment study and a weather-based index for triggering emergency financing to strengthen Ethiopia's Productive Safety Net Program (PSNP). In this context, a model was developed (Livelihoods, Early Assessment, and Protection Index, LEAP) which serves as an early and accurate predictor of ex-post needs and allows users to quantify and index drought and excessive rainfall in every administrative unit. The Project's main outcome is better protection of the livelihoods of chronically food-insecure and flood-affected populations as a result of affordable and effective options for disbursements and contingency financing.
Mitigating Impacts of Adverse Shocks on Nutrition and Health US\$343,185 2008–2010 (Completed)	The objective of this program was to support a development-oriented and preventative approach towards the very severe problem of malnutrition in Ethiopia, so as to reduce the potential impact of emergency situations on victims' nutritional and health status. The studies on local production of Ready-to-Use Therapeutic Food (RUTF) have provided crucial information on the market and potential of the business. This will have long-term impacts by stabilizing the supply of emergency-related food products in terms of timeliness, availability, and costs, once private firms invest in the relevant industry. GFDRR funds leveraged additional financing from partners and strong partnerships with other donors. The initial studies funded by GFDRR catalyzed the preparation of the Nutrition Information System (NIS) pilot project supported by UNICEF, and are expected to leverage investments from the private sector. The technical assistance provided by GFDRR also led to a closer partnership with UNICEF in the implementation of Community-Based Nutrition.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS			
WB Projects/Programs	DRM- and CCA-Related Objectives and OutcomesThis project supports improved effectiveness and efficiency of the Productive Safety Net Program (PSNP) and the related Household Asset Building Program (HABP) for chronically food-insecure households in rural Ethiopia.The program increases the resilience of Ethiopian pastoralists to external shocks and improves the livelihoods of chronically food-insecure households in drought-prone areas.The activity supports increased agricultural productivity and market access for key crop and livestock products in targeted districts (woredas) with increased participation of women and youth.		
Productive Safety Net Program(PSNP)			
Pastoral Community Development Program			
Agricultural Growth Project			
Tana and Beles Integrated Water Resource Management Project	The project develops enabling institutions and investments for integrated planning, management, and development in the Tana and Beles subbasins to accelerate sustainable growth. The mechanisms include institutional strengthening, instruments and information tools for water planning regulation, and investments in the Tana subbasin in watershed development and flood management.		
Nutrition Project	The project contributes to improving child and maternal care behavior, and increases utilization of key micronutrients in order to improve the nutritional status of vulnerable groups.		

Partners	DRM- and CCA-Related Objectives and Outcomes
UNDP	Assists with the implementation of the Early Recovery Program and the preparation of the recovery strategy for Ethiopia, and provides technical support to the Disaster Management and Food Security Sector (DMFSS) in DRM and information technology.
WFP	Provides technical support on the management of environmental resources and a targeted supplementary feeding program.
USA	USAID supports the preparation of the new DRM Policy and Multi-Hazard Risk Profiles, as well as the DRM training at the Bahir Dar University.
FAO	Provides support for land tenure issues and to the forestry, natural resource, and watershed management.
UK	DFID assists in the development of Productive Safety Nets and risk transfer activities.

PARTNERSHIPS AND COORDINATION

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)	
National Services	Agriculture, food security, civil protection & defense, meteorology & hydrology, water, health, education, urban & land use planning
International Organizations	United Nations Development Programme (UNDP), Food and Agriculture Organization (FAO), World Food Programme (WFP), Office for the Coordination of Humanitarian Affairs (OCHA), United Nations Children's Fund (UNICEF)
Regional Organizations	African Union, Intergovernmental Authority on Development (IGAD), European Commission (EC)
NGOs/CSOs	Oxfam, CordAid, Plan International, ACF, FEWSNET, Mercy Corps, ASCID-Spanish, Save the Children, Help Age International, Cooperazione Internazionale (COOPI)
GEDRK DODORS	Australia, European Union (EU), Germany, Netherlands, South Korea, Sweden, United Kingdom (UK), United States (USA)

World Bank The interacts with stakeholders through the national DRM platform, donor working groups, learning events, a food security program, and joint funding of DRM projects. Development stakeholders were also consulted for the development of the GFDRR Country Plan. A number of ongoing World Bank lending operations in Ethiopia have helped leverage support from government agencies, localities, donors, international and local organizations, and civil society. GFDRR activities have contributed to improved coordination and information sharing.

CLIMATE CHANGE & DISASTER RISK PROFILE

Ethiopia is a country prone to droughts, floods, landslides, pests, earthquakes, and urban and forest fires. The country's vulnerability to natural disasters is due to a number of factors including dependence on rain-fed agriculture, land degradation, and weak institutions.

The country is the second most populous in Sub-Saharan Africa and one of the world's poorest countries. It has a long history of reoccurring droughts, which since the 1970s have increased in magnitude, frequency, and impact. The recent Horn of Africa drought has left more than 4.5 million people in need of food assistance. This is in addition to the 7.5 million people who were already receiving food aid. In addition, pasture and water shortages have caused massive livestock deaths in the south and southeastern parts of the country.

Climate change studies show that vulnerability to cyclic hazards is increasing, especially among the poor, and that their livelihoods lack resilience. Moreover, due to climate change and human-induced factors, the areas affected by drought and desertification are expanding in the country.

PRIORITIES FOR GFDRR ENGAGEMENT

(as expressed by the DRM Specialist)

- 1. Understanding risks (risk and vulnerability assessments)
- 2. Building codes, land use and urban planning
- 3. Institutional collaboration
- 4. Risk financing mechanisms
- 5. Early warning systems
- 6. Education and training

GFDRR is supporting the preparation of the Government's Strategic DRM Program and Investment Framework. Technical assistance is also being provided through the active involvement and participation of the DRM and Social Protection specialists in different platforms, technical committees, task forces, workshops, and joint field visits. The involvement of GFDRR has contributed to leveraging additional financing, increased knowledge and enhanced capacity of government officers and relevant stakeholders in DRM by making new tools and methodologies available (e.g., Post-Disaster Needs Assessment, PDNA, and the Livelihoods and Early Assessment and Protection tool, LEAP).

Major priorities will continue to be (i) strengthening national disaster risk management strategies and institutions; (ii) developing risk and vulnerability assessments, early warning,

and contingency planning and financing—in both rural and urban areas; (iii) increasing and sustaining DRM awareness, education, and capacity building; (iv) reducing underlying risk and vulnerability; (v) integrating disaster risk reduction into sector planning and practices; and (vi) improving emergency preparedness and response capacity.

Ghana

GFDRR ENGAGEMENT			
Source of Funding		MDTF	
Resources Awarded		US\$1,025,000	
Resources Disbursed			US\$772,916
Number of Projects Ac		ctive: 1; Completed: 1	
Bank Executed	100 %	Main Government Counterpart	Water Resources Commission
Recipient Executed	0%	Implement. Agency	n/a

WORLD DEVELOPMENT INDICATORS

DRR Index

Population

GDP

Poverty

Income Group

Urban Population

WDI: 3.25/5

DRI Class: 3/7

Lower-Middle

US\$1,570/capita

28% of population

25 million

52% of total

DRM SPECIALIST

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KEY PARTNERS	DRM/CCA IN POLICY PAPERS		
(as identified by the DRM Specialist)	(as assessed by th	ne DRM Specialist)	
NATIONAL: civil protection, hydrology	Mainstreaming:	Low High	
	UNDAF		
INTERNATIONAL: UNDP, WFP	Nat. CC		
REGIONAL: ECOWAS, VBA	PRSP		
	EU-CSP		
DONORS: EU, Germany, UK	WB-CAS		

NATIONAL
PLATFORMFormally declared with UNISDR. Coordinated by Civil Protection.
WB participates. Focus: DRM and CCA. Implements the Ghana
Plan of Action 2010–2015.

Act 517 of 1997 established the National Disaster Management Organization and laid the foundation for disaster management activities in the country. Legislation for DRM is still needed.

GFDRR-FUNDED PROJECTS' OUTCOMES

NATIONAL

LEGISLATION

Project/Program	DRM and CCA-Related Objectives and Outcomes		
White Volta Flood Hazard Assessment US\$1,005,000 2008–2012 (Active)	The project (i) carried a flood hazard assessment for the White Volta inside the borders of the country, with hazard maps for different return periods; (ii) developed an operational flood forecasting system; and (iii) assessed the impact of potential structural and nonstructural measures, including specific investment in hydrological and meteorological services. Project deliverables (risk assessment and flood forecasting information) are being used by national agencies, including the Hydrological Service Department and the National Disaster Management Organization, for flood warning. An analysis of the status of the hydrometeorological services was also conducted within the project.		
Joint Progress Review of Response to Flood Emergency in Northern Regions US\$20,000 2008 (Completed)	The review recommended priority practical activities for mainstreaming DRR into the long- term development process to reduce risk and vulnerability to floods.		

SYNERGIES	SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS			
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes			
Sustainable Land and Water Management 2011–2016	With US\$8.35 million financing from the Global Environment Facility, the project supports improved land planning and sustainable land and water management practices, and therefore contributes to flood protection. An additional financing operation (US\$8.73 million) is under preparation for FY13, to support the upscaling of the project.			

Partners	DRM- and CCA-Related Objectives and Outcomes	
UNDP	Supports a number of initiatives to strengthen national strategies for disaster risk management and climate change adaptation.	

	PARTNERSHIPS AND COO	RDINATION
	nteracting with World Bank for DRM and CCA, fied by the GFDRR DRM Specialist)	World Ban
National Services	Civil protection, hydrology	groups rela agriculture
International Organizations		builds upo used as a
Regional Organizations	Economic Community Of West African States (ECOWAS), Volta Basin Authority (VBA)	CCA nation Active imp
GFDRR Donors	Denmark, European Union (EU), Germany, Japan, United Kingdom (UK)	disaster ris

World Bank actively participates in donor coordination groups related to climate change, water resources, and agriculture. In addition, the GFDRR Country Program builds upon partnerships and coordination, and was used as a basis for the development of the DRM and CCA national plan of action for 2010–2015.

Ghana

Active implementation of this country program for disaster risk reduction would strengthen coordination with the Government and other development partners.

CLIMATE CHANGE AND DISASTER RISK PROFILE

Ghana is exposed to floods and droughts, particularly in the Northern Savannah belt. Epidemics, pests, infestations, and wildfires occur across the country. There are risks of landslides, urban hazards, and coastal hazards (e.g., storms, storm surges, and coastal erosion).

The catastrophic floods in the North in 2007 affected more than 325,000 people, with some 100,000 requiring assistance to restore their livelihoods. The floods immediately followed a period of drought that had damaged the initial harvests, and were indicative of the high variability in climate and hydrological flows in Northern Ghana.

Floods have caused even more important damages in the past: for example, in 1991, 2 million people were hit by flooding. Urban floods regularly affect Accra and other major cities in the country, with the last major event occurring in Accra in October 2011.

Current development dynamics and demographic changes put even more people at risk of disasters in Ghana. These dynamics are related to increasing rural poverty, rapid urbanization, growing urban and coastal neighborhoods, and declining ecosystems. A high dependence on natural resources in rural areas, lack of secure livelihoods, and limited informal and formal social safety nets add to these vulnerabilities.

PRIORITIES FOR GFDRR ENGAGEMENT

(as expressed by the DRM Specialist)

- 1. Resource mobilization
- 2. Understanding risks
- Enhancing the resilience of cities, communities, and critical infrastructure
- 4. Risk financing mechanisms
- Cost-benefit analysis of investment in disaster risk management

GFDRR started its engagement in Ghana following the floods in the north of the country in 2007. The following year, a disaster risk management country plan was formulated together with UNDP, involving national and international development partners.

Following successful implementation of the *White Volta Flood Hazard Assessment*, the next steps are (i) to further enhance flood risk assessment and forecasting in the country, and (ii) to contribute to the implementation of the *Ghana Plan of Action for Disaster Risk Reduction and Climate Change Adaptation 2010–2015*, developed under the leadership of UNDP.

In disaster risk management Priorities for GFDRR are (i) dissemination of flood forecasting information to the population and stakeholders at risk in the northern regions of Ghana; (ii) strengthening meteorological and hydrological forecasting capacity in relation with flood forecasting; and (iii) ensuring sustainability, improvement, and expansion of the flood forecasting system (to cover upstream White Volta and its tributaries).

Mad	agascar
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GFDRR ENGAGEMENT			DRM SPECIALIST		
Source of Funding		MDTF, SRFF		Mr. Giovanni Ruta	
Resources	Awardeo	1		US\$1,408,234	gruta@worldbank.org
Resources Disbursed		US\$945,813	+261 20 22 560 14		
Number of Projects Active: 1;		tive: 1; Completed: 1			
Bank 81%		Main			KEY PARTNERS
	81%	Governn	Government	Prime Minister's	(as identified by the DRM Special
Executed	- - - -	Counter	oart	Office	NATIONAL: civil protection,
	. 19% .			Disaster	meteorology, hydrology
Recipient Executed		REGIONAL: AfDB, SADC, IOC			
				Management Unit	INTERNATIONAL: UNDP, OCHA, UN

RM SPECIALIST

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DRM/CCA IN F	POLICY	PAPERS
(as assessed by th	ne DRM S	pecialist)
Mainstreaming:	Low	High
NAPA		
WB-CAS		
UNDAF		
EU-CSP		
PRSP		

WORLD DEVEL	OPMENT INDICATORS	DONORS: EU	
DRR Index	WDI: 3.75 DRI Class: 6/7	NGOs/CSOs: IC	PM, CARE Int, CRS, ICCO
Income Group	Low	NATIONAL	National DRM Council (C
Population	20.1 million	PLATFORM	does not participate. Fo
GDP	US\$453/capita		
Poverty	69% of population	NATIONAL	The 2003 National DRM
Urban Population	33% of total	LEGISLATION reflect current under	reflect current understa

ATIONAL ATFORM	National DRM Council (CNGRC). Formally declared to UNISDR. WB does not participate. Focus: DRM only.
	The 2003 National DRM Policy and Strategy requires revisions to reflect current understanding of risks.

GFDRR-FUNDED PROJECTS' OUTCOMES	
Project/Program	DRM and CCA-Related Objectives and Outcomes
Mainstreaming CCA and DRM into Economic Development US\$1,240,620 2008–2012 (Active)	Despite the political instability, the dynamism of the Steering Committee has ensured progress with project implementation. Since the resuming of activities at the end of 2010 (following an exception to Bank <i>Operational Procedures 7.30 Dealing with de facto Government</i>), the project has prepared (i) three regional-level risk atlases; (ii) analyzing feasibility of disaster risk financing (with the CatSim model); (iii) DRR mainstreaming in ecosystem and environmental management; and (iv) development of cyclone-resistan norms and building codes. This technical assistance has supported the Government's effort and a decree was adopted in April 2010, signed by 31 ministries, enforcing cyclone-resistan norms.
Assessment of Socioeconomic Impact and Recovery & Reconstruction Needs Following Cyclones Fame and Ivan US\$167,614 2008–2012 (Completed)	The project undertook a comprehensive Joint Damage, Loss, and Needs Assessment (JDLNA following Cyclones Fame and Ivan (2008), which helped the Government and key partner (i) assess recovery and reconstruction needs; (ii) develop cyclone norms and standards (iii) develop a National Plan for Disaster Risk Management; and (iv) strengthen capacities for risk assessment, early warning, and disaster preparedness.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Emergency Food Security and Reconstruction Project	The objectives of this ongoing project are to (i) increase access to short-term employment in affected food-insecure areas, and (ii) restore access to social and economic services following natural disasters.	
Emergency Response Project (Pipeline)	The World Bank is currently preparing an emergency response project expected to be presented to the Board at the end of 2012 The project, expected to be implemented by the Disaster Prevention and Emergency Management Unit, would support primarily early warning systems and construction norms. It would build upon the achievements of the ongoing GFDRR-supported project and prepare for the implementation of next one.	
Partners	Partners DRM- and CCA-Related Objectives and Outcomes	
UNDP	Provides strong support to the national platform and to the civil protection agency in capacity building, strategy development, training, policy, and operations.	
EU	The Humanitarian Aid and Civil Protection Department of the European Commission (ECHO) provides funding for humanitarian aid actions to mitigate the effects of natural disasters of the most vulnerable populations, focusing mainly on recovery assistance, food security, livelihoods, shelter, water and sanitation, and health. Various actors through the Disaster Preparedness Program of ECHO (DIPECHO) also contribute to strengthening Madagascar's risk reduction and emergency preparedness agenda by supporting the development of a rapid information system, an updated National Plan for Disaster and Risk Management, and building codes and practices.	

	PARTNERSHIPS AND COORDINATION	
. ,	s interacting with World Bank for DRM and CCA, ntified by the GFDRR DRM Specialist)	
National Services	Civil protection, meteorology, hydrology, agriculture, urban and land use planning, food security, education, health	
International Organizations	United Nations Development Programme (UNDP), United Nations Children's Fund (UNICEF), Office for the Coordination of Humanitarian Affairs (OCHA)	
Regional Organizations	African Development Bank (AfDB), Southern African Development Community (SADC), Indian Ocean Commission (IOC)	
NGOs/CSOs	Joint Advocacy Initiative for DRM (ICPM), CARE International, Catholic Relief Services (CRS), Research and Technological Exchange Group (GRET), Inter-Church Organization for Development Cooperation (ICCO)	
GFDRR Donors	European Union (EU)	

Since 2008, after completion of the Joint Damage and Loss Assessment, the Unit of Disaster Prevention and Management (CPGU) has been the main Government counterpart of GFDRR.

Collaboration between partners has been stymied by the political crisis in the country. UN agencies continued their activities and GFDRR maintained contacts to ensure coordination while resuming the GFDRR Country Planning.

CLIMATE CHANGE & DISASTER RISK PROFILE

One-quarter of Madagascar's population, representing 5 million people, lives in zones at risk of natural disasters, and the country has been identified as the second most exposed country in Africa to current multidisaster risks. The country has low adaptive capacity, influenced by high poverty rates, rapid population growth, high dependence on natural resources, and weak institutional capacity.

Major hazards impacting the country are cyclones, flooding and tropical storms, droughts, and locust invasions. Each year, three to four cyclones on average make landfall on Madagascar.

Flooding is widespread throughout the country and most commonly occurs after cyclones or tropical storms. Adverse effects of flooding events are significant in urban centers due to a lack of early warning systems, inadequate urban planning, and poorly maintained drainage infrastructure.

Country-specific information on future climate conditions is limited. Preliminary modeling suggests that cyclones are likely to become more intense and with trajectories moving towards the north. The south and west of the country are expected to experience more severe droughts, and precipitation variability is expected to increase across the Island.

PRIORITIES FOR GFDRR ENGAGEMENT

	(as expressed by the DRM Specialist)
1.	Analysis and advocacy—improved modeling
2.	Disaster prevention—integration of DRM/CCA into land use planning codes and practice
3.	Advancement of risk financing

- mechanisms
- 4. Enhancing the resilience of cities, communities, and infrastructure

An Interim Strategy Note for Madagascar was discussed by the World Bank Board in February 2012 and identifies vulnerability, including vulnerability to natural disasters, as one it its pillars.

Madagascar is still under Bank *Operational Procedures 7.30 Dealing with de facto Government.* A second GFDRR-funded project is under consideration; however its activation is contingent upon resuming of operations in the country. The main focus will continue to be on supporting the development and implementation of the national DRM strategy (including establishment of a DRM Platform and piloting of decentralized DRM technical units); preparation of risk atlases for priority regions; mainstreaming of DRM in urban and land use planning and other priority sectors; piloting of contingency funds at

central and decentralized levels; expansion of existing food security early warning system; regional disaster response plans in priority zones; and capacity building.

Malawi

GFDRR ENGAGEMENT				
Source of Funding		MDTF		
Resources Awarded			US\$1,946,522	
Resources Disbursed			US\$1,769,964	
Number of Projects		Active: 1; Completed: 1		
Bank Executed	100 %	Main Government Counterpart		Department of Disaster Management Affairs (DODMA)
Recipient Executed	0%	Implement. Agency		n/a

WORLD DEVELOPMENT INDICATORS

DRR Index	WDI: 1.75/5 DRI Class: 7/7
Income Group	Low
Population	15.4 million
GDP	US\$371/capita
Poverty	52% of population
Urban Population	16% of total

DRM SPECIALIST

Mr. Francis Nkoka fnkoka@worldbank.org +265 999 484 483

KEY PARTNERS
(as identified by the DRM Specialist)

NATIONAL: civil protection/DRM,	
agriculture, food security, planning	
REGIONAL: SADC, AfDB	
INTERNATIONAL: UNDP, UNISDR, IFRC, UN-HABITAT	
DONORS: Ireland, Norway, UK, USA	
NGOs/CSOs: Christian Aid, Action Aid	



POLICY	PAPERS
ne DRM S	pecialist)
Low	High
	ne DRM S

NATIONALA national platform does not exist yet. The creation of a newPLATFORMstructure is included in the new DRM policy.

NATIONALDisaster Preparedness and Relief Act, 1991, outdated. Project ofLEGISLATIONDRM policy currently being developed with support from UNDP

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
GFDRR Malawi Disaster Risk Management US\$1,069,000 2011–2012 (Active)	The project supports (i) mainstreaming of DRR in project cycles of financial institutions; (ii) development of an Integrated Flood Risk Management Plan (IFRMP) for the Shire Basin; (iii) development of a Disaster Risk Financing and Insurance country plan; (iv) enhancement of risk information management (with open data); (v) raising the awareness of Principal Secretary in DRM; (vi) seismic risk assessment; (vii) development of an early warning system; (viii) development of housing guidelines and training; and (ix) linking DRM and CCA agendas.	
Karonga Earthquakes US\$200,000 for 8 countries ¹ 2008–2011 (Completed)	The project has supported a short training in the DaLA methodology, vocational skills training, an education and housing sector structural assessment, recovery needs assessment, and the production and dissemination of safe housing guidelines (in partnership with the Malawi Red Cross Society and UN-HABITAT).	
Mainstreaming Disaster Reduction for Sustainable Poverty Reduction US\$847,522 2006–2010 (Completed)	Three analytical studies were completed, namely (i) Disaster Risk Situation Analysis, (ii) Economic Vulnerability and Disaster Risk Assessment in Malawi, and (iii) Flooding Study in the Lower Shire. These studies laid the groundwork for policy dialogue on incorporation of flood and drought risk reduction into the country's development policies and strategies, and provided a good basis for more elaborated work on DRR strategies and mitigation approaches at the sector level. The studies also informed current WB/GFDRR investments in Malawi, which include the Integrated Flood Risk Management Plan for the Shire Basin and the Shire River Basin Management Program.	

^{1.} Not included in GFDRR engagement figures of the top-left corner.

STINERGIES	AND COMPLEMENTARITIES WITH OTHER PROJECTS
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes
Shire River Basin Management Program	This program will develop a Shire River Basin planning framework, improve catchment management, and invest in water-related infrastructure. Critical activities include (i) flood forecasting and an early warning system, and (ii) flood risk mapping, adaptation, and mitigation.
National Water Development Project	This program will invest in the aerial survey for flood hazard mapping and flood model improvement.
Additional Financing for Social Action Fund 3	The funding improves livelihoods of poor and vulnerable households and strengthens the capacity of local authorities to plan for local development and building back better for Karonga schools after the earthquake, incorporating seismic and flood risks to school infrastructure designs and location.
Additional Financing and Multidonor Trust Fund for Agricultural Development	These funds improve the effectiveness of investments aimed at food security and sustainable agricultural growth, and strengthen the natural resource base in agricultural lands, through a doubling of the area under sustainable land management as a basis for securing ecosystem services and sustainable agricultural productivity.
Additional Financing for Irrigation, Rural Livelihoods, and Agricultural Development Project (IRLADP)	The project includes a contingency financing component for rapid disaster response (piloting this in the region).
Malawi Education Infrastructure Project	The project incorporates seismic and flood risks to school infrastructure designs and location.
Partners	DRM- and CCA-Related Objectives and Outcomes
UNDP	Assists the Government to prepare the National DRM Policy and to update the National Disaster Preparedness and Relief Act (1991). UNDP is also supporting capacity at national and district levels for DRM and response, mainstreaming disaster risk reduction into sustainable development policies and planning processes at all levels of government. It is also establishing an effective system to identify, assess, and monitor disaster risks under data and information, including early warning systems and strengthened coordination.
Ireland, Norway, and UK	Through the Enhancing Community Resilience program, the following activities are being implemented: (i) sharing information on climate forecasts with farmers; (ii) small-scale river-level monitoring systems; (iii) community-based early warning
	system; (iv) small-scale flood mitigation measures; (v) catchment improvement; and (vi) community grain banks.
EU	
EU UN-HABITAT	 (vi) community grain banks. The following activities are being implemented by the Humanitarian Aid and Civil Protection department of the European Commission (ECHO): (i) community-based early warning system; (ii) small-scale flood mitigation measures; (iii) catchment
	 (vi) community grain banks. The following activities are being implemented by the Humanitarian Aid and Civil Protection department of the European Commission (ECHO): (i) community-based early warning system; (ii) small-scale flood mitigation measures; (iii) catchment improvement; and (iv) livelihoods activities. Supports the development of evacuation points and construction of foot bridges,

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
National Services	Disaster management, agriculture and food security, planning, meteorology, geology, water resources, social protection, health	
International Organizations	United Nations Development Programme (UNDP), United Nations International Strategy for Disaster Reduction (UNISDR), International Federation of the Red Cross and Red Crescent Societies (IFRC), UN Agency for Human Settlements (UN-HABITAT)	
Regional Organizations	Southern Africa Development Community (SADC), African Development Bank (AfDB)	
NGOs/CSOs	Christian Aid, Action Aid, CARE, Concern International, Plan international, Oxfam, Save the Children, World Vision, Evangelical Association of Malawi, Goal Malawi, Church Action in Relief and Development, Adventist Development and Relief Agency	
GFDRR Donors	European Union (EU), Ireland, Norway, United Kingdom (UK), United States (USA)	

Coordination of DRM activities is still done informally, as the current legislation is outdated and the new DRM policy has not yet been approved. Sector Working Group and donors group meetings are carried out regularly. There are advanced plans with UNDP support to quickly establish a national DRM Platform to strengthen coordination and sharing of DRM activities by different stakeholders.

The GFDRR DRM focal point supported the preparation of the IDA/GEF-funded Shire River Basin Management Project. GFDRR activities have helped improve coordination and information sharing between Government and other DRM partners.

CLIMATE CHANGE & DISASTER RISK PROFILE

Malawi is particularly exposed and vulnerable to drought, landslides, earthquakes, floods, and associated epidemics.

Droughts and dry spells in Malawi cause on average about 1 percent annual GDP loss. Most of the drought episodes have occurred in El Niño years, during which the country experiences rainfall deficits.

Floods in Malawi cause on average about 0.7 percent annual GDP loss. Floods are mainly due to lakes flooding and rivers overflowing, and result in sediment deposit in river channels, reservoirs, and floodplains causing catchment degradation, loss of arable land, and damage to irrigation infrastructure.

Malawi is located within the great East African Rift System (EARS), which is responsible for the frequency and severity of earthquake activity experienced thus far. The East African Rift System stretches from the Red Sea to Mozambique, cutting through Malawi, making the country susceptible to disastrous earthquakes.

Climate variability and climate change will continue to affect the incidence of drought and floods. The mean annual temperature in Malawi has increased by an average rate of 0.21°C per decade over the last 30 years. In addition, daily temperature observations show significantly increasing trends in the frequency of hot days and nights in all seasons.

PRIORITIES FOR GFDRR ENGAGEMENT				
(as expressed by the DRM Specialist)	The entry point for GFDRR support in Malawi was the analytical studies conducted in 2008–			
1. DRR/CCA mainstreaming, building codes, land use and urban plannin	2010. The dissemination of these studies has led to an expansion in the number of DRM			
 Emergency preparedness, early warning, emergency response planning 	Until now, GFDRR has been engaged in supporting the Government with DaLA/PDNA training and sensitization, integrated flood risk management, seismic risk management,			
 Analysis and advocacy for enhance understanding of risks and their long-term impacts 	disaster risk financing and insurance, and open data training on the development of a risk and natural resources portal. The priorities for GFDRR's interventions in DRM will continue to be mainly centered around			
 Provision of enabling analytical tools and environment for the country to develop DRM/CCA policies and investments 	risk assessment and early warning systems, knowledge and capacity enhancement for disaster and risk management, disaster risk reduction and financing, disaster preparedness, and recovery. Particular focus will be given to the linkage with World Bank–supported operations in water resources management, natural resources management, agriculture,			
5. Enhancing risk financing mechanisms	transport, education, insurance, and financial sustainability of DRM in public sector planning and budgeting.			

Mali

GFDRR ENGAGEMENT				
Source of Funding		MDTF		
Resources Awarded		US\$1,400,000		
Resources Disbursed		US\$33,207		
Number of Projects		Active: 1; Completed: 0		
Bank Executed	10%	Main Government Counterpart		Ministry of Interior Security and Civil Protection (MSIPC)
Recipient Executed	90%	Implement. Agency		General Directorate for Civil Protection (DGPC)

WORLD DEVELOPMENT INDICATORS WDI: n/a **DRR** Index DRI Class: 6/7 Income Group Low Population 15.8 million GDP US\$669/capita Poverty 47% of population

35% of total

Urban Population

DRM SPECIALIST

Recruitment in progress

KEY PARTNERS (as identified by the DRM Specialist)

INTERNATIONAL: UNDP, UNISDR, WFP

NGOs/CSOs: Red Cross, Islamic Relief

DONORS: Denmark, EU, USA

NATIONAL: civil protection, food

security, environment

REGIONAL: ECOWAS



DRM/CCA IN F	POLICY	PAPERS
(as assessed by th	ne DRM S	pecialist)
Mainstreaming:	Low	High
CCA strategy		
PRSP		
UNDAF		
WB-CAS		
Regional Dvt		
EU-CSP		

NATIONAL PLATFORM	Not formally created by the Government. Declared to UNISDR. WB does participate. Focus: DRM and CCA; However, CCA is coordinated under the Environment and Sustainable Development Agency.
NATIONAL LEGISLATION	A project of law is planned to be drafted and presented to the national assembly during project implementation.

Project/Program	DRM- & CCA-Related Objectives and Outcomes
Disaster Risk Management and Climate Adaptation Project US\$1.4 million 2012–2013 (Active)	The project is implemented by the General Directorate of Civil Protection (DGPC), which has the mandate to coordinate DRM at both central and decentralized levels. Guided by the national platform for disaster risk management, the project provides material and technical support to key agencies involved in disaster risk management (civil protection, agriculture, meteorology, hydrology, fight against locusts, land planning). It supports the development of an adequate framework for institutional collaboration, a methodology for risk assessment, the development of an early warning system, as well as education and awareness raising campaigns. It further sets the stage for a next phase, planned to demonstrate operational efficiency of institutional cooperation for risk assessment and management at the local level, with structural (drainage, dike strengthening) and nonstructural (risk assessment, land use planning, early warning, contingency planning) investments in pilot zones exposed to multiple hazards.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Fostering Agricultural Productivity Project (PAPAM)	The project is designed to increase the productivity of smallholder agricultural and agribusiness producers, and the use of sustainable land and water management (SLWM) practices in the production systems of the project areas. Diversification, irrigation, and sustainable land and water management practices are being used to reduce Mali agricultural sector's vulnerability to droughts, floods, and epizootic pests.	
Urban Local Government Support Project (ULGSP)	Component 2 of this project will focus on investments, operation, and maintenance for priority flood protection in the District of Bamako, including road rehabilitation and drainage.	
Integrated Land and Water Management for Adaptation to Climate Variability and Change (ILWAC)	Funded by a Danish trust fund, the project develops a national information system, hosted by the Sustainable Development Agency, with up-to-date land use information together with identification of good practices in sustainable land and water management. This information system will serve as a backbone for the development of disaster risk information (when available) and for monitoring of DRM and CCA good practices.	
Partners	DRM- and CCA-Related Objectives and Outcomes	
UNISDR	Provides direct support to the national platform in order to archive historical information about disaster losses using the DesInventar database.	
UNDP	Supports studies on vulnerability and climate change adaptation in different sectors: agriculture, livestock, health, water, and wetlands in relation to the National Adaptation Programme of Action (NAPA).	
EU	Through its Global Climate Change Alliance (GCCA), the European Commission (EC) is reinforcing the capacity of the country to integrate climate change in development planning (anticipated budget: €5.7 million).	
FAO and WFP	Provide material and technical support to the National Center for the Fight against Locusts and to the National Food Security Program.	
Germany	The German Agency for International Cooperation (GIZ) supports mainstreaming of climate change mitigation and adaptation (including disaster risk management) in Strategic Environmental Assessments.	
Sweden	The Swedish International Development Cooperation Agency (SIDA) is supporting field initiatives by the NGO Network on Climate Change.	

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
National Services	Civil protection, food security, environment, urban and land use planning, fight against locusts, meteorology, hydrology	
International Organizations	United Nations Development Programme (UNDP), United Nations International Strategy for Disaster Reduction (UNISDR), World Food Programme (WFP)	
Regional Organizations	Economic Community of West African States (ECOWAS)	
NGOs/CSOs	Red Cross, Islamic Relief, Network on Climate Change	
GFDRR Donors	Canada, Denmark, European Union (EU), Germany, Luxembourg, Sweden, United States (USA)	

GFDRR has engaged in Mali, benefiting from strong relations established between the World Bank country office and national agencies involved in DRM, including sustainable development, food security, fight against locusts, urban and land use planning, and meteorological and hydrological agencies. The preparation of the joint Country Program supported by GFDRR has generated a strong momentum across stakeholders and has helped improve coordination and information sharing among the Government agencies as well as with donors. The DRM Specialist was spontaneously invited to contribute to a number of DRM- and CCA-related national consultations from March 2011 to March 2012.

Mali is exposed to multiple natural hazards, but is particularly vulnerable to droughts, locust invasions, and floods. The Sahelian climate presents high variability, with sequences of drought and intense rainfall events. During the rainy season, a large part of the population is exposed to flooding hazard along the two great rivers Niger and Senegal and their tributaries.

This physical vulnerability is accentuated by socioeconomic and environmental factors, mainly (i) the dependence on rain-fed agriculture; (ii) a high poverty rate and low Human Development Index; (iii) people settling in flood plains in relation to weak urban and land use planning; and (iv) environmental degradation and soil deterioration.

PRIORITIES FOR GFDRR ENGAGEMENT

	(as expressed by the DRM Specialist)
1.	Institutional collaboration, with development of an operational national platform
2.	Early warning system
3.	DRM/CCA policies, building codes, land use & urban plans

- 4. Understanding risks
- 5. Enhancing links between climate adaptation, prevention, and emergency preparedness
- 6. Cost-benefit analysis of investments in disaster risk management

GFDRR engagement with Mali started in 2010 with negotiation and endorsement of the Country Program. Following extensive consultations with the Government related to implementation arrangements, procurement and financial management procedures, and safeguard policies, the project became effective on March 13, 2012. However, activities were put on hold since the March 21, 2012, coup-d'état, and are resuming gradually since mid-September 2012. The transition of successive Governments has led to a reshuffling of heads of agencies, including the Civil Protection General Directorate, which is implementing the GFDRR-funded project.

The first step will be to strengthen procurement and financial management capacities of the implementing agency, taking into account the change in resources available; and to propose a coherent institutional and legislative framework for inter-ministerial collaboration. This would ensure best utilization of resources available in individual agencies, in a context where capacities for DRM are higher for food security and fight against locusts, and lower for rapid-onset hazards (flash floods, storms, etc.).

The Country Plan is being implemented with a phased approach, and projects related to next phases are ready to be launched as soon as funding becomes available.

Mozambique

® NATIO		And
RS	DRM/CCA IN POLICY	PAPERS
1 Specialist)	(as assessed by the DRM S	pecialist)

GFDRR ENGAGEMENT

Source of Funding			MDTF	
Resources Awarded			US\$2,686,448	
Resources Disbursed			US\$1,142,849	
Number of Projects		Ac	tive: 2; Completed: 1	
Bank Executed	50%	Main Government Counterpart		Ministry of State Administration
Recipient Executed	50%	Implement. Agency		National Disaster Management Institute (INGC)

WORLD DEVELOPMENT INDICATORS

DRR Index	WDI: 4/5 DRI Class: 7/7
Income Group	Lower-Middle
Population	23.9 million
GDP	US\$535/capita
Poverty	55%
Urban Population	31% of total

DRM SPECIALIST

Mr. Roberto White rwhite1@worldbank.org +258 8432 22240

KEY PARTNERS
(as identified by the DRM Specialist)
NATIONAL: finance, civil protection, planning
INTERNATIONAL: UN-HABITAT, UNDP
REGIONAL: SADC
NGOs/CSOs: Red Cross, Plan Int.
DONORS: Brazil, Germany, EU, UK

DRM/CCA IN POLICY PAPERS		
(as assessed by the DRM Specialist)		
Mainstreaming:	Low	High
National Dvt		
PRSP		
WB-CAS		
UNDAF		
EU-CSP		
NAPA		

IBRD 31184

NATIONAL PLATFORM	National Council for Disaster Management (CTGC). Declared to UNISDR. WB participates. Focus: DRM only. Headed by Prime Minister.
NATIONAL LEGISLATION	Disaster Management Policy (1999); DRM Act in draft, awaiting submission to the Parliament.

GFDRR-FUNDED PROJECTS' OUTCOMES	
Project/Program	DRM and CCA-Related Objectives and Outcomes
Disaster Risk Management Program—Phase I US\$1,553,333 2010–2015 (Active)	The project supports (i) a flood protection feasibility study for Inhangoma (Mutarara District), (ii) the rehabilitation of weather radar to reinforce the hydro-climatological network, and (iii) the Zambezi Flood Management Scoping Study. An operational manual has been compiled on Community-Based Disaster Risk Management in Inhambane and Maxixe, and community-driven development activities have been initiated in the flood-affected neighborhoods of both cities. Additionally, based on recommendations from the risk financing study, Government entities agreed on a preliminary national framework and operational procedures for a common fund.
Safe Schools Project US\$220,000 2012–2015 (Active)	The Project, implemented by UN-HABITAT, is developing disaster-resilient building codes, which will be used as the entry point to a larger-scale revision of all school-related building codes and norms in the country.
Mainstreaming Disaster Reduction for Sustainable Poverty Reduction US\$914,000 2006–2011 (Completed)	Major outcomes are (i) increased public awareness of disaster risks as a result of the vulnerability and disaster risk assessment study and drought and flood risk atlas. These deliverables were placed on the information portal of the National Disaster Management Institute (INGC) and provided to the national cartography and tele-detection center for wider public access; and (ii) enhanced knowledge of flood risks in the cities of Maxixe and Inhambane as a result of the study on participatory natural hazard and climate change risk mapping. The methodological manual developed during the study will be used by INGC to further implement similar risk mapping exercises in other cities of Mozambique.

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)
Weather and Climate Information Systems (WCIS) ¹	The WCIS team provided technical advisory and preparation support for the development of a PPCR project addressing strengthening of national meteorological and hydrological services. This project is now at pipeline stage, namely Climate-Resilient Growth: Transforming Hydro-Meteorological Services (see below under "Synergies").

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Pursuing Low-Regret Climate Adaptation and Disaster Risk Reduction Options	The Trust Fund for Environmentally and Socially Sustainable Development (TFESSD) is launching a South-South Cooperation program involving Djibouti, Kenya, and Mozambique to improve climate data management and community-level preparedness.	
Economics of Adaptation to Climate Change (EACC)—Mozambique Case Study	The study, funded by UK and the Netherlands, was conducted with two parallel tracks: (i) a global approach, in which national databases were used to generate aggregate estimates at a global scale, drawing on a wide variety of national sector studies; and (ii) a country-level approach, in which subnational data were aggregated to generate estimates for the country.	
Cities and Climate Change Project	Strengthens municipal capacity for sustainable urban infrastructure provision and environmental management which enhances resiliency to climate related risks. The Pilot Program for Climate Resilience (PPCR) provides additional financing to strengthen climate resilient urban planning and to restore the functioning of natural drainage and urban green space to reduce storm flooding in the coastal city of Beira.	
The Climate Change Technical Assistance Project	Supports the strengthening of Government's institutional and technical capacity to mainstream climate change resilience into key economic sectors through policy and institutional reforms, pilot investments, studies and knowledge management.	
Climate-Resilient Growth: Transforming Hydro-Meteorological Services (Pipeline)	The Pilot Program for Climate Resilience Grant (PPCR) will support the government of Mozambique to lower the climate related risks to local communities and to the economic development by strengthening hydrological and meteorological information systems and services to deliver reliable and timely information that increases climate resilience. The project should be submitted for Board approval by the end of 2013.	
First Climate Change Development Policy Operation (Pipeline)	tion areas: (1) National framework for climate action through the development of a	
Partners	DRM- and CCA-Related Objectives and Outcomes	
UN	UN agencies are "delivering as one" the Joint Programme for Strengthening Disaster Risk Reduction and Emergency Preparedness, as well as the Joint Programme on Environment Mainstreaming and Adaptation to Climate Change.	
EU	The Disaster Preparedness Program of the Humanitarian Aid and Civil Protection Department of the European Commission (DIPECHO) supports disaster risk management and preparedness activities though projects implemented by various international NGOs, community-based organizations, and UN agencies.	

^{1.} The support was provided through the global WCIS Program and is not part of GFDRR engagement figures (top-left corner of previous page).

Partners	DRM- and CCA-Related Objectives and Outcomes (continued)	
GEF	GEF The Global Environment Facility (GEF), through UNDP, supports sustainable environmental management, including coastal resources and an early warning system for agriculture.	
Germany Supports adaptation measures to cope with climate change effects, co based early warning systems, and community-based disaster risk man		
Denmark	Supports INGC-led studies on the impact of climate change on disaster risk.	

PARTNERSHIPS AND COORDINATION			
(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		World Bank/GFDRR activities have benefited from direct collaboration and cofinancing from	
National ServicesFinance, civil protection, urban and land use planning, meteorology, hydrology, education		development partners (Germany, WMO, UN, Brazil, and DIPECHO).	
International Organizations	UN Agency For Human Settlements (UN-HABITAT), United Nations Development Programme (UNDP), International Federation of Red Cross and Red Crescent Societies (IFRC), World Meteorological Organization (WMO), European Commission Disaster Preparedness Humanitarian Aid and Civil Protection Programme (DIPECHO)	Coordination with development partners occurs through participation in sessions of the national platform and donor group meetings on DRR, environment, and climate change. The DRM Specialist actively contributes to linking DRM and CCA agendas in the country	
Regional Organizations	Southern African Development Community (SADC)	linking DRM and CCA agendas in the country. However, activities for DRR and CCA are still	
NGOs/CSOs	Plan International	under the coordination of two different	
GFDRR Donors	Brazil, Germany, European Union (EU), Netherlands, United Kingdom (UK)	agencies, and would benefit from a more integrated approach.	

Mozambique ranks third among the African countries most exposed to multiple weather-related hazards, suffering from periodic cyclones, droughts, floods, and related epidemics.

Droughts occur primarily in the southern region, with a frequency of 7 in 10 years. Floods occur every 2–3 years, with higher levels of risk in the central and southern regions. Mozambique was greatly affected by upstream river use in the Zambezi and the construction of the Kariba Dam in 1959.

Recently concluded studies (2012), covering themes such as coastal protection, food security, water resources, cities, etc.,

helped expand the scientific evidence in the field of climate change.

Future models predict a 25 percent increase in the magnitude of large flood peaks in the Limpopo and Save Rivers and a reduction in the flow of the Zambezi River of 15 percent, requiring major rethinking in power consumption strategies.

Critical sectors that will be at higher risk include agriculture, infrastructure, power, water & sanitation, health, and nutrition.

PRIORITIES FOR GFDRR ENGAGEMENT			
(as expressed by the DRM Specialist)	GFDRR's engagement in Mozambique began in 2006. The entry point was the financing of two studies, completed in 2011. Currently, GFDRR facilitates disaster prevention an mitigation through hazard mapping and building codes. In addition, the Meteorologica Agency receives support from GFDRR in the rehabilitation of early warning systems and th hydro-climatological network, as well through the training of staff.		
1. Understanding of risks and their long-term impacts			
2. Disaster prevention: land use planning & building codes			
 Emergency preparedness: Early warning systems for floods & cyclones 	The World Bank also provides technical assistance for cyclone-proof school reconstruction and supports risk financing schemes. The Bank helps improve the hazard resilience of cities,		
4. Resilience of cities, communities, and infrastructure	communities, and critical infrastructure through a Scoping Study of Flood Management. Priorities for GFDRR are to help streamline the integration of the climate change adaptation		
5. Risk financing: common fund, insurance	(CCA) and disaster risk management (DRM) issues in the various government institutions in Mozambique, as well as to support project implementation, specifically during the cyclone-		

flooding season between December and March.

Senegal

GFDRR ENGAGEMENT				
Source of Funding			MDTF, SRFF	
Resources Awarded			US\$1,897,849	
Resources Disbursed			US\$907,335	
Number of Projects		Active: 1; Completed: 2		
Bank Executed	25%	Main Government Counterpart		Ministry of Environment (Environment Department)
Recipient Executed	75%	Implement. Agency		Civil Protection Department

WORLD DEVELOPMENT INDICATORS		
DRR Index	WDI: 2.75 DRI Class: 4/7	
Income Group	Low	
Population	12.8 million	
GDP	US\$1,119/capita	
Poverty	51% of population	
Urban Population	43% of total	

DRM SPECIALIST

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KEY PARTNERS

(as identified by the DRM Specialist) NATIONAL: civil protection, environment, health, land use planning INTERNATIONAL: UNDP, OCHA, WFP REGIONAL: ECOWAS DONORS: EU, Japan, Norway

NGOs/CSOs: Caritas, Oxfam



DRM/CCA IN POLICY PAPERS			
(as assessed by th	(as assessed by the DRM Specialist)		
Mainstreaming:	Mainstreaming: Low High		
PRSP			
UNDAF			
NAPA		I	
Regional Plan		I	
WB-CAS			
EU-CSP			

NATIONAL PLATFORM	Formally declared with UNISDR. WB is observer. Focus: DRM only.
NATIONAL LEGISLATION	Legislation to be developed with GFDRR support. National DRM Program adopted in 2011

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program DRM and CCA-Related Objectives and Outcomes		
Disaster Risk Management and Climate Change Adaptation US\$1.4 million 2012–2015 (Active)	Expected outcomes are (i) strengthened capacity of the Directorate for Civil Protection for supporting the disaster risk reduction platform and coordinating early warning, preparedness, and response; and (ii) a fit-for-purpose DRM institutional framework for Senegal.	
Post-Disaster Needs Assessment (PDNA) US\$405,109 2009 (Completed)	The PDNA has leveraged World Bank, European Commission, and United Nations' involvement in DRM in Senegal, with specific focus on flooding and coastal erosion. The report allowed for the development of short-, medium-, and long-term strategies, specifically for flood management and DRM. These strategies are now being implemented through the Storm Water Management and Climate Change Adaptation Project and the Economic and Spatial Study of the Vulnerability and Adaptation to Climate Change in Senegal's Coastal Zone in close collaboration with the EU delegation (see details of these two projects below).	
Spatial Analysis of Natural Hazard and Climate Variability Risks US\$93,000 2008–2009 (Completed)	This study conducted a spatial and economic analysis of the coastal zone risk to climate change and climate variability, and related adaptation options in three pilot zones. The results of this study are being integrated for the development of climate resilience in local and national development plans related to Senegal's coastal zone. The project enabled testing and improved the analysis methodology to be used for the nationwide climate change impact project focusing on coastal erosion.	

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- & CCA-Related Objectives and Outcomes	
Storm Water Management and Climate Change Adaptation Project IDA US\$55.6 million Senegal US\$13.2 million Norway US\$4 million Japan is considering US\$15 million 2012–2017 (Active)	The focus of the project is to enhance storm water drainage and flood prevention in peri-urban Dakar through flood risk mainstreaming in the urban sector, drainage investments and management, as well as community engagement in urban flood risk reduction and adaptation to climate change. A meeting between the Government and donors is planned for the beginning of 2013 to prepare for the financing of the national flood management program, including storm water management project interventions.	
Sustainable Land Management Project GEF US\$4.8 million 2008–2012 (Completed)	Land is a key resource in Senegal. Seventy percent of the rural population (which represents about 50 percent of the total population in Senegal) directly depends on land resources for their livelihoods. However, land degradation is increasingly affecting land resources in Senegal. Therefore, the Project aims at reducing land degradation, and increasing and sustaining agriculture productivity in order to contribute to food security.	
African Emergency Locust Project IDA US\$10 million 2005–2011 (Completed)	The Project totaled US\$60 million, of which US\$10 million was dedicated for Senegal. It provided equipment and capacities to reduce the vulnerability to locust infestations by supporting improved strategies for prevention, early warning, reaction, and mitigation at the national and regional levels. Senegal and the other countries of the Sahel region impacted by the project have succeeded in preventing a locust invasion since 2005.	
Partners	DRM- and CCA-Related Objectives and Outcomes	
FAO/WB	FAO provided (through its EMPRESS program) technical support to the implementation of the African Emergency Locust Project (2005–2011) in order to complement Bank expertise.	
UNDP	Between 2008 and 2009, UNDP supported the Senegalese Government for the development of a National DRR program and a National DRR platform. The DRM country plan funded by GFDRR will support operational implementation of these deliverables.	
Japan	The Japan International Cooperation Agency (JICA) is conducting a study of storm water, wastewater, and solid waste management for Kaolack (2011–2013) as an integrated solution to flooding. JICA is considering contributing to the implementation of the Storm Water Management and Climate Change Adaptation Project by funding drainage systems in the Dakar peri-urban area.	
EU	Through the Global Climate Change Alliance (GCCA), the European Commission is providing US\$4 million to support the development of local integrated coastal management plans (2012–2014), with inputs from the GFDRR-funded Spatial Analysis of Natural Hazard and Climate Variability Risks.	

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
National Services	Civil protection, environment, health, land use and urban planning, water sanitation	
International Organizations	United Nations Development Programme (UNDP), World Food Programme (WFP), Food and Agricultural Organization (FAO), Office for the Coordination of Humanitarian Affairs (OCHA)	
Regional Organizations	Economic Community Of West African States (ECOWAS)	
NGOs/CSOs	Caritas, Oxfam	
GFDRR Donors	European Union (EU), Japan, Norway	

Senegal would benefit from a more coordinated support from development partners regarding DRM and CCA.

GFDRR is leveraging partnerships established throughout the Bank's involvement in flood risk management, coastal erosion, spatial planning, and food security. As an example, the Spatial Analysis of Natural Hazard and Climate Variability Risks supported by GFDRR and the Integrated Coastal Management Plan study supported by the EC shared the same piloting and technical committees.

The DRM Specialist actively contributes to linking the DRM and CCA agendas in the country, and participates in a number of regional initiatives with counterparts' regional offices in Dakar (WFP, UNDP, FAO, EU, etc.).

CLIMATE CHANGE & DISASTER RISK PROFILE

Senegal is vulnerable to droughts, locust invasions, flooding, and coastal erosion. Droughts and flooding often induce health epidemics.

Droughts mainly affect arid and semiarid Sahelian regions in the north of the country, once every 3–4 years on average.

Flood risk is mainly the result of insufficient drainage infrastructure, as rapid urbanization has led to the occupation of low-lying areas and reduced the soil infiltration potential. Floods in urban areas most severely affect the poorest city dwellers. In certain parts of the country, unstable ground and impermeable soils create ideal conditions for rapid erosion. Some 74% of households in coastal areas are vulnerable to coastal erosion.

Sea level rise and increasingly intense storms are exacerbating coastal erosion and flood risks. Projections suggest sea level could rise by up to one meter along the Senegalese coast by the end of the century, putting at least 110,000 people in low-lying southern Senegal at risk of coastal flooding.

(as expressed by the DRM Specialist)	

- 1. Cooperation with stakeholders
- 2. Outreach & capacity building
- 3. Provision of analytical tools
- 4. Resource mobilization
- 5. Risk financing mechanisms

PRIORITIES FOR GFDRR ENGAGEMENT

DRM is one of the subcomponents of the country's PRSP. A national DRM program was adopted in 2011, and the GFDRR country plan will contribute to its implementation.

The institutional landscape is complex, and legal, regulatory, and operational frameworks are not adequate for DRM. The Government policy was recently presented on September 10, 2012, at the Parlementarian Assembly, and is being negotiated.

Togo

GFDRR ENGAGEMENT				
Source of Fu	unding			MDTF
Resources A	sources Awarded US\$1,807,640			
Resources D	Disburse	d		US\$215,420
Number of I	Projects		Ac	tive: 1; Completed: 2
Bank Executed	11%	Main Government Counterpart		Ministry of Environment
Recipient Executed	89%	Implement. Agency		Technical Secretariat of the National DRR Platform

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			NOVEMBER 2

2	KEY PARTNERS	DRM/CCA IN F	POLICY PAPERS
of	(as identified by the DRM Specialist)	(as assessed by th	ne DRM Specialist)
t	NATIONAL: environment, meteorology,	Mainstreaming:	Low High
al	civil protection	WB-CAS	
e R	INTERNATIONAL: UNISDR, IFRC, UNDP	PRSP	
n	REGIONAL: AU, ECOWAS, WAEMU	UNDAF	
	NGOs/CSOs: Red Cross, Friends of	NAPA	
	Earth (Amis de la terre)	Regional Dvt	
	DONORS: EU, France	EU-CSP	

WORLD DEVELOPMENT INDICATORS DRR Index WDI: n/a DRI Class: 3/7

	DRI Class: 3/7
Income Group	Low
Population	6.2 million
GDP	US\$584/capita
Poverty	61.7% of population
Urban Population	38% of total

NATIONAL PLATFORM	Formally declared to UNISDR. WB is observer. Focus: DRM only.
NATIONAL LEGISLATION	Environmental Framework Law (2008)

	GFDRR-FUNDED PROJECTS' OUTCOMES			
Project/Program	DRM and CCA-Related Objectives and Outcomes			
Integrated Disaster and Land Management GFDRR US\$1.75 million GEF US\$9.6 million TerrAfrica US\$500,000 2012–2016 (Active)	The project uses GFDRR funds to leverage GEF resources for both short- and long-term disaster risk management activities. The development objective is to strengthen institutional capacities to manage the risk of flooding and land degradation in rural and urban areas. Expected outcomes include (i) enhanced knowledge of the risk of flooding in Greater Lomé and the area of Baguida with the view to mainstreaming DRM into development plans, and identifying priority disaster risk management and development interventions; (ii) strengthening the capacity of communities and institutions for early warning, emergency preparedness, land use planning, and natural resource management in both rural and urban areas—thus reducing losses of lives and property; and (iii) enhanced farming and forestry practices to combat desertification and land degradation, resulting in lowered risk of flooding and the population's strengthened resilience to disasters.			
2010 PDNA US\$57,640 2010–2011 (Completed)	The Post-Disaster Needs Assessment was conducted in the aftermath of the October 2010 flooding. The disaster impacted urban, periurban, and rural areas in 5 regions in the country, and the PDNA identified recovery needs in the amount of US\$43 million. The assessment was led by the Government and brought together experts from national and local government agencies, academia, civil society organizations, the World Bank, and the United Nations. It provided a clear action plan for reducing flooding risks in the country by building on expertise, capacities, and resources from all key stakeholders. As a result, the Government decided to provide US\$1.2 million for flood prevention and preparedness measures and supported the inclusion of disaster risk reduction activities in the national Integrated Disaster and Land Management Project.			

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Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)
2010 PDNA Training 2010 (Completed)	The PDNA training, conducted prior to the 2010 flooding event, developed the capacity of a national team that was able to conduct the PDNA with minimal support from international stakeholders. This resulted in reduced cost and enhanced ownership of the PDNA in the country (see above).

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS				
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes			
Emergency Infrastructure Rehabilitation and Energy Project (EIREP)	The project contributes to the management of flood risk through enhanced and resilient drainage systems, water supply, energy generation equipment, and transportation. In addition, the project strengthens Government institutions and supports the overall goal of reducing periodic flooding.			
Community Development Project (CDP)	The activity contributes to the establishment and strengthening of basic socioeconomic infrastructure geared toward poor communities for health, education, water and sanitation, as well as revenue-generating activities.			
Partners	DRM- and CCA-Related Objectives and Outcomes			
UNDP	Assists the Government in developing a national strategy for disaster risk management, a national risk/hazard map, a contingency plan, and an early warning system.			
EU	Is running a decentralized national action program for environment management (€5 million).			
EU, BOAD	The partnership between the EU (€5 million) and the West African Development Bank (BOAD, €3 million) supports the development of a drainage project implemented by the African Development Bank (AfDB) in the lagoon of Lome, to reduce risks of flooding.			
UNISDR	Supports the National Platform with preparation of the national DRR strategy.			
UN OCHA	Works with the Ministries of Environment and Civil Protection to strengthen preparedness and response mechanisms in case of an emergency.			
UN-SPIDER	The United Nations Platform for Space-Based Information for Disaster Management and Emergency Response provides recommendations on the use of geospatial data for DRR.			
WAEMU, EU	Run the ACP-EU facility project for disaster management in West Africa (regional project).			

Тодо

(key institutions interacting with World Bank for DRM and CCA, as identified by the GFDRR DRM Specialist)		
National Services	Environment, meteorology, hydrology, civil protection	
International Organizations	United Nations International Strategy for Disaster Reduction (UNISDR), International Federation of the Red Cross and Red Crescent Societies (IFRC), United Nations Development Programme (UNDP), Office for the Coordination of Humanitarian Affairs (OCHA)	
Regional Organizations	African Union (AU), Economic Community of West African States (ECOWAS), West African Economic and Monetary Union (WEAMU)	
NGOs/CSOs	Red Cross, Friends of Earth (Amis de la terre)	
GFDRR Donors	European Union (EU), France	

Partnership and coordination among stakeholders is identified as the main priority by the Hyogo Framework for Action (HFA) focal point in Togo. The national platform for disaster risk reduction is the core mechanism for coordination and brings together national and international agencies. It is supported by the GFDRR-supported component of the Integrated Disaster and Land Management project.

In 2012, the National Platform updated its inventory of projects and activities contributing to DRR and CCA, with the objective of enhancing synergies among activities and facilitating Government reporting on HFA implementation.

CLIMATE CHANGE AND DISASTER RISK PROFILE

Togo is vulnerable to floods that have enormous destructive potential to the population, society, environment, and the economy. Soil and coastal erosion as well as deforestation are also of major concern, exacerbating the effects of flooding.

Although the country experiences flooding almost every year, floods have been particularly devastating over the past few years. In 2007, Togo was one of the hardest hit among West African countries, with 127,880 people affected and 23

casualties. The 2010 flooding affected 83,000 people and resulted in over US\$38 million in damages and losses.

According to the Togo second national communication on climate change, the country's vulnerability may increase as a result of climate change. The following five sectors are particularly vulnerable to such change: agriculture, energy, health, housing, and water and coastal erosion.

PRIORITIES FOR GFDRR ENGAGEMENT

- (as expressed by the DRM Specialist)
- 1. Cooperation with stakeholders
- 2. Outreach and capacity building
- 3. Provision of analytical tools
- 4. Resource mobilization
- 5. Risk financing mechanisms

GFDRR involvement in Togo began in 2010 with a training for PDNA, followed soon after by a PDNA led by the Government.

Implementation of the Integrated Disaster and Land Management Project, a key engagement for the country, is about to begin. It will address most of the country priorities identified by the DRM Specialist, namely cooperation with stakeholders, outreach and capacity building, provision of analytical tools, and resource mobilization.

The second phase of PRSP is under preparation, expected to be completed by the end of 2012. Mainstreaming of disaster risk management and climate change adaptation in the document has been guided by a dedicated

strategic environmental assessment.

East Asia and the Pacific (EAP)

Indonesia

	GFD	ORR ENG	AGEN	ЛЕNT
Source of F	unding			MDTF, SRFF
Resources A	Awarded	ł		US\$4,061,392
Resources I	Disburse	d		US\$2,460,018
Number of	Number of Projects Ac		tive: 1; Completed: 3	
Bank Executed	100 %	Main Government Counterpart		Ministry of Public Works
Recipient Executed	0%	Implement. Agency		n/a

WORLD DEVELOPMENT INDICATORS

DRR Index	WDI: 3.25/5 DRI Class: 6/7
Income Group	Lower-Middle
Population	242.3 million
GDP	US\$3,495/capita
Poverty	12% of population
Urban Population	51% of total

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POLICY	PAPERS
ne DRM S	pecialist)
Low	High
	ne DRM S

NATIONAL PLATFORM	Formally declared to UNISDR. WB is a member. Focus: DRM only.
NATIONAL LEGISLATION	Law 24/2007 on disaster management addresses the entire spectrum of DRM.

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
Mainstreaming DRR in Indonesia—Phase 2 US\$5 million 2012–2014 (Active)	The objective of Phase 2 of this project is to continue assisting the Government of Indonesia with the implementation of the National Action Plan for DRR 2010–2012 and the subsequent national DRM program. This would include (i) further strengthening of disaster management agencies at the national level; (ii) gradually developing and implementing a comprehensive risk financing strategy; and (iii) demonstrating the practical link of DRR and climate adaptation measures to build resilience in development projects at the local level. The project will provide DRR training modules for village facilitators and support the development of village disaster management plans to be implemented in 5,130 urban wards throughout Indonesia.	
Mainstreaming DRR in Indonesia—Phase 1 US\$1,252,000 2007–2011 (Completed)	Phase 1 supported the preparation and implementation of a National Action Plan for DRR, including a risk atlas, strengthened capacities for PDNA, and policy guidance for the creation of public sector–supported catastrophe insurance program. Community Settlement Plans were developed in 254 villages in Yogyakarta and Central Java, ensuring mainstreaming of DRM in a housing project of the Java Reconstruction Fund (JRF). Contingent and disaster risk mitigation components were included in 2 lending projects (PNPM Urban III, US\$85 million, and WINRIP, US\$250 million).	
West Sumatra and Jambi Post Disaster Damage, Losses and Preliminary Needs Assessment US\$250,000 2009–2010 (Completed)	The 2009 West Sumatra earthquake occurred when the National Agency for Disaster Management (BNPB) was in existence for less than one year and still in the process of building its capacity in PDNA. The PDNA report was used as the basis for the formulation of Rehabilitation and Reconstruction Plan. GFDRR support developed basic institutional capacity in BNPB for coordinating PDNA. Since then BNPB has been able to develop Rehabilitation and Reconstruction Plans internally for several smaller scale disasters.	

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REGIONAL: ASEAN, ADB

Children

CSOs/NGOs: Mercy Corps, Plan

International, Oxfam, Save the

DONORS: Australia, EU, Japan, Netherlands, Switzerland

KEY PARTNERS (as identified by the DRM Specialist) NATIONAL: civil protection, planning, volcanology, food security, education INTERNATIONAL: UNDP, OCHA, IFRC

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)
Nias – Mainstreaming DRR into	Based on Nias' exposure to natural hazards, the project has mainstreamed risk reduction and
Local Economic Development	mitigation into the design of the US\$ 20 million Local Economic Development project,
US\$49,875	financed through the multi-donor trust fund for Aceh and Nias.
2008–2009 (Completed)	

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Indonesia Disaster Fund/Disaster Management Fund	This Fund was set up by the Government with two funding windows, managed respectively by the United Nations and the World Bank. The World Bank window, called the Disaster Management Fund, is supporting the Government reconstruction program. Donors are expected to join as the mechanism becomes fully operational.	
Community Empowerment Program in Urban Areas III	This project contributes to reducing human, economic, and financial losses from natural hazards and ensures that the urban poor benefit from improved socioeconomic and local governance conditions.	
Western Indonesia National Road Improvement Project	This project contributes to (i) increasing the effective use of sections of national roads along the Western Sumatra Corridor by reducing road user costs, and (ii) increasing the resilience of people and assets to natural hazards.	
Multidonor Trust Fund for Aceh and Nias Reconstruction	This trust fund, financed by 15 donors and managed by the World Bank since 2010, has mobilized US\$683.95 million for the reconstruction of Aceh and Nias after the 2004 earthquake and tsunami. It has completed 22 projects for housing, roads, harbors, livelihood, governance, and environmental management.	
Java Reconstruction Fund	This trust fund, bringing together 7 donors and managed by the World Bank, was setup to support the reconstruction after the 2006 Yogyakarta and Central Java earthquake. By its closing date in 2010, it had mobilized US\$94 million and supported housing reconstruction and community infrastructure, as well as livelihood recovery.	
Partners	DRM- and CCA-Related Objectives and Outcomes	
Australia	The Australia Indonesia Facility for Disaster Reduction (AIFDR) is developing risk assessment tools jointly with GFDRR to support local contingency planning and risk assessment and planning.	
UNDP	Supports communities with capacity development, PDNA, and safe school and resilient village programs.	
EU	Is the largest donor in the reconstruction multidonor trust funds managed by the World Bank.	
Netherlands	Supported several flood modeling works for Jakarta under the Water and Sanitation Program (WASAP) Trust Fund.	
Switzerland	Supports risk financing and insurance analytical works for Ministry of Finance together with GFDRR.	
USA	Is the key donor in the Third National Program for Community Empowerment (PNPM) Support Facility Trust Fund, which recently established a disaster response window, and is providing US\$14 million for the post-Merapi reconstruction.	

PARTNERSHIPS AND COORE		
(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
National Services	Civil protection, planning, volcanology, food security, education, meteorology	
International Organizations	United Nations Development Programme (UNDP), Office for the Coordination of Humanitarian Affairs (OCHA), International Federation of Red Cross and Red Crescent Societies (IFRC), United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)	
Regional Organizations	Association of Southeast Asian Nations (ASEAN), Asian Development Bank (ADB)	
NGOs/CSOs	Mercy Corps, Plan International, Oxfam, Save the Children	
GFDRR Donors	Australia, European Union (EU), Japan, Netherlands, Switzerland	

DINATION

The WB Country Director is a member of the Steering Committee of the Indonesia Multidonor Funding Facility for Disaster Recovery, and WB also participates in the inter-agency Advisory Committee attached to the national platform and to the UN technical working group on DRR. The GFDRR project brings together the support of the European Union, Japan, Australia, and the United States.

The World Bank manages two multidonor reconstruction funds (for the Aceh and Nias tsunami and the Java earthquake) totaling US\$785 million. Taking advantage of its involvement with various sectors through development operations, the World Bank especially supports linking the national platform with the Ministry of Finance and other sectors, such as public works, poverty reduction, and education.

CLIMATE CHANGE & DISASTER RISK PROFILE

Located in the Pacific Ring of Fire, Indonesia is highly vulnerable to earthquakes and volcanic eruptions. The areas most vulnerable to earthquakes are Sumatra, Java, Bali, Nusa Tenggara, Maluku, Sulawesi, and Papua. Furthermore, high rainfall in the west and dry zones in eastern provinces cause recurring floods and droughts. In the past century, floods have been the most frequent disaster type in Indonesia. The damage

and losses of the 2007 flood in Jakarta were estimated to amount to about US\$900 million.

Deforestation and prolonged droughts intensify the occurrence of forest fires. Wildland fires and smoke-haze episodes in Indonesia during the 1980s and 1990s were the first documented instances of drought impact triggered by the El Niño-Southern Oscillation (ENSO).

PRIORITIES FOR GFDRR ENGAGEMENT

- (as expressed by the DRM Specialist)
- 1. Understanding risks
- 2. Supporting reconstruction
- 3. DRM/CCA policies, building codes, land use & urban plans
- 4. Risk financing mechanisms
- 5. Enhancing the resilience of cities, communities, and critical infrastructure
- 6. Cost-benefit analysis

Since 2007, GFDRR has supported the preparation and implementation of a National Action Plan for DRR, and the development of risk information at the national level. The next priorities are to strengthen the capacity of the district DRM agencies and community-level planning committees. In parallel, GFDRR has been able to position DRM within the leadership structure of the World Bank country operations in Indonesia, and is proactively supporting DRR mainstreaming into the new World Bank project operations. The GFDRR funding is also used as a catalyst to mainstreaming DRR and CCA into the broader Government development agenda. At present, a major school rehabilitation program targeting more than 100,000 heavily damaged classrooms across Indonesia is implementing safe school guidelines, which include structural retrofitting and nonstructural school preparedness. Through a proactive approach engaging various nongovernment and

government stakeholders, GFDRR initiated the safe school implementation through piloting the program in 200 schools in 3 provinces at the highest risk of earthquakes, in collaboration with the Basic Education Capacity Building (BEC) Trust Fund. Such collaborative approaches demonstrate the full potential of DRR and CCA mainstreaming that can be scaled up nationally.

Lao PDR

	GFD	RR ENG	AGEN	/IENT	
Source of Fu	unding		1	Japan SDTF, SRFF	
Resources A	warded	I	US\$2,083,368		
Resources D	Disburse	d	US\$1,633,380		
Number of	Projects		Ac	tive: 2; Completed: 3	
Bank Executed	37%	Main Governn Counter		Ministry of Planning and Investment, Ministry of Natural Resources and Environment	
Recipient Executed	63%	Impleme Agency	ent.	National Disaster Management Office, Department of Planning, Department of Meteorology and Hydrology	

WORLD DEVELOPMENT INDICATORS
WDI: 2.25

DRI Class: 6/7

Lower-Middle

US\$1,320/capita

28% of population 34% of total

6.3 million

DRR Index

Population

GDP

Poverty

Income Group

Urban Population

DRM SPECIALIST

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KEY PARTNERS

(as identified by the DRM Specialist) NATIONAL: civil protection, planning, meteorology, health

INTERNATIONAL: UNISDR, UNDP

REGIONAL: ADB

DONORS: Australia, France, Germany

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DRM/CCA IN F	POLICY	PAPERS
(as assessed by th	ne DRM S	pecialist)
Mainstreaming:	Low	High
National Dvt		
UNDAF		
WB-CAS		
CCA Strategy		

NATIONAL PLATFORM	National Disaster Management Committee. Declared to UNISDR. WB does participate. Focus: DRM & CCA.
NATIONAL LEGISLATION	A decree on Disaster Management is under development (2012) with joint support from GFDRR and UNDP.

GFDRR-FUNDED PROJECTS' OUTCOMES

Project/Program	DRM and CCA-Related Objectives and Outcomes			
Strengthening the In-Country	The objective of this program is to strengthen the capacity of the Government of Lao			
Capacity for Disaster Recovery	PDR in carrying out Damage, Loss, and Needs Assessments to measure the impact of			
Planning in Lao PDR	natural disasters. The program will produce a national handbook on assessing			
US\$138,500 2012–2013 (Active)	damages and losses in place, improve statistical preparedness for carrying out post-			
2012-2013 (ACTIVE)	disaster assessments, increase capacity on national and provincial level to determine			
	the impacts of natural disasters, calculate the needs, and prepare a recovery plan.			

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)
Operationalizing Strategic Plan for Disaster Management in Lao PDR US\$1,215,000 2008–2012 (Active)	The objective is to support the Government in implementing its National Strategic Plan for Disaster Management (SPDRM) with a focus on strengthening early warning systems and improving the country's legal framework. Until now, the following outcomes have been achieved: (i) in coordination with UNDP, GFDRR has supported the development of a Prime Minister's Decree on Disaster Risk Management (DRM); (ii) DRM has been included in the 7 th National Socioeconomic Development Plan, the main planning document in Lao PDR; (iii) an early warning strategy and standard operating procedures have been developed, and forecasting capacity has been improved; and (iv) a draft national disaster management plan for 2011–2015 has been prepared and a DRM curriculum has been developed.
Post-Ketsana Community- Driven Disaster Recovery US\$427,634 2010–2011 (Completed)	The objective was to support the rehabilitation of infrastructure damaged by the Ketsana Cyclone and to assist the Poverty Reduction Fund (PRF) in developing a Disaster Risk Management Strategy. The main activities included (i) the rehabilitation of 12 PRF- and Government-funded community subprojects, focusing on water supplies, dispensaries, access roads, irrigation systems, and bridges; (ii) identifying more resilient technologies to apply to relevant PRF-financed infrastructures; (iii) capacity building of PRF staff and Government staff; and (iv) development of a PRF DRR and response strategy.
Lao PDR: Post-Disaster Needs Assessment after Typhoon Haima in 2011 US\$52,234 2011 (Completed)	The joint damage, loss, and needs assessment was successfully completed and used as the basis for disaster recovery in the short, medium, and longer terms. Based on this, the World Bank allocated US\$8 million to assist the Government of Lao PDR in the recovery and rehabilitation of the most affected sectors, including US\$4 million for road repair, US\$3 million from PHRD for DRM mainstreaming, and US\$1 million from the Khammouane Development Project (KDP) for infrastructure rehabilitation. The Government also allocated Lao Kip 400 billion (US\$50 million equivalent) for the disaster recovery. Through the process, the Government's and development partners' capacity in conducting post-disaster Damage, Loss, and Needs Assessment (DLNA) was strengthened. The draft handbook on reconstruction and recovery, which includes the DLNA methodology, was further improved and translated into Lao for 4 key sectors (public works and transport, agriculture, health, and education).
Lao PDR: Joint Damage, Loss, and Needs Assessment for Post-Ketsana Recovery US\$250,000 2009–2010 (Completed)	As a result of the PDNA, the overall impact of the disaster on the socioeconomic development of the country and the affected areas was assessed (Damages, Losses, Macro-Economic Impact, and Livelihoods) and a financial plan for Recovery and Reconstruction of the affected areas was drafted based on the needs in key sectors of the economy. Additionally, cost-specific risk management activities associated with the recovery and reconstruction efforts were proposed and a country team trained to carry out the damage, loss, and need assessment with the DaLA (Damage and Loss Assessment) methodology.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS			
WB Projects/Programs DRM and CCA-Related Objectives and Outcomes			
Road Maintenance Project	US\$8 million was allocated as contingency funding for fixing the roads affected by the 2011 Typhoons Haima and Nock-Ten, in the Northern part of the country.		
Rice Productivity Improvement Project (RPIP)	US\$3 million was allocated as a contingency fund for purchasing rice seeds and fertilizers for farmers who might be affected from natural disaster. This contingency fund has been used for farmers affected by Typhoon Ketsana in 2009 and Typhoons Haima and Nock-Ten in 2011.		

WB Projects/Programs	DRM and CCA-Related Objectives and Outcomes (continued)		
Hydro-Agronomic and Economic (HAE) Model and Local Adaptation in Lao PDR and Thailand	The objective of this project is to assist the Governments of Thailand and Lao PDR to develop policy tools for adapting to climate change impacts on water and natural resources in the Mekong River Basin. The outcome will be to develop a pilot Hydrologic-Agricultural-Economic Model for each country. This will be a hydrological model of the river systems, integrated with agricultural and economic models to permit assessment of climate change impacts and evaluation of adaptation strategies.		
Mekong Integrated Water Resources Management (IWRM) Project	The objective is to develop tools to analyze and structure the knowledge on water resources in order to facilitate decision-making processes.		
Lao Poverty Reduction Fund Mainstreaming Climate Resilience into Public Investments	This IDA-financed community-driven development project includes DRM into the project design and implementation. For example, resilient standards for community infrastructure have been developed and are applied within the project. The project also assists communities to identify disaster risks and mitigating measures in their village and koumban (cluster of around three to five villages) planning processes. This PHDR-financed grant integrates climate risk management into strategic national and sectoral planning and development policies. It improves the consideration of		
	disasters and climate change in the implementation of public infrastructure through assessing sectoral risks, developing building codes, and capacity building.		
Partners	DRM- and CCA-Related Objectives and Outcomes		
UNDP	Has joint implementation plans with GFDRR and also supports the National Disaster Management Office in drafting a new DRM plan and law.		
ADB	Supports the climate change adaptation strengthening project through the Climate Change Office under the Ministry of Natural Resources and Environment.		
EU, WFP	European Commission is supporting the WFP regional food security program with a component on improving the provision of meteorological data for agriculture purposes.		

	(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)			
National Services	Civil protection, planning, meteorology, hydrology, health, education			
International Organizations	International Federation of Red Cross and Red Crescent Societies (IFRC), United Nations Development Programme (UNDP), Office for the Coordination of Humanitarian Affairs (OCHA), World Food Programme (WFP), United Nations International Strategy for Disaster Reduction (UNISDR)			
Regional Organizations	Asian Development Bank (ADB)			
NGOs/CSOs	World Vision, Oxfam, Save the Children, Plan International, Concern International			
GFDRR Donors	Australia, European Union (EU), France, Germany, Japan, the Netherlands, Sweden, Switzerland, United Kingdom (UK), United States (USA)			

An Inter-Agency Steering Committee was established in 2009 by the UN as a coordinating body among the UN agencies, donors, key Government ministries, and INGOs on the disaster relief in Lao PDR. A draft Inter-Agency Contingency Plan was developed in late 2011 and is being reviewed by the UN agencies.

As the country experiences more frequent natural disasters and there is an increasing number of donors supporting the Government on disaster preparedness, response, and recovery, it is expected that a Subsector Working Group on DRM will be established as part of the Roundtable process for donor coordination.

The DRM Subsector Working Group will be chaired and led by the Government and cochaired by a donor on a rotational basis. The Government is also considering the establishment of a multidonor trust fund dedicated for DRM. A feasibility study will be conducted under the planned GFDRR project.

PRIORITIES FOR GFDRR ENGAGEMENT

Floods, droughts, and typhoons are the dominant hazards in the central and southern regions, where about two-thirds of the country's population live. The northern part of the country is exposed to recurrent flash flooding, landslides, and earthquakes.

In 2011 alone, Lao PDR was affected by 2 typhoons, namely Haima and Nock-Ten. Total damage was estimated at US\$220

million. Most flooding occurs from May to September, when monsoon rains accumulate in the upper Mekong River Basin. Lao PDR is also susceptible to landslides, pest infestations, and fire due to slash-and-burn agriculture.

Climate projections from the Conformal Cubic Atmospheric Model (CCAM) indicate an expected increase in the amount of precipitation in relation with climate change (up to 10–30%).

(as expressed by the DRM Specialist)

- 1. Understanding risks
- 2. DRM/CCA policies, building codes,
- land use & urban plans
- 3. Risk financing mechanisms
- 4. Mainstreaming DRM into public investments
- 5. Cost-benefit analysis of investments in disaster risk management

Based on the 2009 Post-Disaster Needs Assessment (PDNA) following Typhoon Ketsana, the Bank committed an additional US\$13 million in IDA resources to support Lao PDR's recovery. This included US\$7.8 million for the rehabilitation of roads affected by the typhoon and the development of an emergency contingency fund for rapid response to natural disasters in the road sector. It also included US\$5.2 million additional financing for the Lao Upland Food Security Improvement Project for assistance in emergency response and longer-term recovery for the most severely affected households. The focus was primarily on the restoration of food security and rural infrastructures in three southern provinces.

The GFDRR Country Program FY10–12 seeks to ensure that Disaster Risk Reduction (DRR) is a national and local priority, with a strong institutional basis for implementation. The program focuses on the (i) Integration of DRR into national and sector planning and implementation, (ii) Improvement of hydrometeorological services and early warning, and

(iii) Adequate capacity for disaster risk management on the national, provincial, district, and community levels.

Papua New Guinea

GFDRR ENGAGEMENT				
Source of Funding		MDTF		
Resources Awarded		US\$1,873,200		
Resources Disbursed			US\$14,433	
Number of Projects		Active: 0; Completed: 0		
Bank Executed	10%	Main Government Counterpart		Office of Climate Change and Development
Recipient Executed	90%	Implement. Agency		Department of Agriculture and Livestock

WORLD DEVELOPMENT INDICATORS

DRR Index	WDI: n/a DRI Class: 6/7
Income Group	Lower-Middle
Population	7 million
GDP	US\$1,845/capita
Poverty	37% of population
Urban Population	13% of total

DRM SPECIALIST

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KEY PARTNERSDRM/(as identified by the DRM Specialist)(as asset)

NATIONAL: agriculture and livestock, transport, climate change

INTERNATIONAL: UNDP

REGIONAL: ADB, SPC/SOPAC

DONORS: Australia, Japan



DRM/CCA IN POLICY PAPERS				
(as assessed by th	ne DRM S	pecialist)		
Mainstreaming:	aming: Low High			
NAPA				
WB-CAS				
UNDAF				
EU-CSP				
PRSP				

NATIONAL No national platform.

NATIONAL LEGISLATION

Papua New Guinea Disaster Management Act (1987)

GFDRR-FUNDED PROJECTS' OUTCOMES			
Project/Program	DRM and CCA-Related Objectives and Outcomes		
Disaster Risk Management and Climate Adaptation Program (Agriculture Sector) US\$1,873,200 2012–2015 (Active)	through the development of in-country capacity for better understanding of the causes and consequences of natural hazards that the sector faces, and the potential impact of climate change at the local, national, and industry-specific level, proposing appropriate risk		
Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) MDTF US\$1,000,000 ACP-EU US\$1,404,250 ¹ 2008–2013 (Active)	 k The project, now in its third phase of implementation, provides 15 Pacific countries disaster and climate risk information platform, including comprehensive hazard, exp and vulnerability information (assets, probabilistic analyses of risk for residential bui major infrastructure, vegetation cover, crops, soil and topography, bathymetry, etc. information is being used for a number of risk management applications to inform urbatic. 		

^{1.} Multicountry activity, not included as part of GFDRR engagement figures in the top-left corner.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS			
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes		
Building a More Disaster- and Climate- Resilient Transport Sector Program US\$2.934 million 2011–2015	With funding received from Japan's PHRD in the amount of US\$2,668,700, the Wo Bank launched this technical assistance project in December 2011. It will help mainstream disaster risk management in the transport sector and thereby reduce sector's natural disaster and climate change risks. The grant became effective in Ju 2012. The Project is expected to deliver (i) a system for risk assessment; (ii) strengthened data collection for better data generation to the National Maritime Safety Agency, Geo Hazards Management Division, and National Weather Service; and (iii) small pilot works to demonstrate effective mitigation of transport hazard risks.		
Partners	DRM- and CCA-Related Objectives and Outcomes		
UNDP	The Adaptation Fund managed by UNDP is supporting the project Enhancing Adaptive Capacity of Communities to Climate Change-Related Floods for a total amount of US\$6.3 million. The project will (i) enhance Government's and civil society's capacity to implement environmental adaptation measures aiming at improving community livelihoods to reduce the vulnerability of women, girls, men, and boys to disaster risk; and (ii) develop a framework for climate change policy and enhance public institutions, private sector, and local communities to implement proper mitigation and adaptation measures to achieve climate-resilient and environmentally sustainable economic growth.		
Australia	AusAID supports the Pacific Climate Change Science and Adaptation Planning Program to develop community resilience against the impact of extreme weather (droughts and floods) through the development of Pacific Climate Future scenarios and country-specific climate projections based on the analysis of climate trends and natural variability, as well as downscaling of global circulation models.		
SPC/SOPAC	The Secretariat of the Pacific Community Applied Geoscience and Technology Division is implementing the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI). The project provided 14 Pacific Island Countries and Timor-Leste with a disaster and climate risk information platform, including comprehensive hazard, exposure, and vulnerability information (assets, probabilistic analyses of risk for residential buildings, major infrastructure vegetation cover, crops, soil and topography, bathymetry, etc.). This information is being used for a number of risk management applications to inform urban and development planning, building codes, rapid disaster impact estimation, and risk financing decisions.		

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
Agriculture& livestock, transport, development		
United Nations Development Programme (UNDP)		
Asian Development Bank (ADB), Pacific Islands Applied GeoScience Commission, Applied Geoscience and Technology Division of Secretariat of the Pacific Community (SPC/SOPAC)		
Australia, Japan		

In 2009, the World Bank worked to prepare a comprehensive DRM/CCA Program in consultation with the Government and development partners. Two rounds of further consultation were held in November 2010 and February 2011 with government and donor partners including the ADB, AusAID, the Embassy of Japan, JICA, and UNDP, and the DRM/CCA Program was launched with GFDRR support. Currently, the WB works with various partners, UNDP and AusAID being the closest.

Papua New Guinea is prone to earthquakes, volcanic eruptions, tsunamis, cyclones, river flooding and coastal erosion, landslides, droughts, and frost. It ranks in the top 6 countries with the highest percentage of population exposed to earthquake hazards, and has the highest percentage of population exposed to severe volcanic risk. Landslide hazard is also particularly high. Heavy rains often lead to damages to road infrastructure, livelihood and economic losses, as was the case between June and September of 2012.

Total damages and losses in 2012 amounted to around US\$28 million. The Government spent more than US\$300,000 to organize humanitarian aid and provided US\$1.5 million for alternate road access to restore access to the damaged roads.

PRIORITIES FOR GFDRR ENGAGEMENT

(as expressed by the DRM Specialist)

- Increase coordination between the Office of Climate Change and Development and National Disaster Center
- Mainstreaming DRM/CCA into vulnerable sectors (transport and agriculture)
- 3. Mainstreaming DRM/CCA into national planning

The agriculture project, which is currently being financed by GFDRR, is the first World Bank project in DRM/CCA in Papua New Guinea. The upcoming Country Assistance Strategy captures and reflects DRM/CCA work funded by GFDRR. The DRM Specialist is located within the Adaptation Directorate of Office of Climate Change and Development, which has helped strengthen the national capacity for DRM.

The DRM interventions in the agriculture and transport sector will help to protect the investments made by IDA in sectors while also ensuring the sustainability of the approaches by tying them to the Government of Papua New Guinea's Medium-Term Development Strategy and the PNG vision 2050.

Philippines

GFDRR ENGAGEMENT				
Source of Funding			MDTF,	SRFF, Australia SDTF
Resources Awarded			US\$6,898,574	
Resources Disbursed				US\$2,633,052
Number of Projects			Active: 2; Completed: 2	
Bank Executed	100 %	Main Government Counterpart		Department of National Defense
Recipient Executed	0%	Implement. Agency		n/a

WORLD DEVELOPMENT INDICATORS

DRR Index	WDI: n/a DRI Class: 7/7
Income Group	Lower-Middle
Population	94.9 million
GDP	US\$2,370/capita
Poverty	26.5% of population
Urban Population	49% of total

PHILIPPINES DRM SPECIALIST Ms. Catherine G. Vidar cvidar@worldbank.org +632 917 3038 **KEY PARTNERS** (as identified by the DRM Specialist) NATIONAL: civil protection, finance, public works and highways, interior REGIONAL: ADB CSOs/NGOs: Center for Disaster Preparedness, urban poor groups

DONORS: Australia, Japan, Sweden

DRM/CCA IN POLICY PAPERS				
(as assessed by th	(as assessed by the DRM Specialist)			
Mainstreaming:	Low	High		
Government				
WB-CAS				
NAPA				
NAPA				
EU-CSP				

NATIONAL	National Disaster Risk Reduction and Management Council.
PLATFORM	Declared to UNISDR. WB does not participate. Focus: DRM only.
NATIONAL LEGISLATION	Republic Act No. 10121 National Disaster Risk Reduction and Management Act of 2010

GFDRR-FUNDED PROJECTS' OUTCOMES

GIDRA-I ONDED PROJECTS OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
Supporting the Philippine Disaster Risk Reduction and Management (DRRM) Agenda US\$2.7 million 2012–2014 (Active)	This project seeks to enhance the Government of the Philippines' capacity to manage natural hazards. It will deepen the gains achieved under the first tranche of GFDRR support to the Philippines, especially in areas of risk financing and local institutional capacity building. It will also focus on integrating the DRM agenda across key sectors and on designing downstream priority programs of the Government that could be supported by resources from Government, private sector, and the Bank.	
Reducing Vulnerability to Flooding in Metro Manila - Flood Management Master Plan US\$1.65 million 2010–2013 (Active)	Building on the recommendations of the 2009 PDNA, a Master Plan for Flood Management in Metro Manila and surrounding areas has been developed. The Master Plan proposes a 25 year program with structural and nonstructural investments amounting to about US\$8.6 billion. It clearly identifies solutions to the frequent flooding issue in Manila, with proposals that would make the city and its 17 million residents safe against floods with a 100 year return period. The master plan has been well received and on September 4, 2012, government through the National Economic and Development Authority's Board, chaired by the president, approved the master plan and allocated US\$120 million for immediate investments along some of the simpler proposals. GFDRR is now assisting with advice to government on some institutional reforms for flood management, capacity building interventions, amendments to existing legislations and rules to achieve an integrated flood management for the greater Manila area, a higher level of protection, and prioritization for construction and rehabilitation.	

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)	
City-to-City Sharing Initiative for Developing Countries US\$495,000 for 3 countries ¹ 2010–2013 (Active)	Cities of Makati (Philippines), Kathmandu (Nepal), and Quito (Ecuador) participate in a South- South sharing initiative and exchanged practices for land use planning and local-level disaster risk management.	
Supporting Local Government Capacity to Manage Natural Disaster Risks US\$1.15 million 2008–2012 (Completed)	The project strengthened the capacity of high-risk Local Government Units (LGUs), with key focus on risk financing and transfer, and tools to enhance planning and early warning. Integrated plans have been developed to ensure that LGUs have capacity to handle DRM with respect to preparedness, mitigation, response, and rehabilitation/reconstruction. Key deliverables to date include (i) a diagnosis of gaps, (ii) a framework for integrating DRR and CCA in local government systems and processes, (iii) DRM action plans and atlases for 22 pilot LGUs; (iv) an Action Plan for the Recovery of Iloilo City, and (v) a risk financing study.	
Philippines Post-Disaster Needs Assessment (PDNA) US\$250,000 2009–2011 (Completed)	Typhoon Pepeng. The Government with the World Bank and with support from GFDRR an its partners (ADB, AusAID, JICA) undertook a post-disaster needs assessment (PDNA). One c	

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Natural Disaster Risk Management Project (NDRMP)	The objective is to reduce human, economic, and financial losses from natural hazards, while ensuring rapid post-disaster recovery of poor communities living in hazard-prone areas.	
Disaster Risk Management Development Policy Loan with a Catastrophe Deferred Drawdown Option (CAT DDO)	The CAT DDO provides rapid liquidity for the Government in the event of a disaster. The Disaster Risk Management Development Loan with a Catastrophe Deferred Drawdown Option (CAT DDO) was signed in September 2011 in the amount of US\$500 million. This was the largest loan of its kind provided by the World Bank to date. The full amount was disbursed in 2011 after Tropical Storm Sendong (Washi).	
Partners	DRM- and CCA-Related Objectives and Outcomes	
Australia	AusAid supports hazard risk and vulnerability mapping mainly through the (i) collection of data and information on floods and risk exposure, and preparation of a digital elevation model (DEM) using Light Detection and Ranging (LIDAR) technology; and (ii) development of flood hazard maps for sections of Metro Manila through hydrological and hydraulic modeling, coupled with digital terrain data and geographic information systems (GIS).	
Japan	JICA has been the main donor supporting investments and providing technical assistance for flood management developments in and around Metro Manila. A joint JICA-WB-ADB study, Climate Risks and Adaptation in Asian Coastal Mega-Cities, was completed in 2010. The study includes the case of Manila, prepared by JICA, which constitutes an important document for the Master Plan study team. JICA is now implementing investments identified in the Master Plan study.	
ADB	Supports risk financing with focus on private sector assets, complementary to the assistance of the World Bank focusing on public assets. In this regard, ADB is developing a TCIP-like (Technologies for Critical Incident Preparedness) insurance scheme for households and small- and medium- level enterprises in the Philippines	

^{1.} Multicountry activity, not included as part of GFDRR engagement figures in the top-left corner on the previous page.

PARTNERSHIPS AND COORD		
	(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)	
National Services	civil protection, finance, public works and highways, interior and local government, agriculture, social welfare and protection	
International Organizations	United Nations International Strategy for Disaster Reduction (UNISDR)	
Regional Organizations	Asian Development Bank (ADB)	
NGOs/CSOs	Center for Disaster Preparedness, urban poor groups	
GFDRR Donors	Australia, Japan, Sweden	

INATION

The Philippines Development Forum (PDF) is the main vehicle for policy dialogue and aid coordination with development actors and other key stakeholders. The forum is cochaired by the Government of the Philippines and the World Bank.

The work funded in the context of the various WB/GFDRR-supported projects is closely coordinated with that of other partners to ensure there are no overlaps in efforts and resources are maximized. During the preparation phase of the various projects, it has been agreed that relevant data, documents, and results of flood simulations will have to be shared

among the various teams that work on donor-funded activities with the aim to harmonize data standards and project products. A Subgroup on Climate Change and Disaster Risk Management has been created under the PDF umbrella to promote better coordination of efforts. In addition, a Memorandum of Understanding between the National Disaster Risk Reduction and Management Council and the Climate Change Commission has been forged to promote collaboration and harmonization of efforts across these two themes, especially in formulating local plans and actions.

CLIMATE CHANGE & DISASTER RISK PROFILE

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.

Lying on the western rim of the Pacific and along the Circum-Pacific Seismic Belt, it is subject to storms, typhoons, earthquakes, floods, volcanic eruptions, droughts, landslides, and other natural hazards. Disasters are a serious threat to people and economic assets, particularly in densely populated areas. At least 60 percent of the total land area of the country is exposed to multiple hazards, and as a result 74 percent of its population is vulnerable. Typhoons are the most frequent and the most damaging of all natural hazards.

Rapid urbanization in the country has led to urban squalor and the proliferation of unplanned, informal, and overcrowded settlements, often in hazard-prone areas. Poor urban practices have aggravated flooding risk in urban areas over the past years and are expected to make the situation more severe in the future.

The Philippines is expected to experience substantial rise in sea levels, making 70 percent of the 1,500 municipalities located along the coast vulnerable to this phenomenon. The country is also witnessing longer episodes of drought or El Niño, causing a large drop in the volume of agricultural production and sharp declines in GDP.

(as expressed by the DRM Specialist)

- 1. Strengthen the institutional capacity for disaster risk management efforts
- 2. Mainstream disaster risk reduction into development planning

3. Better manage the Government's fiscal exposure to natural hazard impacts

PRIORITIES FOR GFDRR ENGAGEMENT

GFDRR involvement in the Philippines began in October 2009 with the PDNA (see GFDRRfunded projects above). The assessment has identified a number of priority investments, and the Bank has provided emergency lending, investment lending, policy lending, and technical assistance in the areas of risk financing, mitigation, preparedness, and emergency response. GFDRR has also been recognized by the Government as a pivotal instrument in supporting innovative schemes that facilitate compliance to the new requirements of the National DRRM law.

Priorities for future GFDRR engagement will continue to be (i) reinforcing institution capacity for DRM, mainly through integration of DRM and CCA in local governance,

development of a monitoring and evaluation system, capacity building for Post-Disaster Needs Assessment, and development of decision support tools for DRM; (ii) mainstreaming DRM in development planning through the development of a Master Plan for Flood Management in Metro Manila and Surrounding Areas, the Structural Resilience Program, mainstreaming in operations related to community-driven development, rural, climate, gender, etc., and integration with climate change; and (iii) developing risk financing mechanisms through the formulation of a Disaster Risk Financing Strategy and the development of a Catastrophe Risk Model for the Philippines and a Catastrophe Financing Facility.

Solomon Islands

GFDRR ENGAGEMENT

Source of Funding			1 1 1	ACP-EU (Pipeline)
Resources A	warded	1	1	0
Resources D	Disburse	d	1 1 1	0
Number of Projects			Ac	tive: 0; Completed: 0
Bank Executed	n/a	Main Governn Counter		Ministry of Environment, Climate Change, Disaster Management and Meteorology
Recipient Executed	n/a	Impleme Agency	ent.	

WORLD DEVELOPMENT INDICATORS

DRM SPECIALIST

Ms. Suzanne Paisley spaisley@worldbank.org +677 21444

KEY PARTNERS

KET PARTNERS
(as identified by the DRM Specialist)
NATIONAL: agriculture, health, food security, meteorology
INTERNATIONAL: UNDP, IFRC, UNICEF
REGIONAL: ADB, SPC/SOPAC, SPREP
NGOS: Oxfam, Save the Children
DONORS: Australia, EU, Japan



DRM/CCA IN F	POLICY	PAPERS
(as assessed by th	ne DRM S	pecialist)
Mainstreaming:	Low	High
NAPA		
Government		
WB-CAS		
UNDAF		
EU-CSP		

DRR Index	WDI: 2/5 DRI Class: 5/7	NATIONAL	There is no DRM platform established. However, the National Disaster Management Office (NDMO) is keen to build on existing collaborations with multiple stakeholders to formalize regular discussions on DRM.
Income Group	Lower-Middle	PLATFORM	
Population	552,300		
GDP	US\$1,517/capita	NATIONAL	National Disaster Council Act (NDA 1989) covers mainly contingency planning and emergency response. DRR is increasingly mainstreamed in some sector policies (education,
Poverty	n/a	LEGISLATION	
Urban Population	20% of total		health, planning, agriculture, infrastructure).

GFDRR-FUNDED PROJECTS' OUTCOMES

GFDRR-FOINDED PROJECTS OUTCOMIES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
Community Resilience to Climate and Disaster Risk Project (CRISP) ACP-EU (Pipeline)	The project will support the Government's effort to mainstream climate change adaptation and disaster risk reduction to foster climate-resilient development at the community level. Activities will involve capacity building, enhanced planning and implementation capacity, disaster and climate change impact assessments, and mapping and investment planning at the community level. The project will be supported by PHRD (a US\$2.73 million grant agreement was signed on September 24, 2012), ACP-EU, and GEF.	
Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) MDTF US\$1,000,000 ACP-EU US\$1,404,250 ¹ 2008–2013 (Active)	The project, now in its third phase of implementation, provides 15 Pacific countries with a disaster and climate risk information platform, including comprehensive hazard, exposure, and vulnerability information (assets, probabilistic analyses of risk for residential buildings, major infrastructure, vegetation cover, crops, soil and topography, bathymetry, etc.). This information is being used for a number of risk management applications to inform urban and development planning, building codes, rapid disaster impact estimation, and risk financing decisions. The project is funded by Japan (through the Policy and Human Resources Development Fund – PHRD, and the Asian Development Bank - ADB), the European Union (through the ACP-EU NDRR Program), and the MDTF.	

^{1.} Multicountry activity, not included as part of GFDRR engagement figures in the top-left corner.

SYNERGIES	SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects	DRM- and CCA-Related Objectives and Outcomes		
Rural Development Program (RDP)	The project aims to raise the living standards of rural households by improving local- level infrastructure, increasing the capacity of the Ministry of Agriculture and Livestock to improve agriculture extension services, and supporting rural business development. The CRISP and the RDP will work collaboratively to make community- driven investments more resilient.		
Partners	DRM- and CCA-Related Objectives and Outcomes		
SPC/SOPAC	The Applied Geoscience and Technology Division of the Secretariat of the Pacific Community (SPC/SOPAC) is implementing the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI, see above).		
UNDP	Is (i) implementing the Pacific Adaptation to Climate Change (PACC) project, funded by the Global Environment Facility (GEF) and the Australian Government (AusAID), with the Secretariat of the Pacific Regional Environment Programme (SPREP) as an implementing partner. The project is piloting climate change adaptation in food production and food security in low-lying atoll islands; (ii) supporting the National Disaster Management Office for disaster preparedness; and (iii) implementing the project Enhancing Resilience of Communities in Solomon Islands to the Adverse Effects of Climate Change in Agriculture and Food Security.		
Australia	As a part of the Pacific Climate Change Science and Adaptation Planning Program (PACCSAP), AusAID aims to enhance the capacity of partner countries to assess key climate vulnerabilities and risks, formulate adaptation strategies and plans, mainstream adaptation into decision making, and inform robust long-term national planning and decision making in partner countries.		

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
National Services	Agriculture, health, food security, meteorology, infrastructure, planning & aid coordination, education, environment	
International Organizations	United Nations Development Programme (UNDP), International Federation of Red Cross and Red Crescent Societies (IFRC), United Nations International Strategy for Disaster Reduction (UNISDR), Office for the Coordination of Humanitarian Affairs (OCHA), International Union for Conservation of Nature (IUCN)	
Regional Organizations	Asian Development Bank (ADB), Applied Geoscience and Technology Division of the Secretariat of the Pacific Community (SPC/SOPAC), Secretariat of the Pacific Regional Environment Programme (SPREP)	
NGOs/CSOs	Red Cross, Oxfam, Save the Children, World Vision, Adventist Development and Relief Agency (ADRA), Act for Peace, CARITAS, Solomon Islands Development Trust, Kastom Gaden Association, World Fish, The Nature Conservancy (TNC), Live and Learn, Young Women's Christian Association (YWCA)	
GFDRR Donors	Australia, European Union (EU), Japan	

The preparation of the DRM/CCA Country Program was а consultative process with major donors. During the implementation phase, all efforts will be made to coordinate the activities with other donors in the country. Already the Applied Geoscience and Technology Division of the Secretariat of the Pacific (SPC/SOPAC) Community is actively engaged in relation with the Joint National Action Plan for CCA and DRR, as well as the implementation of the PCRAFI.

Solomon Islands are vulnerable to floods, tropical storms, earthquakes, tsunami, volcanoes, droughts, and landslides. According to the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI), these Islands are expected to incur, on average, US\$20 million per year in losses due to earthquakes and tropical cyclones. The 2007 earthquake and tsunami that struck the Western and Choiseul Provinces are estimated to have caused damage equivalent to 80% of GDP with 52 casualties, 36,000 affected, and 15,000 displaced people.

Rapid urbanization and growing informal squatter settlements have forced large populations to live in areas highly vulnerable to floods. The issue of land entitlement following the 2007 Tsunami continues to pose large and very complicated challenges for Solomon Islands, which result in most informal settlements being built on areas that are highly prone to natural hazards. While recognizing the damage larger events cause to the country's economy, the impacts of smaller and more regular events should not be underestimated due to their effect on resilient development at the community level.

The country's vulnerability may increase as a result of climate change. In the next 50 years, Solomon Islands have a 50% chance of experiencing a loss exceeding US\$240 million and casualties of more than 1,600 people, and a 10% chance of experiencing a loss exceeding US\$520 million and casualties of more than 4,600 people.

The possible implications for climate change-induced displacement, relocation, and resettlement issues are selfevident. The European Union has provided budget support which the Solomon Island Government is planning to use to formulate guidelines for relocating people affected by climate change, especially those living on the low-lying and artificial islands.

PRIORITIES FOR GFDRR ENGAGEMENT

- (as expressed by the DRM Specialist)
 Enhancing the resilience of cities, communities, and critical infrastructure
- Provision of enabling analytical tools for DRM/CCA policies and investments
- 3. Cost-benefit analysis of investments in disaster risk management
- Damage and loss assessments, and post-recovery decision-making processes

The World Bank's Pacific Regional Strategy emphasizes improving basic services to communities. Disaster risk management is a subpillar of the Bank's contribution to this objective through its project on safeguarding service delivery by improving resilience to natural hazards.

The World Bank's Interim Strategy for FY2010–11 identified disaster risk reduction and climate change adaptation as a key activity towards achieving the medium-term objectives. It recognized that the impacts of climate change pose a fundamental challenge to development in Solomon Islands, including threats to coastal settlements, loss of coastal infrastructure, and potential impacts on tuna migration. It noted that the World Bank Group is assisting the Government in addressing the vulnerability of coastal communities to the impact of climate change and climate-related hazards by integrating climate and disaster risk management in Government policies and investment plans, and increasing

climate resilience of costal infrastructure and water resources.

GFDRR will focus on the integration of DRR and CCA in Government institutions, policies, and plans, as well as the implementation of DRR activities and pilot investments in priority sectors and at the community level.

Vanuatu					. (6 - 14	And Andrew Andre	177	020 088 177 177 177 177 177 177 177 177 177 1		
	GFD	ORR E	NGAGEN	MENT	DRM SP	ECIALIST	-18*	PORT VILA Flow	(in the second	
Source of F Resources A Resources I	ces Awarded 0 tobed@worldbank.c +678 595 5084		orldbank.org	This map was produced by the map Decay care of the shear of and any strength of the shear of and any strength or the strength of the day of the shear of the shear of the day of the shear of the shear of the day of the shear of	ter and a second	120	22°- 17.4° 200			
	Number of Projects Active: 0; Completed: 0		KFY	PARTNERS		DRM/CCA IN F	ρομογι	PAPERS		
Bank Executed	n/a		rnment terpart	Ministries of Infrastructure and Public Utility	(as identified NATIONAL: civi	by the DRM Special il protection, plannir geohazard, finance		DRM/CCA IN POLICY PAPERS (as assessed by the DRM Specialist) Mainstreaming: Low		
Recipient Executed	n/a	Impl Ager	ement. cy	Vanuatu Meteorology and Geohazard	INTERNATIONA	AL: UNDP, UN-HABIT B, SPC/SOPAC, SPRE		Government		
WOF		VELO	PMENT	Department INDICATORS		anuatu Humanitaria e Change Consortiu		Region		
DRR Index WDI: 2/5 DRI Class: 6/7		DONORS: Aust Japan	ralia, EU, Germany,		NAPA					
Income Group Low			No notional platfa	rm vot ^	National Disaster D		amont			
Population 246,000			Council is foreseer	latform yet. A National Disaster Risk Management eseen and an Advisory Board on Climate Change and						
GDP US\$3,335/capita			Disaster Risk Reduction was established in September 2012.				012.			
Urban	Pove Populat				NATIONAL LEGISLATION	National Disaster Management Act (2000). Revised National Disaster Act (draft 2009) yet to be passed.		onal		

	GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes		
Increasing Resilience to Climate Change and Natural Hazards in Vanuatu EU-ACP US\$1.5 million (Pipeline)	The objective is to increase the resilience of communities in Vanuatu to the impacts of climate variability and change and natural hazards. The project will support, inter alia, institutional strengthening and pilot interventions to increase community resilience. Expected outcomes include (i) functioning DRM arrangements in national and subnational institutions targeted by the project, and (ii) households in targeted areas having incorporated climate considerations in their decision making.		
Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) MDTF US\$1,000,000 ACP-EU US\$1,404,250 ¹ 2008–2013 (Active)	The project, now in its third phase of implementation, provides 15 Pacific countries with a disaster and climate risk information platform, including comprehensive hazard, exposure, and vulnerability information (assets, probabilistic analyses of risk for residential buildings, major infrastructure, vegetation cover, crops, soil and topography, bathymetry, etc.). This information is being used for a number of risk management applications to inform urban and development planning, building codes, rapid disaster impact estimation, and risk financing decisions. The project is funded by Japan (through the Policy and Human Resources Development Fund – PHRD, and the Asian Development Bank - ADB), the European Union (through the ACP-EU NDRR Program), and the MDTF.		

^{1.} Multicountry activity, not included as part of GFDRR engagement figures in the top-left corner.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS			
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes		
Mainstreaming Disaster Risk Reduction PHRD US\$2,970,000 2012–2015 (Pipeline)	The objective is to strengthen urban planning and tsunami warning in two urban areas of Vanuatu. Expected outcomes include (i) use of risk information and risk reduction considerations in urban planning processes and policies (hazard and risk models and maps suitable for urban planning will be developed); (ii) strengthened tsunami warning services for communities at risk (an end-to-end early warning system will be established in Municipalities of Port Vila and Luganville); and (iii) establishment of a National Platform for DRM and CCA.		
National Adaptation Project	The objective is to improve the resilience of Vanuatu communities to the impact of climate variability on food and household water security, as well as on livelihoods. Expected outcomes include: (i) improved Government capacity to provide effective oversight and implementation guidance for CCA and DRM; (ii) farmers in areas targeted under the project having adopted climate resilient food crop production practices, such as planting of improved cultivars adapted to disease/salinity, etc.; (iii) households in the targeted communities incorporating climate considerations in their decision making; and (iv) national and subnational institutions building their capacity with functioning DRM arrangements.		
Partners	DRM- and CCA-Related Objectives and Outcomes		
SPC/SOPAC	The Applied Geoscience and Technology Division of the Secretariat of the Pacific Community (SPC/SOPAC) is implementing the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI; see project description in "GFDRR-Funded Projects' Outcomes" section above).		
EU	Is providing support under the Global Climate Change Alliance to the Government of Vanuatu for the establishment of the National Advisory Board on Climate Change and Disaster Risk Reduction and its Secretariat/Project Management Unit, which will function as the central coordinating and policy body.		
Germany	SPC and the German Agency for International Cooperation (GIZ) are using their Coping with Climate Change in the Pacific Island Region program to strengthen the capacities of Pacific member countries and regional organizations to cope with the impacts of climate change. This includes implementing community-level climate change adaptation measures, such as introducing climate-resistant crops, breeding extreme weather-adapted livestock, developing community land use plans, trialing new agroforestry and soil stabilization methods, and undertaking an innovative climate adaptation education program.		
UNDP	The Pacific Adaptation to Climate Change (PACC) project is funded by the Global Environment Facility (GEF) and the Australian Government (AusAID), with the United Nations Development Programme (UNDP) as its implementing agency and the Secretariat of the Pacific Regional Environment Programme (SPREP) as the implementing partner. The project is enhancing the capacity of participating countries to adapt to climate change and climate variability in key development sectors. UNDP is also supporting community resilience to climate change and natural hazards through a small grant facility.		

	PARTNERSHIPS AND COORDINATION			
	ons interacting with World Bank for DRM and CCA, lentified by the GFDRR DRM Specialist)	GFDRR currently interacts with stakeholders through the		
National Services	Civil protection, planning, meteorology, geohazard	development of its programs and		
International Organizations	United Nations Development Programme (UNDP), United Nations Agency For Human Settlements (UN-HABITAT)	also via national events, forums and workshops. The GFDRF		
Regional Organizations	Pacific Islands Applied Geoscience Commission Secretariat of the Pacific Community (SPC/SOPAC), Asian Development Bank (ADB), Secretariat of the Pacific Regional Environment Programme (SPREP)	country focal point is based withir the Government Meteorology and Geohazard department. As such daily interaction and collaboration with Government counterparts are ensured.		
NGOs/CSOs	National civil society organizations			
GFDRR Donors	Australia, European Union (EU), Germany, Japan			

CLIMATE CHANGE & DISASTER RISK PROFILE

Almost 81 percent of Vanuatu's land and 76 percent of its population are exposed to two or more hazards. Tropical cyclones, earthquakes, and tsunami alone are estimated to cost the country an average of US\$48.1 million annually, equivalent to around 7% of the country's GDP.

A narrow economic base and weak networks and urban planning contribute to the country's vulnerability. Climate change is also contributing to an increasing level of risk with more severe rainfalls and flooding, soil erosion, and the continuous rise of sea level, which all have adverse impacts on the shorelines and salination of water supply systems.

(as expressed by the DRM Specialist)

- 1. Understanding risks
- DRM/CCA policies, building codes, 2. land use & urban plans
- 3. Risk financing mechanisms
- 4. Enhancing the resilience of cities, communities, and critical infrastructure
- 5. Cost-benefit analysis of investments in disaster risk management

PRIORITIES FOR GFDRR ENGAGEMENT

The Government of Vanuatu is highly committed to address DRM and CCA. Vanuatu is the first country in the Pacific to have developed a National Action Plan for DRM and National Adaptation Programmes of Action. The Government has also recently created a combined joint committee for disaster risk management and climate change adaptation, called the National Advisory Board for Disaster Risk Management and Climate Change (NAB).

Ensuring that DRM and CCA are more closely integrated remains a priority at the country level.

Vietnam

GFDRR ENGAGEMENT				
Source of F	unding		1	MDTF
Resources A	Awardec	ł	 	US\$4,353,726
Resources I	Disburse	d	1	US\$1,403,594
Number of	Projects	i	Ac	tive: 2; Completed: 1
Bank Executed	66%	Main Governn Counter		Ministry of Agriculture & Rural Development (MARD)
Recipient Executed	34%	Implement. Agency		Dept. of Dike Mgt. & Flood Control and Dept. of Meteo-Hydrology & Climate Change

WORLD DEVELOPMENT INDICATORS

DRM SPECIALIST Mr. Dzung Huy Nguyen

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KEY PARTNERS (as identified by the DRM Specialist)

NATIONAL: meteorology, hydrology, civil protection

INTERNATIONAL: UNDP, UNW, IFRC

REGIONAL: ADB, ADPC

DONORS: Australia, EU, Japan



DRM/CCA IN POLICY PAPERS			
(as assessed by th	ne DRM S	pecialist)	
Mainstreaming:	Low	High	
PRSP			
WB-CAS			
UNDAF			
NAPA			
EU-CSP		I	

DRR Index	WDI: n/a DRI Class: 6/7	NATIONAL PLATFORM	Central Committee for Flood and Storm Control (CCFSC).
Income Group	Upper-Middle		Not declared to UNISDR. WB does not participate. Focus: DRM only.
Population	87.4 million		oniy.
GDP	US\$1,411/capita		
Poverty	14% of population	NATIONAL LEGISLATION	National Strategy for Natural Disaster Prevention, Response, a Mitigation towards 2020
Urban Population	31% of total	LEGISLATION	

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
DRM Capacity Building Program—Phase III US\$1 million 2012–2013 (Active)	The objective is to strengthen the capacity of the Government in line with the National Strategy for Natural Disaster Prevention, Response, and Mitigation towards 2020. The focus of the project is on (i) DRR mainstreaming in the WB portfolio, and (ii) implementation support for the national community-based DRM Program. To date, the project has finalized terms of reference that will allow the Government to mobilize expertise in the country and region for continuous support of the Government's long-term DRM strategy, as Vietnam moves to a comprehensive and integrated approach to disaster risk management. Expected outcomes include (i) mainstreaming of DRM into pipeline World Bank projects in the fields of poverty reduction, road network development, coastal resources management, and sustainable agriculture; and (ii) the creation of a framework for raising public awareness in support of implementation of the National Community-Based DRM Program.	
Weather and Climate Information Systems (WCIS) ¹	The WCIS team provided technical advisory and preparation support for the development of an IDA's Managing Natural Hazards Project component for strengthening national hydrometeorological agency and improvement of weather, climate and hydrological service delivery. The project is under implementation now (see below under "Synergies").	

^{1.} The support was provided through the global WCIS Program and is not included in GFDRR engagement figures of the top-left corner.

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)
DRM Capacity Building Program—Phase II US\$2.45 million 2010–2012 (Active)	This program has supported the Government in the implementation of the National Strategy for Natural Disaster Prevention, Response, and Mitigation towards 2020. The focus of the project has been on (i) DRR mainstreaming in the WB portfolio, (ii) risk financing, and (iii) implementation support for the National Action Plan. Outcomes to date include (i) identifying capacities and needs of meteorological and hydrological services, including for improved early warning system; (ii) improved emergency preparedness planning in 14 provinces of the central region; (iii) enhanced flood management capacity of Ho Chi Minh City; (iv) enhanced monitoring and evaluation in relation with the national strategy; (v) enhanced institutional capacity at the provincial level through development of operational models for Provincial Disaster Management Center (PDMC); and (vi) supporting the implementation of the Government's Community-Based DRM Program.
Hazard Risk Management Institutional Development US\$903,725 2006–2010 (Completed)	This project strengthened the coordination and mainstreaming of hazard risk management in Vietnam's socioeconomic development planning processes across various sectors. The project provided a good foundation for further work in DRM by national counterparts and development partners. The outcomes included (i) mainstreaming of DRM into poverty reduction initiatives in the rural northern mountain provinces; (ii) availability of risk information and mitigation options to populations in low-lying coastal cities and most vulnerable communities; (iii) increased prevention and preparedness capacity in the cities of Hanoi, Dong Hoi, and Can Tho, supported by a Local Resilience Action Plan (LRAP); and (iv) guidance on affordable and effective options for disaster risk financing.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs DRM- and CCA-Related Objectives and Outcomes		
Natural Disaster Risk Management ProjectThe project reduces human, economic, and financial losses from natural hazards, while ensuring rapid post-disaster recovery of poor communities living in hazard- prone areas.		
Post-Disaster Reconstruction- Additional Financing	This additional financing reduces the Government's financing gap for post-disaster reconstruction, strengthens its speed and efficiency in allocating and disbursing post-disaster resources, and enhances the effectiveness of public resource utilization.	
Managing Natural Hazards	The activity strengthens the resilience of people and assets to natural hazards in selected river basins in the central region of Vietnam.	
Climate Change Development Policy Operation Series	The series supports the Government in its efforts to address climate change by adopting policies and strengthening institutional capacity to promote climate-resilient and lower carbon intensity development.	

PARTNERSHIPS AND COORDINATION

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
National Services	Meteorological, hydrological, civil protection	
International Organizations	United Nations Development Programme (UNDP), United Nations Women (UNW), International Federation of the Red Cross and Red Crescent Societies (IFRC)	
Regional Organizations	Asian Development Bank (ADB), Asian Disaster Preparedness Center (ADPC)	
NGOs/CSOs	Action Aid, CARE international, Centre for International Studies and Cooperation (CECI), Christian Aid, Plan International, Oxfam, Save the Children, Vietnam Women Union, World Vision	
GFDRR Donors	Australia, European Union (EU), Japan, Luxembourg, South Korea, Sweden, United Kingdom (UK)	

The World Bank works closely with governmental agencies, as well as a wide range of NGOs and CSOs. Lending and grant programs have helped leverage support from many government agencies, localities, donors, international and local organizations, and civil society, to strengthen capacity on DRM/CCA in Vietnam. GFDRR activities have helped improve coordination and information sharing between the Government and donors in the area of disaster risk management in Vietnam.

CLIMATE CHANGE & DISASTER RISK PROFILE

Located in an area characterized by tropical monsoons, Vietnam is one of the most hazard-prone countries in the East Asia-Pacific region. With a coastline of 3,200 km, an estimated 70 percent of the population exposed to flooding risk (living in coastal areas and the low-lying deltas), and a location on the Pacific Ring of Fire, this rapidly developing country of 87 million people is highly exposed to natural hazards (typhoons, floods, droughts, sea water intrusion, landslides, forest fires, and occasional earthquakes). Typhoons and floods are the most frequent and devastating of these, resulting in numerous casualties and damaged livelihoods. The encroachment of agricultural and economic activity and the development of floodplains, coastal swamps, drainage channels, or other natural buffers only add to the vulnerability of the country.

A 2007 assessment report of the World Bank lists Vietnam as one of the five countries in the world most affected by climate change. A one-meter rise in the sea level would partially inundate one commune out of five (5% of the national land area, 11% of the population, and 7% of the agricultural land), leaving the Mekong River Delta most seriously affected.

(0	as expressed by the DRM Specialist)	
1.	Understanding risks	i
2.	DRM/CCA policies, building codes, land use & urban plans	ł
3.	Risk financing mechanisms	I
4.	Enhancing the resilience of cities, communities, and critical infrastructure	l k
5.	Cost-benefit analysis about	f

5. Cost-benefit analysis about investments in disaster risk management

PRIORITIES FOR GFDRR ENGAGEMENT

GFDRR has provided support to flood and water resource management, climate resilience investments in transport and infrastructure, early warning systems, modernization of hydrometeorological services, and disaster risk financing. Another top priority for future GFDRR investment is mainstreaming DRR in development planning at the national and local levelS.

In addition, GFDRR works to strengthen the established government support for a "buildback-better" approach at both the policy and field levels. GFDRR works to strengthen government capacity for project management, which will accelerate the implementation of future activities. Europe and Central Asia (ECA)

Kyrgyz Republic

GFDRR ENGAGEMENT				
Source of F	unding		MDTF, SRFF	
Resources A	Awarded	ł	US\$1,782,119	
Resources [Disburse	d	US\$166,271	
Number of Projects Active: 2; Complete			tive: 2; Completed: 1	
Bank Executed	14%	Main Government Counterpart	Ministry of Emergency	
Recipient Executed	86%	Implement. Agency	Situations (MES)	

WORLD DEVELOPMENT INDICATORS	
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DRR Index	WDI: n/a DRI Class: 6/7
Income Group	Low
Population	5.5 million
GDP	US\$1,075/capita
Poverty	34% of population
Urban Population	37% of total

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DRM SPECIALIST	
Recruitment in progress	Double Do
KEY PARTNERS	DRM/CCA IN POLICY PAPERS

(as identified by the team)		(as assessed	by the te	eam)
NATIONAL: civil protection,		Mainstreaming:	Low	High
hydrometeorology		CDSP		
INTERNATIONAL: UNICEF, UNDP, NATO, DIPECHO		UNDAF		
REGIONAL: ADB		NAPA		
DONORS: Ireland, Japan, Norway,		WB-ISR		
Switzerland, UK, USA		EU-CSP		
h				

Declared to UNISDR. WB does not participate. Focus: DRM and CCA.

NATIONAL Civil Protection Law No. 239 (2009). National strategy for 2012-LEGISLATION 2020 for Comprehensive Safety of Population and Territories.

GFDRR-FUNDED	DBOIECTS	OUTCOMES
GFDKK-FUNDED	PROJECTS	OUTCOIVIES

Project/Program	DRM and CCA-related objectives and outcomes
Kyrgyz Republic Disaster Risk Management US\$1,605,000 2011–2013 (Active)	The objective is to improve operations of the crisis situations management center, with communication and information management tools: (i) national integrated system of information and warning of the population; and (ii) single-state emergency dispatch services. These developments are supported by strengthened national meteorological and hydrological services.
GFDRR Country Programming for ECA US\$48,000 2010–2013 (Active)	The project conducted a preliminary assessment of country capacity in risk identification and vulnerability reduction. The output is a preliminary country plan for GFDRR support to the Kyrgyz Republic.
Geo-Hazards and Infrastructure: A Kyrgyz Case Study US\$39,119 2008–2009 (Completed)	The output of this project was a report about natural hazards impacts on built infrastructure, delivered in Russian language to the Kyrgyz authorities. The study is being used to enable more sustainable infrastructure planning, specifically in health and transportation sectors.
Weather and Climate Information Systems (WCIS) ¹	The WCIS team played key role in identification and preparation of a regional Hydromet modernization program including national project for Kyrgyzstan. The team continues to provide implementation support (see Central Asia Hydrometeorology Modernization Project below under "Synergies").

^{1.} The support was provided through the global WCIS Program and is not included in GFDRR engagement figures of the top-left corner.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Central Asia Hydrometeorology Modernization Project	The Central Asia Hydrometeorology Modernization Project (CAHMP) improves the accuracy and timeliness of hydrometeorological services in Central Asia, with particular focus on the Kyrgyz Republic and the Republic of Tajikistan. The US\$27 million project (including a US\$7 million grant from the Pilot Program for Climate Resilience—PPCR) strengthens in parallel the national capacity as well as coordination and information sharing among services in the region.	

PARTNERSHIPS AND COORDINATION

(key institutions interacting with World Bank for DRM and CCA, identified by the team)		
National Services	Emergency situations, hydrometeorology	
International Organizations	United Nations Children's Fund (UNICEF), United Nations Development Programme (UNDP), North Atlantic Treaty Organization (NATO), Disaster Preparedness Program of the Humanitarian Aid and Civil Protection Department of the European Commission (DIPECHO)	
Regional Organizations	Asian Development Bank (ADB)	
GFDRR Donors	Ireland, Japan, Norway, Switzerland, United Kingdom (UK), United States (USA)	

World Bank operations, technical assistance, and research have all contributed to establishing links between disaster risk management, poverty reduction, economic growth, and sustainable development, and have been successful in generating demand for risk reduction investment. Support for recovery and reconstruction has been the entry point for the World Bank to develop policy reforms and successfully implement projects in local communities at-risk. The World Bank is working with donor partners, the Government to develop awareness and tools for mainstreaming risk reduction.

CLIMATE CHANGE & DISASTER RISK PROFILE

The Kyrgyz Republic is a landlocked country located in northeastern Central Asia between two major mountain systems, the Tien Shan and the Pamirs.

More than half of the Kyrgyz Republic's GDP is exposed and vulnerable to natural hazards. Drought is a common occurrence in the country, as are earthquakes, land- and mudslides, avalanches, squalls, downpours, ice, frosts, breakthrough of

glacial lakes, floods, rise of subsoil waters, epidemics, pests, crop disease, and river erosion.

The Kyrgyz Republic experiences between 3,000 and 5,000 earthquakes every year, with large-scale catastrophes taking place every 5–10 years.

As glaciers continue to melt due to rising temperatures, more intense flooding events in the wintertime (and reduced water flow in the summer) are expected.

	(as expressed by the team)
1.	Understanding risks
2.	Early warning systems

3. Resilience of cities, communities, and critical infrastructure

PRIORITIES FOR GFDRR ENGAGEMENT

GFDRR engagement with the Kyrgyz Republic started with an extensive technical review of observational networks and hydrometeorological infrastructure (2008–2009). This regional assessment, funded by a GFDRR allocation of US\$361,000, has supported the preparation of the US\$27.7 million Central Asia Hydrometeorology Modernization Project, designed to strengthen the hydromet services and early warning systems of Kyrgyzstan and Tajikistan.

The current Interim Strategy Note (ISN) covers the period of August 2011 to June 2013 and succeeds the previous World Bank Country Assistance Strategy (CAS), which was presented to the Board in May 2007. The ISN focuses on the country's recovery and stabilization needs, while paving the way for support for long-term development. The need for an interim strategy approach is underscored by the current fragile political, social and economic situation in the country. The upcoming CAS will be an opportunity for integrating Disaster Risk Reduction into long term development.

A proposal for a new GFDRR-funded activity is under discussion.

Latin America and the Caribbean (LCR)

Colombia

GFDRR ENGAGEMENT				
Source of Funding		MDTF, SDTF (Spain)		
Resources A	Awardeo	ł		US\$1,490,323
Resources Disbursed		US\$855,025		
Number of Projects		Active: 4; Completed: 2		
Bank Executed	100 %	Main Government Counterpart		National Planning Department (DNP)
Recipient Executed	0%	Implement. Agency		n/a

WORLD DEVELOPMENT INDICATORS

DRR Index	WDI: 3.75/5 DRI Class: 4/7
Income Group	Upper-Middle
Population	46.9 million
GDP	US\$7,067/capita
Poverty	37% of population
Urban Population	75% of total

DRM SPECIALIST Mr. Eric Dickson edickson@worldbank.org +1 202 473 4106 Mr. Eric Dickson KEY PARTNERS (ore identified by the DPM Specialist)

KEY PARTNERS	DRM/CCA IN POLICY PAPERS
(as identified by the DRM Specialist)	(as assessed by the DRM Specialist)
NATIONAL: finance, planning, civil protection, hydro- & meteorology	Mainstreaming: Low High
INTERNATIONAL: OCHA, UNISDR,	PRSP PRSP
UNDP	WB-CAS
REGIONAL: PAHO, CAPRADE	UNDAF
DONORS: EU, Spain, USA	
NGOs/CSOs: ASOCARS, SAC, Camacol,	NAPA
Colombian Chambers of Infrastructure	EU-CSP

NATIONAL PLATFORM	National System for Disaster Risk Management. Declared to UNISDR. World Bank does not participate. Focus: DRM only.
NATIONAL LEGISLATION	Law 1523 of April 24, 2012, defines the National Policy on Disaster Risk Management and a National System for Disaster Risk Management explicitly recognized as a part of the development process. Decree 4147 of November 3, 2011, created a national unit for the coordination of a national disaster risk management system. Decree 3700 of the National Council for Economic and Social Policy (CONPES) for Climate Change established a model disaster response system.

GFDRR-FUNDED PROJECTS' OUTCOMES	
Project/Program	DRM and CCA-Related Objectives and Outcomes
Consolidating Disaster Risk Management US\$500,000 2012–2014 (Active)	This activity seeks to further consolidate Colombia's disaster risk management (DRM) framework through (i) modernization of the national DRM system and (ii) improving the application of disaster risk analysis and management at the sectoral and territorial levels. This project is expected to (i) establish new instruments of inter-agency coordination, including an Agency for the Coordination of the National DRM framework; (ii) support the formulation of a number of municipal plans for DRM; (iii) support the mainstreaming of DRM in watershed management plans; and (iv) organize joint technical services' support for the implementation of the national inventory of settlements.
Reducing Flood Risk in Bogota: Formulation of the Rio Bogota Dynamic River Management Plan US\$80,000 2012–2014 (Active)	The project is focused on reducing flood risk in the Bogota River, which flows through the metropolitan area and is prone to flooding, annually generating significant economic loss, complicating urban development and sustainability, and putting human life at risk. Addressing flood risk in Bogota is thus a core urban development issue and through the Bank-financed Rio Bogota Environmental Recuperation and Flood Control Project, the municipal government is working towards addressing these challenges.

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)
Barranquilla—Preparation for Integrated Urban Flood Prevention Investment Project US\$150,000 2010–2013 (Active)	The project assists the government of the District of Barranquilla in the preparation of an investment project for addressing severe flooding problems. Expected outcomes include (i) strengthened capacity to implement urban flooding risk reduction activities under an inter-institutional coordinated framework; (ii) formulated investment operation; (iii) knowledge and experience of World Bank procedures; and (iv) designed and started implementation of a communication strategy to build awareness among the population of Barranquilla about potential solutions to the existing flood problem.
Probabilistic Risk Assessment (CAPRA) US\$500,000 2010–2012 (Active)	The project provides technical assistance to national and subnational government agencies to better design and prioritize DRM investment programs. Activities include (i) analysis of expected damage to property and livelihood; (ii) cost-benefit analysis of potential mitigation measures; (iii) development of regional risk assessments; (iv) training of key officials and stakeholders in risk and vulnerability assessment; (v) developing national risk assessments for key sectors; and (vi) development of data management and dissemination systems. The focus up to now has been on Pereira with seismic risk analysis and on the Galeras volcano with volcanic risk assessment. This project is expected to influence planning approaches and strategies to reduce communities' exposure to disaster risks.
Colombia Country Disaster Risk Management Analysis (CCDRMA) US\$160,524 2011–2012 (Completed)	The project provided the Government with an analytical basis for decision making on how best to improve institutional structures and policies for Disaster Risk Management, as the Government moves forward with reforms to the National Disaster Risk Management Framework. The project supported the design and implementation of a strategy to ensure appropriation and involvement at different territorial levels (national, regional, and local) and with other entities responsible for DRM through awareness raising and dissemination of a new analytical publication. The new analysis is being used in the preparation of the proposed Second Disaster Vulnerability Reduction Project to continue enhancing mainstreaming at the national, subnational, and sectoral levels.
Risk Modeling for DRM: The Experience of Bogota US\$99,799 2008–2012 (Completed)	This project produced a Spanish- and English-language publication on probabilistic risk modeling, as a backbone to guide development of a professional catastrophic risk modeling community that would inform national and local development planning. The Capital District of Bogota is used as an illustration, and results are shared in Colombia and neighboring countries.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Colombia Sovereign Disaster Risk Financing	The objective of this program is to reduce the financial vulnerability of states to natural disasters by improving their financial response capacity in the aftermath of such disasters, while protecting their long-term fiscal balance.	
National Disaster Vulnerability Reduction Project	This project aims to reduce the fiscal vulnerability of states to adverse natural events by supporting the four strategic lines of action identified in the National Plan for Disaster Prevention and Management.	
Bogota Disaster Vulnerability Reduction Project	The aim of this project is to reduce the vulnerability of the Capital District of Bogota to adverse natural events, by strengthening its capacity to manage disaster risks, and by reducing vulnerability in key sectors.	
DRM DPL with Catastrophe Deferred Drawdown Option	The CAT DDO provides rapid liquidity for the Government in the event of a disaster, while the Development Policy Loan is supporting the Government in disaster risk management. A first US\$150 million project was implemented in 2009–2012. Outcomes to date include (i) an expansion of the hazard monitoring network; (ii) addressing needs of affected populations; (iii) 388 municipalities with disaster risk management plans (compared to 10 in 2009); (iv) resettlement of population exposed to volcanic risk from the Galeras Volcano; and (v) definition of a framework for contingent financing. A second project, in the amount of US\$250 million, is yet to be declared effective.	

WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes (continued)
Barranquilla Flood Management	The project, in pipeline, to be implemented by the district authorities, will reduce the risk of urban flooding in target areas of Barranquilla's eastern watershed.
Second National Disaster Vulnerability The project focuses on further strengthening of Colombia's disaster of framework through (i) the application of disaster risk analysis and mapping policy making at the national level of government, and (ii) strengthen reduction at the sectoral and subnational levels.	
Partners	DRM- and CCA-Related Objectives and Outcomes
РАНО/ѠНО	Provides training in health and disaster relief and technical support to municipalities for assessment and emergency preparedness for volcanic eruptions.
CAPRADE	Implements the Andean Strategy for Disaster Prevention and Relief (EAPAD), with five topics or results: (i) policies, (ii) information and knowledge, (iii) planning and development, (iv) education and communication, and (v) participation and local risk management.
EU	Through the Disaster Preparedness Program of the Humanitarian Aid and Civil Protection Department of the European Commission (DIPECHO), EU strengthens the Regional Tsunami Early Warning.
USA	USAID/OFDA/LAC has created a Plan of Action to strengthen capacities of the National Unit for Disaster Risk Management in risk reduction, understanding of risk, and disaster response.
UNDP	Strengthens municipal capacity to reduce disaster risk as a measure of adaptation to climate change along Colombia's Caribbean coast.
Oxfam	Is working on capacity building for disaster management in the Caribbean Region impacted by La Niña (water, sanitation, hygiene, food security).

	PARTNERSHIPS AND COORDINATION
. ,	interacting with World Bank for DRM and CCA, ified by the GFDRR DRM Specialist)
National Services	Finance, planning, civil protection, meteorology, hydrology. urban, housing, water & sanitation
International Organizations	United Nations' Office for the Coordination of Humanitarian Affairs (UNOCHA), United Nations International Strategy for Disaster Reduction (UNISDR), United Nations Development Programme (UNDP)
Regional Organizations	Pan American Health Organization (PAHO), Andean Committee for Disaster Prevention and Response (CAPRADE)
NGOs/CSOs	The Colombian Federation of Municipalities, the Autonomous Regional Corporations Association (ASOCARS), the Colombian Society of Farmers (SAC), the Colombian Chamber of Construction (Camacol), and the Colombian Chamber of Infrastructure
GFDRR Donors	European Union (EU), Spain, United States (USA)

The country could benefit from more donors supporting DRM and from improved coordination among national institutions. Enhanced coordination among national institutions has been highlighted as an area of future improvement. A number of agencies (National Geological Survey, National Planning Department, and City Hall officials from Pereira and Pasto) were trained in the use of CAPRA, including risk analysis in territorial planning and in improving DRM investments, which should assist with establishing a more coordinated agency approach to DRM.

CLIMATE CHANGE & DISASTER RISK PROFILE

Colombia is exposed and vulnerable to floods, landslides, earthquakes, volcanic eruptions, and occasional Atlantic hurricanes.

Over the last 40 years, 190,000 houses were destroyed by natural disasters and 1 million people were affected. The associated cost has been estimated at some US\$2.04 billion.

The impact of the 2010–2011 La Niña rainy seasons reflects the complexity of hazard risk in Colombia and the gaps and deficiencies of disaster risk management in the country.

Recent flooding affected approximately 3.5 million people and resulted in unprecedented damages and losses, underlining the need to strengthen the national system for a more efficient management of disaster risks.

PRIORITIES FOR GFDRR ENGAGEMENT

- (as expressed by the DRM Specialist)
 Develop tools and capacities at national level to support local level
- Increase specificity of tools and knowledge
- 3. Formulate policies
- Implement DRM-related strategies
 Cost-benefit analysis of investments

in disaster risk management

GFDRR support to Colombia began in 2008 with a project on risk modeling in the capital city of Bogota. In 2010, involvement was widened to understanding risk and DRM problems at the national level. Technical advice will now be provided to national institutions in order to integrate risk information into development planning and execution. GFDRR also supported the publication of a reference book on risk assessment, illustrating best practices and potential applications of probabilistic catastrophe risk modeling in the field of disaster risk management.

The World Bank undertook a preliminary disaster risk management analysis for Colombia. The study shows that a radical change in development policies and in territorial and

sectoral disaster risk management practices is essential if Colombia wants to sustain its economic growth. The recommendations in this report are being used for policy decisions. The Government will include information on exposed public infrastructure and buildings, and information on historical disaster losses.

The Government of Colombia recognizes that natural disasters are an implicit contingent liability of the State. The management of fiscal risk emanating from natural disasters is being addressed by (i) the fiscal risk management strategy; (ii) the National Disaster Risk Management Act of April 2012 (Law 1523); and (iii) the Ministry of Finance and Public Credit's efforts on debt sustainability.

Costa Rica

GFDRR ENGAGEMENT				
Source of Funding			MDTF, SDTF (Spain)	
Resources Awarded			US\$724,000	
Resources Disbursed			US\$611,142	
Number of Projects Ac		ctive: 2; Completed: 0		
Bank Executed	65%	Main Government Counterpart		Ministry of Finance
Recipient Executed	35%	Impleme Agency	ent.	World Meteorological Organization

WORLD DEVELOPMENT INDICATORS

DRR Index	WDI: 4.5/5 DRI Class: 4/7
Income Group	Upper-Middle
Population	4.7 million
GDP	US\$8,676/capita
Poverty	24% of population
Urban Population	65% of total

DRM SPECIALIST

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KEY PARTNERS	C
(as identified by the DRM Specialist)	(0
NATIONAL: finance, planning, public works, environment, civil protection	N
INTERNATIONAL: WMO, UNDP	
REGIONAL: IADB, CEPREDENAC, SICA	
DONORS: Spain	



DRM/CCA IN POLICY PAPERS			
(as assessed by the DRM Specialist)			
Mainstreaming:	Low	High	
National Dvt.			
WB-CAS			
NAPA			
UNDAF		l	
EU-CSP			

NATIONAL PLATFORM	National Risk Prevention and Emergencies Management Commission (CNE). Declared to UNISDR. WB does not participate. Focus: DRM only.
NATIONAL LEGISLATION	Emergencies and Risk Prevention Law (Law No. 8488) requires Government agencies and municipalities to allocate resources for disaster risk reduction activities in their programs and budgets. Presidential Decree No.36721-MP-PLAN enhances the risk management competencies of the CNE and provides a model to assess vulnerability (compulsory in governmental planning processes).

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
Costa Rica Pilot Project on Early Warning Systems for Hydrometeorological Hazards US\$255,000 2010–2013 (Active)	This project is demonstrating an effective framework for operational early warning systems (EWS). The project enhances EWS capacity with equipment, improved inter-agency coordination, and engagement of communities in local DRR activities. To date, the project has held workshops at the pilot site, with the goal to strengthen community participation and involvement of key local stakeholders in the design of the EWS. The national implementing agencies (National Meteorological Institute [IMN] and National Risk Prevention and Emergencies Management Commission [CNE]) and the World Meteorological Organization (WMO) have substantially improved their collaboration and coordination, and have fostered closed collaboration with other key government agencies, scientific organizations, and local NGOs. For instance, the national power utility company, Costa Rican Electricity Institute (ICE)—a major player in watershed and water resources management in the country—has teamed up with IMN, CNE, and WMO, as a partner to the project. ICE is contributing substantial data and technical expertise to the design of the watershed's hydrological model to be incorporated into the EWS.	

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)
Costa Rica Public Assets Catastrophe Risk Insurance Feasibility Study US\$460,000 2008–2012 (Active)	The aim of the study is to reduce the country's financial vulnerability to adverse natural hazards, and particularly to earthquakes, in partnership with Ministry of Finance and National Insurance Institute (INS). A Catastrophe Risk Transfer Vehicle (CRTV) for public assets and social housing is being developed. As planned, the project has completed a design package that includes the legal, financial, institutional, and operational components of the CRTV for government buildings and low-income housing (under final review). Authorities have expressed their interest in implementing the CRTV. However, they recognize that implementation of the CRTV will require the development of a risk assessment of the country's critical transport infrastructure (roads and bridges). The development of the CRTV has generated important lessons that may be adapted to other countries in the region also engaged in developing their own financial protection strategies.

SYNERGIES	AND COMPLEMENTARITIES WITH OTHER PROJECTS	
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Development Policy Loan with Catastrophe Deferred Drawdown Option	The CAT DDO is a contingent line of credit offered by the World Bank to help IBRD countries take a proactive stand towards reducing exposure to catastrophe risk and access funds immediately after a natural disaster. Costa Rica was the first country to request a CAT DDO and to draw down on its loan after a 6.2-magnitude earthquake struck the country in 2009. The development of the first ever Development Policy Loan (DPL) with a CAT DDO in Costa Rica in 2009 encouraged the dialogue with the country on DRM issues, later expanded to incorporate CCA, as key components of the Government's sustainable development policies.	
Integration of Disaster Risk Management in the Costa Rica Planning System	This Institutional Development Fund (IDF) grant seeks to streamline the use of disaster risk information in Costa Rica's national planning system, thus enhancing its capacity to incorporate risk reduction measures in public investments, while implementing vulnerability reduction programs.	
Natural Disaster Risk Assessment for Water and Sanitation Systems	The objective of this project is to enhance the use of disaster risk information in the planning process of the National Institute of Aqueducts and Sewerage.	
Partners	DRM- and CCA-Related Objectives and Outcomes	
UNDP	Supports DRM activities, including funding post-disaster rehabilitation activities after the 2009 Cinchona earthquake, and the preparation of the Early Recovery Plan after the passing of Tropical Storm Tomas in late 2010.	
IADB	Is financing the Mesoamerican coordination system for territorial information. The project aims at developing an information system, in which the reduction of natural disaster risks is a key pillar for territorial development. The first phase of the system seeks to strengthen capacities for the management and use of spatial information, and improve prevention and risk mitigation in Central America, Mexico, and Colombia.	
CEPREDENAC	The specialized DRM body of the Central American Integration System (SICA), CEPREDENAC is in charge of coordinating regional DRR and climate change adaptation efforts. CEPREDENAC is coordinating with senior DRM authorities in the region the implementing of the Comprehensive Central American Disaster Risk Management Policy (PCGIR). The Bank is supporting CEPREDENAC's PGCIR implementation activities through a Spanish Fund for Latin America and the Caribbean (SFLAC) grant, and an Institutional Development Fund (IDF) grant. These grants include DRM capacity-building activities that directly benefit each country in the Central American region.	

	PARTNERSHIPS AND COOR	DINATION		
. ,	(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)			
National Services	Services Finance, planning, public works, environment, civil protection, meteorology, hydrology, energy			
International Organizations	ternational Organizations World Meteorological Organization (WMO), United Nations Development Programme (UNDP)			
Regional Organizations	Inter-American Development Bank (IADB), Central American Centre for Natural Disaster Risk Management (CEPREDENAC), Central American Integration System (SICA)	operation Costa R procuren already e		
GFDRR Donors	GFDRR Donors Spain			

Since there is no World Bank office in Costa Rica, all DRM efforts are conducted from Headquarters in Washington, DC. This limits the interaction with other international organizations working in the country, as well as local stakeholders. The El Salvador Country Representative has been designated to also represent the Bank in Costa Rica. Under this arrangement, the office in San Salvador also provides support to Bank operations in Costa Rica, facilitating interactions of Costa Rican partners with Bank teams (e.g., procurement, disbursement), and fostering the already excellent relationship with the Government of

CLIMATE CHANGE & DISASTER RISK PROFILE

Due to a combination of geographic variations and economic factors, Costa Rica is highly vulnerable to extreme climate events and natural hazards.

The country has the 8th highest economic risk exposure to three or more hazards, according to the Natural Disaster Hotspot study by the World Bank. This study also ranks Costa Rica second among countries most exposed to multiple hazards based on land area, with 36.8% of the total area exposed to three or more natural hazards.

Diminishing agricultural production, changes in water availability, environmental degradation, increased climate

variability, and rising sea levels are areas of major concern. The El Niño phenomenon causes severe droughts on the Pacific coast of Costa Rica. At the same time, cold air moving in from North America during the winter months combines with trade winds between July and August to produce intense rains that cause flooding on central Costa Rica's Caribbean slopes.

Studies of temperature and precipitation patterns reveal many changes in the extreme values of these variables over the last 50 years, with a trend toward increased variability in recent years.

	(as expressed by the DRM Specialist)
1.	Disaster prevention

- 2. Advancement of risk financing mechanisms
- 3. Providing analytical tools
- 4. Enhancing resilience of cities
- 5. Cost-benefit analysis of investments in DRM

PRIORITIES FOR GFDRR ENGAGEMENT

GFDRR funding directly supports the implementation of the National DRM Program with targeted interventions in EWS and the design of a disaster risk transfer mechanism, as part of the country's risk financing strategy.

Costa Rica.

The country maintains its commitment to tackle DRM and CCA. Political changes in the administration have not diminished the country's commitment to mainstreaming DRM and CCA into national planning processes. The Government of Costa Rica is exploring mechanisms for disaster risk transfer, which is aligned with GFDRR's goals of developing tools for reducing governments' contingency liabilities.

Going forward, additional areas GFDRR could assist in include improving the country's scientific and technical knowledge on DRM/CCA; providing technical support to the local municipalities in their efforts to develop/enhance their DRM/CCA capabilities; providing technical assistance to better assess the country's contingency liability and to develop effective risk financing and risk transferring mechanisms; and optimizing reliance on the Central American regional DRM agency, CEPREDENAC, to implement regional activities.

Ecuador

GFDRR ENGAGEMENT				
Source of F	unding		 	SDTF (Spain)
Resources A	Awardec	1		US\$953,000
Resources Disbursed		1	US\$802,150	
Number of Projects		Ac	tive: 1; Completed: 0	
Bank Executed	10%	Main Government Counterpart		Ministry of Interior
Recipient Executed	90%	Impleme Agency	ent.	Quito Municipality

DRM SPECIALIST

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LEGISLATION

KEY PARTNERS



KEY PARTNERS	DRM/CCA IN POLICY PAPERS
(as identified by the DRM Specialist)	(as assessed by the DRM Specialist)
NATIONAL: agriculture, urban and land	Mainstreaming: Low High
use planning, education	PRSP
INTERNATIONAL: UNISDR, UNDP, WFP	WB-CAS
REGIONAL: AC, IADB	UNDAF
NGOs/CSOs: Plan International	EU-CSP
DONORS: EU, Spain	NAPA
Decentralized National C	ustom of Rick Management (CNIDCR)

WORLD DEVELOPMENT INDICATORS		
DRR Index	WDI: 4.75/5 DRI Class: 5/7	
Income Group	Upper-Middle	
Population	14.7 million	
GDP	US\$4,569/capita	
Poverty	33% of population	
Urban Population	67% of total	

Decentralized National System of Risk Management (SNDGR). NATIONAL Formal platform. Declared to UNISDR. WB does not participate. PLATFORM Focus: DRM only. Ecuador's 2008 Constitution covers the mainstreaming of disaster NATIONAL

risk management in national development. Specific DRM law and its bylaws are under discussion before submission to the National Assembly for approval.

GFDRR-FUNDED PROJECTS' OUTCOMES			
Project/Program	DRM and CCA-Related Objectives and Outcomes		
Dialogue for Disaster Vulnerability Reduction in Quito and Cuenca (Pipeline)	to develop long-term partnerships for DRM through analytical services, technical assistance or loans to address vulnerability reduction and increased resilience; and (ii) scaling up the		
Disaster Risk Reduction Program for Quito Municipality GFDRR US\$953,000 others US\$200,000 2008–2012 (Active)	The objective is to support DRM mainstreaming at both country and local levels. Quito is used as a pilot for testing a holistic approach to risk reduction. Outcomes to date include (i) increased funding, improved institutional arrangements for DRM, and enhanced DRM technical capabilities; (ii) available seismic risk knowledge under a unified risk information system, utilized in water, sanitation, health, education, housing, and transportation; and (iii) available contingency plans for flood and landslides in eight administrative zones. DRM awareness campaigns are efficiently informing population at risk.		
City-to-City Sharing Initiative for Developing Countries US\$495,000 for 3 countries ¹ 2010–2012 (Completed)	Cities of Makati (Philippines), Kathmandu (Nepal), and Quito (Ecuador) participated in a South-South sharing initiative and exchanged practices for land use planning and local-level disaster management.		

^{1.} Not included in GFDRR engagement figures of the top-left corner.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS			
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes		
Environmental Management Ecuador	The project supports the Government of Ecuador in its efforts to improve and strengthen management of key resources and critical ecosystems, by filling critical information gaps in priority areas and facilitating knowledge exchanges.		
Adaptation to the Impact of Rapid Glacier Retreat in the Tropical Andes	This activity contributes to strengthening the resilience of local ecosystems and economies to the impacts of glacier retreat in the tropical Andes, through the implementation of specific pilot adaptation activities that illustrate the costs and benefits of adaptation.		
Partners	DRM- and CCA-Related Objectives and Outcomes		
IADB	Is supporting the Technical Secretariat for Risk Management in Ecuador as well as contributing to landslide and flood risk mitigation on the slopes of Quito.		
UNDP	Supports capacity-building activities for communication, land planning, and policy development.		
EU	The Disaster Preparedness Program of the Humanitarian Aid and Civil Protection Department of the European Commission (DIPECHO) supports, with UNDP and GFDRR, the implementation of risk reduction programs in two of the poorest neighborhoods in Quito.		

PARTNERSHIPS AND COORDINATION

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
National Services	Agriculture, urban and land use planning, education	
International Organizations	United Nations Development Programme (UNDP), United Nations International Strategy for Disaster Reduction (UNISDR), World Food Programme (WFP)	
Regional Organizations	Andean Community (AC), Inter-American Development Bank (IADB)	
NGOs/CSOs	Plan International	
GFDRR Donors	European Union (EU), Spain	

Program and project updates are shared in regular informal coordination meetings with national, international, and regional organizations, as well as with civil society organizations, to promote coordination and leveraging for DRM interventions.

A GFDRR-funded multicountry project was carried out with the cities of Makati (Philippines), Kathmandu (Nepal), and Quito (Ecuador) to foster a South-South sharing initiative to exchange practices for land use planning and local-level disaster management.

CLIMATE CHANGE & DISASTER RISK PROFILE

Ecuador suffers from an acute vulnerability and high exposure to natural hazards. Some 96% of the population lives in the coastal and mountainous regions, exposed to seismic, volcanic, flood, landslide, and El Niño hazards.

The country has experienced different economic stresses as a consequence of natural hazards. Flooding mainly affects the coastal zone, while volcanic eruptions affect the central zone. Drought has been recorded in some provinces in the northern coastal and central regions.

Frequent landslides affect urban areas and infrastructure. Insufficient land use planning in urban areas is leading to

inadequate settlement locations, environmental degradation of river basins, farmland expansion, and inferior building standards, all of which contribute to the high levels of vulnerability.

Impacts of different climate change scenarios have been analyzed for Ecuador. For example, (i) a temperature increase of 2°C and a precipitation decrease of 15% would lead to agricultural shortages; and (ii) a temperature increase of 1°C and an increase in precipitation of 20% would severely affect fisheries and agriculture production as a result of increased flooding risk.

PRIORITIES FOR GFDRR ENGAGEMENT					
(as expressed by the DRM Specialist) 1. Understanding risks	GFDRR engagement in Ecuador started in 2008 through the Disaster Risk Reduction Program for Quito Municipality.				
2. DRM/CCA policies, building codes, land use and urban planning	GFDRR engagements have, to date, supported four priorities: (i) understanding risks;				
3. Resource mobilization (seed funds to start engaging local authorities)	(ii) DRM/CCA policies, building codes, land use and urban planning; (iii) resource mobilization; and (iv) cost-benefit analysis of investments in disaster risk managemen Support for development of risk financing mechanisms is recommended as a future GFDR				
4. Cost-benefit analysis of investments in disaster risk management	engagement priority.				
5. Risk financing mechanisms	On the technical side, the Municipality of Quito has strongly appreciated the cost-benefit assessment of investments in DRM. The local authority has signaled an interest in scaling				
up the project by addressing cost-benefit analysis of vulnerability reduction initiatives in schools. Local government authorities					

up the project by addressing cost-benefit analysis of vulnerability reduction initiatives in schools. Local government authorities stressed the need to develop multisectoral cooperation mechanisms to consolidate Cuenca as a safe, sustainable, and inclusive city, which could eventually serve as a regional center for the provision of high-quality services. These needs will be addressed by the "Dialogue for Disaster Vulnerability Reduction in Quito and Cuenca" project, which is currently in the pipeline.

At the regional level, a project is in the pipeline to support dialogue on DRM in the Andean Region, with a particular emphasis on Ecuador and Bolivia. GFDRR is in the process of hiring a DRM Specialist to be based in Bolivia, who will serve the whole Andean region.

Guatemala

GFDRR ENGAGEMENT				
Source of F	unding			MDTF, SRFF
Resources A	Awardec	ł		US\$1,229,538
Resources Disbursed			US\$786,210	
Number of Projects		Ac	tive: 1; Completed: 2	
Bank Executed	100 %	Main Government Counterpart		Office of the Vice Presidency
Recipient Executed	0%	Impleme Agency	ent.	n/a

WORLD DEVELOPMENT INDICATORS		
DRR Index	WDI: 5/5 DRI Class: 6/7	
Income Group	Lower-Middle	
Population	14.6 million	
GDP	US\$3,178/capita	
Poverty	51% of population	
Urban Population	50% of total	

DRM SPECIALIST

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KEY PARTNERS

(as identified by the DRM specialist)	(as assessed by the DRM specialist)
NATIONAL: vice presidency, finance, planning, environment, civil protection	Mainstreaming: Low High
INTERNATIONAL: UNDP	National Dvt.
REGIONAL: IADB, CABEI, CEPREDENAC	
NGOs/CSOs: CARE, CECI, community leaders, private sector	WB-CPS
	EU-CSP
DONORS: EU, Japan, Spain, USA	LO-CSF

GUATEMALA

NATIONAL PLATFORM	National Secretariat for Risk Reduction (CONRED). Formally declared to UNISDR. WB does not participate. Focus: DRM only.
NATIONAL LEGISLATION	National Strategy for Disaster Risk Reduction (2012–2017, in process of formulation), National Coordinating Law for Disaster Reduction (109-96) in its latest Regulation (Government Agreement 49-2012)

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
Agriculture Insurance Market Development US\$500,000 2012–2014 (Active)	Activities under this project are undertaken in coordination with the Ministry of Agriculture and Livestock (MAGA), and are focusing on training and capacity building of the private and public sector, the establishment of a public-private sector agriculture insurance committee, and the design of a macro-level mechanism that would help transfer catastrophic drought risk and provide support to small vulnerable farmers.	
Scientific Information for Municipal Preventive Planning US\$729,538 2008–2011 (Completed)	This project contributed to the promotion of the municipal preventive planning. Local DRM capacity was enhanced and municipal land use plans (including risk maps) were developed in municipalities presenting high flooding and landslide risks. Overall, the project produced (i) methodologies for hazard and vulnerability analysis, used by the National Secretary for Planning (SEGEPLAN), Municipalities and the National Secretariat for Risk Reduction (SE-CONRED); (ii) hazard flooding maps for 4 basins, having influenced 32 municipalities and 199 human settlements; (iii) land use and urban zoning plans for 12 municipalities of one priority basin (implementation of these plans has resulted in risk reduction for new urban areas in one municipality and strengthening of planning processes in others); (iv) risk information incorporated into the National System for Territorial Planning; (v) an updated national building code, adopted in four municipalities of the Metropolitan Area of Guatemala; (vi) risk reduction plans for 4 hospitals, using the Safe Hospital Index by PAHO as a baseline; (vii) a formulation of Safety Index methodology for schools and educational centers; and (viii) the establishment of a National Disaster Risk Reduction Management Dialogue Table, later confirmed as the National Platform for DRR, which now holds meetings quarterly.	

DRM/CCA IN POLICY PAPERS

EL SALVAD

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)
Post-Disaster Needs Assessment US\$73,000 2010 (Completed)	In May 2010, the passing of Tropical Storm Agatha followed by torrential rains and the simultaneous eruption of the Pacaya Volcano exacerbated the already fragile environmental and social conditions left by previous adverse natural events. The cumulative economic impact of these events was estimated at US\$1.5 billion, and 235 people lost their lives. GFDRR also supported a second assessment following the tropical depression 12E in October 2011, which also led to significant damages in relation to widespread flooding and landslides (US\$333.2 million).

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Disaster Risk Management Development Policy Loan with a Catastrophe Deferred Drawdown Option (CAT DDO) US\$85 million 2009–2012	The CAT DDO allowed the Government to quickly respond to the damages caused by the eruption of the Pacaya Volcano and the passing of Tropical Storm Agatha in May 2010. The cost of the two disasters was US\$982 million, approximately 2.6% of the 2009 GDP. In June 2010, the Government disbursed the full balance of the CAT DDO to obtain liquidity and finance part of the reconstruction and other expenses. The Government continues making progress in implementing the DRM program, including: (i) expanding the country's meteorological, hydrometric, and seismic monitoring networks by 56%, 56% , and 29 %, respectively, relative to the levels of February 2009; (ii) development of 12 municipal land-use plans that incorporate risk analyses; (iii) incorporating disaster risk management considerations in new public investments and strengthening of National Secretary for Planning (SEGEPLAN); and (iv) Ministry of Finance's development and implementation of an object-of- expenditure budget classifier to track disaster risk management allocations in public investments.	
Partners	DRM- and CCA-Related Objectives and Outcomes	
CABEI	The Central American Bank for Economic Integration (CABEI) is supporting modernization of the National Institute of Seismology, Volcanology, Meteorology and Hydrology (INSIVUMEH).	
IADB	Between 2009 and 2010, the Inter-American Development Bank (IADB) implemented two projects related to disaster risk management in Guatemala: (i) the development and application of a Risk Assessment Platform (CAPRA); and (ii) the formulation of a national policy for risk reduction.	
UNDP	Provides institutional support to technical groups related to risk reduction.	
EU	The European Commission runs the Program for the Reduction of Vulnerability and Environmental Degradation.	
CEPREDENAC	As the regional DRM coordination agency, CEPREDENAC was awarded an Institutional Development Fund grant, Consolidating Disaster Risk Management Policy in Central America—Support to PCGIR, to support national policies for risk reduction. Guatemala has benefited from this grant through capacity building activities for the development of a manual to manage humanitarian aid in case of disasters.	
Spain	Has provided financial support (through the Spanish Fund for Latin America and the Caribbean, SFLAC) for probabilistic risk assessments in the region to CEPREDENAC, under the Central America Disaster Risk Reduction and Climate Change Adaptation Initiative. In Guatemala, this initiative will support a CAPRA study on Guatemala City to estimate landslide and flood hazard impacts.	

	PARTNERSHIPS AND COORDINATION	
. ,	interacting with World Bank for DRM and CCA, ified by the GFDRR DRM Specialist)	The World Bank wor governmental agencies,
National Services	Vice presidency, finance, planning, environment, civil protection	as several NGOs. Len programs have helped la from many governn localities, donors, int local organizations, and strengthen DRM/CCA Guatemala. GFDRR activities have improved coordination sharing between the G donors.
International Organizations	United Nations Development Programme (UNDP), International Federation of Red Cross and Red Crescent Societies (IFRC)	
Regional Organizations	Inter-American Development Bank (IADB), Central American Bank for Economic Integration (CABEI), Central American Centre for Natural Disaster Risk Management (CEPREDENAC)	
NGOs/CSOs	CARE, Centre for International Studies and Cooperation (CECI), community leaders, private sector	
GFDRR Donors	Brazil, European Union (EU), Japan, Spain, United States (USA)	

orks closely with s, donors, as well nding and grant leverage support ment agencies, nternational and nd civil society, to A capacity in

e contributed to n and information Government and

CLIMATE CHANGE & DISASTER RISK PROFILE

Guatemala has been severely affected by natural hazards including earthquakes, volcanic activity, floods, hurricanes, storms, and landslides. The 1976 earthquake is the event that hit the country the most in terms of human and economic losses. More than 23,000 people were killed and damages to the economy were estimated at 17.9% GDP. Hurricane Mitch in 1988 produced damages estimated at 4.7% GDP. During this century alone, losses account for an additional 6.91% GDP in different events, among them the 2001 drought (0.1% GDP), Hurricane Stan in 2005 (3.4% GDP), the eruption of Mt. Pacaya and the passing of Tropical Storm Agatha in May 2010 (2.6%

GDP combined), and most recently Tropical Storm E12 (0.81% GDP).

The vulnerability of Guatemala to natural hazards, external economic shocks, and violence, impinges on both economic growth and the achievement of fairer social outcomes. Twenty percent of households in the country reported being affected by Hurricane Stan in 2005, and the majority of them were poor. The volcanic eruption and the tropical storm events of 2010 also had devastating consequences in terms of loss of life and economic impact. Targeted social programs, even if modest, helped reduce the burden of these shocks on the poorest.

PRIORITIES FOR GFDRR ENGAGEMENT

(as expressed by the DRM Specialist)

- 1. Risk assessment
- 2. DRR mainstreaming in land use, planning, codes and standards, etc.
- 3. Risk financing schemes to include instruments for retention and transfer
- 4. Support to the National System for Public Investment (SNIP), to improve its DRM tracking system

The Government of Guatemala has placed disaster risk management (DRM) firmly in its development agenda, and endorsed the Central American Policy on Integrated Disaster Risk Management (PCGIR). DRM is mainstreamed in the National Development Plan, with a legal framework for disaster prevention, mitigation, and inter-ministerial coordination led by the National Coordinator for Disaster Reduction (CONRED).

A new proposed activity looks at providing important support to key agencies including the National Coordinator for Risk Reduction (CONRED), the National Secretary for Planning (SEGEPLAN), and the Ministry of Finance to advance its DRM strategy, especially its risk financing mechanisms. The proposed engagement will support the preparation, delivery, and monitoring of selected activities of the 2012–2017 National Strategy for Disaster Risk

Reduction, which is currently under discussion as part of the implementation of the National Policy for DRM. The outcome of this proposal is an expanded capability for DRM by integrating disaster risk financing as an important component. The activity includes two clear objectives: 1) developing a risk financing strategy that encompasses risk retention and risk transfer mechanisms for Guatemala, and 2) providing recommendations for further integration of a tracking procedure in DRR budget allocation within the National System for Public Investment (SNIP).

In line with recommendations of the study carried out in 12 municipalities, continued support of integration of DRM and CCA at the city and local level is expected along with preventive planning in cities exposed to annual floods and landslides.

Haiti

GFDRR ENGAGEMENT					
Source of Funding		1 1 1	MDTF, ACP-EU, SRFF		
Resources A	Awarded	ł	1	US\$8,661,304	
Resources Disbursed		1	US\$6,319,725		
Number of Projects		Ac	Active: 6; Completed: 3		
Bank Executed	94%	Main Government Counterpart		Ministry of Interior and Local Authorities	
Recipient Executed	6%	Implement. Agency		United Nations Development Programme (UNDP)	

DRM SPECIALIST

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KEY PARTNERS

(as identified by the DRM Specialist) NATIONAL: civil protection, public works, health, education, planning

INTERNATIONAL: IFRC, IOM, UNDP

REGIONAL: IADB

DONORS: EU, UK, USA

CSOs/NGOs: Red Cross



DRM/CCA IN POLICY PAPERS			
(as assessed by th	(as assessed by the DRM Specialist)		
Mainstreaming:	Low	High	
PRSP			
WB-CAS			
UN-ISF			
NAPA			
EU-CSP			

DRR Index	WDI: n/a DRI Class: 6/7
Income Group	Low
Population	10.1 million
GDP	US\$726/capita
Poverty	77% of population
Urban Population	53% of total

WORLD DEVELOPMENT INDICATORS

NATIONAL	Permanent Secretariat for Disaster Risk Management (SPGRD).
PLATFORM	Not declared to UNISDR. WB does participate. Focus: DRM only.
NATIONAL LEGISLATION	A project of law is planned to be drafted during current project implementation.

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
Haiti Disaster Risk Management Mainstreaming and Capacity Building Program US\$1,000,000 2012–2014 (Active)	This project is jointly implemented by the World Bank (US\$450,000) and UNDP (US\$550,000). Expected outcomes from the World Bank support include (i) a DRR approach built into the World Bank portfolio and Country Partnership Strategy; (ii) guidelines and training for integration of DRM with key Ministries; and (iii) inter-institutional coordination and partnerships. Priority will be given to strengthening the donor coordination mechanism and initiating the legal reform process, while accompanying the formulation/implementation of key Bank operations in the education, health, and public infrastructure sectors. In parallel, UNDP supports the update of national DRR policy and the legal framework DRM action plan, and proposes a DRR monitoring and evaluation system.	
Haiti Multihazard Assessment US\$1,249,105 2010–2012 (Active)	The project produced information on natural hazards and provided a platform for information exchange among stakeholders. Target sectors included (i) civil protection and humanitarian aid, (ii) land use planning, (iii) sustainable development, and (iv) urban drainage. The Government capacity to manage and use geographical information was strengthened with HaitiData.org as an information management and exchange tool. The project informed the Bank and other agencies' housing reconstruction programs by providing hazard information and formulating recommendations for structural and nonstructural mitigation measures in priority areas.	

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)	
Reducing Disaster Risk in Haiti's Health Infrastructure US\$1,425,000 2011–2012 (Active)	The risk related to future disasters in the health sector is being reduced with both structural and functionality resilience criteria (adapted to the context of Haiti); a contingency plan for the health sector is being finalized, including hardware, software, and resource allocation at central and departmental levels.	
Haiti Structural Assessment Program US\$1,705,145 2010–2012 (Active)	The grant started, in the aftermath of the earthquake, the creation of the Technical Unit for Building Assessments within the Ministry of Public Works and the development of resilience guidelines for buildings. IDA-supported emergency operations complemented and scaled up this project, which resulted in the evaluation of 500,000 buildings in the earthquake-affected areas, training of 500 engineers, and development of the first geo-referenced database of buildings in Haiti.	
National Cholera Prevention Program in Post-Earthquake Haiti US\$199,036 2011–2012 (Active)	GFDRR Track III support rapidly provided at the beginning of the outbreak helped design and deliver a training of trainers and a social communication program, which were later scaled up by a US\$15 million IDA project.	
Support to National Institutions for Haiti Earthquake Recovery US\$694,854 2010–2012 (Active)	Technical Secretariat; (ii) National Strategy for Recovery and Reconstruction; (iii) recovery and reconstruction strategy for destroyed cities, including Port-au-Prince; and (iv) the first environmentally and socially sound debris management site operating in post-earthquake	
Haiti Disaster Recovery and Vulnerability Reduction Program US\$1,640,895 2009–2011 (Completed)	The project developed the concept for a central disaster risk management coordination unit interacting with disaster risk management units within key line ministries.	
Joint Damage, Loss, and Needs Assessment after Haiti Earthquake US\$556,657 2010 (Completed)	The report provided (i) an assessment of damages, losses, recovery, and reconstruction needs; (ii) an independent assessment of disaster preparedness capacities; and (iii) preliminary recommendations regarding mainstreaming of DRR in the reconstruction process. The report conclusions informed the Action Plan for National Recovery and Development of Haiti (PARDH) and the reconstruction strategies of the main development partners.	
Joint Damage, Loss, and Needs Assessment after Hurricanes Fay, Gustav, Hanna, and Ike US\$190,610 2008–2009 (Completed)	The Government was able to coordinate the analysis (impact on the economy, households, and individuals) and to develop with partners a common recovery and reconstruction strategy. Lessons learned from this experience have provided critical inputs for revising the PDNA methodology globally.	

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS	
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes
Disaster Risk Management and Reconstruction US\$60 million 2012–2016 (Active)	This large IDA operation is targeting enhanced national (i) risk assessment, (ii) disaster response capacity, and (iii) resiliency of critical transport infrastructure.
Emergency Bridge Reconstruction & Vulnerability Reduction US\$20 million 2008–2013 (Active)	The project supports bridge reconstruction, with the view of improving the resilience of transport infrastructure.
Neighborhood Rehabilitation and Housing Reconstruction Program US\$95 million	The program was designed to repair or rebuild houses, upgrade neighborhoods, and provide basic services.

WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes (continued)
Pilot Program for Climate Resilience US\$450,000 2011–2012 (Active)	Phase 1 of PPCR in Haiti develops the Strategic Program for Climate Resilience (SPCR), consisting of a methodological approach for mainstreaming CCA into the food security, coastal zone management, and reconstruction. Phase 2 will consist in the implementation of pilot projects to test the proposed approach.
Emergency Recovery and Disaster Risk Management US\$19 million 2005–2011 (Completed)	The project was designed for rehabilitation of critical transport, water, education, and flood prevention infrastructure. It established 76 municipal disaster risk management committees and completed 130 community-based disaster mitigation works.
Partners	DRM- and CCA-Related Objectives and Outcomes
EU	Supported, via European Commission's Instrument for Stability, the strengthening of emergency preparedness and response capacities at the local and national levels; since 2012, it is supporting strategic and institutional development of the National DRM System and, via the African, Caribbean, and Pacific Group of States and European Union Development Cooperation (ACP-EU) program, mainstreaming of DRR in key sectors.
UNDP	Is providing strategic and institutional support to the National DRM System, which includes a capacity assessment of the National DRM System for preparedness and response. It is in charge of coordinating the DRM donor group.
USA	USAID/OFDA has been supporting capacity building in disaster response and, jointly with the WB, the Ministry of Public Works in programs to improve construction practices and to reduce vulnerability of the built environment.
GIIF	Global Index Insurance Facility supports the public and private sector in designing index-based agriculture insurance contracts and exploring the potential for introducing a macro-level insurance coverage for the agriculture sector.

	PARTNERSHIPS AND) CC
. ,	(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)	
National Services	Civil protection, public works, planning, health, education, finance	
International Organizations	United Nations Development Programme (UNDP), International Federation of Red Cross and Red Crescent Societies (IFRC), International Organization for Migration (IOM)	
Regional Organizations	Inter-American Development Bank (IADB)	
NGOs/CSOs	Action Against Hunger (ACF), Centre for International Studies and Cooperation (CECI), Concern International, Cordaid, Red Cross, Oxfam, Save the Children, World Vision	
GFDRR Donors	Denmark, European Union (EU), France, Japan, Sweden, United Kingdom (UK), United States (USA)	

ORDINATION

Following the 2010 earthquake, donor coordination in Haiti has become a priority, with US\$5.6 billion pledged by donors to support the Government Action Plan for Reconstruction and National Development. The World Bank is implementing a number of new activities with US\$530 million from IDA 16's Crisis Window for Reconstruction.

The World Bank is actively contributing to the DRM Donor Coordination Group, coordinated by UNDP. The group does not meet regularly and its impact on shaping the national DRM vision and policy still needs to be strengthened towards (i) improved contributions to the sector policy dialogue and (ii) result-oriented approach.

The World Bank and GFDRR coordinate and share information on DRM with the various NGOs and CSOs through regular meetings. The World Bank and GFDRR have strengthened the municipal Civil Protection Committees, promoting decentralization and local development while strengthening resilience of communities.

CLIMATE CHANGE & DISASTER RISK PROFILE

Due to its geographic location, Haiti is exposed to both hydrometeorological (hurricanes, tropical storms, flooding) and geophysical hazards (earthquakes, landslides). An estimated 96% of the population is exposed to natural hazards.

The January 12, 2010, a catastrophic earthquake (7.0 on the Richter scale) caused the death of 220,000 people and resulted in damages and losses of close to US\$8 billion (120% of annual GDP). Overall, economic growth declined from an average real growth of 2.2% (2004–2009) to a negative 5.1 percent (2010). The impact of the earthquake was exacerbated by hurricanes and a cholera epidemic in the second half of 2010.

While the scale of destruction caused by the earthquake was unprecedented, disasters are recurrently impacting Haiti. For

example, Hurricane Jeanne affected more than 314,000 people in 2004. Four years later, Hurricane Fay and Tropical Storms Gustav, Hanna, and Ike (FGHI) affected more than 865,000 people. These events had severe impacts on the national economy, estimated at 15% of GDP.

According to the Intergovernmental Panel's Fourth Assessment Report, increased hurricane wind intensities (5–10% by 2050) are likely, with core precipitation increases of 25% and higher, and more violent storm surges.

This context requires specific coordinated efforts of Government and development partners toward integrated, resilient, and sustainable reconstruction and development.

PRIORITIES FOR GFDRR ENGAGEMENT

 Mainstreaming DRR in reconstruction Enhancing the resilience of cities, communities, and critical infrastructure Analytical tools to guide DRM/CCA policies, building codes, land use & urban plans intern provid netwo key se across (iii) resilience 	a regular GFDRR presence on the ground, GFDRR plugs Haiti's DRM System into ational DRM networks; increases knowledge sharing with other countries; and
 Mainstreaming DRR in reconstruction Enhancing the resilience of cities, communities, and critical infrastructure Analytical tools to guide DRM/CCA policies, building codes, land use & urban plans intern provid network intern int	ational DRM networks; increases knowledge sharing with other countries; and
 Enhancing the resilience of cities, communities, and critical infrastructure Analytical tools to guide DRM/CCA policies, building codes, land use & in Oct 	es Haitian DRM stakeholders with opportunities for tapping global knowledge and
3. Analytical tools to guide DRM/CCA (iii) re- policies, building codes, land use & in Oct	rks. GFDRR has contributed to (i) mainstreaming of preparedness and resilience in ectors: public works, health, social protection, education, and housing; (ii) synergies sectors and projects for integrated results at the community level; and
	 (iii) responding more efficiently to Government emergency requests (e.g., cholera outh in October 2010, Hurricane Tomas in November 2011, Tropical Storm Isaac in August 2 and several smaller-scale disasters).
4. Strengthening cooperation among stakeholders The G	overnment of Haiti is now equipped with multihazard risk assessments to guide the
5. Understanding risks	struction process; a new Haitian Building Code with prescriptive construction ards based on wind speed and seismic classification; simplified construction/repair/

retrofitting guides; and 76 municipal disaster risk management committees. The upcoming challenge for GFDRR in Haiti is to support the development of a coherent legal and institutional framework, and to ensure a coherent approach whereby upcoming activities would contribute to long-term risk mitigation efforts.

Panama

GFDRR ENGAGEMENT				
Source of Funding		1 1 1	MDTF	
Resources Awarded		1	US\$500,000	
Resources Disbursed		1 1 1	US\$284,280	
Number of Projects		Ac	tive: 1; Completed: 0	
Bank Executed	100 %	Main Governn Counter		Ministry of Territorial Planning and Housing (MIVIOT)
Recipient Executed	0%	Impleme Agency	ent.	n/a

DRM SPECIALIST

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KEY PARTNERS

(as identified by the DRM Specialist) NATIONAL: finance, planning, civil protection, environment

INTERNATIONAL: UNISDR, EC, UNDP

REGIONAL: CEPREDENAC

DONORS: Denmark, EU, Norway, Spain



DRM/CCA IN F	POLICY	PAPERS
(as assessed by th	ne DRM S	pecialist)
Mainstreaming:	Low	High
WB-CPS		
Sector Strategies		
UNDAF		
Climate Strategy		
EU-CSP		

-	
DRR Index	WDI: 3/5
DRK IIIdex	DRI Class: 3/7
Income Group	Upper-Middle
Population	3.6 million
GDP	US\$8,590/ capita
Poverty	33% of population
Urban Population	75% of total

WORLD DEVELOPMENT INDICATORS

NATIONAL PLATFORM	National Civil Protection System (SINAPROC). Declared to UNISDR. Focus: DRM & CCA. World Bank is an observer.		
NATIONAL LEGISLATION	Law No. 7, Resolution 28 of 2005, created the National Civil Protection System and organizes DRM.		

	GFDRR-FUNDED PROJECTS' OUTCOMES
Project/Program	DRM and CCA-Related Objectives and Outcomes
Support to Panama DRM Program US\$110,000 2012–2013 (Pipeline)	The project will contribute to implementation of the National Policy for Comprehensive Risk Management (PNGIR). Expected outcomes include (i) strengthened prospective risk reduction capabilities; (ii) design and implementation of a disaster risk financial protection strategy, which identifies options for risk transfer and risk retention for financial protection of public assets; and (iii) enhanced disaster risk information and communication platforms for improved risk identification and evaluation.
Probabilistic Risk Assessment US\$500,000 2010–2012 (Active)	With the objective to support integration of risk information in planning processes, the project provides technical assistance to national government agencies to better assess risk through (i) collection of information, (ii) development of spatial data management infrastructure, (iii) capacity building and institutional strengthening, (iv) hazard and risk assessment, and (v) application of new CAPRA components. A seismic risk probabilistic analysis (focused on housing, education, and health infrastructure) is now available for the City of David. Outcomes expected soon are (i) a seismic DRR strategy for David, (ii) additional risk evaluation studies addressing flood and seismic risk for Panama City, and (iii) a consolidated and active CAPRA users' community in Panama.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS	
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes
Panama Development Policy Loan with a Catastrophe Deferred Drawdown Option (CAT DDO)	The CAT DDO provides Panama with contingency funding necessary to address a potential emergency triggered by a natural hazard. Preconditions include the support of the National Government to strengthen sector institutions to mainstream DRR, with support from the Development Policy Loan. As an outcome of this project, the Ministry of Finance (MEF), Ministry of Housing and Land Use Planning (MIVIOT), and the National Environmental Authority (ANAM) have implemented several priority actions. The Ministry of Finance has enlarged its disaster risk financial instruments by including a disaster risk protection component in the design of the recently created Panamanian Savings Fund (FAP), and has the mandate to purchase catastrophe risk insurance. The FAP supports Panama's financial protection strategy by (i) creating a mechanism for long-term savings; (ii) establishing a mechanism for financial stabilization in a state of emergency, or as a result of an economic slowdown, reducing the country's need of debt instruments; and (iii) complementing the country's fiscal safeguards against uncontrolled deficit. Disaster risk criteria have also been integrated in the design of local land use plans, and will soon be a primary consideration of the National Policy to harmonize it with the National Policy on Integrated DRM.
Partners	DRM- and CCA-Related Objectives and Outcomes
FAO, PAHO/WHO, UNDP, UNEP	Are cooperating on the Integration of Climate Change Adaptation and Mitigation Measures for the Natural Resources Management in Two Priority Watersheds in Panama.
IADB	Is in charge of the Mesoamerican coordination system for territorial information.

PARTNERSHIPS AND COORDINATION

. ,	ns interacting with World Bank for DRM and CCA, entified by the GFDRR DRM Specialist)
National Services Finance, planning, civil protection, environment	
International Organizations	United Nations International Strategy for Disaster Reduction (UNISDR), United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), Pan American Health Organization (PAHO), FAO (Food and Agriculture Organization)
Regional Organizations	Central American Centre for Natural Disaster Risk Management (CEPREDENAC), Inter-American Development Bank (IADB)
GFDRR Donors	Denmark, European Union (EU), Japan, Norway, Spain

The World Bank coordinates its DRM activities in Panama with key national agencies and international organizations. In particular, the WB participates in regular meetings of the National Platform for DRR, where a wide range of national stakeholders, UN agencies, and NGOs are represented.

CLIMATE CHANGE & DISASTER RISK PROFILE

Most of the recent disasters in Panama have been floods, landslides, earthquakes, windstorms, wildfires and storm surges.

During the 1982–83 and 1997–98 El Niño events, the Panama Canal watershed experienced severe droughts, which resulted in the imposition of ship draft restrictions and a reduction in the number of vessels allowed through the Canal.

A high proportion of the low-income population in Panama lives in the areas most exposed to natural hazards, which feature poorly designed structures.

The inefficient enforcement of national and local land use regulations, uncertainty about compliance with building codes, rapid demographic growth, and unplanned urban and industrial expansion are key drivers for observed increases in vulnerability.

	(as expressed by the DRM Specialist)
1.	Understanding risks
2.	DRM/CCA policies, building codes, land use and urban planning
3.	Risk financing mechanisms
4.	Cost-benefit analysis about investments in disaster risk management
-	• ·· ·· · · · · · ·

5. Cooperation with stakeholders

PRIORITIES FOR GFDRR ENGAGEMENT

The entry point for GFDRR in Panama was the establishment of a CAT DDO with the Government, which provided an opportunity to initiate collaboration through a first technical assistance for developing the probabilistic risk assessment (CAPRA) methodology in the country.

DRR has traditionally focused on emergency preparedness, but since the enactment of the National Policy for Comprehensive Disaster Risk Management in 2010, the approach in Panama is steadily shifting towards proactive risk reduction, with higher sector involvement and empowerment, particularly from the Ministries of Finance, Land Use Planning, and Housing, through the active work of the National Platform for Disaster Risk Reduction.

A proposal to continue DRM engagement and institutional strengthening is currently being prepared in consultation with the Government, and includes implementation of the DRM Plan, support to design risk financing instruments, and promotion of information and communication for DRM.

Middle East and North Africa (MNA)

				Djibouti		
	GFD	RR ENG	AGEN	/IENT	DRM SPECIALIST	
Source of Funding			MDTF, ACP-EU, SRFF		Mr. Andrea Zanon	
Resources Awarded		US\$1,394,000		azanon@worldbank.or +1 202 473 1739		
Resources Disbursed			US\$461,688		1 202 473 1735	
Number of	Projects		Ac	tive: 3; Completed: 2	KEY PARTNER	
Bank		Main		Ministry of	(as identified by the DRM	
Executed	35%	Governn Counter		Interior	NATIONAL: civil protection,	
Recipient		Impleme	Center for		water, agriculture	
Executed	65%	Agency		Research Studies of Djibouti (CERD)	INTERNATIONAL: UNDP, UN OCHA, UNICEF	
					OCHA, UNICEF	

WORLD DEVELOPMENT INDICATORS			
DRR Index	WDI: n/a DRI Class: n/a		
Income Group	Low		
Population	905,600		
GDP	US\$1,230/capita		
Poverty	n/a		

77% of total

Urban Population

ETHIOPI DJIBOUT g RS **DRM/CCA IN POLICY PAPERS** 1 Specialist) (as assessed by the DRM Specialist) Mainstreaming: Low High n, education, National Dvt WB-CAS NISDR, UNDAF

Gov. Sector Str.

NAPA Reg. Dvt

EU-CSP

REGIONAL: IGAD

DONORS: EU, France, USA

NATIONAL PLATFORM	Executive Secretariat for Risk and Disaster Management (SEGRC). Declared to UNISDR. WB does not participate. Focus: DRM only.
NATIONAL LEGISLATION	DRM Action Plan (2006), not yet implemented

GFDRR-FUNDED PROJECTS' OUTCOMES Project/Program DRM and CCA-Related Objectives and Outcomes **DRM Education and Country** The project is (i) transferring the existing World Bank DRM e-learning infrastructure to the **Program Support** University of Djibouti, (ii) helping the Djibouti national coordination team establish the US\$176,000 ongoing information system and a platform for the assessment and communication of 2012-2013 (Active) hazard risk and vulnerability, and (iii) spearheading the ongoing development of a DRM Master Degree program. The project provided scholarships for two students who are now working with national DRM institutions, and training for staff from seven ministries. **Natural Disaster Risk** The project has (i) supported integration of DRM and CCA in national strategies; Assessment and Monitoring (ii) strengthened hydrometeorological and early warning system capacity; and (iii) developed a disaster risk management research laboratory (including assessment and information System US\$\$1,000,000 system). 2010-2012 (Active) **Drought Post-Disaster Needs** The PDNA was innovative, since it estimated drought impacts over a long period of time Assessment while also providing recommendations for integration of flood management in urban US\$123.000 planning/governance. It was an important leverage that catalyzed US\$13.2 million in 2011-2012 (Active) additional financing for risk reduction under the IDA Crisis Response Window for drought mitigation operations (see below under WB projects).

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)
Preparatory Activities and Methodology to Develop a Risk Map for Djibouti-ville US\$\$70,000 2008–2009 (Completed)	The activity has provided Djibouti-ville with a detailed methodology to develop a risk map, and determined the needs in terms of information, staffing, training, and equipment, for development of such maps in the Statistical and Demographic Studies Department (DISED). Following the project, hazard and risk maps for Djibouti-ville were developed by Government agencies, and are now used as a basis for revision of urban planning. The project catalyzed the establishment of the follow-up activities, starting in 2010, with five leading Djibouti institutions: (i) Center for Research Studies of Djibouti; (ii) Executive Secretariat for Risk and Disaster Management; (iii) Ministry of Housing, Urbanism, Environment, and Land Use Planning; (iv) the meteorological agency; and (v) the University of Djibouti.
Capacity Building in Damage and Loss Assessment US\$25,000 2008 (Completed)	This workshop developed national capacity for PDNA. This preparation work has enabled a strong leadership and cross-cutting participation of government representatives during the drought PDNA conducted in 2011.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Pursuing Low-Regret Climate Adaptation and Disaster Risk Reduction Options	The Trust Fund for Environmentally and Socially Sustainable Development (TFESSD) is launching a South-South Cooperation program involving Djibouti, Kenya, and Mozambique to improve climate data management and community-level preparedness. The objectives in Djibouti are to: (i) strengthen and systematize meteorological data collection, quality control, and dissemination; (ii) improve contingency planning for dealing with the impact and aftermath of extreme weather events; and (iii) develop training and simulations for most vulnerable communities.	
Power Access and Diversification	Additional financing has been provided in 2012 to provide energy support to the poor, and promote long-term risk reduction in both rural and urban areas. This includes powering generators for water supply and developing contingency petroleum security storages to be available in case of disasters.	
Employment and Human Capital Safety Net Project	Additional financing has been provided in 2012 to generate new short-term job opportunities for the poor and vulnerable, compensating for purchasing-power loss and minimizing the risk of damaging (human capital) coping strategies, and to improve nutrition practices targeting the most vulnerable.	
Rural Community Development & Water Mobilization	Additional financing has been provided in 2012 to better manage the impacts of droughts by increasing access of rural communities to water and enhancing their capacity to manage water and agropastoral resources using a participatory approach to community-based development.	
Partners	DRM- and CCA-Related Objectives and Outcomes	
UNDP	Supported the development of the national DRM strategy and enhances community-level disaster risk management capacity.	
EU	The European Commission is supporting a number of activities to mainstream climate change within the local governments (supporting the decentralization process) and civil society organizations, and manages the Global Climate Change Alliance (a budget of €3 million is anticipated for Djibouti).	

PARTNERSHIPS AND COORDINATION

	with World Bank for DRM and CCA, c GFDRR DRM Specialist)
National Services	Civil protection, education, water, agriculture, health, meteorology, energy, social development
International Organizations	United Nations Development Programme (UNDP), United Nations International Strategy for Disaster Reduction (UNISDR), Office for the Coordination of Humanitarian Affairs (OCHA), United Nations Children's Fund (UNICEF)
Regional Organizations	Intergovernmental Authority on Development (IGAD)
GFDRR Donors	European Union (EU), France, United States (USA)

GFDRR stakeholders have evolved over time, and have expanded to the University of Djibouti, the National Meteorological Agency, and the Ministry of Environment. The Government has recently appointed a minister specifically in charge of risk assessment, mitigation, education, and communication.

The government PDNA working group, in late 2011, brought together 25 national policy makers and practitioners, working together for 15 days to craft an integrated risk management program while promoting data sharing and communication across sectors. Since the PDNA, the Ministries of Water, Health, Agriculture, Social Development, and Energy are fully involved in the DRM dialogue, together with UNDP, EU, IGAD, USAID, and the IMF.

CLIMATE CHANGE AND DISASTER RISK PROFILE

Djibouti is highly vulnerable to extended multiyear droughts (extreme climate variability occurrences) that result in water scarcity for livestock, irrigation, and domestic uses. In addition, Djibouti is frequently affected by flash floods.

Djibouti's water crisis is exacerbated by rapid demographic growth (between 3 and 6 percent per year including immigration from Eritrea, Somalia, Ethiopia, and more recently, Yemen) and climate variability. Moreover, Djibouti has no permanent rivers, streams, nor fresh water lakes, and less than 5 percent of total rainfall replenishes the water table because of extreme evaporation.

Over the last 5 years, Djibouti has experienced a significant reduction in rainfall, which has severely affected a large part of the population. The PDNA carried out in 2011 estimated from Government sources that total damage and losses caused by the drought from 2008 to 2011 amounted to approximately US\$177 million (3.9% of GDP).

While droughts are not a new challenge, the scale and seriousness of the last drought spell in Djibouti, and its consequences on local sources of food and income, have clearly surpassed the coping mechanisms and internal support capacity of the affected rural households (15% of the population have relied on food distribution).

(as expressed by the DRM Specialist)

- 1. Understanding risks
- 2. Stakeholder coordination
- 3. Building codes, land use and urban planning
- 4. Education, training, capacity building
- 5. Mainstreaming DRR in reconstruction

The World Bank opened an office in Djibouti in August 2012. GFDRR is hiring a local consultant to coordinate the education component of the DRM program.

WB is planning to organize DRM roundtables with donors and will explore opportunities for the establishment of a multi-donor trust-fund.

GFDRR's priorities in Djibouti are (i) improved understanding of hazard risk through advocacy and education programs (Ministry of Higher Education and Research); (ii) strengthened preparedness and response capacities across sectors (Ministry of

Interior); and (iii) mainstreaming disaster risk in land use planning and avoiding overexploitation of land and water (Ministry of Urbanism, Habitat, Environment, and Land Use Planning).

PRIORITIES FOR GFDRR ENGAGEMENT

Yemen

GFDRR ENGAGEMENT					
Source of Funding			MDTF, SRFF		
Resources Awarded			1	US\$1,568,944	
Resources D	Disburse	d	US\$1,561,095		
Number of Projects			Active: 2; Completed: 6		
Bank Executed	100 %	Main Government Ministry of In Counterpart		Ministry of Interior	
Recipient Executed	0%	Implement. Agency n/a		n/a	

REPUBLIC OF EMEN

KEY PARTNERS	DRM/CCA IN F	POLICY F	PAPER
(as identified by the DRM Specialist)	(as assessed by the DRM Specialist)		
	Mainstreaming:	Low	High
NATIONAL: Prime Minister's office, civil	WB-CAS		
protection, environment, education	PRSP		
	EU-CSP		
	NAPA		
INTERNATIONAL: UNDP, IFRC, UNISDR, UNICEF	National Dvt		
	UNDAF		

WORLD DEVELOPMENT INDICATORS WDI: 2.25/5 DRR Index DRI class: 5/7

24.8 million

32% of total

US\$1,361/capita

35% of population

Low

Income Group

Urban Population

Population

GDP

Poverty

DICATORS	UNICEF		National Dvt	
,			UNDAF	
	NATIONAL PLATFORM	No national platform yet; t establishing one under the and International Cooperat	supervision of Minis	•

DRM SPECIALIST Mr. Andrea Zanon azanon@worldbank.org +1 202 473 1739

Law No. 24 of 1997 defines the Civil Defense General Directorate NATIONAL as a Lead Agency for Disaster Management. A national DRM plan LEGISLATION was drafted in 2006, but still has not been approved by the Government.

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
Support to Country Program Implementation US\$171,600 2010–2012 (Active)	This technical assistance supported the development, planning, and implementation of the GFDRR Country Program in Yemen, and explored opportunities for the development of a DRM coordination mechanism (national platform) in Yemen, in consultation with partners gathered around periodical round table meetings on DRM.	
Strengthening Disaster Risk Reduction and Recovery US\$968,344 2008–2011 (Completed)	The project, implemented jointly by the Bank and Government agencies, developed disaster risks assessments and maps (at the national level as well as for Al-Mahara and Hadramout Governorates, and for Sana'a). These outputs are informing the mainstreaming of disaster risk reduction in urban, climate, food security, and water sector development policies.	
Institutional Mainstreaming— Strategy and Priority Intervention Areas in Sana'a US\$230,000 2008–2011 (Completed)	The project provided (i) a feasibility study and design for flood protection infrastructure and priority works, (ii) a resettlement policy framework for Sana'a Municipality to enable implementation of DRM plan activities, and (iii) a mainstreaming of DRM responsibilities within the local government's institutional framework. The project contributed to the smooth implementation of Sana'a flood protection plans. It is anticipated that flood protection infrastructure identified as priority will be developed during the second phase of the DRM program to be funded by GFDRR.	
Weather and Climate Information Systems (WCIS) ¹	The WCIS team supports preparation of the project aimed at strengthening of national meteorological and hydrological services under the Pilot Program for Climate Resilience (see below under "Synergies").	

^{1.} The support was provided through the global WCIS Program and is not included in GFDRR engagement figures of the top-left corner.

Project/Program DRM and CCA-Related Objectives and Outcomes (continued)	
Comprehensive Damage and	The PDNA yielded the establishment of the Yemen Recovery and Reconstruction Fund
Loss Needs Assessment	(YRRF), and leveraged funding for the implementation of the Yemen Flood Protection and
US\$199,000	Emergency Reconstruction project (US\$41 million).
2008–2009 (Completed)	

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS			
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes		
Taiz Municipal Development and Flood Protection Projects IDA US\$71 million 2001–2013 (Active)	The projects have invested in flood protection infrastructure and all-season roads, in order to protect residents, economic activities, and infrastructure from destructive effects of seasonal flooding in Taiz, Hadramout, and Al-Mahara; and strengthened the capacity of local governments in relation with decentralization. Additional financing in the amount of US\$35 million has been processed as an emergency operation following the 2008 floods, in order to repair and rebuild, to adequate flood-proof standards, selected priority damaged infrastructure in the disaster-affected areas in the Hadramout and Al-Mahara Governorates.		
Pilot Program for Climate Resilience Phase I CIF US\$1.5 million 2011–2012 (Active)	In direct relation with DRM, the project supports (i) the early warning system at the national level, with a complete strengthening plan for hydro- and meteorological services, and (ii) community-level efforts, notably through development of small-scale water harvesting equipment.		
Partners	DRM- and CCA-Related Objectives and Outcomes		
UNDP	Provides support to community-based DRM, in priority in rock- and landslide–prone areas. It is also supporting the Ministry of Environment in systematic collection and analysis of disaster-related impacts and losses.		

PARTNERSHIPS AND COORDINATION

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
National Services	Prime Minister's office, civil protection, environment, education, public works, geology, international cooperation	
International Organizations	United Nations International Strategy for Disaster Reduction (UNISDR), United Nations Development Programme (UNDP), United Nations Children's Fund (UNICEF), International Federation of Red Cross and Red Crescent Societies (IFRC)	

The Government has established two agencies to coordinate DRM. One is under the Ministry of Interior and focuses on emergency preparedness and response; the other one, under the Ministry of Water and Environment, is mandated with a more comprehensive approach to DRM. However, the latter's resources are not sufficient to implement activities and its role is limited to reporting upon HFA implementation.

The 2008 PDNA was a critical step for donor and inter-ministerial coordination, and has initiated a

concerted understanding of disaster risk management at local, governorate, and national levels. Before the onset of the conflict in late 2010, the World Bank had started discussing with Governments of India, Italy, and Bangladesh the possibility of developing South-South Cooperations and Roundtables on best practices in DRM to assist Yemen in establishing an effective multistakeholder mechanism for risk management. A US\$10 million multisectoral DRM program had been crafted, involving the Government together with the World Bank and development partners. The DRM specialist contributed to the organization of periodical DRM Roundtables with main national DRM authorities. Preparatory activities for development of such a platform may resume with the second phase of the GFDRR Country Program.

CLIMATE CHANGE AND DISASTER RISK PROFILE

The country's topography of rugged mountains, highlands, deserts, and coastal plains, coupled with arid weather conditions, render Yemen highly exposed to desertification, floods, and droughts.

Every year, floods and droughts result in significant loss of life and damages to livelihoods, property, and infrastructure. At least one disaster strikes the country every year, with estimated annual economic losses averaging US\$70 million. The effects of the October 2008 floods alone in Hadramout and Al-Mahara were estimated at US\$1.6 billion, equivalent to 6% of Yemen's GDP. The summer of 2010 was also characterized by flash floods

resulting in 56 deaths in Hodeidah Governorate and 8 deaths and significant damage to the energy and transport sectors in Sana'a.

Yemen's vulnerability to natural disasters is exacerbated by climate variability. The declining availability of water resources is having significant impacts on agricultural productivity (which uses 93 percent of Yemen's surface and groundwater) while exacerbating food insecurity. Finally, urban population growth combined with inefficient urban management policies have increased the number of people at risk to natural hazards.

PRIORITIES FOR GFDRR ENGAGEMENT

(as expressed by the DRM Specialist)			
1. Institutional capacities and coordination	 A proposal package for the next phase of the GFDRR Country Program was developed i 2011, paused due to political unrest in September 2011. World Bank resumed activities i March 2012, and implementation of the next phase of the Country Program is now c critical importance. 		
2. Understanding risks			
3. Pilot activities as models for replication	The priorities for Yemen are (i) development of a countrywide disaster risk assessm		
4. Early warning systems	(ii) strengthening of early warning capacities, (iii) development of legal and strategic frameworks, and (iv) implementing innovative pilot activities at the local level. The		

parallel interventions for prevention and preparedness would be mutually reinforcing, whereas the pilot experiences at the local level would feed into the national DRR system as models for countrywide replication.

South Asia (SAR)

Bangladesh

GFDRR ENGAGEMENT			DRM SF		
Source of Fu	of Funding Australia SDTF,SRFF		Ms Sw		
Resources A	warded	ł		US\$5,248,767	skazi1@wo +88 02 8159
Resources D	isburse	d		US\$3,892,437	100 02 0153
Number of Projects		Ac	tive: 2; Completed: 6	KE	
		Main		Ministry of	(as identified
Bank Executed	100 %	Governn Counter		Disaster Management and Relief	NATIONAL: ag food security
Recipient Executed	0%	Impleme Agency	ent.	n/a	INTERNATION FAO

WORLD DEVELOPMENT INDICATORS

DRR Index	WDI: 4/5 DRI Class: 7/7
Income Group	Low
Population	150.5 million
GDP	US\$735/capita
Poverty	31.5% of population
Urban Population	28% of total

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KEY PARTNERS	DRM/CCA IN F	POLICY	PAPERS
(as identified by the DRM Specialist)	(as assessed by th	ne DRM S	pecialist)
NATIONAL: agriculture, education,	Mainstreaming:	Low	High
food security	PRSP		
INTERNATIONAL: WFP, UNDP, IFRC,	WB-CAS		
FAO	UNDAF		
NGOs/CSOs: Oxfam, Concern International, Save the Children	NAPA		
· · · · · · · · · · · · · · · · · · ·	EU-CSP		
DONORS: Australia, Denmark, EU	1	1	

NATIONAL PLATFORM	National Disaster Management Council (NDMC). Not declared to UNISDR. WB is a formal representative. Focus: DRM and Climate Change Adaptation.
NATIONAL	National Disaster Management Act (2012) and Plan (2010),
LEGISLATION	Standing Order on Disasters (2010)

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
Urban Earthquake Resilience Project—Phase 1 US\$1,200,000 2012–2013 (Active)	The project will serve as the foundation for a multiyear participatory process that will lead the development of several decision-making tools required for mitigating the impact earthquake hazards through structural and nonstructural vulnerability reduction.	
Support Rehabilitation in Cyclone Sidr-Affected Areas US\$3,042,464 2008–2013 (Active)	The project directly supports cyclone-resistant infrastructure rehabilitation, livelihood revival, and vulnerability reduction. This project builds upon the overall Bank cyclone assistance program (Emergency 2007 Cyclone Recovery and Restoration Project) to build resilience to future disasters.	
Climate Change and Future Flood Risks US\$61,000 2010–2012 (Completed)	and future vulnerabilities in the context of agriculture and food security, and developed recommendations about agricultural adaptation options. This work supported the Bank students are supported to the bank students and support of the bank students are supported to the bank students are suppor	
Agricultural Risk Insurance Feasibility Study US\$264,250 2008–2010 (Completed)	Public and private stakeholders such as the Government of Bangladesh, PKSF (Palli Karma-Sahayak Foundation), and the domestic insurance industry have committed to pilot some of the agricultural insurance products developed as a result of the feasibility study completed in the course of this project.	

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Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)	
Improving Response and Recovery Activities US\$200,000 2008–2010 (Completed)	assessed as a result of the training provided to the Ministry of Food and Disast Management and other relevant Ministries.	
International Conference on Climate Change, Natural Disasters, and Cyclone Sidr US\$72,383 2008 (Completed)	The Conference was held in Dhaka in 2008 to inform stakeholders about interlinkage between disasters and climate change, and to generate awareness and consensus among the development partners and stakeholders for the adoption of "build back better" principle and for mainstreaming of disaster risk reduction in post-disaster recovery, reconstruction and development strategies.	
Capacity Building in Damage and Loss Assessment US\$25,000 2008 (Completed)	The training on Damage and Loss Assessment built national and local multisectoral and multidisciplinary capacity for damage and loss assessment, as well as for planning recovery and rehabilitation with adequate resources and support to communities.	
Comprehensive Assessment of Cyclone Sidr Impacts and Needs US\$383,670 2007–2010 (Completed)	Following a request for technical assistance from the Government, seven donor agencies agreed to conduct the assessment in close coordination. The exercise provided (i) a summary of the overall impact of the disaster; (ii) a financial plan for recovery and reconstruction; and (iii) a quantitative basis for initiating risk management activities in the country.	

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS			
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes		
Advancing Disaster Risk Management 2012–2015 (Active)	This program will develop a National Earthquake Risk Management Strategy for Bangladesh and an Earthquake Disaster Risk Management Plan for Dhaka through a multistakeholder, results-oriented, participatory planning process. The Urban Earthquake Resilience Project—Phase 1 (GFDRR grant, see above), will serve as the foundation for a process that will lead to the development of several decision-making tools required for mitigating the impact of earthquake hazards through structural and nonstructural vulnerability reduction. Phase 2, the proposed Building Safer Cities by Improving Earthquake Resiliency Project (PHRD grant) will complement the development of the master plan and stakeholder engagement by focusing on a specific program of technical training of the engineering and construction community, building code enhancement, and piloting of resilient construction.		
Water Management Improvement Project US\$102 million 2007–2015 (Active)	This project improves water resources management through rehabilitation of damaged water infrastructure, piloting the role of local communities, and enhancing the institutional performance of the Country's principal water institutions.		
Climatic Change, Climatic Variability, and Growth in Bangladesh 2011–2012 (Active)	esh is to inform future policy recommendations and operational interventions by the		
Emergency 2007 Cyclone Recovery and Restoration Project US\$184 million 2008–2012 (Active)	The Project supports the Government of Bangladesh efforts to facilitate restoration and recovery from the damage to livelihoods and infrastructure caused by Cyclone Sidr, and to build long-term preparedness through strengthened disaster risk reduction and management. The Project includes restoration of the agriculture sector in Sidr-affected areas and reconstruction of infrastructure, including reconstruction and improvement of multipurpose shelters and rehabilitation of coastal embankments with "build back better" designs.		

WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes (continued)
Decentralized Disaster Management and Local Governance	A guidance note has been developed based on an analysis of local government and community responses to natural disasters, in relation to the Local Governance Support Project (LGSP). The project provides guidance on ways in which local governments and communities can play effective roles in disaster management, and what role communities can play in this context to hold the local state accountable. It also disseminates information that contributes to how policy makers may enhance their ability to strengthen institutions which empower local governments and communities in disaster-prone areas to effectively manage and reduce disaster risks.
Partners	DRM- and CCA-Related Objectives and Outcomes
Australia, EU, Norway, Sweden, UK, UNDP	A consortium of donors is supporting the Comprehensive Disaster Management Program—Phase 2 (2010–2014). CDMP Phase 1 laid the foundations for institutionalizing risk reduction approaches and frameworks within its host Ministry of Food and Disaster Management; Phase 2 institutionalizes risk reduction approaches more broadly across thirteen key ministries and agencies.

PARTNERSHIPS AND COORDINATION		
. ,	teracting with World Bank for DRM and CCA, ed by the GFDRR DRM Specialist)	
National Services	Agriculture, food security, education, meteorology, hydrology, planning	
International Organizations	United Nations Development Programme (UNDP), International Federation of Red Cross and Red Crescent Societies (IFRC), World Food Programme (WFP), Food and Agriculture Organization (FAO)	
Regional Organizations	Asian Development Bank (ADB), South Asian Association for Regional Cooperation (SAARC), South Asia Water Initiative (SAWI)	
NGOs/CSOs	Oxfam, Action Aid, CARE, Caritas, Muslim Aid, Concern International, Islamic Relief, Plan International, Practical Action, Save the Children, World Vision, Solidarités International, Bangladesh Disaster Preparedness Centre	
GFDRR Donors	Australia, Canada, Denmark, European Union (EU), Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom (UK)	

The Bank coordinates activities with the Local Consultative Group on Disasters & Emergency Response, together with the Government, NGOs, development partners, and UN agencies.

The Emergency Cyclone Recovery and Restoration Project (2007–2012, US\$187 million) has been implemented by the national platform for disaster risk reduction (Disaster Management Bureau, DMB).

With the new Urban Earthquake Resilience Project being funded by GFDRR, the stakeholders in the Disaster Management Bureau will further increase to include the Capital Development Authority, the Ministry of Housing and Public Works, and the Dhaka City Corporation.

CLIMATE CHANGE & DISASTER RISK PROFILE

Bangladesh is a low-lying country with one of the highest population densities on the largest delta in the world, which is formed by the Ganges, the Brahmaputra, and the Meghna rivers.

The climatic features of Bangladesh are driven by the annual monsoon, during which approximately 80% of annual rainfall occurs, often leading to major floods. Bangladesh is highly exposed to cyclones, which have caused some of the world's largest human disasters. During the transitional pre- and post-

monsoon periods, there can also be severe local storms and tornadoes.

Cyclones and associated storm surges and floods have been the most important driver of human losses, resulting in almost all of the nearly 520,000 deaths recorded over the past 40 years. Seismic risk is also significant, and droughts affect millions of people with significant effects on livelihoods.

Rapid snow melt in the upper Himalayas, coupled with increased peak discharges, would likely increase the depth and spatial extent of flooding in the Ganges-Brahmaputra-Meghna Basin.

PRIORITIES FOR GFDRR ENGAGEMENT

(as expressed by the DRM Specialist)

- 1. Urban earthquake resilience
- 2. Risk assessment and analytical tools
- Cost-benefit analysis about investments in disaster risk management
- 4. DRM/CCA policies, building codes, land use and urban planning
- 5. Risk financing mechanisms
- 6. Cooperation with stakeholders

Since 2007, GFDRR projects have focused on improving flood risk management and understanding feasibility of risk financing and insurance instruments, while also improving the Government's ability to effectively respond to major events.

GFDRR's focus over the next three years will be to address earthquake resiliency, identified as a priority by the Government.

Nepal

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	DRM SPECIALIST

Source of Funding				MDTF
Resources A	warded	ł		US\$2,873,400
Resources D	Disburse	d		US\$1,269,933
Number of Projects		Ac	tive: 2; Completed: 2	
Bank Executed	100 %	Main Government Counterpart		Ministry of Home Affairs
Recipient Executed	0%	Implement. Agency		n/a

GFDRR ENGAGEMENT

WORLD DEVELOPMENT INDICATORS		
DRR Index	WDI: 2.75	
DRK IIIUEX	DRI Class: 6/7	
Income Group	Low	
Population	30.5 million	
GDP	US\$619/capita	
Poverty	25% of population	
Urban Population	17% of total	

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Mr. Anil Pokhrel

KEY PARTNERS	DRM/CCA IN POLICY PAPERS	;
(as identified by the DRM Specialist)	(as assessed by the DRM Specialist))
NATIONAL: home affairs, planning and	Mainstreaming: Low High	
works, health, population, education	UNDAF	
INTERNATIONAL: UNDP, IFRC	PRSP	
REGIONAL: ADB, ICIMOD		
NGOs/CSOs: NSET, CECI	WB-CAS	
NGUS/CSUS: NSET, CECI	EU-CSP	
DONORS: Australia, EU, Japan, South		
Korea, UK, USA	NAPA	

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(as assessed by the DRM Specialist)		
Mainstreaming:	Low	High
UNDAF		
PRSP		
WB-CAS		
EU-CSP		
NAPA		

NATIONAL PLATFORM	Ministry of Home Affairs and its National Flagship program. Not formally declared with UNISDR. WB participates and leads Flagship area 3. Focus: DRM and CCA.
NATIONAL LEGISLATION	Natural Calamity Act (1982)

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
DRM Country Program US\$1,800,000 2010–2013 (Active)	The project provides coordination and technical support for the overall National Flagship program (see partnership section below). It specifically supports (i) mainstreaming of disaster risk into national policy, (ii) emergency preparedness capacity of the civil protection, (iii) the safe schools and health facilities program; and (iv) flood risk management in the Kosi Basin.	
City-to-City Sharing Initiative for Developing Countries US\$495,000 for 3 countries ¹ 2010–2013 (Active)	Cities of Makati (Philippines), Kathmandu (Nepal), and Quito (Ecuador) participate in a South- South sharing initiative and exchanged practices for land use planning and local-level disaster risk management.	
Hazard Risk Management Project US\$914,000 2008–2011 (Completed)	The project supported coordination between stakeholders, and developed the first comprehensive countrywide hazard and risk assessment at the district level. Outputs were directly used by Government, UNDP, and NSET respectively for (i) setting up early warning systems for Glacial Lake Outburst Floods (GLOF) for two lakes; and (ii) assessing public schools in two districts of Nepal, including retrofitting and reconstruction in selected schools.	
Agricultural Insurance Feasibility Study US\$159,400 2008–2010 (Completed)	The project proposed design for affordable and cost-effective agriculture insurance products that complemented other risk mitigation activities. In line with GFDRR's objective to promote disaster risk reduction mechanisms, this project encouraged the insurance coverage of agricultural assets (crop and livestock) through a public-private partnership between the Government of Nepal and the domestic insurance industry.	
Weather and Climate Information Systems (WCIS) ²	The WCIS team provided key technical advisory and preparation support for the development of a project aimed at improving the accuracy and timeliness of weather and flood forecasts and warnings, as well as developing agricultural management information system (see Building Resilience to Climate-Related Hazards Project below under "Synergies").	

^{1.} Multicountry activity, not included as part of GFDRR engagement figures in the top-left corner.

^{2.} The support was provided through the global WCIS Program and is not included in GFDRR engagement figures of the top-left corner.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Building Resilience to Climate-Related Hazards US\$31 million 2013 (Pipeline)	The main objective is to reduce the impacts of extreme climate-related events, protect lives and assets, and support agricultural livelihoods. This will be achieved by establishing multi-hazard information and early warning systems, upgrading the existing hydrometeorological and agricultural information management systems, and improving the accuracy and timeliness of weather and flood forecasts and warnings. The project will be submitted to WB Board for approval in January 2013.	
Pilot Program for Seismic School Safety in Katmandu Valley US\$1.6 million 2012 (Active)	The main objective is to complete a comprehensive structural assessment of all public schools in the Katmandu Valley, including pilot retrofitting, and technical assistance/capacity building through awareness raising among government officials. The project is funded by the Government of Japan Trust Fund known as PHRD.	
Partners	DRM- and CCA-Related Objectives and Outcomes	
UNDP	Assists with the development of a legal and institutional framework, incorporating DRM into national development planning, and assisting through emergency grants for flood and landslide response projects.	
WHO	Is implementing the Emergency and Humanitarian Action (EHA) program and leads, along with NSET, the Safe Hospitals campaign.	
EU	European Commission's Humanitarian Aid department (ECHO) supports Practical Action Nepal, Mercy Corps, and other NGOs for development of community-based early warning systems that can be managed by local communities with long-term sustainability.	
NSET	Is substantively engaged in the areas of earthquake engineering and research, school and hospital earthquake safety programs, urban and community-based disaster risk management, etc.	

PARTNERSHIPS ANI	D COORDINATION
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(key institutions interacting with the World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
home affairs, planning and works, he population, education, environment, hydrology and meteorology		
International Organizations	United Nations Development Programme (UNDP), International Federation of the Red Cross and Red Crescent Societies (IFRC), Office for the Coordination of Humanitarian Affairs (OCHA)	
Regional Organizations	Asian Development Bank (ADB), International Centre for Integrated Mountain Development (ICIMOD)	
NGOs/CSOs	National Society for Earthquake Technologies—Nepal (NSET), Centre for International Studies and Cooperation (CECI)	
GFDRR Donors	Australia, European Union (EU), Japan, South Korea, United Kingdom (UK), United States (USA)	

The World Bank/GFDRR, along with the ADB, UN, IFRC, USAID, DFID, EU, and AusAID, partnered in creating the Nepal Risk Reduction Consortium (NRRC) Flagship program. JICA joined the Consortium in 2012. The Consortium came up with five priority flagships for DRM in Nepal: i) earthquake safety in schools and hospitals; ii) emergency response capacity building; iii) flood management in the Kosi River Basin; iv) community-based disaster management; and v) institutional and policy strengthening.

WB/GFDRR is coordinating Flagship 3 of the NRRC (flood management in the Kosi River Basin) and working towards strengthening short-to-mediumrange forecasting in Nepal to improve early warning systems for floods and other hydrometeorological hazards with support from the Pilot Program for Climate Resilience (PPCR).

CLIMATE CHANGE & DISASTER RISK PROFILE

Nepal is exposed and vulnerable to earthquakes and floods. Floods and landslides are the most recurring hazards, and are the greatest cause of economic losses and casualties.

Nepal has witnessed several major natural disasters in the last two centuries. A number of those highlighted are the 1833 and 1934 earthquakes, the 1993 Central Region landslides and floods, the 2008 Kosi floods, and the Glacial Lake Outburst Floods (GLOFs) in the higher Himalayas.

The IPCC estimates that climate change in Nepal could result in more frequent and intense summer floods and winter droughts.

The Government of Nepal is prioritizing policies to adapt to climate change, taking into account the fact that poorest people will be disproportionately affected.

PRIORITIES FOR GFDRR ENGAGEMENT

(as expressed by the DRM Specialist)

- 1. Understanding risks
- 2. DRM/CCA policies, building codes, land use & urban plans
- 3. Risk financing mechanisms
- Enhancing the resilience of cities, communities, and critical infrastructure
- 5. Open data for resilience

Through grant financing from GFDRR, the World Bank Nepal office is engaged in supporting the preparation and execution of the Government of Nepal's National Disaster Risk Management Program. In coordination with the Nepal Risk Reduction Consortium, the team is leading flood and landslide risk management efforts with partners in the Kosi Basin, and earthquake risk management efforts in the Kathmandu Valley. In addition, support is provided through the Pilot Program on Climate Resilience for flood management to ensure synergies between climate change and disaster resilience objectives. To prepare the way for activities in the Kosi Basin and the Kathmandu Valley, GFDRR financed a training to expose local technical experts to probabilistic risk assessments. To complement this, a series of follow-up activities will help Nepal develop open data practices and platforms, which will also feed into broader World Bank operations in the Urban Development sector in the country.

The National Strategy for Disaster Risk Management (NSDRM) guides the transition toward a holistic approach to DRM, by focusing on risk identification, vulnerability reduction, and improved preparedness and response capacity. Following this strategy, the Nepalese Government has embarked on the establishment of new institutional, legislative, and policy frameworks for DRM. The existing DRM structure faces several challenges; in particular, the fact that the current DRM approach is a reactive approach to natural disasters. As part of the evolution to ex-ante DRM activities, the process to repeal the Natural Calamity Relief Act has been initiated.

Pakistan

GFDRR ENGAGEMENT					
Source of Funding		MDTF, Japan SDTF, SRFF			
Resources Awarded		US\$2,460,000			
Resources Disbursed		US\$1,169,920			
Number of	Projects	rojects A		ctive: 2; Completed: 5	
Bank Executed	100 %	Main Government Counterpart		Ministry of Climate Change	
Recipient Executed	0%	Implement. Agency		n/a	

WORLD DEVELOPMENT INDICATORS

DRR Index

Population

GDP

Poverty

Income Group

Urban Population

WDI: 3.5

DRI Class: 6/7

Lower-Middle

176.7 million

36% of total

US\$1,194/capita

22% of population

DRM SPECIALIST

Mr. Haris Khan hkhan1@worldbank.org + 92 51 909 0144

KEY PARTNERS

(as identified by the DRM Specialist)
NATIONAL: disaster management, hydro- and meteorology
INTERNATIONAL: UN
REGIONAL: SAARC and "Heart of Asia" Countries Forum

DONORS: Australia, EU, Japan, UK, USA



DRM/CCA IN F	POLICY P	APERS
(as assessed by th	ne DRM Sp	ecialist)
Mainstreaming:	Low	High
Government		
WB-CAS		
UNDAF		
PRSP		

NATIONAL
PLATFORMNational Disaster Management Commission and National
Working Groups. Not declared to UNISDR. The World Bank is a
member of the National Working Groups on mainstreaming DRR
in development, risk assessment, and disaster management.NATIONALNational Disaster Management Act (2010; formerly National

NATIONALNational Disaster Management Act (2010; formerly NationalLEGISLATIONDisaster Management Ordinance, 2006)

GFDRR-FUNDED PROJECTS' OUTCOMES		
Project/Program	DRM and CCA-Related Objectives and Outcomes	
Development of a National Platform for Risk Assessment and Catastrophe Risk Financing US\$500,000 2012–2015 (Active)	The proposed set of activities is aimed at supporting the National Disaster Management Authority and other relevant institutions in the development of a national risk assessment platform. This platform would, among other uses, serve as the foundation to develop financial protection of the country against natural disasters.	
Development of a Program for Hazard and Risk Assessments in Urban Areas US\$500,000 2012–2013 (Active)	The program aims at developing capacity for hazard and risk assessment in Pakistan and is designed to contribute to the creation of a replicable assessment framework for the country. Expected results include (i) development of capacity for carrying out hazard and risk assessments; (ii) development of a replicable assessment framework; and (iii) risk assessment of one small and one medium-sized urban center.	
Flood Emergency Preparedness US\$280,000 2010–2011 (Completed)	This project supported the Government with capacity building for flood preparedness. The activity specifically targeted improvements in search and rescue and mass evacuation capabilities, including transportation of displaced persons to safer places. It complemented the Comprehensive Disaster Risk Management Program (CDRMP) developed by the World Bank in 2009.	
Results and Lessons in the Rural Housing Reconstruction Response to the 2005 Pakistan Earthquake US\$230,000 2008–2011 (Completed)	Documented and shared lessons learned in the design and implementation of successful Bank-supported post-earthquake Rural Housing Reconstruction Program (RHRP). The Bank is currently supporting the RHRP through its Emergency Earthquake Recovery Credit (ERC)—a project that also supports longer-term disaster risk reduction in the earthquake-affected areas, and builds upon the strong support in the Country Assistance Strategy (CAS) for Bank's involvement in early recovery interventions and longer-term DRM strategies.	

Project/Program	DRM and CCA-Related Objectives and Outcomes (continued)
Pakistan Development Forum US\$150,000 2010 (Completed)	The Pakistan Development Forum 2010 was held in the aftermath of the July-August 2010 floods, which resulted in over US\$10 billion in damage and losses. The Forum devoted a session to early recovery and DRR. The engagement of GFDRR in the Pakistan Development Forum jump-started the process of mainstreaming DRR in national development strategies by linking up DRR and development and also institutionalizing the synergy between the Disaster Management Agency and the Economic Affairs Department of the Ministry of Finance.
Building Capacity to Effectively Deliver Safety Nets in Post- Disaster Situations US\$250,000 2008–2009 (Completed)	The project strengthened the institutional and technical capacity of the Government to provide effective and timely relief to the vulnerable and/or to those in need in the aftermath of disasters. The activity was built upon and complemented with ongoing WB efforts to strengthen institutional and technical capacity to provide livelihood support (in the form of cash transfers) and to promote access to economic opportunities among the poor.
Pakistan Floods DNA US\$550,000 2008 (Completed)	The Damage and Needs Assessment (DNA) assisted the Government to (i) determine the socioeconomic impact of the disaster; (ii) identify priority needs and formulate a recovery framework; and (iii) establish a coordinating mechanism among the international technical and financial partners to enable the Government-led assessment and implementation strategy to be adequately supported.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS		
WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes	
Punjab Cities Governance Improvement Project US\$150 million 2012–2017 (Active)	The Project is expected to have a transformative impact on the management of urban areas in Punjab, and will also allow for rapid reallocation of credit proceeds or additional funding under streamlined procedures, as needed, in order to support preparedness and rapid response to disaster, emergency, and/or catastrophic events.	
Balochistan Disaster Management Project US\$5 million 2012–2015 (Active)	The Project strengthens the capacity of the Provincial Disaster Management Authority of Balochistan to prepare for and respond to natural disasters. It has four main components: (i) institutional strengthening, (ii) hazard and risk assessments in the provincial capital, (iii) Community-Based Disaster Risk Management Program, and (iv) a contingent emergency response component.	
Strengthening Pakistan's Urban Disaster Response Capacity US\$3 million 2012–2015 (Active)	The Project develops methodology and guidelines for assessing and enhancing multi- hazard early warning systems and the disaster response capacity of local urban authorities, including the establishment of a City Emergency Operations Center (CEOC). Assessments will be conducted in two high-risk cities (one major city and one medium/small city).	
Partners	DRM- and CCA-Related Objectives and Outcomes	
UN	The United Nations in Pakistan, as part of Delivering as One, has implemented a five- year program on Disaster Risk Management for 2008–2012. It is now undertaking a review of the first phase to feed into the proposed second five-year umbrella joint program starting in 2013.	
UK	The United Kingdom Department for International Development (DFID) is in the final stage of planning a £25 million program on DRM. The program will cover support to CBDRM, risk assessment, and capacity development. Negotiations are underway with NDMA to finalize the components of the program, which is to be launched in the first half of 2013.	
USA	USAID/OFDA is formulating a program on DRM mainly focusing on CBDRM, and is in consultation with the stakeholders to finalize the program design.	

PARTNERSHIPS AND COORDINATION

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
National Services	disaster management, hydro- and meteorology, civil protection	
International Organizations	United Nations (UN)	
Regional Organizations	South Asia Association for Regional Cooperation (SAARC), "Heart of Asia" Countries Forum under the Istanbul Process	
GFDRR Donors	Australia, European Union (EU), Japan, United Kingdom (UK), United States (USA)	

The World Bank primarily interacts with stakeholders through the Disaster Management Coordination Group (DMCG). It has also been approached by donors such as the UK, US, and Australia, for inputs in their DRM programs and to explore the possibility of partnering in areas of mutual interest. The World Bank primarily supports: (i) the Ministry of Climate Change, (ii) the National Disaster Management Authority, (iii) the Federal Flood Commission, (iv) the Pakistan Meteorological Department, (v) Civil Defense, (vi) Provincial Disaster Management Authorities; and (vii) other provincial, district-, and city-level entities.

The World Bank has also spearheaded the creation of the DRM Donor Coordination Group (DDCG) in Pakistan, which has now evolved into the Disaster Management Coordination Group. Additionally, in its dialogue with the Government, the Bank has supported the creation of a National Working Group on Risk Assessments.

CLIMATE CHANGE & DISASTER RISK PROFILE

Pakistan is exposed to various natural hazards, of which cyclones, floods, landslides, earthquakes, and droughts are the most common.

In 2010, Pakistan experienced the worst floods in living memory. These floods devastated 78 districts and covered over 100,000 km², affecting more than 20 million people. The subsequent Damage and Needs Assessment estimated that approximately US\$10.9 billion would be required for recovery and reconstruction.

(as expressed by the DRM Specialist)

1. Analysis and advocacy for enhanced

understanding of risks and their

long-term impacts

3. Emergency preparedness

4. Emergency response operations

5. Advancement of risk financing

2. Disaster prevention

mechanisms

Pakistan is located in a seismically active zone, due to its proximity to the Indo-Australian and Eurasian plates. Droughts are also a significant hazard in Pakistan, as 60% of the country's land is classified as semiarid or arid.

According to UN estimates, the mean annual temperature is projected to increase by 1.4° C to 3.7° C by the 2060s, and to 6.0° C by the 2090s.

GFDRR support to Pakistan started in 2006. Key entry points included the Damage and Needs Assessment and provision of immediate rescue equipment to aid the Government response to the 2005 earthquake, and the more recent damage and needs assessment after the 2010 floods.

GFDRR priorities in Pakistan include supporting more comprehensive institutionalstrengthening and capacity-building initiatives aimed at enhancing preparedness and response capacities leading to larger mitigation investments. Most recently, the Government of Pakistan has expressed interest in more intensive investigation of risk financing options and institutionalization of the Damage and Needs Assessment process within the Government. After providing a full-time DRM Specialist to the Pakistan Country

office, the World Bank has been able to advance its dialogue with the Government in the field of DRM, with the recent preparation and approval of the first-ever dedicated DRM project in Pakistan.

Sri Lanka

GFDRR ENGAGEMENT				
Source of Funding		Japan SDTF		
Resources Awarded		US\$1,630,000		
Resources Disbursed		US\$205,781		
Number of Projects		Active: 1; Completed: 1		
Bank Executed	100 %	Main Government Counterpart		Ministry of Disaster Management
Recipient Executed	0%	Implement. Agency		n/a

WORLD DEVELOPMENT INDICATORS

DRR Index	n/a	
Income Group	Lower-Middle	
Population	20.9 million	
GDP	US\$2,835/capita	
Poverty	9% of population	
Urban Population	15% of total	

DRM SPECIALIST

Mr. Suranga Kahandawa skahandawa@worldbank.org +94-11-5561377

KEY PARTNERS

(as identified by the DRM Specialist) NATIONAL: disaster management, hydro- and meteorology, urban INTERNATIONAL: UNDP, OCHA REGIONAL: ADB, ADPC NGOs/CSOs: Practical Action, Oxfam, Sri Lanka Red Cross Society

DONORS: Australia, EU, Japan

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DRM/CCA IN F	POLICY	PAPERS			
(as assessed by the DRM Specialist)					
Mainstreaming:	Low	High			
Government					
WB-CAS					
UNDAF					
PRSP					
NAPA					
EU-CSP					

 NATIONAL PLATFORM
 National Disaster Management Coordinating Committee. Declared to UNISDR. The World Bank is a formal member and provides funding and technical support.

 NATIONAL
 Declared to UNISDR.

LEGISLATION

AL DN	Disaster Management Act No. 13 (2005)	
)N	Disaster management / let no. 15 (2005)	

GFDRR-FUNDED PROJECTS' OUTCOMES Project/Program DRM and CCA-Related Objectives and Outcomes Mainstreaming Disaster Risk This activity is developing the technical capacity of the government to assess and quantify Management flood and landslide risks, and to formulate appropriate policy and operational responses. An US\$1,430,000 upgraded, high-accuracy hydrological and hydraulic model for Metro Colombo is under 2011-2013 (Active) development, as part of a larger World Bank-financed project focused on urban development in the city (see below). The project has trained government staff on urban risk assessment techniques and integrating risk reduction into urban planning, as well as on post-disaster needs assessment (PDNA). Fifteen telemetric rain gauges for creating a real-time landslide early warning model will be installed by the National Building Research Organization. **Improving Sri Lanka's Response** The activity improved the national disaster management capacity to support recovery and Recovery in the Aftermath activities in the aftermath of disasters. With enhanced understanding about the significance of Natural Disaster of indirect losses associated with disasters, the project confirmed the need for a US\$200,000 comprehensive risk mitigation program, including: (i) Linking disaster risk management with 2008-2011 (Completed) social protection systems; and (ii) Development of a DRM institutional framework.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTSWB Projects/ProgramsDRM- and CCA-Related Objectives and OutcomesMetro Colombo–Towards a Flood
Resilient Urban Environment
US\$900,000
2012–2013 (Pipeline)The objectives of this project are to i) strengthen the capacity of Sri Lankan agencies
to carry out urban risk assessments, and ii) significantly utilize the risk assessment
outputs. Flood risk assessment will provide important information to develop the
Metro Colombo Flood Risk Mitigation Strategy. The strategy will include i) actions
and investments for flood risk mitigation in the Metro Colombo area; ii) upgrading
flood control and drainage infrastructure; and iii) the development of an integrated
flood and water quality management system (IFMS) for the Greater Colombo Basin.
The project is financed by the Government of Japan's PHRD Trust Fund.

WB Projects/Programs	DRM- and CCA-Related Objectives and Outcomes (continued)	
Metro Colombo Urban Development Project US\$213 million 2012–2017 (Active)	The objective of this project is to support the government to i) reduce flooding in the catchment of the Metro Colombo region; and ii) strengthen the capacity of local authorities in the Colombo Metropolitan Area (CMA) to rehabilitate, improve, and maintain local infrastructure and services through selected demonstration investments. Expected results include a long-term urban development program for metropolitan Colombo. This will be achieved through i) reducing the physical and socioeconomic impacts of flooding in the capital city area, and ii) improving overall capacity for the operations and maintenance of metropolitan and local infrastructure. GFDRR is supporting the development of a new hydraulic and hydrological model of the city to inform the flood mitigation and development in the basin.	
Partners	DRM- and CCA-Related Objectives and Outcomes	
UNDP	Develops capacity and systems for effective preparedness, mitigation, and response to natural and man-made disasters at national and subnational levels.	
OCHA	Coordinates emergency relief and strengthens the capacity of the government for effective emergency response.	
Japan	The Japan International Cooperation Agency (JICA) is contributing to strengthening the capacity of government agencies and communities in disaster risk monitoring, forecasting, and effective response.	
Australia	The the Australian Agency for International Development (AusAID) supports the country to enhance disaster risk reduction, increase preparedness for and promote faster, more effective responses to humanitarian crises.	

PARTNERSHIPS AND COORDINATION

(key institutions interacting with World Bank for DRM and CCA, identified by the GFDRR DRM Specialist)		
National Services	Disaster management, meteorological and hydrological, urban development, land use planning, agriculture, food security, health	
International Organizations	United Nations Development Programme (UNDP), United Nations Office for the Coordination of Humanitarian Affairs (OCHA), United Nations Children's Fund (UNICEF)	
Regional Organizations	Asian Development Bank (ADB), Asian Disaster Preparedness Center (ADPC)	
NGOs/CSOs	Practical Action, Oxfam, Sri Lanka Red Cross Society	
GFDRR Donors	Australia, European Union (EU), Japan	

The engagement of GFDRR in Sri Lanka started in 2010 with the PDNA conducted in response to the floods of May 2010.

This activity was implemented through the Disaster Management Centre (DMC) of the Ministry of Disaster Management with support from UNDP and the Sri Lanka Red Cross Society.

Current activities are an integral part of a larger countrywide disaster risk reduction program, supported by donors, and coordinated by the Disaster Management Center (DMC). The focus on flood risk reduction is consistent with the Government's investment priorities for the Colombo Metropolitan Area, and with donors' Disaster Risk Reduction programs.

CLIMATE CHANGE & DISASTER RISK PROFILE

Sri Lanka's geographic and climatic diversity exposes the country to a number of natural hazards, in particular floods, droughts, landslides, and cyclones. Droughts occur three to four times a decade and have caused economic setbacks. Although rare, cyclones have hit the country in the past with some significant impacts. A 1978 cyclone affected over one million people and caused nearly one thousand fatalities.

Vulnerability to adverse natural events is significant, due to high population density and concentrated economic activities in flood-prone and coastal areas. A substantial number of people resettled as a result of conflict, especially in the northern province, are particularly vulnerable.

It is predicted that climate change will exacerbate disaster impacts. By 2100, temperatures are projected to increase by 2.5°C, and mean rainfall is projected to change by 7 percent, with almost all models showing a decrease in rainfall compared to historical records, with accompanying changes in the spatial distribution of rainfall.

PRIORITIES FOR GFDRR ENGAGEMENT

(as expressed by the DRM Specialist)

- 1. Risk analysis, open data, and advocacy
- 2. Prevention
- 3. Preparedness
- 4. Recovery and Reconstruction

Sri Lanka would benefit from GFDRR support for risk assessments, risk financing, strengthening of early warning systems, city resilience, and strengthening government capacity in the areas listed on the left.

In the coming years, the focus will be on developing high-accuracy hydrological and hydraulic models for the Metro Colombo region; carrying out PDNA trainings; providing risk assessments in three eastern cities in Sri Lanka; installing telemetric rain gauges; creating a landslide early warning model; and introducing open data approaches.

Appendix 1. Team Members Contributing to Implementation of GFDRR-Supported Activities

Region & DRM Coordinator	Country	TTL(s) (Active and Completed GFDRR Projects)	DRM Specialists Based in the Countries
	Burkina Faso	Mr. Gilles B. Alfandari	Replacement in progress
		Mr. Hocine Chalal	
		Ms. Aguiratou Savadogo-Tinto	
	Ethiopia	Mr. Edward Felix Dwumfour	Mr. Ahmed Mohammed
		Mr. Andrew Sunil Rajkumar	
		Mr. Wolter Soer	
	Ghana	Ms. Shelley Mcmillan	Recruitment in progress
SUB-	Madagascar	Ms. Sofia U. Bettencourt	Replacement in progress
SAHARAN AFRICA:		Mr. Giovanni Ruta	
Mr. Doekle	Malawi	Mr. Leonard John Abrams	Mr. Francis Nkoka
Wielinga		Ms. Kremena M. Ionkova	
	Mali	Mr. Maman-Sani Issa	Replacement in progress
	Mozambique	Mr. Leonard John Abrams	Mr. Roberto White
		Ms. Sofia U. Bettencourt	
	Senegal	Mr. Denis Jean-Jacques Jordy	Ms. Isabelle Celine Kane
		Mr. Hyoung Gun Wang	
	Тодо	Ms. Shelley Mcmillan	Mr. Koffi Hounpke
		Mr. Doekle Geert Wielinga	
	Indonesia	Mr. Enrique Blanco Armas	Mr. Iwan Gunawan
		Mr. Iwan Gunawan	
		Mr. Suhail J. S. Jme'An	
		Ms. Ina Pranoto	
	Lao People's Democratic Republic	Ms. Henrike Brecht	Ms. Khamlar Phonsavat
		Mr. Toru Konishi	
		Ms. Helene Monika Carlsson Rex	
EAST ASIA		Mr. Sombath Southivong	
AND THE	Papua New Guinea	Mr. Shyam KC	Mr. Joseph Kunda
PACIFIC:	Philippines	Mr. Christopher T. Pablo	Ms. Catherine G. Vidar
Mr. Abhas		Mr. Joop Stoutjesdijk	
Kumar Jha		Ms. Zoe Elena Trohanis	
		Ms. Catherine G. Vidar	
	Solomon Islands		Ms. Suzanne Paisley
	Vanuatu		Mr. Tevi Obed
	Vietnam	Ms. Henrike Brecht	Mr. Dzung Huy Nguyen
		Mr. Dean A. Cira	
		Mr. Alan Coulthart	
		Mr. Cuong Hung Pham	

Appendix 1: Team Members Contributing to Implementation of GFDRR-Supported Activities

Region & DRM Coordinator	Country	TTL(s) (Active and Completed GFDRR Projects)	DRM Specialists Based in the Countries
EAST AND CENTRAL	Kyrgyz Republic	Mr. Christophe E. Bosch	Replacement in progress
ASIA: Ms. Jolanta		Mr. Wolfhart Pohl	
Kryspin- Watson		Ms. Xiaolan Wang	
	Colombia	Mr. Greg J. Browder	
		Mr. Eric Dickson	
		Mr. Francis Ghesquiere	
		Mr. Niels B. Holm-Nielsen	
LATIN	Costa Rica	Mr. Armando E. Guzman	
AMERICA		Mr. Francis Ghesquiere	
AND THE CARIBBEAN:	Ecuador	Mr. Armando E. Guzman	
Mr. Niels	Guatemala	Mr. Diego Arias Carballo	Mr. Osmar Velasco
Holm-		Mr. Joaquin Toro	
Nielsen	Haiti	Mr. Gregoire Francois Gauthier	Mr. Gaetano Vivo
		Mr. Joaquin Toro	
		Mr. Michel Matera	
		Ms. Maryanne Sharp	
	Panama	Mr. Armando E. Guzman	Mr. Haris Sanahuja
MIDDLE	Djibouti	Mr. Andrea Zanon	Recruitment in progress
EAST AND		Ms. Alexandra Ortiz	
NORTH AFRICA:	Yemen, Republic of	Mr. Ali Khamis	No DRM Specialist
Mr. Franck		Ms. Madhu Raghunath	
Bousquet		Mr. Sameh Naguib Wahba	
	Bangladesh	Mr. Masood Ahmad	Ms. Swarna Kazi
		Mr. Henry K Bagazonzya	
		Mr. Marc S. Forni	
		Ms. Jessica Leigh Leino	
		Mr. Sadruddin Muhammad Salman	
		Ms. Maria Sarraf	
SOUTH ASIA:		Mr. Winston Yu	
Ms. Bernice	Nepal	Mr. Henry K Bagazonzya	Mr. Anil Pokhrel
Van		Mr. Saurabh Suresh Dani	
Bronkhorst	Pakistan	Ms. Ayesha Ahmad	Mr. Haris Khan
		Mr. Raja Rehan Arshad	
		Ms. Shahnaz Arshad	
		Mr. Haris Khan	
		Mr. Cem Mete	
	Sri Lanka	Mr. Cem Mete	Mr. Suranga Kahandawa
		Ms. Rosanna Nitti	

There are no Task Team Leaders in Vanuatu and Solomon Islands, since GFDRR has not yet approved any project in these countries.

Appendix 2. Blank Questionnaire

	KEY FIGURES					
Α	Projects 2007–2009		US\$			
В	Country Program Budget 201	10–2012	US\$			
С	Total		US\$			
D	D Sources of Funding					
E	E Resources Approved		US\$			
F	F Resources Transferred		US\$			
G	G Resources Disbursed		US\$			
н	Bank-Executed %		Main Government Counterpart			
I	Recipient-Executed %		Implementing Agency			

DRM AND CCA PROFILESocioeconomic factors*WB country income group(low, lower middle, upper middle)PopulationthousandsGDP\$ per capitaPoverty% of population living below \$1.25 per dayUrban population% of total population

* Numbers are based on the World Development Indicators

Climate Change & Disaster Risk Profile

 Please provide 3-5 paragraphs describing (i) country's major natural hazards, (ii) impact of major disasters on people and assets (expressed in number of deaths, people affected and number of assets destroyed, economic and social losses), (iii) vulnerability of specific socioeconomic groupings and productive sectors, and (iv) likely climate change effects in the country. Information could be updated from the GFDRR country note, GFDRR CCA profile, GFDRR Progress Update 2010, UNDP Climate Change Country Profiles, or UNISDR HFA monitoring reports (see annex 1).

oi lf di ni Pl	there a legislation that governs the way that disaster risk management as rganized in your country? "Yes," please specify ate: ame: lease provide a brief analysis (2–3 lines) about (i) strengths, (ii) shortcomin ii) expected revisions, etc.:		Yes 🗌 No 🗌
3. H	ow is DRM / CCA referred to as a priority in the following documents?		
	 a. Poverty Reduction Strategy Paper (PRSP) If "Yes," please specify date: ; upcoming revision: name: ; link: http:// What are the key (i) strengths, (ii) shortcomings, and (iii) expected revisions, etc.: 	Not at all	Highest priority
	 b. World Bank Country Assistance Strategy (CAS) If "Yes," please specify date: ; upcoming revision: name: ; link: http:// What are the key (i) strengths, (ii) shortcomings, and (iii) expected revisions, etc.: 	Not at all	Highest priority
	 c. European Commission Country Strategy Paper (CSP) If "Yes," please specify date: ; upcoming revision: name: ; link: http:// What are the key (i) strengths, (ii) shortcomings, and (iii) expected revisions, etc.: 	Not at all	Highest priority
	 d. Regional development plan If "Yes," please specify date: ; upcoming revision: name: ; link: http:// What are the key (i) strengths, (ii) shortcomings, and (iii) expected revisions, etc.: 	Not at all	Highest priority
	 e. National development plan (if applicable) If "Yes," please specify date: ; upcoming revision: name: ; link: http:// What are the key (i) strengths, (ii) shortcomings, and (iii) expected revisions, etc.: 	Not at all	Highest priority

If "Yes," please specify date: ; upcoming revision: name: ; link: http:// What are the key (i) strengths, (ii) shortcomings, and (iii) expected revisions, etc.: <i>Please repeat (copy-paste the above) for multiple docume</i> g. National climate change policy and strategy If "Yes," please specify date: ; upcoming revision:	Not at all	Highest priority
 What are the key (i) strengths, (ii) shortcomings, and (iii) expected revisions, etc.: Please repeat (copy-paste the above) for multiple docume g. National climate change policy and strategy If "Yes," please specify date: ; upcoming revision: 		
 (iii) expected revisions, etc.: Please repeat (copy-paste the above) for multiple docume g. National climate change policy and strategy If "Yes," please specify date: ; upcoming revision: 	ents	
g. National climate change policy and strategy If "Yes," please specify date: ; upcoming revision:	nts	
If "Yes," please specify date: ; upcoming revision:		
date: ; upcoming revision:		
name: ; link: http://	Not at all	Highest priority
What are the key (i) strengths, (ii) shortcomings, and (iii) expected revisions, etc.:		
Please repeat if multiple documents		
	ice	
	Not at all	Highest priority
name: ; link: http://		
What are the key (i) strengths, (ii) shortcomings, and (iii) expected revisions, etc.:		
ergency preparedness/contingency planning or eme		risk
ase list key ministries involved in DRM, most important ones o	on top:	
-		
here any DRM coordination at the national level?		
Yes," please describe the mechanism		Yes 🗌 No 🗌
d answer questions a through c.		
a. Are all disaster risk management activities coordinated un authority of the Head of Government?	nder the direct line	Yes 🗌 No 🗌
 Are all disaster risk management activities coordinated un 	nder one ministry?	
If "Yes," please specify the ministry:	·	Yes 🗌 No 🗌
risk management involving multiple ministries and agencient of the second second second second second second se If yes, please answer questions i –iv below:	es?	Yes 🗌 No 🗌
i. Please specify		
Name:		
	 (iii) expected revisions, etc.: Please repeat if multiple documents I. UN Common Country Assessment/ Development Assistant Framework (CCA/ UNDAF) papers If "Yes," please specify date: ; upcoming revision: name: ; link: http:// What are the key (i) strengths, (ii) shortcomings, and (iii) expected revisions, etc.: erall, is the DRM approach focusing more on ergency preparedness/contingency planning or fting to a more proactive risk reduction approach? ase provide a short analysis: ase list key ministries involved in DRM, most important ones of - - - - - - - - - - - - -	(iii) expected revisions, etc.: Please repeat if multiple documents n. UN Common Country Assessment/ Development Assistance Framework (CCA/ UNDAF) papers If "Yes," please specify date: ; upcoming revision: name: ; link: http:// What are the key (i) strengths, (ii) shortcomings, and (iii) expected revisions, etc.: erall, is the DRM approach focusing more on ergency preparedness/contingency planning or fting to a more proactive risk reduction approach? ase provide a short analysis: ase list key ministries involved in DRM, most important ones on top:

	ii.	Is there national legislation that clearly defines the roles that each organization or agency plays within this national coordination mechanism? If "Yes," please specify the title and date of the legislation: Title: Date:	Yes 🗌 No 🗌
	iii.	Is climate change adaption part of the mandate of the structure?	Yes 🗌 No 🗌
	iv.	Is this structure formally declared as a national platform with the UN International Strategy for Disaster Reduction (UNISDR) secretariat?	Yes 🗌 No 🗌
d.		e all disaster risk management activities coordinated under the direct line hority of the Head of Government?	Yes 🗌 No 🗌

	World Bank and GFDRR Strategic En	GAGEMENT IN DRM/CC/	4	
and GI	DRR interactions with stakeholders on DRM/CC	A		
7.	 Does the World Bank Country office have a designated <u>Disaster Risk Management Focal</u> <u>Point</u> or <u>Disaster Risk Management Specialist</u> to coordinate activities to respond to disaster risk management needs? If "Yes," please answer questions a and b. 			
	a. Is he or she involved in regional projects or initiatives	with regional organizations?	Yes 🗌 No 🗌	
	 Does he or she provide DRM-related inputs to World E outside of GFDRR budget? If "yes," please provide examples (good practices): 	Bank operations funded	Yes 🗌 No 🗌	
	 c. Does he or she organize other advocacy/information/training sessions with Country Office Staff? If yes, please describe topics, formats, frequency, and level of participation (Country Manager, Task Team Leaders, Communications Officer, etc.): 		Yes 🗌 No 🗌	
8.	How is DRM/CCA considered in World Bank portfolio? Please explain:	Priority only when GFDRR-funded	High priority in every project	
9.	 9. Is the World Bank Country office participating in the national structure or committee for disaster risk management? Please describe WB participation (2–5 lines): If "yes," please answer a and b. 			
	a. Is the World Bank a formal member of this national st	ructure or committee?	Yes 🗌 No 🗌	
	b. Please specify in what capacity:			
10.	Does the World Bank Country office provide direct support to for disaster risk management? If "Yes," for which activities?	other agencies responsible	Yes 🗌 No 🗌	

a.	Disaster prevention (e.g., risk assessment and mapping, building codes, land use and urban planning, etc.) Please describe:	No support Strong sup.
b.	Emergency preparedness (e.g., early warning, educational programs for the public/decision makers, emergency response planning, drills) Please describe:	No support Strong sup.
с.	Emergency response operations (e.g., supporting real-time operational emergency response and rescue operations, etc.) Please describe:	No support Strong sup.
d.	Reconstruction phase (e.g., damage and loss assessment, input to reconstruction decisions) Please describe:	No support Strong sup.
e.	Greater integration of disaster risk reduction in developmental policies and poverty reduction strategies Please describe:	No support Strong sup.
f.	Provision of enabling analytical tools and environment for countries to develop policies and investments for disaster risk reduction Please describe:	No support Strong sup.
g.	Advancement of risk financing mechanisms Please describe:	No support Strong sup.
h.	Enhancing the hazard resilience of cities, communities, and critical infrastructure Please describe:	No support Strong sup.
	WB trusted and respected by the Government as one of its main ers for DRM/CCA?	false true
	s the volume of WB funding for DRM/CCA compared to mment's other key partners?	Way above Way below
in you	the World Bank Country office collaborate directly with the following ir country? Is the WB country office duly informed and invited to cont e describe collaboration and joint activities, as well as proposals for im	ribute to activities? For each,
a.	National ministries & services	
	i. Civil protection, defense, emergency rescue	Not at all Closely
	ii. Meteorological and hydrological	Not at all Closely

Appendix 2

iii.	Agriculture	Not at all Closely
iv.	Health	Not at all Closely
V.	Urban and land use planning	Not at all Closely
vi.	Food security	Not at all Closely
vii.	Education	Not at all Closely
viii.	others (please insert lines as necessary)	Not at all Closely
b. Inte	ernational organizations and their national counterparts/offices	I
	Office of the United Nations Coordinator (UN)	Not at all Closely
ii.	UN International Strategy for Disaster Reduction (UNISDR)	Not at all Closely
iii.	International Federation of Red Cross and Red Crescent Societies (IFRC)/National Red Cross and Red Crescent Society	Not at all Closely
iv.	European Commission (EC)	Not at all Closely
v.	World Food Programme (WFP)	Not at all Closely
vi.	Office for the Coordination of Humanitarian Affairs (OCHA)	Not at all Closely
vii.	United Nations Development Programme (UNDP)	Not at all Closely
viii.	United Nations Children's Fund (UNICEF)	Not at all Closely
	others (please insert lines as necessary)	

	gional organizations, please specify (e.g., regional development b iatives for disaster risk management, etc.):	anks, regional programs and	
d. Inte	ernational nongovernmental organizations and their national cou	interparts	
i.	Action Against Hunger (French or Spanish - ACF)	Not at all Closely	
ii.	Action Aid	Not at all Closely	
iii.	Agency for Technical Cooperation and Development (ACTED)	Not at all Closely	
iv.	CARE	Not at all Closely	
۷.	Caritas	Not at all Closely	
vi.	Centre for International Studies and Cooperation (CECI)	Not at all Closely	
vii.	Christian Aid	Not at all Closely	
viii.	Concern International	Not at all Closely	
ix.	Cordaid	Not at all Closely	
х.	Development of Humane Foundation (DHAN)	Not at all Closely	
xi.	IDS International	Not at all Closely	
xii.	Islamic Relief (IR)	Not at all Closely	

xiii. Plan International	Not at all Closely
xiv. Practical Action	Not at all Closely
xv. Oxfam	Not at all Closely
xvi. Save the Children	Not at all Closely
xvii. World Vision	Not at all Closely
xviii. Others (please add new lines accordingly)	Not at all Closely
e. National civil society organizations.	
Please describe stakeholders, interactions (direct/through forums and coordinators), activities, proposals for improvement	Not at all Closely
f. Donors and bilateral development partners	J
i. Australia	Not at all Closely
ii. Brazil	Not at all Closely
iii. Canada	Not at all Closely
iv. Denmark	Not at all Closely
v. France	Not at all Closely
vi. Germany	Not at all Closely
vii. Ireland	Not at all Closely

viii.	Italy	Not at all Closely
ix.	Japan	Not at all Closely
x.	South Korea	Not at all Closely
xi.	Luxembourg	Not at all Closely
xii.	The Netherlands	Not at all Closely
xiii.	Nigeria	Not at all Closely
xiv.	Norway	Not at all Closely
xv.	Spain	Not at all Closely
xvi.	Sweden	Not at all Closely
xvii.	Switzerland	Not at all Closely
xviii.	United Kingdom	Not at all Closely
xix.	United States	Not at all Closely
XX.	Others (please add new lines accordingly)	Not at all Closely
-	MMARY: Please describe how the World Bank interacts with stak laboration be enhanced:	eholders and how could

Strategic relevance of GFDRR

14. When did GFDRR support start?	
15. What were the entry points and the context? Have key stakeholders changed over time?	
16. What are GFDRR priorities now? Have they evolved?	
17. Is GDFRR support contributing to the Government's DRM and CCA priorities?	
18. What is GFDRR's added value compared with WB and other partners' interventions in the country?	

Projects contributing to DRM/CCA in the WB country portfolio

19. Projects funded by GFDRR

Identification		(tho	Budget (thousands USD)			Dates (mm/yy)		Focus
ID	Title	GFDRR	Bank	Other	Start	Expected end	closed dropped pipeline)	(single/ multi country)
	Objectives of the project (PDO):							
(e.	Outputs g., trainings, PDNA, risk atlas, etc.):							
	Institutional and "on the ground" outcomes (expressed as key progress with PDO/intermediate level result indicators compared to baseline):							
If applicable, additional financing (and outcomes) leveraged (e.g., follow-up activities developed with clear link to current project outputs):								
A	ctivities planned for the 18 coming months:							

Identification		(th	Budget (thousands USD)		Dates (mm/yy)		Status (active/	Focus
ID	Title	GFDRR	Bank	Other	Start	Expected end	closed dropped pipeline)	(single/ multi country)
	Objectives of the project (PDO):							
	Outputs (e.g., trainings, PDNA, risk atlas, etc.):							
Institutional and "on the ground" outcomes (expressed as key progress with PDO/intermediate level result indicators compared to baseline):								
If applicable, additional financing (and outcomes) leveraged (e.g., follow-up activities developed with clear link to current project outputs):								
Activities planned for the 18 coming months:								

	Identification		Budget (thousands USD)		Dates (mm/yy)		Status (active/	Focus
ID	Title	GFDRR	Bank	Other	Start	Expected end	closed dropped pipeline)	(single/ multi country)
	Objectives of the project (PDO):							
	Outputs (e.g., trainings, PDNA, risk atlas, etc.):							
	Institutional and "on the ground" outcomes (expressed as key progress with PDO/intermediate level result indicators compared to baseline):							
	If applicable, additional financing (and outcomes) leveraged (e.g., follow-up activities developed with clear link to current project outputs):							
	Activities planned for the 18 coming months:							

ID Title Bank Other Start end Please describe project's objectives, components, main results Image: Start Image:		Identification	Budget (thousands USD)		_	Dates (mm/yy)		Focus (single/
Please describe project's objectives, components, main results		Title	Bank	Other	Start	Expected end	closed dropped pipeline)	multi country)
Please describe project's objectives, components, main results Please describe project's objectives, components, main results	е	describe project's objectives,	components, main res	ults				<u>]</u>
Please describe project's objectives, components, main results	е	describe project's objectives, o	components, main res	ults				
Please describe project's objectives, components, main results	е	describe project's objectives,	components, main res	ults				
Please describe project's objectives, components, main results								
	e	describe project's objectives,	components, main res	ults				
Please describe project's objectives, components, main results	е	describe project's objectives, o	components, main res	ults			<u>.</u>	<u> </u>
	е	describe project's objectives,	components, main res	ults				<u> </u>

21. Other GFDRR contributions not related to projects

Please describe briefly here achievements, outputs, results from GFDRR engagement and DRM Specialist activities, not already reported above.

	IMPLEMENTATION CHALLENGES AND/OR ADDITIONAL	COMMENIS
imple faced (inclu mana chall	se describe ementation constraints d with GFDRR activities uding specific project agement–related enges or broader ext-specific bottlenecks)	
that man may	se include any comment would require agement attention or require cancellation/ ocation of funding, etc.	
	nich of the following areas could <u>GFDRR</u> enhance the World Ban ributions in DRM/CCA in your country?	k and Government overall
a.	Analysis and advocacy for enhanced understanding of risks and their long-term impacts Please describe:	Not at all Highest priorit
b.	Disaster prevention (e.g., risk assessment and mapping, building codes, land use and urban planning, etc.) Please describe:	Not at all Highest priorit
C.	Emergency preparedness (e.g., early warning, educational programs for the public/decision makers, emergency response planning, drills) Please describe:	Not at all Highest priorit
d.	Emergency response operations (e.g., supporting real-time operational emergency response and rescue operations, etc.) Please describe:	Not at all Highest priorit
e.	Reconstruction phase (e.g., damage and loss assessment, input to reconstruction decisions) Please describe:	Not at all Highest priorit
f.	Provision of enabling analytical tools and environment for countries to develop DRM/CCA policies and investments Please describe:	Not at all Highest priorit
g.	Advancement of risk financing mechanisms Please describe:	Not at all Highest priorit
h.	Enhancing the resilience of cities, communities, and critical infrastructure Please describe:	Not at all Highest priorit

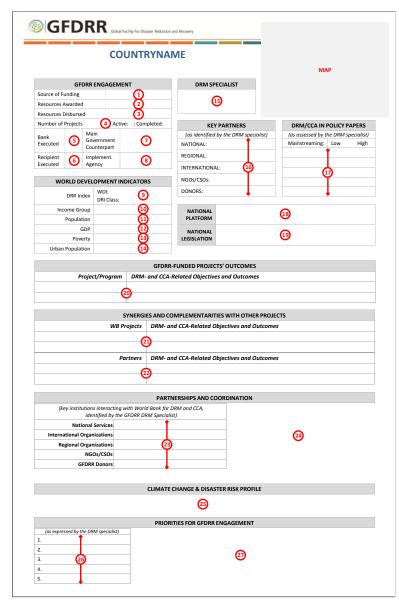
i.	Cost-benefit analysis of investments in disaster risk management Please describe:	Not at all Highest priority
j.	Education, training, public outreach programs, technology transfer, capacity building, technical trainings Please describe:	Not at all Highest priority
k.	Strengthening cooperation with stakeholders (e.g., UN, national services, civil society organizations, media, etc.) Please describe:	Not at all Highest priority
I.	Enhancement of regional emergency protocols for World Bank country offices in support of each other in case of disruption of services due to the impact of a disaster Please describe:	Not at all Highest priority
m.	Resource mobilization Please describe:	Not at all Highest priority
n.	Other(s) Please describe:	Not at all Highest priority

Respondent information

Title: First Name: Last Name: Business Card Title: E-mail address: Telephone number: DAMA:

Appendix 3: Information Available in Country Updates

The Country Updates provide information organized in 27 fields, described below.



WORLD DEVELOPMENT INDICATORS

(9) The WDI Disaster Risk Reduction (DRR) progress score is an average of self-assessment scores, ranging from 1 to 5, submitted by countries under Priority 1 of the Hyogo Framework National Progress Reports (1–5 scale; 5=best). *Source:* http://data.worldbank.org/indicator/EN.CLC.DRSK.XQ.

The Disaster Risk Index (DRI) is a mortality-based index developed in order to enable comparisons of countries hit by different hazard types (7 classes; 7=high mortality risk). *Source:* http://www.nat-hazards-earth-syst-sci.net/9/1149/2009/nhess-9-1149-2009-supplement.pdf.

Income classification, according to GNI per capita: low income, US\$1,025 or less; lower middle income,

GFDRR ENGAGEMENT

- 1 Trust fund of origin for resources awarded by GFDRR:
 - Multidonor Trust Fund for Mainstreaming (MDTF),
 - Single-Donor Trust Funds (ACP-EU, Japan, Brazil, Spain, or Australia SDTF),
 - Standby Recovery Financing Facility (SRFF), or
 - a combination of the above.
- 2 Total resources awarded by GFDRR (for active projects) or disbursed (for completed projects).
- 3 Total resources disbursed.
- 4 Number of active and completed projects.
- Percentage of resources deployed for activities executed by the World Bank.
- (6) Percentage of resources deployed for recipientexecuted activities, implemented by an agency external to the Bank, typically a Government agency. This modality of implementation involves the signing of a Grant Agreement. The Bank appraises and supervises activities, and the Bank's operational policies and procedures apply.

All figures in fields (1) to (6) refer to projects listed in (20) and represent amounts accrued between 2007 and October 10, 2012, for single-country projects in the country under consideration.

- Ministry (or Ministries) interacting directly with the World Bank for GFDRR-funded activities. When activities are recipient-executed, the field refers to the counterpart Ministry of the implementing agency.
- (8) Implementing agency (or agencies; for recipientexecuted activities only).

US\$1,026–US\$4,035; upper middle income, US\$4,036– US\$12,475; and high income, US\$12,476 or more.

- 1 Total population. Source: http://data.worldbank.org/indicator/SP.POP.TOTL.
- (12) Gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products.

Source: http://data.worldbank.org/indicator/NY.GDP.PCAP.CD.

13 Poverty-headcount ratio at national poverty line (% of population). National estimates are based on populationweighted subgroup estimates from household surveys, updated with variable frequency. Source: http://data.worldbank.org/indicator/SI.POV.NAHC.

Urban population refers to people living in urban areas as defined by national statistical offices. *Source:* http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS.

Fields (9) to (14) have all been updated on October 10, 2012, based on the latest figures available from the World Development Indicators (data.worldbank.org). Disaster Risk Index values are from 2009.

DRM SPECIALIST

13 Name and contact information of the DRM Specialist, either based in the country or supporting the implementation of GFDRR activities from World Bank's headquarters.

KEY PARTNERS

(16) List of national, regional, international organizations; nongovernmental or civil society organizations; and donors, supporting DRM and CCA in the country, and interacting with the World Bank and GFDRR. A longer list, including the full names of organizations, is provided in (23)

DRM/CCA IN POLICY PAPERS

Assessment of the level of DRM and CCA mainstreaming in most common policy papers, including the National Poverty Reduction Strategy (PRSP), World Bank Country Assistance Strategy (CAS), European Commission Country Strategy Paper (CSP), UN Development Assistance Framework (UNDAF), National Adaptation Program of Action (NAPA), and Regional Economic Groupings' strategies. The rating methodology allows for comparison of documents within one country; however, it does not allow for comparison from one country to another. Some updates provide links to the latest version of these documents.

NATIONAL PLATFORM

In this field, information is provided about the national DRM coordination mechanism: its name, status with UNISDR (declared/not declared), participation of the World Bank (when the structure allows for participation of international agencies), mandate of the structure limited to DRM/including climate change adaption (DRM & CCA/DRM only).

NATIONAL LEGISLATION

(19) The latest and most comprehensive DRM-related legislative document is described, including its date, name, focus, strengths, weaknesses, and revisions expected.

GFDRR-FUNDED PROJECTS' OUTCOMES

20 This table lists single-country projects funded by GFDRR in the country. The project name, budget, schedule, and status are provided in the left column; the objectives and (expected) outcomes are depicted in the right column. When available, information is provided on achievements to date as well as follow-up activities developed with a clear link to projects described.

SYNERGIES AND COMPLEMENTARITIES WITH OTHER PROJECTS

- Projects in the World Bank portfolio supporting DRM and CCA in the country. The project name, budget, schedule, and status are provided in the left column when available. A short description of objectives and outcomes is listed in the right column.
- (2) Partners active in DRM and CCA in the country. The name of the donor/partner is shown in the left column. A short description of the donor/partner's contribution is provided in the right column.

PARTNERSHIPS AND COORDINATION

- (23) List of national, regional, international organizations; nongovernmental or civil society organizations; and donors supporting DRM and CCA in the country, and interacting with the World Bank and GFDRR. A shorter list, using acronyms, is provided in 16.
- 29 Description of coordination and partnerships in the country for DRM and CCA, with specific focus on the role of GFDRR and the World Bank.

CLIMATE CHANGE AND DISASTER RISK PROFILE

Short description of (i) country's most frequent natural hazards, (ii) impact of historic disasters on people and assets, (iii) vulnerability of specific socioeconomic groupings and productive sectors, and (iv) likely climate change effects in the country.

PRIORITIES FOR GFDRR ENGAGEMENT

- 26 The table provides, in order of priority, a list of "areas of opportunities" for future GFDRR engagement in DRM/CCA. These priorities have been preidentified from a list of 13 areas, and then expressed with open phrasing.
- The last placeholder provides more detailed information about implementation constraints, country context, and upcoming opportunities and priorities for GFDRR support in the country.



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