

# Urban Resilience and World Bank Investments

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*Disaster Risk Management and  
Climate Change Adaptation  
in Urban Areas*

**FIRST PHASE REPORT**

June 2013

Urban and Disaster Risk Management Department  
The World Bank



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This portfolio review was jointly prepared by the Urbanization and Resilience Management Unit (UDRUR) and the Global Facility for Disaster Reduction and Recovery (GFDRR) of the Urban and Disaster Risk Management Department (UDR) for the purpose of promoting a greater understanding of the role of the World Bank in assisting client cities with their urban resilience. An initial draft of this Report was presented at a session of the Sustainable Development Forum in February 2013, and comments received have been incorporated.

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## **FOREWORD**

A virtual review of the draft report was conducted between June 7 and 21, 2013. Comments were received from the three Peer Reviewers who concurred in establishing that, while rich in providing data and trends, the draft report did not yet fully meet the stated objectives of the review, and recommended that further work be carried out on the report.

The team concurred with this recommendation, and in consultation with Management it was decided that the present version would be considered as a First Phase Report. Further work including analytics of project typologies and results will be carried out in FY14 in order to complement and enrich the report as recommended, together with the planned continuation of the analysis of urban resilience and partnerships.





## EXECUTIVE SUMMARY

Demographic trends and rapid urbanization will cause 95% of global urban growth over the next 20 years to occur in developing and emerging countries, dramatically increasing the size of population and value of assets exposed to a number of critical risks, which are also on the rise.

This review of Bank investments in urban resilience is motivated by the prominence that such increasing exposure of urban areas to the impacts of natural disasters, climate variability, and climate change is acquiring in defining the development priorities of the institution.

Urban resilience (UR) is defined in this review as **the capability of urban systems to prepare for and respond to the risks and impacts of natural hazards, climate variability, and climate change**. It includes “soft” measures, such as land use and urban planning, community awareness and preparedness, monitoring of hazards and risks, early warning systems, emergency and evacuation plans, as well as “hard” or physical interventions, such as the retrofitting of critical infrastructure, adapting buildings and urban spaces, managing retreats and relocation from at risk areas, and maximizing eco-systems services.

**The portfolio review has two objectives:** a) to assess to what degree and in which ways the Bank is promoting urban resilience in its client cities through its investments; and b) to promote further operational focus on urban resilience by identifying the typology of projects being delivered and show-casing some examples of on-going interventions. This review will help further align the activities of the Urbanization and Resilience Management Unit and the Global Facility for Disaster Reduction and Recovery on building urban resilience.

**The review covers the Bank’s portfolio as of December 31, 2012** and takes into account all investment projects from FY03 to FY13 through the filter of the six theme codes which are directly related to urban resilience: *Natural Disaster Management; Climate Change; Water Resource Management; Urban Services and Housing for the Poor; Environmental Policies and Institutions; and Vulnerability Assessment and Monitoring*. The review identified **228** projects which were further classified in two categories based on their level of relevance: 1) **47** core urban resilience projects; and 2) **181** directly relevant projects.

- 1. Core Urban Resilience projects:** projects that target urban areas, and have contents exclusively relevant to urban resilience, disaster risk management, climate change adaptation in urban areas.
- 2. Directly Relevant projects:** projects that also include components located beyond urban areas, or are of a national policy nature, or that despite different objectives help mainstream urban resilience.

## Main findings

- 1. The Bank's financial investments in urban resilience stand at \$13.6 billion over a decade**, comprising \$3.8 billion for the core UR projects, and \$9.8 billion for the directly relevant projects. These investments have contributed to financing projects which, by including counterpart and other funding, are valued respectively at \$5.4 billion and \$13.8 billion, for a total of \$19.2 billion.
- 2. The review shows an increasing trend in the level of commitments to UR projects**, with core urban resilience projects reaching their highest number so far per approval year in FY12, and with the three last FYs of the review showing a considerable increase in the overall amount of investments in core UR and directly relevant projects. LCR is the region with the highest concentration of Bank investments, with over \$4 billion, followed by SAR with over \$3 billion. Thus, these two regions combined absorbed over half of the overall Bank investments in UR.
- 3. The Natural Disaster Management theme is overwhelmingly prevalent in UR projects**, followed by the Water Resource Management theme for the core projects and by the Climate Change theme for the Directly Relevant ones.
- 4. The Urban Sector Board is responsible for nearly 80% of Core UR investments**, and for more than 50 percent of Directly Relevant UR investments. Further analysis of the portfolio shows operational links to 11 Sector Boards, with Water, Agriculture and Rural Development, Environment, Transport and Economic Policy having significant roles.
- 5. All core UR investments are channeled through Specific Investment Loans, Emergency Recovery Loans or Adaptable Program Loans.** On the other hand, a quarter of the Directly Relevant UR projects are channeled through Development Policy Loans in addition to the above instruments and to Technical Assistance, Sector Adjustment and Financial Intermediary Loans.
- 6. The 47 core urban resilience projects are distributed across all six regions.** EAP is prevalent with one third of the projects and the highest volume of investments (\$1.3 billion) reflecting the high exposure to urban risk of the cities of the region as well as the Bank's commendably high level of engagement. The single largest financial commitment to a core UR project is the China Wenchuan Earthquake Recovery Project with \$710m of investments.
- 7. The review provides detailed profiles of 18 projects, three per region**, selected primarily among the Core Urban Resilience category of the portfolio, and includes some cases of directly relevant projects. These project profiles offer insights into the magnitude and kinds of urban risks faced by the Bank's client cities and into the responses currently provided under the Bank's operations. They provide a significant encouragement to work more on building urban resilience in the cities of developing and emerging countries.

## Further work

As mentioned in the Foreword, the present review of the World Bank investments in urban resilience will continue in FY14. Further work will include an exploration of the following areas:

**8. A review the scale of urban vulnerability to disaster risks, climate variability and climate change impacts,** globally and by region, as a backdrop to the Bank's engagement. A review of the the available rankings of cities in terms of their relative exposure will help assessing the priority entry points for further actions by the Bank. The level of present Bank commitments, with only 0.5% of total projects (47 out of 8,857) fully devoted to urban resilience in the FY03-FY13 decade of the portfolio review will also be addressed.

**9. Deepening the analysis of the portfolio review,** including the assessment of how emergency response projects differ from investments in longer-term preparedness. To address urban resilience, the Bank will need to substantially increase its core projects in response to growing demands for technical and financial assistance from client countries and cities. Further integration of disaster risk management and climate change adaptation will also be required, based on more detailed assessments of future climate scenarios relevant to the target cities.

**10. Deepening the analysis of the case studies,** relying more on ex-post information for closed projects and on supervision reports and interviews with teams for on-going operations. For those case studies which report on investment operations which have been closed, the review will include evidence of outcomes and impacts on urban resilience from Implementation Completion Reports. For those case studies related to on-going operations, the review will be based on Implementation Supervision Reports and interview with Bank teams.

**11. Reviewing non-lending knowledge management Bank activities related to urban resilience.** In the past five years, a significant amount of analytical work addressing urban resilience has been directly produced by the Bank, or commissioned to highly qualified external expert groups. Urban Risk Assessments have been conducted for a number of client cities, and methodological knowledge products and guidebooks have been published. In addition, urban resilience has also been incorporated in the Bank's capacity building courses.

**12. Reviewing the initiatives devoted to urban resilience developed by other development agencies and municipal networks,** as well as best-practice city-specific urban resilience and climate change adaptation action plans. This will allow the Bank teams to assess the relevance of the policies adopted and of the investments being made, in order to incorporate innovations in the design of its own operations, and developing or strengthening partnership agreements.



## SECTION 1: REVIEW FRAMEWORK

### 1. Introduction

The vulnerability of cities to natural disaster risks has been increasing significantly in the past decades, as a result of climate variability, extreme weather events, the manifestations of climate change as well as on account of demographic growth and accelerated urbanization in the developing world. Population growth in low-income countries is more than twice the rate of middle-income countries and three times that of high-income countries. During the next 20 years it is projected that over 95 percent of the population growth in developing countries will take place in urban areas. Current demographic transformations towards densely populated urban areas are resulting in an ever increasing exposure of people and assets to natural hazards and to the impacts of climate variability and of climate change.

The World Bank has an active portfolio of investments in urban areas, ranging from the provision of infrastructure, to urban services delivery, the promotion of functional land and housing markets, to strategies to align economic growth and urban expansion, addressing urban poverty, urban management, upgrading of substandard and informal settlements and urban regeneration.

In parallel, the World Bank invests in post-disaster reconstruction in urban areas hit by severe catastrophes such as earthquakes, tsunamis, flooding and other disasters, and promotes disaster preparedness and the build-up of institutional and technical capabilities to better forecast, mitigate and manage urban risks. In recent years, climate change adaptation has emerged among the objectives of Bank assistance to client Governments and it is rapidly becoming part of its investments in urban areas. The social dimensions of climate change are increasingly addressed by the Bank in its client cities as well.

### 2. Urban Resilience: a Working Definition

Urban resilience can be defined in a variety of ways, and may include reference to the robustness of the urban systems to economic shocks, epidemics, and social upheavals. For the purpose of this portfolio review, however, urban resilience is more narrowly defined, as **the capability of urban systems to prepare for and respond to the risks and impacts of natural hazards, climate variability, and climate change**. Urban resilience includes “soft” measures, such as land use and urban planning, community awareness and preparedness, monitoring of

hazards and risks, early warning systems, emergency and evacuation plans, as well as “hard” measures or physical interventions, such as the retrofitting of critical and defensive infrastructure, adapting buildings and urban spaces, managing settlement retreat and relocation from at-risk areas, and adapting eco-systems services to a changing climate.

Such working definition, with some variations, is adopted by various international agencies, municipal networks and non-governmental organizations active in disaster risk management and climate change adaptation in urban areas, with which the Bank maintains working relationships. It was taken as the premise for the present portfolio review of Bank investments in urban resilience, and hopefully will be officially adopted by the institution.

### 3. Objectives and Scope of the Review

The present portfolio review of urban resilience investments has two objectives: a) to assess to what degree and in which ways the World Bank is promoting urban resilience in the cities of its client countries through its investments; b) and to promote further operational focus on urban resilience by identifying the typology of projects being delivered and show-casing some examples of on-going Bank interventions in this domain. This joint portfolio review will also help to align the activities of the Urbanization and Resilience Management Unit and of the Global Facility for Disaster Reduction and Recovery in building urban resilience.

These two units, which are part of the recently reconfigured Urban and Disaster Risk Management Department of the Bank, are ideally placed to jointly provide cities with: i) appropriate tools to effectively plan and engage in urban disaster risk reduction and climate adaptation; and ii) financial resources, expertise, knowledge and advisory support in planning and implementing urban resilience building programs. Such activities can only be carried out in partnership with the Bank’s regional units in charge of the operational investments.

This report is structured in three sections. The first discusses the approach used, the methodology, parameters and procedures applied to identify the universe of urban resilience investments. The second presents and interprets the findings of the review, their relevance for each of the Bank regions, and the inter-play of the six key themes to be found in the urban resilience projects. The third presents 18 profiles of urban resilience projects, suggesting the wide variety of Bank interventions and providing insights on urban resilience challenges and responses. The report includes an appendix on typical project activities classified by theme, and an appendix containing the complete list of projects reviewed and related data.

The review targeted the last 10 fiscal years, i.e. FY03-FY13, and focused on the projects in Closed, Active or Pipeline status as of January 1, 2013. Projects identified in the second half of

FY13 are not included. The Bank-wide theme coding system was adopted to define the boundaries of the universe of projects contributing to urban resilience, as it provides the basis for analyzing and reporting on the content of all Bank activities. Among the 82 established theme codes, six were selected as the ones directly related to Urban Resilience as previously defined.

### Operation Portal theme codes directly related to Urban Resilience

Code Number	Theme (Major Theme)	Acronym
52	Natural Disaster Management (Social Protection and Risk Management)	NDM
55	Vulnerability Assessment and Monitoring (Social Protection and Risk Management)	VAM
71	Urban Services and Housing for the Poor (Urban Development)	USHP
81	Climate Change (Environment and Natural Resources Management)	CC
82	Environmental Policies and Institutions (Environment and Natural Resources Management)	EPI
85	Water Resource Management (Environment and Natural Resources Management)	WRM

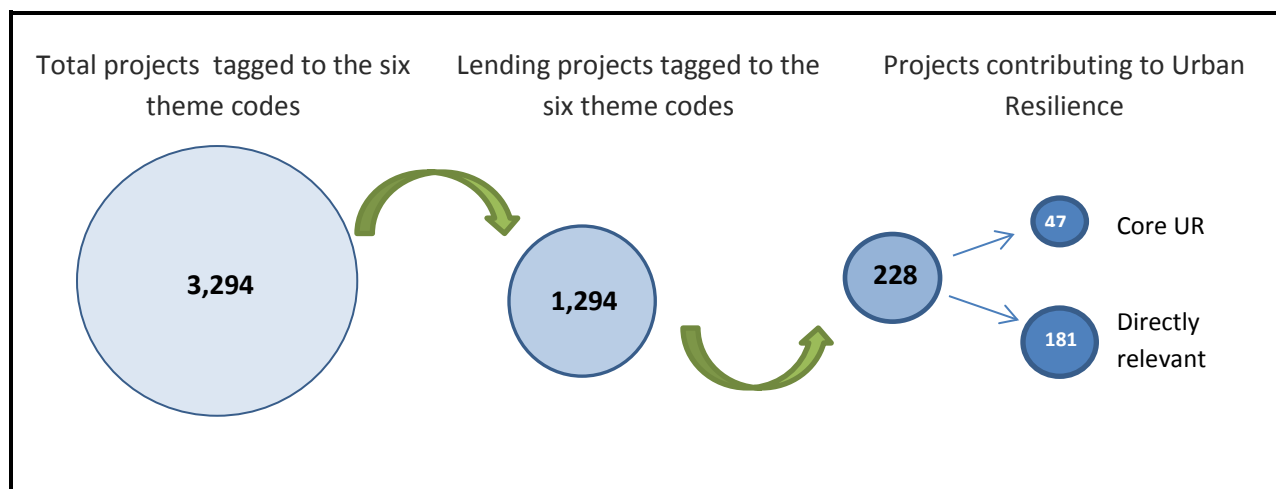
### Themes codes and World Bank activities coding

Themes define the goals and objectives pursued by Bank activities consistently with the Bank's corporate advocacy and global public goods priorities. They are also used to capture Bank support to the Millennium Development Goals. Theme and sector codes are assigned to lending operations, economic and sector work, technical assistance (non-lending), research services, client training, and other activities that directly serve the Bank's external clients. Activities that serve the Bank's internal needs—e.g., quality assurance, country assistance strategies, sector strategy papers, knowledge products, training of Bank staff—are not coded by sectors and themes.

Identifying Bank projects contributing to Urban Resilience followed three sequential steps. First, all lending and non-lending projects tagged with one or more of the six priority theme codes were selected (3,294 projects). Then, all non-lending activities were identified and excluded (2,000 projects). Lastly, Bank projects contributing to Urban Resilience were qualitatively

identified by the team by reviewing the location, development objectives and components of each one of them. Out of 1,294 projects, the team identified 228 which it classified as contributing to Urban Resilience.

### Procedure followed to identify Bank projects contributing to Urban Resilience



These 228 projects were then subdivided into two categories, based on the location and contents of each one of them. The two categories are intended to classify the degree of a given project's relevance to Urban Resilience objectives:

- 1. Core Urban Resilience projects:** projects that target urban areas, and have project development objectives and components exclusively relevant to urban resilience, disaster risk management, and climate change adaptation in urban areas.
- 2. Directly relevant projects:** projects that include components located beyond urban areas, or that are of a national policy nature, or that despite having sector-specific objectives help build and mainstream urban resilience.

The most typical components of the two categories are listed below. To examine the correlation between the two categories and the six theme codes, refer to Appendix 1.

#### 1. Core Urban Resilience projects:

- Urban resilience
- Disaster risk management
- Adaptation to climate change
- Institutional reforms conducive to urban resilience
- Capacity building conducive to urban resilience
- Physical upgrading of urban infrastructure to make it more resilient



- Mitigating urban flooding and drainage improvement to reduce impacts from catastrophic flooding
- Post-disaster reconstruction that incorporates urban resilience considerations
- Urban community livelihood support
- Earthquake and tsunami risk mitigation
- Early warning systems

## **2. Directly relevant projects:**

- Activities that integrate DRM, climate risks and adaptation into traditional urban development investments
- Catastrophic risk insurance, CAT-DDOs, and other financial insurance instruments
- Watershed management and flood protection in regional water resource management
- National climate adaptation policies and national planning
- National post-disaster support and emergency operations
- Urban upgrading, slum upgrading, and social housing provision
- Road and transport systems climate resilience
- National policy frameworks that incorporate climate resilient growth

The review also covered the types of lending instruments utilized by the Bank teams in preparing urban resilience projects. The following list indicates that the complete suite of lending instruments is being used:

- Emergency Recovery Loan
- Specific Investment Loan
- Technical Assistance Loan
- Adaptable Program Loan
- Financial Intermediary Loan
- Development Policy Lending

Finally, the review assessed the amount of lending per project as well as the total project cost, which would include Government counterpart financing as well as financial contributions to the project costs by other parties, such as bilateral development agencies. Given that the Bank acts as the Administrator of many multi-donor facilities, to which it also contributes, such as the Global Facility for Disaster Reduction and Recovery (GFDRR), in some cases the urban resilience projects prepared by the Bank teams are not accompanied by Bank lending. This applies primarily to Technical Assistance Loans as well as to Specific Investment Loans.

## SECTION 2: PORTFOLIO REVIEW RESULTS

### 1. Overview

As of December 31, 2012 and for the 10-year period of FY03 -- FY13, there were 3,294 projects coded with one or more of the six core theme codes out of a total of 8,857 projects across all sectors. The 228 projects contributing to Urban Resilience thus represent a small cohort of the entire World Bank portfolio, or approximately 2.5% of the total number (See Table 1). The FY13 data only cover the first six months of the fiscal year, and this might skew the perception of some graphs below.

**Table 1. Projects contributing to Urban Resilience as percentage of total Bank-wide portfolio**

	# of projects	% of total
Bank-wide portfolio	8,857	100%
Projects contributing to urban resilience	228	2.5%

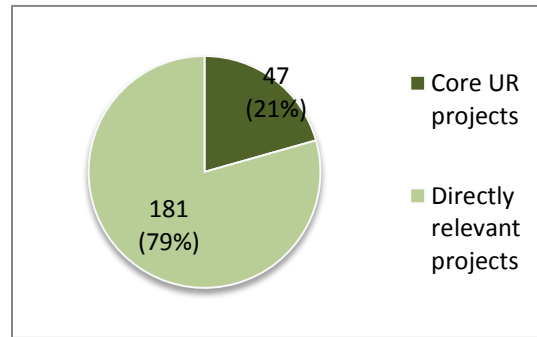
Of the 228 projects contributing to Urban Resilience, 47 were classified as Core Urban Resilience Projects, or 21% of the total, with an aggregate value of US\$ 3.8 billion, and 181 were classified as Directly Relevant Projects, equivalent to 79% of the total, with an aggregate value of US\$9.8m.

**Table 2. Distribution of projects contributing to Urban Resilience**

Category	# of projects	Closed	Active	Pipeline	% of total	Total US\$ (million)
Core UR Projects	<b>47</b>	14	23	10	21.0%	3,768
Directly relevant projects	<b>181</b>	44	110	27	79.0%	9,836
<b>Total</b>	<b>228</b>	<b>58</b>	<b>133</b>	<b>37</b>	<b>100.0%</b>	<b>13,604</b>

The complete list of 228 projects is attached (See Appendix II). Each project is coded according to the Project ID, Project name, Approval FY, Region, Country, Sector Board, Lending Instrument, Project Status, Total Project Cost, Lending Project Cost (total of IBRD or IDA commitment), and relevant themes out of the six selected which have been applied to the project coding.

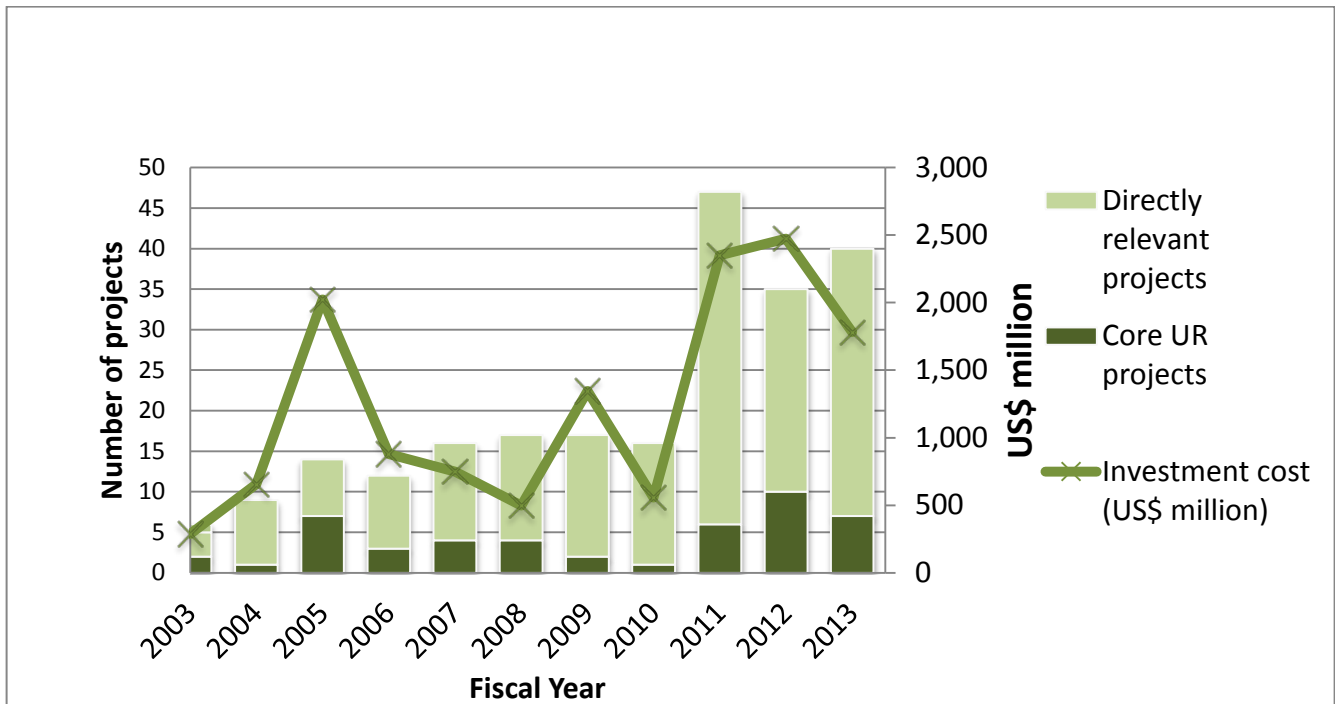
**Chart 1. Core and directly relevant Urban Resilience projects**



## 2. Analysis of Projects Contributing to Urban Resilience

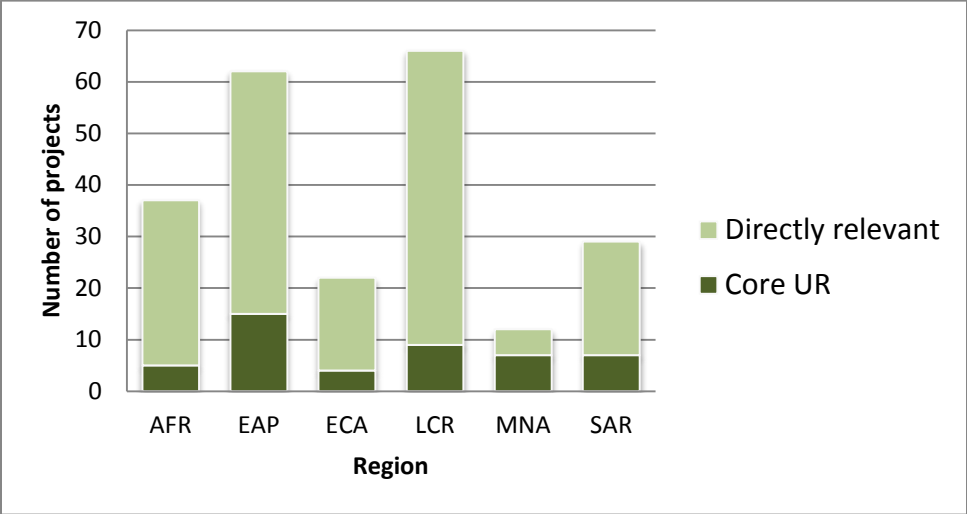
The portfolio review shows a trend of general increase in the commitments by FY to projects contributing to urban resilience, with the core urban resilience projects reaching their highest number so far per approval year in FY12, and with the three last FYs of the review showing a considerable increase in the overall amount of investments in core and directly relevant projects. The complete data for FY13, when available, is likely to show a further increase.

**Chart 2. Projects contributing to Urban Resilience by year approved**



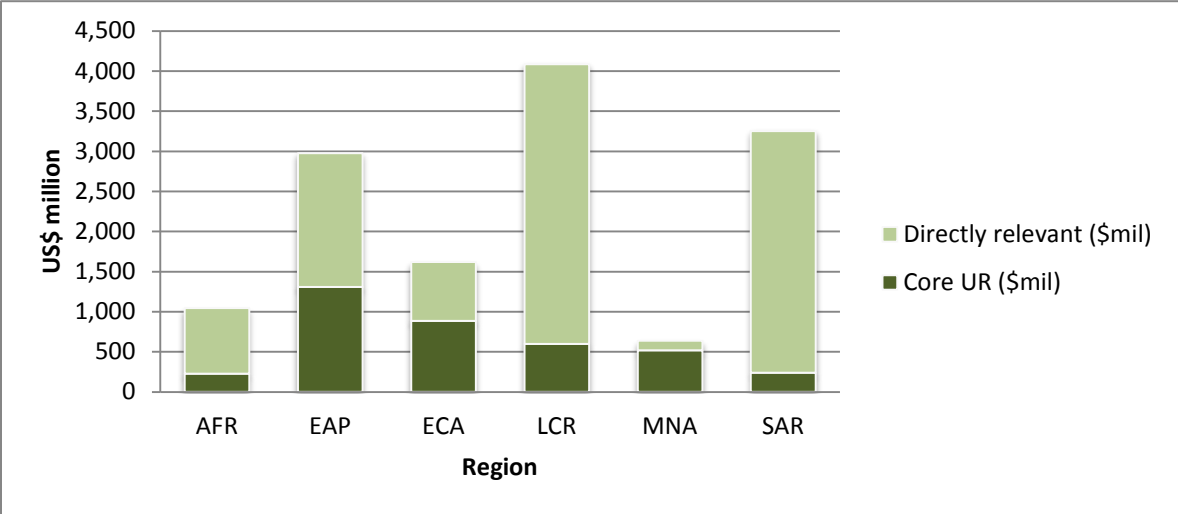
East Asia and Pacific (EAP) and Latin American and Caribbean (LCR) are the two regions with the highest concentration of Urban Resilience projects, both Core and Directly Relevant, with over sixty in each region, followed by Africa (AFR), South Asia (SAR) and Middle East and North Africa (MENA).

**Chart 3. Number of projects contributing to Urban Resilience by region**



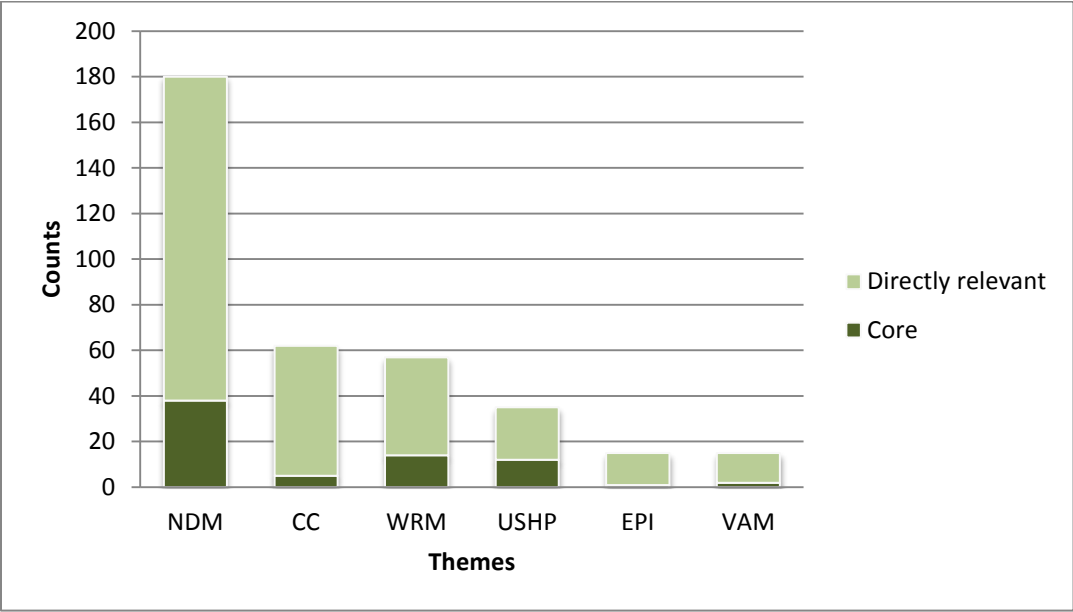
LCR is the region with the highest concentration of Bank investments, with over \$4 billion, followed by SAR with over \$3 billion. Thus, these two regions combined absorbed over half of the overall Bank investments in Urban Resilience, of \$13.5 billion. However, EAP shows the highest volume of investment (\$1.3 billion) in core UR projects.

**Chart 4. Investment value of projects contributing to Urban Resilience by region**



In terms of prevalence of themes with which the Urban Resilience projects have been tagged in the Bank systems, the Natural Disaster Management theme is overwhelmingly prevalent, both for the core Urban Resilience projects and for the Directly Relevant projects, followed by the Water Resource Management theme for the core projects and the Climate Change theme for the Directly Relevant ones.

**Chart 5. Prevalence of themes in projects contributing to Urban Resilience**



*NDM: Natural Disaster Management; USHP: Urban Services and Housing for the Poor; WRM: Water Resource Management; VAM: Vulnerability Assessment and Monitoring; CC: Climate Change, EPI: Environmental policies and institutions*

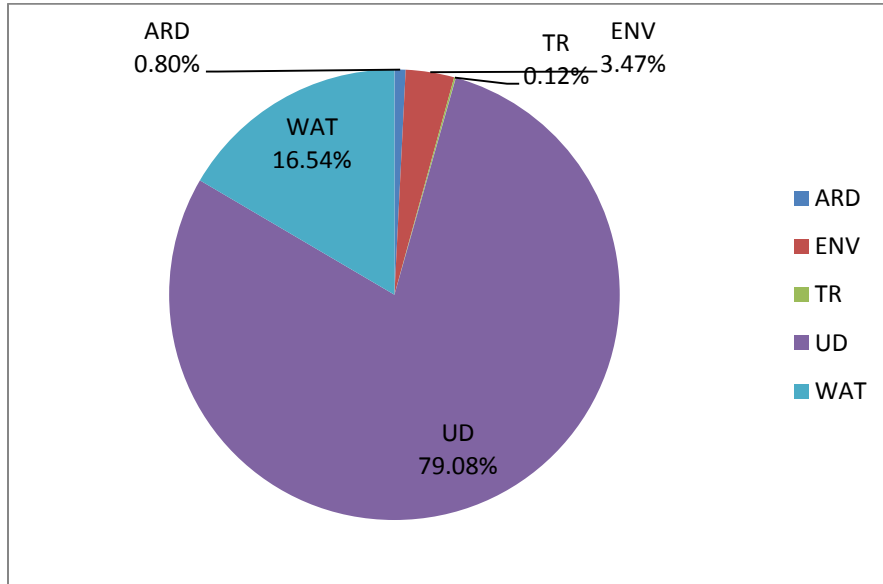
### 3. Distribution of Urban Resilience Projects by Sector Board

The portfolio of projects contributing to urban resilience, as a whole, indicates their primary affiliation to the Urban Development Sector Board, which oversees investments in both urban development and Disaster Risk Management. This Sector Board is responsible for nearly 80 percent of Core Urban Resilience projects, and for more than 50 percent of Directly Relevant Urban Resilience projects.

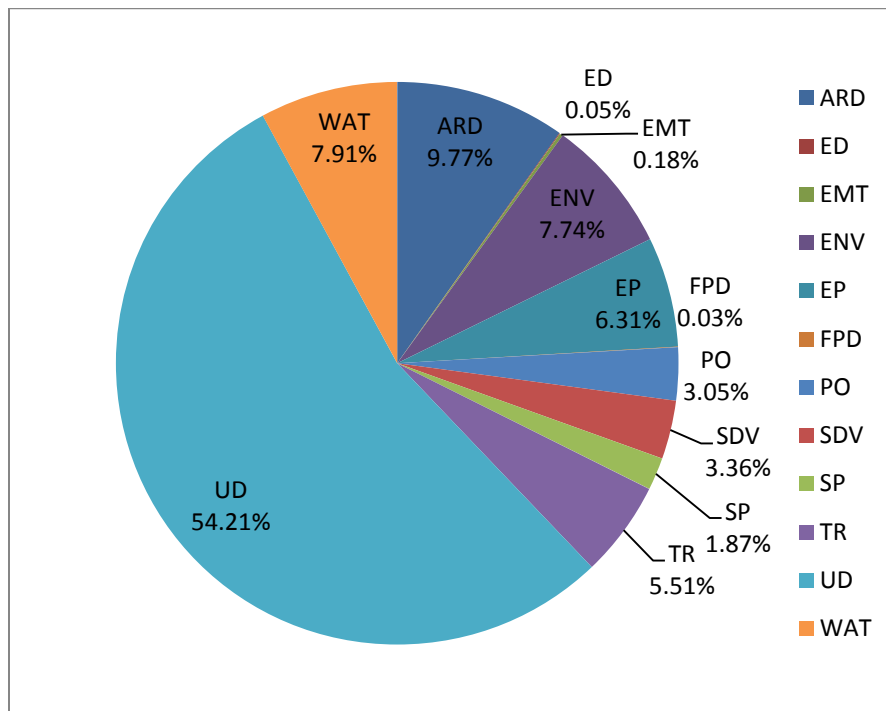
While in the case of core projects Water is the only other significant Sector Board with 16.5 percent of the projects, Directly Relevant projects are much more mainstreamed with seven other Sector Boards involved: Agriculture and Rural Development (ARD), Environment (ENV), Economic Policy (EP), Poverty Reduction (PO), Social Development (SDV), Social Protection (SP), and Transport (TR). Moreover, Education (ED), Energy and Mining (EMT), and Finance and

Private Sector Development (FPD), also contribute marginally to the portfolio. This confirms the relevance of many sector investments for urban resilience.

**Chart 6. Core Urban Resilience projects by Sector Board**



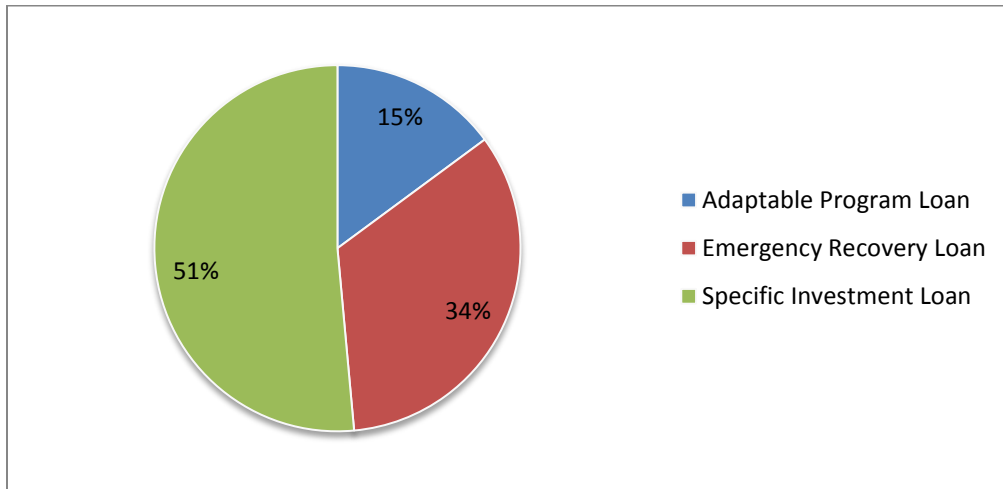
**Chart 7. Directly relevant Urban Resilience projects by Sector Board**



#### 4. Distribution of Urban Resilience Projects by Lending Instruments

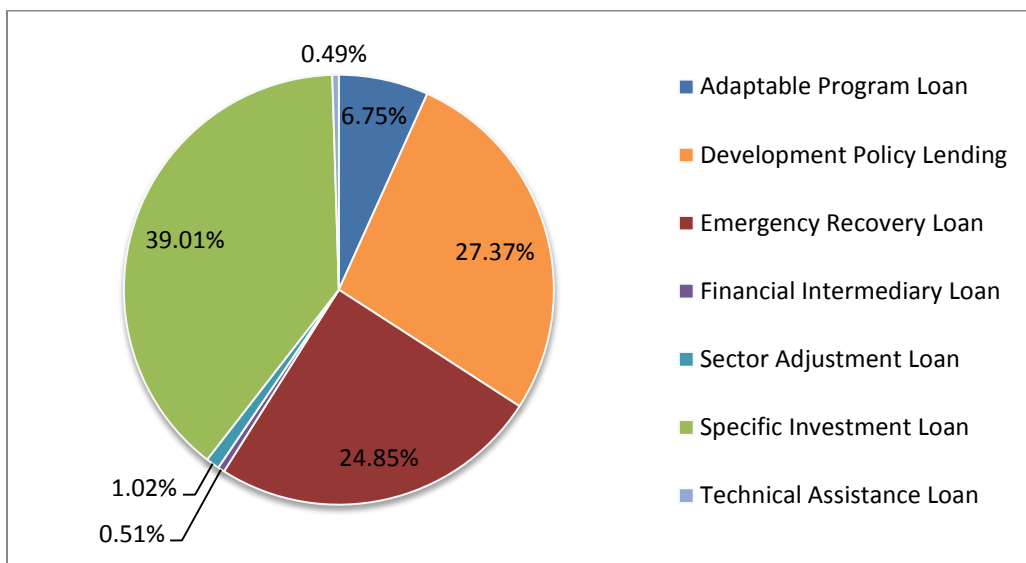
All core UR investments are channeled through Specific Investment Loans, Emergency Recovery Loans or Adaptable Program Loans, with half of Core UR projects classified as SILs.

**Chart 8. Core Urban Resilience investments by Lending instrument**



A quarter of the Directly Relevant UR projects are channeled through Development Policy Loans, mainly comprised of Catastrophe Deferred Drawdown Options (CAT-DDOs) in the LCR region in addition to one in Philippines. The review shows marginal usage of the Technical Assistance, Sector Adjustment and Financial Intermediary Loans.

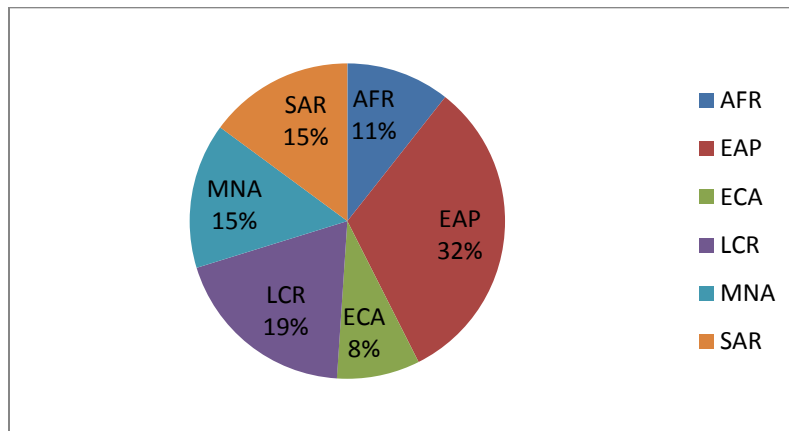
**Chart 9. Directly relevant Urban Resilience investments by Lending instrument**



## 5. Detailed analysis of Core Urban Resilience Projects

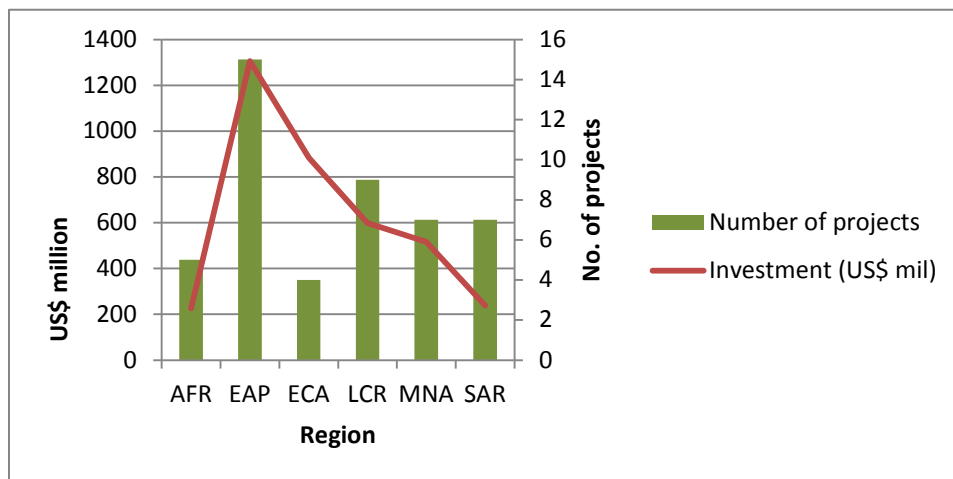
The 47 core urban resilience projects are distributed across all six regions. EAP has the largest number of core urban resilience projects (16), followed by LCR (9), SAR (7) and MNA (7), AFR (5), and ECA (4). The prevalence of EAP with one third of the projects reflects the high exposure to urban risk, in the cities of the region and the Bank’s commendably high level of engagement.

**Chart 10. Distribution of Core UR projects by region**



EAP also has the largest financial commitment in core urban resilience projects with \$1.3 billion, followed by ECA with \$884m, LCR with \$598m, MENA with \$516m, SAR with \$238m, and AFR with \$225m. The single largest financial commitment to a core UR project is the China Wenchuan Earthquake Recovery Project with an investment of \$710m.

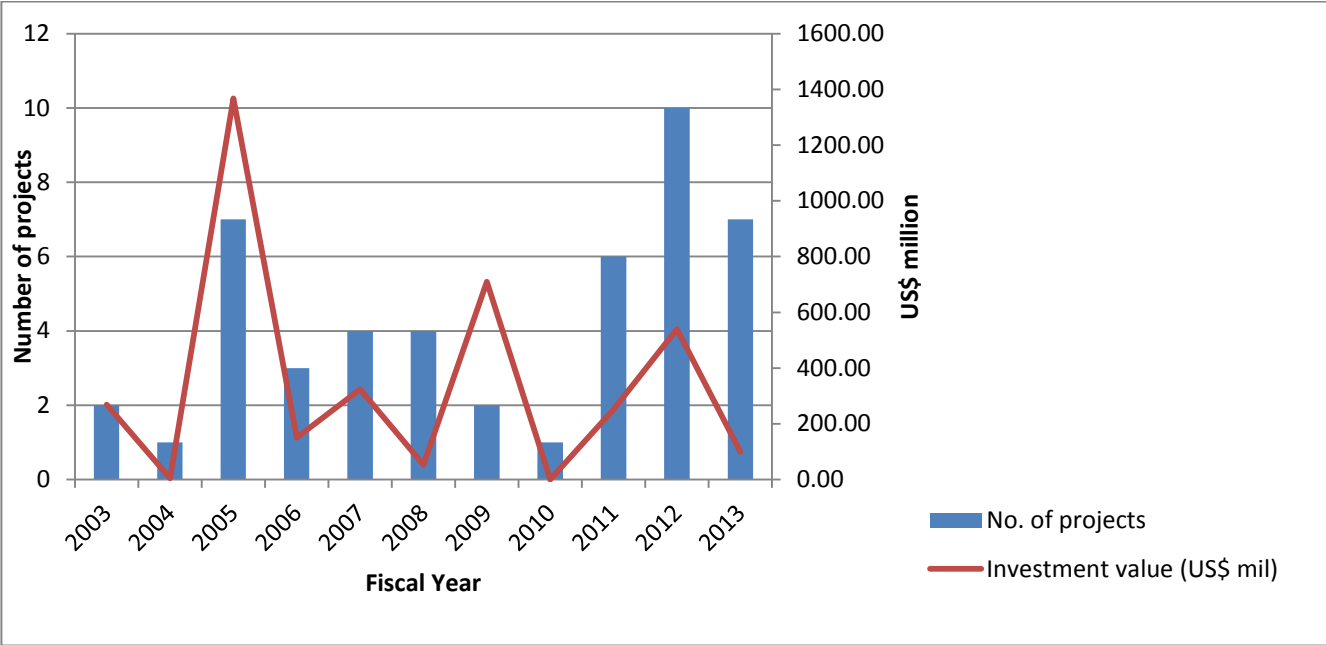
**Chart 11. Number and investment value of core projects by region**





There is a positive trend in the number of core urban resilience projects approvals per fiscal year, with the last three FYs showing the highest concentration of Core Urban Resilience projects entering the portfolio. In terms of investment value, FY05 remains the FY with the highest investment, given the approval of a number of large projects in China, Turkey, Colombia, Argentina and Iran.

**Chart 12. Core Urban Resilience projects by year approved**



## **SECTION 3: PROFILES OF SELECTED URBAN RESILIENCE PROJECTS**

This section provides short profiles of 18 projects, three per region, selected with two exceptions from the Core Urban Resilience category of the portfolio. The project profiles offer insights into the kinds of urban risks faced by the Bank’s client cities and the responses provided under the Bank’s operations. Many are related to urban flooding, sea-level rise and coastal erosion, many others to seismic risks.

They include post-disaster reconstruction and recovery operations, which explicitly incorporate objectives of “building back better”, as well as others which have the objectives of disaster prevention, climate change adaptation and of creating resilience and risk management capacity. As three quarters of the operations are in an Active status, the profiles do not offer any reporting on the actual impacts or success of the projects, and limit themselves to the statement of project development objectives, components and activities and their specific relevance to the theme of urban resilience.

Project ID	Project name	FY	Region	Country	Sector Board	Themes					
						NDM	WRM	CC	USHP	VAM	EPI
P123201	Cities and Climate change	2012	AFR	Mozambique	UD	X					
P122841	Storm-water, Climate Change Adaptation	2012	AFR	Senegal	ENV	X	X				
P113145	Emergency Urban Environment	2011	AFR	Benin	ENV	X					
P114107	Wenchuan Province Earthquake Recovery	2009	EAP	China	UD	X					
P111034	Jakarta Urgent Flood Mitigation	2005	EAP	Indonesia	WAT	X	X				
P088246	Cyclone Emergency Recovery	2004	EAP	Samoa	TR	X					
P078359 P122179	Seismic Risk Mitig. & Additional Financing	2005 2011	ECA	Turkey	UD	X					
P123896	Southeast Europe Caucasus Cat. Risk Insurance Facility	2012	ECA	Albania, Macedonia Serbia	UD	X		X			
P127130	Municipal Infrastruc. additional financing	2012	ECA	Tajikistan	WAT	X			X		
P085727	Disaster Vulnerability Reduction APL2	2006	LCR	Colombia	UD	X					
P093491	Urban Flood Prevention Drainage	2006	LCR	Argentina	WAT		X				
P125805	PAP Neighborhood housing reconstruction	2011	LCR	Haiti	UD	X			X		
P109219	Taiz Municipal dev. and Flood Protection	2012	MENA	Yemen	UD	X			X		
P089968	Flood Emergency Rehabilitation	2005	MENA	Djibouti	UD	X	X		X		
P088060	Bam Earthquake Emergency Reconstr.	2005	MENA	Iran	UD	X			X		
P092217	National Cyclone Risk Mitigation	2012	SAR	India	UD	X					
P128902	Strengthening Urban Disaster Response	2012	SAR	Pakistan	UD	X					
P122735	Metro Colombo Urban Development	2012	SAR	Sri Lanka	UD	X	X				

## 1. Mozambique - Cities and Climate Change

<b>P123201</b>	<b>FY 2012</b>	<b>AFR</b>	<b>Lending Instrument : Specific Investment Loan</b>					
<b>Sector Board:</b> Urban Development		<b>Status:</b> Active	<b>Themes</b>					
<b>Duration:</b> Apr 2012 – Dec 2017			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost:</b> US\$ 120 million			X					
<b>Total Project Cost:</b> US\$ 120 million								



### Background:

Mozambique's development is severely handicapped by natural disasters. It is one of the world's most vulnerable countries and ranks third among African countries in exposure to risks resulting from climate variability. Mozambique also continues to be one of the poorest countries in the world. A major natural disaster has struck the country at least every five years, translating to an average loss in GDP growth of over 1% per year. Multiple studies predict that climate change will have important implications for the country by increasing coastal storms, droughts, saline intrusion, and flooding. Mozambique's cities are particularly vulnerable to flood and erosion risks. Cities play a critical role in the country's development by providing essential transport and supporting services to the agriculture, tourism and extractive sectors which are the main sources of the country's wealth. This project thus aims to reduce the risks and vulnerabilities associated with climate-related impacts in the coastal cities of Beira, Nacala, and Maputo.

### Project development objectives (PDO):

The PDO is to strengthen municipal capacity for sustainable urban infrastructure provision and environmental management which will enhance resilience to climate-related risks.

### Project beneficiaries:

The direct project beneficiaries are people living in the selected municipalities participating in the project. Most urban areas susceptible to flooding and erosion are occupied by informal settlements, and thus the benefits from reduced environmental and climatic vulnerability resulting from project financed investments will accrue especially to low-income households.

### Urban Resilience components:

Resilience is at the core of two components: 1, strengthening the municipal sector and 2, enhancing resilience of strategic coastal cities. Component 1 aims to assist Mozambique in developing appropriate institutions and infrastructure improvements to strengthen the resilience of selected cities to climate related impacts. Infrastructure investments consist of the rehabilitation of drains, conduits, embankments, levees and surface water storage facilities. Institutional investments include improved urban environmental planning and land use management; increased own-source revenue capacity, more effective and transparent municipal financial management; and a sustainable service delivery model for the operation and maintenance of urban sanitation and drainage systems.

Component 2 supports the enhancement of selected municipalities, including those of Beira, Nacala and of the Maputo metropolitan area for sustainable resilience to weather-related environmental threats. The component focuses on: (a) Identification of key investment priorities in selected cities to strengthen resilience to climate-related floods and erosion; (b) Strengthening Resilience of the City of Beira to control floods; (c) Strengthening the resilience of the City of Nacala to control erosion; (d) Strengthening the resilience of Maputo metropolitan area to control floods; and (e) Establishment and operation of the Project Implementation Unit (PIU) to support the coordination and management of Component 2 of the Project.

### Outstanding Features:

This project is unique for its holistic approach to building urban resilience. While improvement of physical infrastructure for flood control and adaptation to other climate related risks is a main focus of the project, improving municipal governance, institution-building, and strengthening the financial municipal management for enhanced urban resilience are also crucial parts of this project. These soft measures, together with more traditional infrastructure development and rehabilitation, boost the long-term resilience of the flood and erosion prone region. Enhancing the resilience of strategic coastal cities will contribute to the country's sustainable development and protect it from economic shocks due to major climatic events.

## 2. Senegal - Storm-water Management and Climate Change Adaptation

<b>P122841</b>	<b>FY 2012</b>	<b>AFR</b>	<b>Lending Instrument: Specific Investment Loan</b>					
<b>Sector Board: Environment</b>		<b>Status: Active</b>	<b>Themes</b>					
<b>Duration: May 2012 – Dec 2017</b>			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost: US\$ 56 million</b>			X	X				
<b>Total Project Cost: US\$ 73 million</b>								



### Background:

Senegal ranks 9th in the world in terms of share of urban population living in low elevation coastal zones including the capital city Dakar and some of the largest secondary cities such as Saint Louis, . This physical vulnerability is exacerbated by low economic development, limited capacity to create permanent and more sustainable jobs, low agriculture production, inadequate resource allocation for urban and social services, and a general land-use planning failure. Natural disasters such as floods, droughts and storm surges, are also impacting Senegal and climate change is expected to increase the extremes of weather patterns and natural hazards.

Dakar, the capital of Senegal, is increasingly facing threats from these vulnerabilities. The city hosts 2.7 million inhabitants, 24 % of the national population (of 12.7 million) in a territory that covers only 0.3% of the national surface. Dakar is responsible for 80% of the country's economic activities and continues to grow at rate of 3% per year. Increasing natural disasters are exposing both the urban and rural poor to mounting stress and poverty. These are of particular concern in peri-urban Dakar (Pikine and Guédiawaye) where over 90% of the population lives in areas classified as slums or spontaneous settlements.

### Project development objectives (PDO):

The objectives of the Project are to improve storm-water drainage and flood prevention in peri-urban areas of Dakar for the benefit of local residents.

### **Project beneficiaries:**

The beneficiaries are the populations having their permanent residence in the flood-prone areas of peri-urban Dakar (Pikine and Guédiawaye). There are currently about 1.2 million people (Pikine 900,000 and Guédiawaye 300,000) living in the project targeted area, of which 600,000 people reside in flood prone areas.

### **Urban Resilience components:**

The project has three Urban Resilience components: A, flood risk mainstreaming in the urban sector ; B, drainage investment and management ; and C, community engagement in urban flood risk reduction and adaptation to climate change. Component A aims to (i) integrate flood risks into local and national urban planning and management tools to ensure short- and medium-term flood prevention and decreased vulnerability, (ii) strengthen national government departments and municipalities (Pikine and Guédiawaye) through a module-based training program for better flood risk and urban climate change management. Component B aims to (i) invest in drainage infrastructure and (ii) operate and maintain the drainage systems in priority areas of the districts of Pikine and Guédiawaye. It also supports rapid response measures related to drainage and storm-water management for extreme floods as well as the development and implementation of an impact evaluation process in selected Phase One investment sites. Component C aims to increase local and national awareness of flood prevention and climate change adaptation measures and to engage municipalities, local residents and community groups within Pikine and Guédiawaye in the project-supported preventive measures and responses to reduce the risk of recurrent floods.

### **Outstanding Features:**

This project is significant for its emphasis on combining soft components related to urban planning together with traditional drainage infrastructure investment and management. While the largest share of the loan proceeds are devoted to physical upgrading of the drainage systems, the project emphasizes community engagement in urban flood-risk reduction and adaptation to climate change by building communication capacity in communities

### 3. Benin – Emergency Urban Environment Project

<b>P113145</b>	<b>FY 2011</b>	<b>AFR</b>	<b>Lending Instrument: Emergency Recovery Loan</b>					
<b>Sector Board: Environment</b>		<b>Status: Active</b>	<b>Themes</b>					
<b>Duration: Feb 2011 – Dec 2015</b>			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost: US\$ 50 million</b>			X					
<b>Total Project Cost: US\$ 50 million</b>								



#### Background:

Benin is a small coastal country with a population of 9 million people with one third of Beninese living below the poverty line. Benin's urbanization rate is very high (5% rate of growth per year), with nearly 45% of the population living in urban areas and half of the urban population residing in the three major coastal cities of Cotonou, Porto Novo, and Parakou. This rapid growth is being accompanied by significant problems with respect to the disposal of solid waste; degradation of water quality; urban air pollution; building in ecologically sensitive areas that are prone to seasonal flooding and an overall degradation of environmental quality.

The Urban Environment Project was conceived in response to this but the flooding of October 2010 required a change of objectives, preparation schedule and content to address: the rehabilitation of damaged infrastructure; the cleaning of clogged drains; the upgrading of certain infrastructure to better withstand floods that are likely to occur in the future; and the improvement of solid waste management. Floods are the most important and recurring disaster in Benin and are increasing at an alarming rate throughout West Africa. In Benin, some municipalities are regularly inundated for many months in the year, and some villages are constantly under water.



### **Project development objectives (PDO):**

The Project Development Objective (PDO) is to improve infrastructure and mitigate the negative environmental impact of floods in Greater Cotonou and to increase Benin's level of preparedness to future flooding.

### **Project Beneficiaries:**

The direct beneficiaries are the residents of Cotonou, in particular those inhabiting some of the poorest neighborhoods of the capital, which are subject to submersion by flood waters.

### **Urban resilience components:**

This project takes an integrated approach towards natural resource management by addressing flooding through four different components.

The first component is geared towards drainage improvement and rehabilitation. This component aims to rehabilitate and improve drainage networks in key areas of the greater Cotonou area affected by the 2010 flooding through calibrating, grading, cleaning, scouring and expanding drains and channels and by upgrading the Fifadji Bridge. The component also involves capacity building, training, and strengthening of the institutional capacity to repair and maintain drains and channels.

The second component targets Municipal solid waste management to enable Cotonou and neighboring municipalities to mitigate the negative environmental impacts resulting from the obstruction of the drainage canals with waste.

Thirdly, the project aims to improve Municipal wastewater management and sanitation through the Ministry of Energy and Water and the Cotonou municipality. The objective of this component is to develop an appropriate institutional and regulatory framework for the effective and sustainable management of municipal wastewater in Benin in view of mitigating the negative environmental impacts and health hazards resulting from the mix of drainage runoffs with latrine and septic tank contents during the floods and leading to waterborne diseases in the aftermath of the floods.

Finally, the project completes its integrated approach by incorporating a fourth component on flooding and disaster risk preparedness and management under the leadership of the Ministry of Interior. The objective of this component is to increase the level of preparedness in Benin for addressing future flooding and to strengthen the capacity of the institutions involved in Flood and Disaster Risk Management through the development of an early warning system, awareness raising programs on floods and the institutional strengthening of key stakeholders for DRM.

### **Outstanding Features:**

This project has two elements that distinguish it. First, Municipalities are involved in all components, ensuring that local governments are included in all interventions irrespective of the sector. This should lead to more effective coordination across scales and better governance structures in place for future disaster prevention. Second, the project includes the development and operationalization of an effective and efficient Monitoring and Evaluation System, ensuring that lessons can be learned from the experience of Benin for future urban resilience project.

#### 4. China - Wenchuan Earthquake Recovery

<b>P114107</b>	<b>FY 2009</b>	<b>EAP</b>	<b>Lending Instrument: Emergency Recovery Loan</b>					
<b>Sector Board: Urban Development</b>		<b>Status: Active</b>	<b>Themes</b>					
<b>Duration: Feb. 2009– June 2014</b>			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost: US\$ 710 million</b>			X					
<b>Total Project Cost: US\$ 740 million</b>								



#### Background:

On May 12, 2008, a magnitude 8.0 earthquake struck southwestern China, with its epicenter in Wenchuan County, Sichuan Province. More than 47 million people were affected with more than 69,000 deaths reported, 374,000 injured, and 18,000 missing. Other losses included: 34,000 km of highway destroyed; 1,263 reservoirs damaged; 7,444 schools and 11,028 hospitals and clinics collapsed, and 5.5 million rural houses and 860,000 urban houses destroyed or significantly damaged. Direct losses were estimated at US\$123 billion.

Soon after the earthquake, the Government carried out reconstruction planning, which included nine sectoral plans to address urban development, housing, rural development and agriculture, infrastructure, public services (such as social protection, health and education), land use planning, market and financial services, enterprises, and disaster risk reduction and ecological restoration and an overall National Master Plan for the Rehabilitation and Reconstruction of Wenchuan Earthquake. The Plan focuses on the reconstruction of three hardest hit provinces (in terms of damage and losses): Sichuan, Gansu and Shaanxi. The project addresses specific reconstruction needs for infrastructure, health and education, as identified by provincial and county governments in Sichuan and Gansu, in line with the guidelines of the Plan.

#### Project development objectives (PDO):

The project development objectives to restore essential infrastructure, health, and education services at least to levels prior to the Wenchuan Earthquake, and where appropriate, to provide for expansion of services, while reducing the vulnerability to seismic and flood hazards and building capacity of local governments to manage the recovery program.

### **Project beneficiaries:**

The beneficiaries are the affected populations in Sichuan and Gansu provinces. Sichuan Province has 181 counties with population and GDP that accounts for one-third of China's western region. Gansu Province has 86 counties, 8 of which were mainly affected by the earthquake, and has a total population of 26 million.

### **Urban Resilience components:**

This project is organized through components to restore critical infrastructure, health and education services in Sichuan and Gansu that also aim to increase resilience against future seismic and flood hazards. In Sichuan province, the project supports investments in 21 jurisdictions within seven municipalities (Chengdu, Deyang, Mianyang, Guangyuan, Bazhong, Nanchong and Ya'an) focusing on infrastructure and health facilities. The infrastructure component comprises a range of investments in roads, bridges, water supply pipelines, drainage and sewerage networks, solid waste management, and embankments. The health component supports the reconstruction and rehabilitation of county hospitals, maternal and child health care facilities and township-level health clinics. In Gansu, the infrastructure component supports similar investments to those in Sichuan Province. The health component aims to repair and reconstruct city and county hospitals. The education component aimed to repair/ reconstruct primary and secondary schools. While investments in both provinces are largely focused on the physical reconstruction, the project also supports the capacity of local governments to manage the recovery process.

### **Outstanding Features:**

This project is supporting earthquake-affected cities not only to rehabilitate and reconstruct infrastructure and facilities but also to increase seismic and flood hazards resilience through physical and non-physical investments. Such long-term perspective to reduce future vulnerability and increase disaster management capacity is built into the design of an emergency reconstruction operation.

## 5. Indonesia - Jakarta Urgent Flood Mitigation

<b>P111034</b>	<b>FY 2012</b>	<b>EAP</b>	<b>Lending Instrument: Specific Investment Loan</b>					
<b>Sector Board: Water</b>		<b>Status: Active</b>	<b>Themes</b>					
<b>Duration: Jan 2012– Mar 2017</b>			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost: US\$ 140 million</b>			<b>X</b>	<b>X</b>				
<b>Total Project Cost: US\$ 190 million</b>								



### Background:

Although Indonesia is experiencing continued economic development and political stability, it continues to face recurrent natural disasters including urban floods, earthquakes, and hurricanes. Impacts from such natural disasters are setting back socio-economic achievements and worrying trends in global climate change are likely to exacerbate the country's exposure to water-related disasters. Vulnerability to such risks is ever increasing with hastened urbanization, and population growth Indonesia also has one of the lowest rates of urban sewerage coverage in Asia.

The Greater Jakarta region (JABOTABEK), the political and economic center of Indonesia, accounting for a quarter of the nation's non-oil GDP, is experiencing extreme population increase and insufficient investment in infrastructure. Flooding is becoming an annual event, severely impacting the region. Severe floods in February 2002 and February 2007 inundated 60 percent of the city—seven meters deep in some places—forcing some 340,000 people to flee their homes. There are other factors contributing to increased flooding risk, including increased solid waste/sediments discarded into the city's canals and rivers, changing land use that has transferred the flood impact to downstream as well as land-subsidence caused by the extraction of ground-water from the aquifer. The project is intended as part of a comprehensive program of activities to reduce the economic and social costs of flooding by restoring the original capacity of the city's flood-control system which projected severe flooding once every 25 years.

### **Project development objectives (PDO):**

The project development objectives are to: (i) contribute to the alleviation of the impacts of annual floods in Daerah Khusus Ibukota (DKI), a special region of Jakarta Capital), through the priority rehabilitation of existing floodways, drains and retention basins; and (ii) provide technical expertise through grants to strengthen the capacity of DKI to operate and maintain its flood control system according to standards and practices needed for a large metropolitan area like Greater Jakarta.

### **Project beneficiaries:**

Primary beneficiaries will be about one million people who will be protected from flooding due to the increased efficiency of the drainage system. These beneficiaries primarily belong to the poorest segments of the population who live in flood-prone areas and are most vulnerable to the immediate impacts of flooding.

### **Urban Resilience components:**

To address the most immediate flood concerns, the project aims to dredge the main canals to improve the flow capacity and decrease the risk of flooding. The three major urban Resilience components are: A, structural works for flood mitigation; B, addressing institutional capacity and longer-term sustainability issues; and C, strategy development to address core infrastructure issues related to flooding.

Component A includes two major sub-components: (i) dredging works in the 18 project sites; and (ii) rehabilitation of canal embankments and pumps. Component B targets non-structural measures to mitigate future flood events, including: (i) support the Government of Indonesia (GoI) and DKI institutions through capacity building to strengthen flood management and to enforce legislation and regulations for flood management in the Ciliwung basin; and (ii) develop data information system for early warning and flood flow forecasting system for the basin. Component C includes additional studies and strategies for expanding GoI and DKI awareness of the need for an overall flood mitigation strategy.

### **Outstanding Features:**

This project approaches to improve the resilience of Greater Jakarta, which is facing recurrent flooding and increasing risks due to water-related disasters and climate change with a disproportionate impact on the poorest population. The project is approaching these issues via structural and non-structural measures as well as via policy development, effectively addressing immediate and long-term concerns of flooding and climate change related risk increase.

## 6. Samoa – Cyclone Emergency Recovery Project

<b>P088246</b>	<b>FY 2004</b>	<b>EAP</b>	<b>Lending Instrument: Emergency Recovery Loan</b>					
<b>Sector Board: Transport</b>		<b>Status: Active</b>	<b>Themes</b>					
<b>Duration: February 2004 – June 2008</b>			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost: US\$ 4.5 million</b>			<b>X</b>					
<b>Total Project Cost: US\$ 4.5 million</b>								



### Background:

Samoa consists of one cluster of nine islands situated just south of the Equator. The islands of Upolu and Savai'i make up 96 percent of Samoa's land area of 2,842 square kilometers and account for 99 percent of its population. The country is highly vulnerable to natural hazards, particularly cyclones.

There were 12 events reported in the period 1950-2004 which, in disaster years, affected an average of 42 % of the population and caused economic losses equivalent to about 50 % of GDP.

On January 4-5, 2004, Tropical Cyclone Heta passed within 80 km of Samoa accompanied by sustained hurricane force winds of up to 100 knots (180 km/h), gusting up to 140 knots (250 km/h) at its peak, and torrential rain. The cyclone caused significant damages estimated at about US\$35 million (equivalent to 12% of Samoa's GDP), mainly in coastal infrastructure and utilities, trees and crops, and coastal ecosystems. Power, water, transport, and other services were disrupted for periods up to a week or more before being substantially restored.

Although several houses were destroyed, there were fortunately no fatalities. Limited recovery assistance was provided to the Government for the power and water sectors through ongoing assistance from the European Union and the Asian Development Bank. The Initial Government damage and loss assessment for road and coastal infrastructure was of about US\$35 million, of which two thirds for seawalls repair and construction and for road repairs and restoration.

### **Project development objectives (PDO):**

The main project objective is to restore and rehabilitate the livelihoods and assets of inhabitants impacted by Cyclone Heta to sustainable levels, with due safeguards for the fragile coastal environment protecting it against future events

### **Project Beneficiaries:**

The main direct beneficiaries comprise the high-risk population living along or near coastal areas affected by the cyclone and across all villages in the entire country. The project benefited a large number of locally hired, semi-skilled workers who acquired on-the-job construction skills on the various works contracts and businesses through opportunities for local construction. Local livelihoods dependent on natural coastal resources benefitted through the conservation of marine resources and recovery of the coastal ecosystems.

### **Urban resilience components:**

The objectives of the project were to assist the Government to recover from the damage caused by Cyclone Heta and reduce the vulnerability of its people to prevailing natural hazards through a) the recovery of coastal resilience to erosion, flooding, and landslide hazards through appropriate and sustainable use of structural and non-structural protection; b) nurturing the recovery of fragile coastal ecosystems through sustainable practices; and c) rehabilitate damaged land transport communications. The coastal resilience recovery component has been the most successful so far for multiple reasons. First, all debris was fully cleared, roads opened and select seawalls were up within ten months after the cyclone as a preventive measure for future cyclones. Second, 50 small grants were completed to replant coastal coral gardens, establish land plant nurseries, protect communal fresh water pools, re-establish mangrove ecosystems with accompanying fish and crab breeding grounds, and to demarcate and enforce “no catch” protection areas. Strong stakeholder commitment and collaborative working arrangements between the Government and participating communities were an important element in the implementation process. Further, the project’s resilience was enhanced by the inclusion of local traditions and communities in the process, whereby communities provided significant contributions of voluntary inputs to identify, plan and implement coastal conservation subprojects. Ex post site visits to a sample of the subprojects confirmed that they are being well utilized, operated and maintained by the community groups.

### **Outstanding Features:**

This project is unique for its environmental management approach to delivering resilience. The project has benefitted the conservation of marine resources and recovery of the coastal ecosystems for the communities whose livelihoods largely depend on these resources. Whilst hard to quantify, positive outcomes encompass growing eco-tourism, healthy reef systems that dissipate wave energy and encourage growth in fish stocks, shoreline vegetation that provides stabilization of the land, and natural flushing of inlet ecosystems encouraging fish and crab breeding. Additionally, Pulenu’u (Mayors) and villagers in eight cyclone affected villages received training and awareness-raising in developing detailed coastal ecosystem recovery plans for their villages as well as on the impacts of various coastal management and reclamation initiatives on shoreline communities and ecosystems.

## 7. Turkey - Seismic Risk Mitigation and Emergency Preparedness Project

<b>P078359</b> <b>P122179</b>	<b>FY 2005</b> <b>FY 2011</b>	<b>ECA</b>	<b>Lending Instrument:</b> Specific Investment Loan					
<b>Sector Board:</b> Urban Development		<b>Status:</b> Active	<b>Themes</b>					
<b>Duration:</b> May 2005–Dec 2014/Apr 2011–Dec 2014			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost:</b> US\$ 400m/US\$ 150m <b>Total Project Cost:</b> US\$1.5 billion			<b>X</b>					



### Background:

Turkey is one of the most seismically active countries in the world. Two thirds of the country are located on active fault zones where 70% of the population lives. The average number of earthquakes that equal or exceed the magnitude of 5.5 on the Richter scale is 0.76 per year. For the last two decades, death tolls from earthquakes have reached about 950 casualties per year and corresponding direct economic annual loss reached US\$1 billion. Two earthquakes in Izmit and Düzce in 1999 took away 18,000 lives and caused US\$10-15 billion of direct economic losses. Facing such challenges, Turkey has been aiming to shift policy from traditional emergency response and ex-post recovery activities to proactive hazard risk management. Istanbul, the largest metropolitan area in Turkey, is facing a large earthquake threat.

With a population of over 12.5 million, the city is situated on the North Anatolian Fault and is forecasted to experience an earthquake of a 7.5 magnitude on the Richter scale with a probability of 50% in the next 30 years. According to a most probable scenario, human casualties are expected to reach 73,000 and 120,000 are expected to sustain severe injuries. Istanbul Greater Municipality and the Government of Turkey were therefore committed to a program of seismic risk mitigation and emergency preparedness. After series of consultations with Turkish Government Authorities at the central and provincial level and in Istanbul, with local authorities, finance organizations, banks, universities, experts, citizens, the “Istanbul Seismic Risk Mitigation and Emergency Preparedness Project” was prepared and



financed in FY 05. In FY 2011, additional financing was provided to help finance the costs associated with scaled-up activities to enhance the impact of the original project. Meanwhile, loans from the European Investment Bank and the Islamic Development Bank have tripled the project's budget to a total of \$1.5 billion.

#### **Project development objectives (PDO):**

The Project Development Objectives are to implement activities that aim to transform Istanbul into a city resilient to major earthquakes in the next 10-20 years. The overall goal is to save lives and reduce the social, economic and financial impacts of future seismic activity. This will be achieved through enhancing the institutional and technical capacity for disaster management and emergency response, strengthening critical public facilities for earthquake resistance, and supporting measures for better enforcement of building codes and land use plans.

#### **Project beneficiaries:**

The beneficiaries are the inhabitants of Istanbul who will experience reduced disaster impacts, and the Provincial Istanbul Administration that will acquire an enhanced capacity for disaster risk and urban management.

#### **Urban Resilience components:**

The project includes four Urban Resilience components: A, enhancing emergency preparedness; B, seismic risk mitigation for public facilities; C, enforcement of building codes and land use plans, and project management. Component A aims to enhance the effectiveness and capacity of the provincial and municipal public safety organizations in Istanbul to prepare for, respond to and recover from significant emergencies, especially those arising from earthquakes. Component B targets to reduce the risk of future earthquake damage to 662 critical facilities in order to save lives and ensure their continued functioning in the event of an earthquake, through retrofitting of hospitals, schools and other priority public facilities. Component C is supporting innovative approaches to better enforcement of building code and compliance with land use plans in two pilot municipalities. Lastly, component D is supporting the Istanbul Provincial Administration to implement the project in efficient and transparent manner, and to build the institutional capacity to sustain the implementation of the Seismic Risk Mitigation and Preparedness program beyond the life of the Bank loans.

#### **Outstanding Features:**

The ISMEP project is unique as it is entirely devoted to risk mitigation and building urban resilience to seismic risk of a very large metropolitan area. It builds a long-term program to save lives and reduce social, economic and financial impacts in the event of future earthquakes.

## 8. Southeast Europe and Caucasus - Catastrophe Risk Insurance Facility (GEF)

<b>P123896</b>	<b>FY 2012</b>	<b>ECA</b>	<b>Lending Instrument:</b> Specific Investment Loan				
<b>Sector Board:</b> Urban Development	<b>Status:</b> Active	<b>Themes</b>					
<b>Duration:</b> Sept 2011– Dec 2015		NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost:</b> US\$ 4.5 million		X		X			
<b>Total Project Cost:</b> US\$ 10 million							



### Background:

Globally, economic losses from climate-related and geological risks are rising, averaging US\$100 billion per year over the past decade. In the first six months of 2011, economic losses caused by natural disasters amounted to US\$265 billion out of which insured losses were only US\$60 billion. In addition to the economic toll, natural disasters have been the source of death, disability, and loss of physical and productive assets.

The three Southeast Europe and Caucasus Countries of Albania, Macedonia and Serbia are no exceptions. First, the region is highly prone to floods as ninety percent of Southeast Europe is located within trans-boundary river basins. Due to climate change, the frequency and severity of natural disasters, particularly those of hydro-meteorological origin, are rising in all SEEC countries. Furthermore, governments in the region have very limited financial capacity to assist their populations in regaining assets and productive capacity destroyed by natural disasters. In addition, catastrophe insurance and weather risk coverage among homeowners, farmers, small- and medium-size enterprises (SMEs) is currently almost non-existent in the region. Relying on 12 years of global experience in designing national and regional catastrophe and weather-risk insurance programs, the World Bank, jointly with the Regional Cooperation Council for Southeastern Europe (RCC) and the United Nations International Strategy for Disaster Reduction, (UNISDR), has established a catastrophe and weather risk reinsurance program entitled “Southeast Europe and Caucasus Catastrophe Risk Insurance Facility” (SEEC CRIF). The main rationale of the program is to promote the development of local catastrophe and weather risk

insurance markets that will enable local businesses and populations to buy affordable insurance products which currently cannot be found in the commercial market.

#### **Project development objectives (PDO):**

The Project Development Objective (PDO) is to enable Europa Re, a catastrophe and weather risk re-insurance facility, to develop new weather risk insurance products, automate insurance underwriting, pricing and claims settlement processes for such products, and increase public awareness of weather risk in participating countries.

#### **Project beneficiaries:**

The beneficiaries are local businesses and populations of South Eastern Europe and Balkans who will be able to buy affordable catastrophe and weather risk insurance products once the market is developed.

#### **Urban Resilience components:**

This project is funded by the GEF-administered Special Climate Change Fund (GEF/SCCF) to develop new insurance products and is aimed to increase participating countries' resilience to climate change. Component 1 in the amount of US\$5.0 million is covering the costs of technical preparation work required for the launch of the Europa Re program in member states. Component 2, in the amount of US\$0.5 million, is covering the costs of project management incurred by Europa Re in connection with the implementation of the grant.

#### **Outstanding Features:**

This project focuses on enhancing urban resilience from a financial standpoint. The catastrophe risk insurance facility enables participating countries (currently, Albania, Macedonia and Serbia) to mitigate the economic consequences of climate change, catastrophes and weather-risks by developing insurance products to help those at risk to adapt and become more resilient. This program will also encourage the public to further reduce their exposure to the risks by offering lower insurance product prices for those who have undertaken adaptation activities.

## 9. Tajikistan - Additional Financing Municipal Infrastructure

<b>P127130</b>	<b>FY 2012</b>	<b>ECA</b>	<b>Lending Instrument: Specific Investment Loan</b>					
<b>Sector Board: Water</b>		<b>Status: Active</b>	<b>Themes</b>					
<b>Duration: May 2012- Aug.2015</b>			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost: US\$12 million</b>			<b>X</b>			<b>X</b>		
<b>Total Project Cost: US\$13 million</b>								



### Background:

Tajikistan's municipal sector features substantial infrastructure gaps and degradation, as well as low institutional capacity, particularly in urban water supply, sanitation and solid waste management. Although by official accounts 95% of urban residents had access to an improved form of sanitation in 2008, sanitary conditions in many small towns were dire. Recent assessments of small towns in the Khatlon Region provided by State Unitary Enterprise "Khochagii Manziliu Kommunalii" (KMK) for 2011 indicate water supply coverage as low as 14%, solid waste coverage of 1% and sanitation coverage of 0-1% in some towns. For a majority of towns such services fall under the responsibility of KMK through its local subsidiary branches in the regions. This Additional Financing (AF) of the Municipal Infrastructure Development Program (MIDP) targets enhancing MIDP's impact through a strategic scale-up of activities and investments by contributing to one of the Country Partnership Strategy (CPS) objectives aimed at promoting sustainable improvements in living standards, particularly among vulnerable groups.

According to the Committee of Emergency Situations and Civil Defense (CoES) of Tajikistan, more than 155 natural disasters in the form of floods, earthquakes and avalanches were registered during February-April 2012. This project enhances the ability of the Government of Republic of Tajikistan to better respond to disruption in services due to flooding, severe cold weather (snow) and earthquakes by financing utility services maintenance equipment, cement, fuel and gabion wire mesh. The equipment will be located at regional centers with easy access by district KMK branches and by the civil protection system, as part of comprehensive emergency preparedness activities. The AF will also increase emphasis on institutional strengthening and sector reform by financing additional activities that pilot efforts to

improve water service coverage and utility performance in select towns, and the development of a Municipal Sector Strategy. The Strategy would include the identification of financing mechanisms for provision of communal service infrastructure, such as a fund or other program funding instruments.

#### **Project development objectives (PDO):**

To improve the availability, quality and efficiency of basic municipal services for the population of the towns which participate in the project. An added objective, as an urgent response to the anticipated floods of the Spring of 2012, is to contribute to their mitigation with the supply of emergency materials.

The Project Development Objective (PDO) has been revised to reflect the support provided under the AF to assist the Government to urgently prepare for the anticipated floods of the Spring of 2012 due to high snow accumulation in winter.

#### **Project beneficiaries:**

The geographical scope of this project is five urban centers which include the cities of Dangara, Kulyab, Kurgan-Tube, Vose and Farkhor.

#### **Urban Resilience components:**

As an urgent response to the anticipated floods of the Spring of 2012, adjustments were made to Component A: Municipal Infrastructure Rehabilitation so as to include:

- Acquisition of emergency services response equipment to support KMK in better responding to service disruptions due to floods and earthquakes.
- Urgent acquisition of materials for flood protection measures (not including civil works) such as cement, fuel and gabion wire mesh to support the Ministry of Land Reclamation and Water Resources (MLRWR) to prepare for the anticipated floods of the Spring of 2012 in selected sites. The provision of a list of works and locations of proposed river sections that require rehabilitation was a condition of Negotiations. Materials will be eligible for retroactive financing and special implementation arrangements have been agreed with the GoRT, KMK and MLRWR.

These adjustments and related technical assistance provided through this project highly contributed to building resilience in the target cities.

#### **Outstanding Features:**

This project enhances the ability of the GoTR and KMK to better respond to disruption in services in urban areas due to flooding, severe cold weather (snow) and earthquakes by financing utility services maintenance equipment, cement, fuel and gabion wire mesh. The equipment will be located at regional centers with easy access by district KMK branches and by the civil protection system, as part of comprehensive preparedness and emergency activities.

## 10. Colombia - Disaster Vulnerability Reduction (APL2)

<b>P085727</b>	<b>FY 2006</b>	<b>LCR</b>	<b>Lending Instrument: Adaptable Program Loan</b>					
<b>Sector Board:</b> Urban Development		<b>Status:</b> Active	<b>Themes</b>					
<b>Duration:</b> Mar 2006– Jan 2014			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost:</b> US\$ 80 million			X					
<b>Total Project Cost:</b> US\$ 200 million								



### Background:

Due to its geographic location, Colombia is highly prone to natural disasters. In the last 25 years, the country has suffered six major earthquakes, three volcanic eruptions, major landslides, avalanches, petroleum and chemical explosions/leaks, and extensive flooding. With major cities located in areas of elevated risk, combined by the high rate of on-going urbanization, Colombia is increasingly becoming vulnerable to adverse natural events. This vulnerability is further aggravated by continued population growth and a subsequent ever increasing concentration of settlements. Recent trends in global climate change will also likely exacerbate the country's exposure to floods, erosion, landslides, and droughts.

As a consequence, the World Bank has been supporting proactive disaster risk management in Colombia for more than two decades, and a three-phased Adaptable Program Loan (APL2) has been under implementation. The APL2 aims to reduce Colombia's vulnerability to adverse natural events by strengthening national capacity to manage disaster risk and by reducing vulnerability in key municipalities that are highly exposed to disasters, and that are also significant contributors to national income and productivity. This project is the second phase of the APL2 and targets Bogotá national capital region. The region supports a high concentration of economic activity and population, while being located in one of the most natural disaster prone areas of the country.

### **Project development objectives (PDO):**

The purpose of this APL2 project is to reduce the vulnerability of the Capital District of Bogotá to adverse natural events, by strengthening its capacity to manage disaster risks, and by reducing vulnerability in key sectors.

### **Project beneficiaries:**

The beneficiaries are the people of the Bogotá capital region, which will become more resilient to increasing vulnerability, to climate change, and to natural hazards, and the Bogotá district administration, which will obtain an enhanced capacity in disaster risk and urban management.

### **Urban Resilience components:**

Five components are included in the APL2: A, risk identification; B, risk reduction; C, institutional strengthening; D, risk prevention and awareness; and E, financial coverage for risk management. Component A aims to enhance the capacity of the District of Bogotá to identify and monitor risks. Component B aims to complement the city government's initiatives in risk reduction for critical facilities and lifeline infrastructure in the event of a disaster. This aims to save lives by ensuring the continued functioning of such facilities, in the event of adverse natural or technological catastrophe. It also supports the implementation of nonstructural and functional mitigation measures for the continuity of service during and after emergencies. Component C aims to enhance the effectiveness and capacity of the District administration to prepare for, respond to, and recover from significant emergencies. Component D aims to increase awareness at all levels of society, and in particular, at the community level in order to convey the importance of risk mitigation and disaster preparedness. Lastly, component E focuses on developing a risk financing strategy for losses arising from natural disasters. It aims to provide the Municipality of Bogotá with a financial strategy that guarantees the appropriation of resources needed for disaster reconstruction or rehabilitation.

### **Outstanding Features:**

This program approaches Urban Resilience in a holistic way by largely emphasizing soft measures, which include the preparation of guidelines on land use, resettlement and environmental aspects of risk reduction activities. It also develops a general framework for the establishment of risk financing strategies. The investments supported by the program are expected to reduce both physical and financial vulnerability to adverse climate change impacts and natural events by the time of program completion in an expected 10-year time-frame.

## 11. Argentina - Urban Flood Prevention and Drainage (APL)

<b>P093491</b>	<b>FY 2006</b>	<b>LCR</b>	<b>Lending Instrument: Adaptable Program Loan</b>					
<b>Sector Board: Water</b>		<b>Status: Active</b>	<b>Themes</b>					
<b>Duration: June 2006– Mar 2017</b>			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost: US\$ 70 million</b>				X				
<b>Total Project Cost: US\$ 92 million</b>								



### Background:

Flooding is the major natural hazard in Argentina, which has had 11 major floods since 1957. The floodplains cover over a third of the country and include the most developed agricultural and industrial areas, an extensive transportation network and two major hydroelectric dams. According to the statistics of Swiss-Re (1998), Argentina ranks 18th in the world, in terms of potential flood losses in excess of \$ 3 billion in 1998. Argentina is also one of the 14 countries whose potential flood losses are greater than 1 percent of GDP. The provinces of the Paraná/Paraguay River basin located north of Buenos Aires are exposed to similar risks.

The Littoral Province area has the most developed agricultural and industrial investments and contains a wide range of resources. However, its flood plain increases dramatically with a width varying from 13 km in Corrientes to about 56 km in Rosario. In addition, the basin is an area of heavy precipitation almost throughout the year as a result of rain-generating systems of tropical and extra-tropical nature. Consequently flood plains along the Paraná River are periodically inundated.

### Project development objectives (PDO):

The project aims to help reduce vulnerability of Argentina to flooding, through a mix of physical, institutional and financial measures. This project is the second phase of an APL, planned over the next 7 years. While phase 1 of the program developed a risk management program for the City of Buenos Aires,



phase 2 targets six provinces (Chaco, Corrientes, Misiones, Santa Fe, Formosa and Entre Rios that are located along the two main rivers of the Paraná/Paraguay River basin) and aims to: (i) increase the region's capacity to reduce flood impacts through the protection of its critical urban infrastructure, and (ii) gradually introduce a risk reduction approach to the investments of the provincial and municipal government administrations.

#### **Project beneficiaries:**

The direct beneficiaries are the provinces of Chaco, Corrientes, Misiones, Santa Fe, Formosa and Entre Rios, including municipal governments and the resident population

#### **Urban Resilience components:**

The proposed project has four components: 1, Non-structural measures; 2, emergency social interventions; 3, development of key defense facilities; and 4, project implementation and administration. Component 1 aims at providing provincial institutions with flood risk management instruments that can assist with the implementation of specific institutional development activities. The activities will thus benefit the agencies involved in flood emergencies and prevention. Component 2 provides housing in safe areas for those families that may be resettled from the lands required for the works and for lower income families living in flood prone areas in their immediate proximity. Component 3 finances works to protect important urban areas against flood effects, consisting of the rehabilitation of existing schemes that include fortification of flood defenses in geographic areas with strong economic activity and the greatest vulnerability to serious repeated flood damage. Works includes improvement of existing drainage channels, the construction of new ones, embankments, raising bridges, small flood control works, and urban drainage. Lastly, component 4 aims to support project implementation and administration.

#### **Outstanding Features:**

This project approaches Urban Resilience against flooding in a mix of physical, institutional and financial measures. In addition, this project emphasizes risk identification and risk reduction as part of the overall risk management strategy with the purpose of reducing the vulnerability of the urban population and of critical infrastructure.

## 12. Haiti - Port au Prince Neighborhood Housing Reconstruction

<b>P125805</b>	<b>FY 2011</b>	<b>LCR</b>	<b>Lending Instrument: Emergency Recovery Loan</b>					
<b>Sector Board: Urban Development</b>		<b>Status: Active</b>	<b>Themes</b>					
<b>Duration: May 2011 – June 2015</b>			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost: US\$ 0</b>			X			X		
<b>Total Project Cost: US\$ 65 million</b>								



### Background:

Haiti is highly susceptible to earthquakes as it is located in a seismically active zone, intersected by four main fault lines. The country's high population density coupled with the large number of informal structures and weak infrastructure compound its vulnerability. The magnitude 7.0 earthquake that struck Haiti on January 12, 2010 caused the death of more than 220,000 people, left 300,000 injured and directly affected the lives of over 2 million. It destroyed an estimated 115,000 houses in and around Port-au-Prince, left some 14,500 others with severe damage and 167,000 with moderate damage, and forced up to 1.3 million people to seek shelter in temporary camps. Most of these people migrated from informal settlements that formally hosted 80% of the population on only 20% of urban land. The total value of damage and loss caused by the earthquake is estimated at US\$ 7.8 billion, more than 120 percent of Haiti GDP in 2009.

In response to the earthquake, the international community has assisted Haiti by focusing on the provision of essential goods and services to the disaster victims, many of whom are still living in a large number of temporary shelter camps in the Port-au-Prince Metropolitan Area. Moving people out of the camps and creating the conditions for their safe return to their communities of origin has therefore been identified by the Government of Haiti (GoH), the international community representatives in Haiti, and the affected communities as one of the most pressing needs, essential for securing future political and social stability in the country. Through the Haiti Reconstruction Fund, the Government of the United States is supporting urban upgrading and housing reconstruction programs for a number of communities in Port-au-Prince that were severely affected by the earthquake through a project managed by the World Bank.

### **Project development objectives (PDO):**

To help residents of selected Port-au-Prince Neighborhoods severely affected by the Earthquake return to their communities by supporting them to repair and/or reconstruct their houses and improving basic community service infrastructure.

### **Project Beneficiaries:**

Beneficiaries are the residents of some Port-au-Prince neighborhoods selected on the basis of information gathered through the community-based mapping exercises of housing losses and housing needs, carried out primarily by UN Habitat and other organizations.

### **Urban resilience components:**

This project is being implemented in neighborhoods where strong community organizations are in place and functioning and has three distinct urban resilience components.

Component 1 aims to remove debris, including the safe demolition of houses and buildings considered unfit for repair in areas where no other program is ongoing or planned to be put in place. Removal activities include the transport of the debris to specialized landfill sites and support to material recycling initiatives, enhancing resilience through the adequate management of debris and waste that could potentially lead to flooding in the future. Component 1 also includes the repair and reconstruction of housing by supporting residents to repair retrofit and reconstruct houses and buildings through the provision of cash grants to beneficiaries. Further, the debris-removal and reconstruction is being done in close coordination with the communities, facilitating training and capacity building for community-based mapping, resettlement policies and procedures, gender awareness, conflict-resolution mechanisms related to project activities and the supervision of housing construction and use of new building codes and techniques.

Component 2 addresses community service infrastructure repair, improvement and extension, including roads, walkways, drainage ditches and channels, solid waste management facilities, water supply systems and sanitation facilities, and construction of Community Reconstruction Centers (CRCs).

Component 3 has been designed to provide institutional capacity support and technical studies to recipients and Municipalities of the Port-au-Prince metropolitan area through the development of neighborhood-level urban restructuring plans and natural risk maps; the preparation of medium and long-term urban development and housing studies, strategies, policies and administrative measures and building capacity in the local municipalities.

### **Outstanding Features:**

One of the unique elements of this project is the use of community-based participatory mapping exercises to identify project beneficiaries and investment sites as a way to ensure that those most in need are obtaining the support they require. Additionally, due to the dimensions of the disaster and the fact that this housing project responds to urgent needs, it takes advantage of the opportunity to rebuild efficiently from the beginning thus embedding further urban resilience as part of the reconstruction effort.

### 13. Yemen - Taiz Municipal Development and Flood Protection: Additional Financing

<b>P109219</b>	<b>FY 2008</b>	<b>MENA</b>	<b>Lending Instrument:</b> Specific Investment Loan					
<b>Sector Board:</b> Urban Development		<b>Status:</b> Active	<b>Themes</b>					
<b>Duration:</b> Jan 2008 – Dec 2014			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost:</b> US\$ 20 million			<b>X</b>			<b>X</b>		
<b>Total project cost:</b> US\$ 22 million								



#### Background:

Yemen's estimated average annual urban population growth rate over the past decade of 5.1% is the highest in the MENA Region and one of the highest in the world. Yet delivery of infrastructure and services in Yemeni cities is constrained by weak local revenue generation capacity and correspondingly low levels of capital investment. Taiz is the administrative capital of Taiz Governorate, with a population of about 540,000, and the most populated of Yemen's 20 governorates with close to 16% of the total population. The city is the second largest urban settlement in Yemen. Due to its location at the base of Mt. Sabir, Taiz City is subject to severe seasonal flash flooding that annually claims loss of life, injures scores of city residents, and inflicts significant damage and financial losses on the residences and businesses of the city. In response to this challenge, the Taiz Municipal Development and Flood Protection Project was designed with the aim of erecting flood protection structures to protect the City's residents and businesses by channeling the flood waters through open and closed flood structures towards a catch basin south of the city. This is the additional funding to the original project.

#### Project development objectives (PDO):

The objectives of the project remains consistent with the original project, which are to assist the recipient in: (a) protecting residents, economic activities and infrastructure from the destructive effects of seasonal flooding in Taiz, Hadramout and AlMahra; (b) restoring access to critical road infrastructure damaged by the floods and; (c) strengthening the capacity of local governments and support decentralization.

### **Project beneficiaries:**

Project beneficiaries are the people living in the flood prone areas of Taiz, Hadramout and AlMahra, as well as the city of Taiz that are building decentralization capacity.

### **Urban Resilience components:**

Urban Resilience components include: 1, Flood damage protection infrastructure and related public sector infrastructure; 2, Resettlement; 3, Local Council capacity building program; and 4, Project management by the Project Management Unit (PMU). Component 2 was identified unnecessary as no resettlement is going to take place. Component 1 entails the construction of: (i) flood damage protection channels, (ii) street paving in tributary areas; (iii) retaining walls and nearby flood damage protection structures; (iv) footpaths in steep walkways; and (v) sewage collection pipes and house connections. Component 2 initially aimed to resettle population in vulnerable areas but with new investment on flood protection infrastructures, it was identified unnecessary. Component 3 consists of scaling-up the capacity building program for local councils and administrations in support of the government's decentralization agenda assisting the city of Taiz in fulfilling its responsibilities under the Local Administration Law of 2000. This component also includes the construction of two Local Council buildings in Taizieh and Salw Districts (both within Taiz Governorate) and equipping such buildings with furniture and office equipment necessary for Local Councils to fulfill their mandate under the Law. Component 4 includes the IDA-portion of the financing of the Project Management Unit (PMU) staff and related operating expenditures.

### **Outstanding Features:**

The project aims to upgrade the Urban Resilience against a major natural hazard– i.e. flooding – while improving access of the poor to urban services and promoting decentralization agenda that the City of Taiz has embarked upon.

## 14. Djibouti – Flood Emergency Rehabilitation and Additional Financing

<b>P089968</b> <b>P104890</b>	<b>FY 2005</b> <b>FY 2007</b>	<b>MENA</b>	<b>Lending Instrument:</b> Emergency Recovery Loan					
<b>Sector Board:</b> Urban Development		<b>Status:</b> Active	<b>Themes</b>					
<b>Duration:</b> Jan 2005 – Mar 2009			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost:</b> US\$ 8 million			<b>x</b>	<b>x</b>		<b>x</b>		
<b>Total Project Cost:</b> US\$ 9 million								



### Background:

Djibouti is a small country. Its population is estimated at 500,000, two thirds of which lives in the capital city, Djibouti. Recent data show that poverty in Djibouti is both extremely high and increasing. Torrential rains and high winds hit Djibouti between April 11 and 13th, 2004. On April 13, 2004, flash flooding washed away numerous houses located in and on the banks of the Ambouli River Oued, which separates Djibouti City in two parts. An estimated 100 persons died as a result of the floods and a large number of persons went missing.

According to Government estimates, the cost of the flood damages amounted to about US\$10 million, or roughly 5% of total annual expenditures as budgeted in FY04. The flood's impact was not restricted to Djibouti City; it also affected the country's major infrastructure. The flood had serious short-term economic consequences for Djibouti due to the breakdown of basic urban services and primary infrastructure, also affecting the transport supply chain to and from land locked Ethiopia.

### Project development objectives (PDO):

The main project objective was the rehabilitation and recovery of the economic and social assets damaged by the April 2004 floods. In addition, the project aimed to improve the living conditions in the resettlement zone to which the Government relocated the families whose housing was destroyed in the flood-prone area through delivery of basic infrastructure services. Finally, the project planned to build the capacity for long-term disaster prevention and management, and support employment generation

for the low income population, especially from the affected areas through reliance, where feasible, on labor intensive works.

#### **Project beneficiaries:**

The main beneficiaries of the project were the people directly and indirectly affected by the floods. In addition, the urban population at large benefitted from improved infrastructure and facilities. The rehabilitation of schools benefitted thousands of students. The rehabilitation of health centers catered for 80,000 to 100,000 people. The rehabilitation of the water supply facilities benefitted an estimated population of 275,000.

#### **Urban Resilience components:**

This project strengthened Urban Resilience through four components: (i) the rehabilitation of economic and social infrastructure; (ii) the delivery of basic social services in the resettlement zone; (iii) the technical assistance and consultant services for disaster prevention and management; and (iv) project management and implementation assistance.

The first component included: rehabilitation of flood protection structures (flood protection dike and widening the river bed); rehabilitation of roads and drainage infrastructure (inner city roads, regional highways, stormwater drainage channels); rehabilitation of seven primary schools and one secondary school (including equipment, furniture and teaching materials); rehabilitation of four health centers; and rehabilitation of water supply facilities. Resilience was enhanced through the Government-approved integrated watershed management plan for the Ambouli basin, which included a) the reconstruction and core strengthening of the Ambouli dike, designed to protect the city against flood levels that had historically occurred every eighty years as; b) the construction of a multipurpose dam upstream from the city and of a spill-over canal; c) the management of the upstream Ambouli watershed via multiple small rural water retention dikes; and d) the installation of a flood alert system. On the institutional side, an Executive Secretariat for Risks and Disaster Management (SEGRC) was established and the project provided equipment and supported capacity building activities as defined in the project documents. With support from the UN and the project, the Government has enacted a law creating the framework for disaster prevention, acquired relevant equipment and established a simulation room.

#### **Outstanding Features:**

The Government requested that the dike be designed so as to protect the city against flood levels that had historically occurred every eighty years in order to increase the urban resilience of the city. This project faced particular challenges in preventing resettlement of disaster-prone areas, including delays in completing the watershed management scheme due to settlement encroachment.

## 15. Iran - Bam Earthquake Emergency Reconstruction Project

<b>P088060</b>	<b>FY 2005</b>	<b>Mena</b>	<b>Lending Instrument:</b> Emergency Reconstruction Loan					
<b>Sector Board:</b> Urban Development		<b>Status:</b> Closed	<b>Themes</b>					
<b>Duration:</b> Oct.2004 – May 2009			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost:</b> US\$ 220 million			X			X		
<b>Total Project Cost:</b> US\$ 235 million								



### Background:

Iran is known to be one of the most earthquake prone countries in the world. With two major seismic belts, the entire country faces moderate to very high seismic risks. In the 20th century alone, twenty large earthquakes have claimed more than 140,000 lives. On December 26th, 2003, a powerful earthquake measuring 6.3 on the Richter scale struck the historic city of Bam and its surrounding villages. The city of Bam is the capital of Bam county in the Kerman province which is the second largest province of Iran. The population of Bam District (covering Bam city, neighboring Baravat and Arg-e-Jadid towns and 900 surrounding villages) was close to 200,000 while the city of Bam numbered a population of 92,000 before the earthquake.

The earthquake resulted in more than 43,000 deaths and over 30,000 injuries. About 85% of the houses, commercial units, health facilities and administrative buildings in the city and surrounding villages were severely damaged or destroyed. Total damage resulting from the Bam earthquake is estimated to be on the order of US\$1.5 billion. The effects of the earthquake were exacerbated by the fact that the city chiefly consisted of mud brick buildings, which did not comply with earthquake regulations set in Iran in 1989, and that most of the city's people were indoors and asleep. The Bank's involvement was based on the following premises: (a) Bank's experience of collaboration with the Government in post-disaster emergency reconstruction; (b) The Government's interest in Bank's assistance to better integrate disaster mitigation into development efforts and reduce economic and social risks of natural hazards to which Iran is particularly prone and (c) The Government's request for Bank assistance for this complex reconstruction program.



### **Project development objectives (PDO):**

The project objectives were to: (a) restore the living conditions of the communities affected by the earthquake; (b) improve emergency preparedness in the Province of Kerman and the city of Bam; and (c) strengthen the planning and management capacity under the reconstruction program.

### **Project beneficiaries:**

The direct beneficiaries were the affected communities of the Bam county and Kerman province.

### **Urban Resilience components:**

This project covered several components contributing to urban resilience as listed below:

- Restoring living conditions, through support to housing reconstruction, essential infrastructure and economic recovery; repair and reconstruction of telecom, electricity networks covering Bam and Baravat;
- Restoring transport links, through reconstruction investments in the district's major roads and the Bam Airport. This also included the preventive works for the key transport infrastructure damaged by the earthquake and envisaged to be further damaged by heavy-load transport during the reconstruction period;
- Restoring symbolic values, through priority consolidation works on Bam citadel and emergency repairs of the cultural heritage sites in Bam city;
- Improving disaster preparedness in Kerman Province, through retrofitting of strategic public buildings, purchase of search & rescue equipment, and training and awareness programs.

### **Outstanding Features:**

In addition to reconstructing housing and commercial buildings, restoring critical transport infrastructure such as highways between Bam and Kerman, and Bam Airport, fueling economic recovery through timely interventions such as restoring irrigation systems, providing livestock support, constructing cattle breeding centers, and reestablishing agro-industry facilities, this project also targeted to increase disaster preparedness at the provincial level by financing risk assessment and design studies and retrofitting works for key buildings in Kerman Province that could serve emergency needs during relief periods (e.g. hospitals, local administration buildings, emergency storages). The project also included the purchase of emergency rescue and search equipment for the Kerman Province.

## 16. India – National Cyclone Risk Mitigation Project

<b>P092217</b>	<b>FY 2010</b>	<b>SAR</b>	<b>Lending Instrument:</b> Adaptable Program Loan					
<b>Sector Board:</b> Urban Development		<b>Status:</b> Active	<b>Themes</b>					
<b>Duration:</b> Jun 2010– Oct 2015			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost:</b> US\$ 255 million			X					
<b>Total Project Cost:</b> US\$ 319 million								



### Background:

India is highly vulnerable to natural hazards, particularly earthquakes, flood, drought, cyclone and landslides. Studies indicate that natural disaster losses equate up to 2% of India's GDP and up to 12% of yearly federal government revenues. Among natural disasters, cyclones are amongst the most recurring natural disasters, with nearly 300 cyclones (of which 40 percent severe) affecting the country during the past century. Analyzed data for the period 1980-2000 indicates that on an average, annually, 370 million people are exposed to tropical storms and cyclones and economic losses resulting from these cyclones are extremely high, estimated at about US\$ 200 million annually.

As climate change and climate variability become more pronounced, hazard events are expected to grow, both in terms of frequency and intensity. Climate change prediction models show greater number of high storm surges, as well as an increased occurrence of cyclones in the Bay of Bengal, particularly in the post-monsoon period, along with associated maximum wind speeds. The 11th five year plan, 2007-2012, established by the Planning Commission of the Government of India has confirmed the aim of consolidating progress made towards disaster preparedness, prevention and risk mitigation by integrating them into the development process. Additional capacity needs to be built and resources need to be allocated in order for India to make meaningful progress towards minimizing its overall risk and vulnerability to natural hazards.

### **Project development objectives (PDO):**

The overall development objectives of the program is to assist the Government of India in mitigating the risks and vulnerability of the population to natural disasters, particularly cyclones, in order to save lives and reduce social, economic and financial impacts of future disasters. The PDO is to reduce the vulnerability of coastal communities to cyclone and other hydro-meteorological hazards through (i) improved early warning and communication systems, (ii) enhanced capacity of local communities to respond to disasters, (iii) improved access to emergency shelter, evacuation, and protection against wind storms, flooding and storm surges in high risk areas, and (iv) strengthening disaster risk management capacity at central, state and local levels in order to enable mainstreaming of risk mitigation measures into the overall national development agenda.

### **Project beneficiaries:**

The direct beneficiaries are the coastal communities vulnerable to cyclone and other hydro-meteorological hazards. Central, state and local governments are also expected to benefit from strengthened disaster risk management capacity.

### **Urban Resilience components:**

The project comprises four components: A, Early Warning Dissemination to Coastal Communities; B, Cyclone Risk Mitigation Infrastructure; C, Technical Assistance for Strengthening Capacity towards Disaster Risk Management; and D, Project Management and Implementation Support. Component A aims to reduce the vulnerability of coastal communities by addressing the gap of early warning dissemination in a timely, reliable and efficient manner. Component B focuses on mitigating cyclone risks through strengthening related defensive infrastructure along the coastal areas. Component C focuses on helping understanding risks and vulnerabilities better, and preparing the key institutions for addressing them effectively. Component D aims to support project implementation through provision of necessary office equipment and financing of associated incremental cost of project management teams of the National Disaster Management Agency and State Implementing Agencies.

### **Outstanding Features:**

This project aims at enhancing disaster risk management capacity of cyclone-vulnerable coastal communities by investing in measures related to mitigation and preparedness. It includes hard measures such as cyclone shelters and evacuation routes; improving access to key roads and bridges; strengthening coastal embankments; drainage improvement measures and creation of dedicated funds for operation and maintenance of cyclone shelters. It also includes soft measures such as reliable early warnings, communication systems, and enhanced disaster response capabilities of communities and governments at different levels.

## 17. Pakistan - Strengthening Pakistan's Urban Disaster Response Capacity

<b>P128902</b>	<b>FY 2012</b>	<b>SAR</b>	<b>Lending Instrument: Technical Assistance Loan</b>					
<b>Sector Board: Urban Development</b>		<b>Status: Active</b>	<b>Themes</b>					
<b>Duration: June 2012 – July 2015</b>			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost : US\$ 0</b>			<b>X</b>					
<b>Total Project Cost: US\$ 3 million</b>								



### Background:

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, which devastated 78 districts and covered over 100,000 sq.km, affecting more than 20 million people. Pakistan is located in a seismically active zone due to its proximity to the Indo-Australian and Eurasian plates. This vulnerability was proven in October 2005 when a major killed over 73,000 people and damaged/destroyed about 450,000 houses. Droughts are also a serious hazard in Pakistan, as 60% of the country's land is classified as semiarid or arid.

A number of underlying risk factors that increase vulnerability and contribute to the severity of disasters in Pakistan include poor construction practices and limited enforcement of existing building codes, weak early warning systems, lack of awareness and education on disasters and response, limited capacity and coordination between various government disaster response agencies, and disaster susceptibility of large number of impoverished communities.

These risk factors and the current demographic trends shifting the balance towards densely populated urban areas have resulted in an ever increasing exposure of people and assets to natural hazards therefore building disaster response capacities of cities is of paramount importance.

### Project development objectives (PDO):

The objective of the project is to develop appropriate methodologies and guidelines for assessing and subsequently enhancing multi-hazard early warning systems and the disaster response capacity of urban local authorities.

### **Project beneficiaries:**

The entire population of the target cities. The project will cover one large city and one medium/small city, which are still to be identified.

### **Urban Resilience components:**

This project targets building urban resilience through three components:

- **Assessment of Existing Emergency Services, and Capacity Enhancement:** (i) Conducting an analysis to understand the existing preparedness and emergency response services; (ii) developing an appropriate methodology and guidelines for assessing and subsequently enhancing disaster response capacity of urban local authorities; (iii) conducting an assessment of urban emergency services in two (2) pilot cities; (iv) establishing a baseline of existing response times in the context of various disasters in the pilot cities; and (v) organizing stakeholder workshops.
- **Assessment of Existing Flood Early Warning System, and Capacity Enhancement:** (i) conducting an assessment of existing flood early warning systems in the country in relation to and linkages with major urban centers through a particular focus on two pilot cities, including in relation to how flood-related information is collected, processed, and transmitted to appropriate agencies at various tiers; (ii) identification of existing gaps and the need for training and capacity building of the local authorities in relation to enhanced early warning systems; (iii) establishing a baseline of existing information processing times in the context of flood early warnings in the pilot cities; and (iv) organizing stakeholder workshops.
- **Pilot sub-projects to test the appropriateness of the new methodology:** (i) implementing the methodology and guidelines developed and supporting capacity enhancement identified under Components 1 and 2 in two pilot cities; (ii) establishing, in the two pilot cities, City-Level Emergency Operations Centers compatible with Provincial Emergency Operations Centers and the National Emergency Operations Center, to utilize the existing early warning systems and emergency response mechanisms; (iii) providing critical equipment and systems and requisite training to the emergency response staff to strengthen the cities' early warning systems and emergency response capacity; (iv) reassessing the response times following implementation of the revised procedures and guidelines under the pilot in terms of established baseline information; (v) organizing consultative workshops and seminars and dissemination events to share the outputs with the public; and (vi) conducting training workshops for emergency response staff, city government staff, and provincial and national level disaster management staff on new guidelines and procedures and other disaster preparedness and response-related modules.

### **Outstanding Features**

This recipient executed project clearly establishes scope of not only building disaster response capacities and Early-Warning Systems but also paves way for enhanced disaster risk reduction in cities. This project also encompasses the provision of technical assistance to the National Disaster Management Authority (NDMA) for day to day supervision and management of Project activities. The involvement of NDMA may lead to scaling up of such urban resilience efforts in other cities of Pakistan.

## 18. Sri Lanka - Metro Colombo Urban Development

<b>P122735</b>	<b>FY 2012</b>	<b>SAR</b>	<b>Lending Instrument: Specific Investment Loan</b>					
<b>Sector Board: Urban Development</b>		<b>Status: Active</b>	<b>Themes</b>					
<b>Duration: Mar 2012– Dec 2017</b>			NDM	WRM	CC	USHP	VAM	EPI
<b>Lending Project Cost: US\$ 213 million</b>			<b>X</b>	<b>X</b>				
<b>Total Project Cost: US\$ 320 million</b>								



### Background:

Sri Lanka aspires to transition from having been a Low Income Country in Conflict to becoming a Middle Income Country at Peace and is aiming to set the conditions for a sustainable path of economic growth. The Colombo Metropolitan Area is the key engine of growth as it contributes more than 50 percent of national GDP and about 80 percent of industrial value added (2007- 2008). To further improve the competitiveness of the Colombo Metropolitan Area, the Government is launching an ambitious program of economic and physical urban regeneration for Metro Colombo.

This program, which aims to improve the overall urban environment and attract private capital, encompasses: (i) improvements of the overall quality of life of low-middle/low income families living in under-served settlements (mostly through resettlement/relocation to subsidized housing), (ii) investments in metropolitan services and infrastructure, like drainage and flood control infrastructures, urban transport and solid waste management, and (iii) area-specific investments aimed at leveraging private sector capital (e.g. improvement of historic areas with high tourist potential). Such development scenarios need to take into account the recurrent urban flooding, which regularly paralyzes the region's economy with enormous socio-economic costs.

### **Project development objectives (PDO):**

The over-arching objective of the proposed project is to contribute to create a better environment conducive to local economic development, therefore strengthening the competitiveness of Colombo Metropolitan Area. The specific Project Development Objective is to improve flood-management infrastructure and cultural assets in the Colombo Metropolitan Area and enhance the capacity of urban authorities for metropolitan management.

### **Project beneficiaries:**

The beneficiaries are the Metro Colombo, population and government. In a broader sense, the national economy and its various stakeholders are expected to benefit from the project as well.

### **Urban Resilience components:**

The project includes the following components: 1, high-priority catalytic metropolitan investments aiming to reduce the physical and socio-economic impacts of flooding in the capital city area; 2, the improvement of the historic areas of Colombo in a bid to contribute to improve the attractiveness of this area for tourism-related use; 3, the financing of small-scale priority local infrastructures; and 4, capacity building for metropolitan management, local service delivery and implementation support. The flood and drainage infrastructure investment component is planned to absorb the largest share of the project costs. Component 1 addresses the urgent issue of urban flooding, by financing flood control and drainage investments identified as a priority by the Sri Lanka Land Reclamation and Development Corporation. Component 2 aims to contribute to improving the overall attractiveness of the iconic historic and cultural areas of Colombo Municipal Council. Component 3 addresses the immediate small to medium infrastructure needs of peripheral local authorities, on a demand basis. Finally, component 4 aims to strengthen institutional capacity at metropolitan and local level, and support project implementation.

### **Outstanding Features:**

The characteristic feature of this operation is its direct connection between increasing the Urban resilience of the capital metropolitan area with its economic competitiveness as well as with the competitiveness of the national economy as a whole. Thus, building urban resilience is justified not only as a way of avoiding localized damages and losses due to flooding, but as a measure of establishing a solid basis for future economic growth.

## Appendix 1: Selected Themes and Related Content

The data for the portfolio review was retrieved on 4th of January, 2013, from the SDN search site: <http://sdweb.worldbank.org/secure/projects/index.cfm?Page=Home>. The SDN project search site is connected to Oracle database tables that are used by the Operations Portal. The OPS Portal had issues retrieving and exporting data that were not solved. The six theme codes utilized for the review are reported hereunder with reference to the project activities to be found under each theme code and tagged to either category: **1. Core urban resilience projects and 2. Directly relevant projects**

### **Theme 52 Natural Disaster Management**

#### **Category 1**

- Disaster risk management community empowerment in urban areas
- Capacity building, disaster response capacity in urban areas
- Urban vulnerability reduction
- More disaster and climate resilience infrastructure (e.g. transport, building (earthquake resistance)) in urban areas
- Urban risk assessment
- Urban reconstruction with future Resilience
- Urban flood protection

#### **Category 2**

- Risk insurance facility
- Financial assistance after disasters
- Regional (Urban and rural) flood risk reduction
- Emergency recovery assistance (infrastructure, finance, livelihood recovery)
- Country/regional level disaster risk reduction strategies/plans

### **Theme 55 Vulnerability Assessment and Monitoring**

#### **Category 1**

- Disaster risk management

#### **Category 2**

- Climate resilience
- Early warning system
- Risk insurance
- Urban related (settlement upgrading)



**Theme 71**  
**Urban Services and housing for the poor**

**Category 1**

- Sanitation and water supply for flood prone areas
- Neighborhood housing (community) reconstruction
- Urban development with resilience perspectives (flood protection, upgrading in hazardous areas)

**Category 2**

- Urban physical upgrading of poor areas
- Settlement upgrading

**Theme 82**  
**Environmental policies and institutions**

**Category 1**

- N/A

**Category 2**

- Hydro-meteorological facilities
- River basin management/flood management
- Climate resilience/ Disaster management

**Theme 81**  
**Climate Change**

**Category 1**

- Climate change impact on cities (cities, infrastructure, flood)

**Category 2**

- Mainstreaming climate change (adaptation, resilience) and disaster risk – policies and infrastructure
- Disaster vulnerability reduction
- River basin/watershed management
- Adaptation of water supply/management

**Theme 85**  
**Water Resource Management**

**Category 1**

- Urban adaptation project  
Urban disaster vulnerability projects
- Urban storm water management
- Urban flood management/ drainage
- Urban development in flood prone area

**Category 2**

- Emergency response/recovery/rehabilitation (urban, regional, facilities)
- Regional (basin, watershed) flood/erosion management
- Regional climate adaptation
- Integrated water resource management

## **Appendix 2: List of projects contributing to Urban Resilience**

**CORE URBAN RESILIENCE PROJECTS**

PROJECT ID	PROJECT NAME	FY	REGION	COUNTRY	SECTOR BOARD	LENDING INSTRUMENT	PROJECT STATUS	TOTAL PROJECT COST (USD mil.)	LENDING PROJECT COST (USD mil.)	NDM	WRM	CC	USHP	VAM	EPI
P113145	Benin Emergency Urban Env. Project	2011	AFR	Benin	ENV	Emergency Recovery Loan	Active	50.00	50.00	x					
P122841	Stormwater Mgt. and Climate Change Adaptation Project	2012	AFR	Senegal	ENV	Specific Investment Loan	Active	72.90	55.60	x	x				
P123201	Cities and Climate Change	2012	AFR	Mozambique	UD	Specific Investment Loan	Active	120.00	120.00	x					
P131127	CAR - Sanitation and Water Supply for Flood Prone Areas in Bangui	2013	AFR	Central African Republic	WAT	Specific Investment Loan	Pipeline	4.92	-				x		
P130884	Mozambique PPCR - Cities and Climate Change	2013	AFR	Mozambique	UD	Specific Investment Loan	Pipeline	15.75	-			x			
<b>Africa Sub-total</b>								<b>263.57</b>	<b>225.60</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>
P088246	Cyclone Emergency Recovery Project	2004	EAP	Samoa	TR	Emergency Recovery Loan	Closed	6.03	4.50	x					
P075730	Hunan Urban Development Project	2005	EAP	China	WAT	Specific Investment Loan	Closed	364.20	172.00			x			
P081161	Chongqing Small Cities Infrastructure Improvement Project	2005	EAP	China	UD	Specific Investment Loan	Closed	280.70	180.00	x					
P096248	Community-based Settlement Reconstruction and Rehabilitation Project for NAD and NIAS	2006	EAP	Indonesia	UD	Emergency Recovery Loan	Closed	87.20	-	x			x		
P104358	Yogyakarta and Central Java Earthquake Roof Structure Project	2007	EAP	Indonesia	UD		Pipeline	4.26	-				x		
P104357	Yogyakarta and Central Java Earthquake Roof Structure Project	2007	EAP	Indonesia	UD	Emergency Recovery Loan	Closed	6.64	-				x		
P112357	TA for Jakarta Flood Mitigation	2009	EAP	Indonesia	WAT	Specific Investment Loan	Pipeline	5.02	-		x				
P114107	Wenchuan Earthquake Recovery	2009	EAP	China	UD	Emergency Recovery Loan	Active	740.00	710.00	x					
P125300	EAP Region: (RETF) Building Community Resilience in EAP (GFDRR: Track II TA Core)	2011	EAP	EAP	UD	Technical Assistance Loan	Pipeline	0.15	-			x			
P129322	PNG: Building a More Disaster and Climate Resilient Transport Sector	2012	EAP	Papua New Guinea	TR	Technical Assistance Loan	Active	2.93	-	x					
P124674	Disaster Risk Management Program for The Third National Program For Community Empowerment in Urban Areas	2012	EAP	Indonesia	UD		Pipeline	4.98	-	x				x	
P111034	Jakarta Urgent Flood Mitigation Project	2012	EAP	Indonesia	WAT	Specific Investment Loan	Active	189.85	139.64	x	x				
P129376	Mainstreaming Disaster Risk Reduction	2012	EAP	Vanuatu	ENV	Technical Assistance Loan	Active	2.73	-	x		x			
P128867	Jiangxi Wuxikou Integrated Flood Management Project	2013	EAP	China	WAT	Specific Investment Loan	Pipeline	513.72	100.00		x				x

PROJECT ID	PROJECT NAME	FY	REGION	COUNTRY	SECTOR BOARD	LENDING INSTRUMENT	PROJECT STATUS	TOTAL PROJECT COST (USD mil.)	LENDING PROJECT COST (USD mil.)	NDM	WRM	CC	USHP	VAM	EPI
P143770	Community-based Livelihood Support for the Urban Poor	2013	EAP	Thailand	SDV	Specific Investment Loan	Pipeline	3.00	-	x					
<b>East Asia and Pacific Sub-total</b>								<b>2,211.41</b>	<b>1,306.14</b>	<b>9</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>1</b>
P078359	Seismic Risk Mitigation Project	2005	ECA	Turkey	UD	Specific Investment Loan	Active	400.00	400.00	x					
P100383	Istanbul Municipal Infrastructure Project	2007	ECA	Turkey	UD	Specific Investment Loan	Closed	336.30	322.15	x					
P122179	ISMEP - ADDITIONAL FINANCING	2011	ECA	Turkey	UD	Specific Investment Loan	Active	150.00	150.00	x					
P127130	ADDITIONAL FINANCING MUNICIPAL INFRASTRUCTURE	2012	ECA	Tajikistan	WAT	Specific Investment Loan	Active	12.97	11.85	x			x		
<b>Europe and Central Asia Sub-total</b>								<b>899.27</b>	<b>884.00</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
P082429	Disaster Vulnerability Reduction First Phase APL	2005	LCR	Colombia	UD	Adaptable Program Loan	Active	401.00	260.00	x					
P088220	Urban Flood Prevention and Drainage APL1	2005	LCR	Argentina	WAT	Adaptable Program Loan	Closed	190.00	130.00	x	x				
P085727	Disaster Vulnerability Reduction Project - APL2	2006	LCR	Colombia	UD	Adaptable Program Loan	Active	200.00	80.00	x					
P093491	Argentina - Urban Flood Prevention and Drainage APL 2	2006	LCR	Argentina	WAT	Adaptable Program Loan	Active	91.57	70.00		x				
P103539	Conservancy Adaptation Project	2008	LCR	Guyana	UD	Specific Investment Loan	Active	5.00	-	x	x				
P106689	Haiti Emergency Recovery and Disaster Management (Additional Financing)	2008	LCR	Haiti	UD	Emergency Recovery Loan	Closed	7.40	7.40	x					
P117871	Regional Disaster Vulnerability Reduction APL1 - Grenada and St. Vincent and the Grenadines	2011	LCR	OECS Countries	UD	Adaptable Program Loan	Active	53.12	20.92	x	x				
P125805	Port au Prince Neighborhood Housing Reconstruction	2011	LCR	Haiti	UD	Emergency Recovery Loan	Active	65.00	-	x			x		
P121833	Housing Reconstruction - Urban Community Driven Development Additional Financing	2011	LCR	Haiti	ARD	Specific Investment Loan	Active	30.00	30.00	x			x		
<b>Latin America and Caribbean Sub-total</b>								<b>1,043.09</b>	<b>598.32</b>	<b>8</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>
P080802	Earthquake Emergency Recovery Project	2003	MNA	Iran, Islamic Republic of	UD	Emergency Recovery Loan	Closed	225.00	180.00	x			x		
P067605	Urban Natural Hazard Vulnerability Reduction in the Wilaya of Algiers Project	2003	MNA	Algeria	UD	Emergency Recovery Loan	Closed	125.05	88.45	x	x		x		
P088060	BAM EARTHQUAKE EMERGENCY RECONSTRUCTION PROJECT	2005	MNA	Iran, Islamic Republic of	UD	Emergency Recovery Loan	Closed	235.00	220.00	x			x		
P089968	DJ-FLOOD EMERGENCY REHABILITATION	2005	MNA	Djibouti	UD	Emergency Recovery Loan	Closed	7.18	6.46	x	x		x		
P104890	DJ-FLOOD EMERGENCY REHAB ADD. GRANT	2007	MNA	Djibouti	UD	Emergency Recovery Loan	Closed	2.00	2.00	x	x				

PROJECT ID	PROJECT NAME	FY	REGION	COUNTRY	SECTOR BOARD	LENDING INSTRUMENT	PROJECT STATUS	TOTAL PROJECT COST (USD mil.)	LENDING PROJECT COST (USD mil.)	NDM	WRM	CC	USHP	VAM	EPI
P109219	Taiz Municipal Development and Flood Protection Project	2008	MNA	Yemen, Republic of	UD	Specific Investment Loan	Active	22.06	20.00	x			x		
P119878	DJ-Natural Disaster Risk Assessment and Monitoring System	2010	MNA	Djibouti	UD	Technical Assistance Loan	Active	0.91	-	x				x	
<b>Middle East and North Africa Sub-total</b>								<b>617.20</b>	<b>516.91</b>	<b>7</b>	<b>3</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>0</b>
P110282	Municipal Services Additional Financing	2008	SAR	Bangladesh	ENV	Specific Investment Loan	Closed	25.00	25.00	x					
P128902	Strengthening Pakistan's Urban Disaster Response Capacity	2012	SAR	Pakistan	UD	Technical Assistance Loan	Active	3.00	-	x					
P130445	Development of a program for Hazard and Risk Assessment in Urban Areas	2012	SAR	Pakistan	UD	Technical Assistance Loan	Active	0.50	-	x					
P122735	Metro Colombo Urban Development Project	2012	SAR	Sri Lanka	UD	Specific Investment Loan	Active	320.60	213.00	x	x				
P129177	Nepal: Pilot Project for Seismic School Safety in the kathmandu	2013	SAR	Nepal	UD	Technical Assistance Loan	Active	1.51	-	x					
P133815	BANGLADESH - BUILDING SAFER CITIES BY IMPROVING EARTHQUAKE RESILIENCY	2013	SAR	Bangladesh	UD	Specific Investment Loan	Pipeline	2.73	-	x					
P144054	Improving Resilience to Seismic Risk	2013	SAR	Bhutan	UD	Technical Assistance Loan	Pipeline	1.29	-	x					
<b>South Asia Sub-total</b>								<b>354.62</b>	<b>238.00</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Core Urban Resilience projects: 47</b>								<b>5,389.16</b>	<b>3768.97</b>	<b>38</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>2</b>	<b>1</b>

**DIRECTLY RELEVANT URBAN RESILIENCE PROJECTS**

PROJECT ID	PROJECT NAME	FY	REGION	COUNTRY	SECTOR BOARD	LENDING INSTRUMENT	PROJECT STATUS	TOTAL PROJECT COST (USD mil.)	LENDING PROJECT COST (USD mil.)	NDM	WRM	CC	USHP	VAM	EPI
P122601	Tsunami Livelihoods Recovery Project - Somalia	2011	AFR	Somalia	ARD	Emergency Recovery Loan	Active	1.64	0.00	x					
P125669	Niger Community Action Project for Climate Resilience	2012	AFR	Niger	ARD	Technical Assistance Loan	Active	63.00	0.00			x			
P104595	CAR - Emergency Urban Infrastructure Rehabilitation & Maintenance	2007	AFR	Central African Republic	UD	Emergency Recovery Loan	Active	18.00	18.00		x		x		
P113134	Madagascar - Emergency Food Security and Reconstruction Project	2009	AFR	Madagascar	SP	Emergency Recovery Loan	Active	40.40	40.00	x					
P117616	Emergency Urban Infrastructure Rehabilitation and Maintenance Project - Additional Financing	2011	AFR	Central African Republic	UD	Emergency Recovery Loan	Active	23.90	23.90	x	x				
P082373	GH Second Urban Environmental Sanitation Project	2004	AFR	Ghana	WAT	Specific Investment Loan	Active	80.93	62.00	x			x		
P124905	Nigeria Erosion and Watershed Management Project	2012	AFR	Nigeria	ENV	Specific Investment Loan	Active	650.00	500.00	x	x	x			
P126549	Nigeria Erosion and Watershed Management Project	2012	AFR	Nigeria	ENV	Specific Investment Loan	Active	291.84	0.00	x	x	x			
P113542	Kenya Informal Settlements Improvement Project (KISIP)	2011	AFR	Kenya	UD	Specific Investment Loan	Active	165.00	100.00				x		
P113415	Emergency Infrastructure Rehabilitation and Energy Project	2009	AFR	Togo	UD	Emergency Recovery Loan	Active	26.82	25.00	x			x		x
P123922	Integrated Disaster and Land Management Project	2013	AFR	Togo	WAT	Specific Investment Loan	Pipeline	7.29	0.00		x				
P124755	Mozambique-Programmatic Support to Disaster Risk Management Phase I	2011	AFR	Mozambique	WAT	Technical Assistance Loan	Active	1.40	0.00	x					
P124198	TG-Integrated Disaster and Land Management	2012	AFR	Togo	ENV	Specific Investment Loan	Active	9.16	0.00	x		x			x
P128137	Senegal Disaster Risk Management and Climate Change Adaptation Project	2012	AFR	Senegal	ENV	Technical Assistance Loan	Active	5.00	0.00		x	x			
P129151	Ethiopia Disaster Risk Management Country Plan Project, Phase I	2012	AFR	Ethiopia	SP	Specific Investment Loan	Active	1.28	0.00	x				x	
P133380	Zambezi River Basin Development Project	2013	AFR	Zambia and Zimbabwe	WAT	Technical Assistance Loan	Pipeline	6.00	0.00		x				x
P127866	Shire River Basin Management Program (GEF)	2012	AFR	Malawi	ENV	Adaptable Program Loan	Active	131.58	0.00	x	x				
P110453	Madagascar: Mainstreaming Climate Change and Disaster Risk Management into Economic Development	2008	AFR	Madagascar	ENV	Technical Assistance Loan	Active	1.69	0.00	x		x			
P143546	Zambezi River Basin Management Project	2013	AFR	Southern Africa	WAT	Technical Assistance Loan	Pipeline	4.00	0.00	x	x	x			x
P121986	Zambia Pilot Program for Climate Resilience - Phase I	2010	AFR	Zambia	SDV	Technical Assistance Loan	Active	1.50	0.00	x		x			

PROJECT ID	PROJECT NAME	FY	REGION	COUNTRY	SECTOR BOARD	LENDING INSTRUMENT	PROJECT STATUS	TOTAL PROJECT COST (USD mil.)	LENDING PROJECT COST (USD mil.)	NDM	WRM	CC	USHP	VAM	EPI
P125225	Mozambique PPCR - Phase 1	2011	AFR	Mozambique	ENV	Technical Assistance Loan	Active	1.50	0.00	x		x			
P131049	Climate Resilience: Transforming Hydro-Meteorological Services	2013	AFR	Mozambique	WAT	Specific Investment Loan	Pipeline	15.70	0.00	x	x	x			
P126851	Strengthening ICPAC as a regional centre of excellence for disaster risk reduction	2012	AFR	Africa	ENV	Technical Assistance Loan	Active	0.41	0.00	x	x	x			
P128434	Mozambique Climate Change Development Policy Operation	2013	AFR	Mozambique	ENV	Development Policy Lending	Pipeline	50.00	50.00			x			
P111669	Sao Tome - Adaptation to Climate Change	2011	AFR	Sao Tome and Principe	ENV	Specific Investment Loan	Active	4.15	0.00			x			
P131195	Mozambique Climate Change Technical Assistance Project	2012	AFR	Mozambique	ENV	Technical Assistance Loan	Active	2.52	0.00			x			
P124481	GFDRR MAINSTREAMING DISASTER REDUCTION IN MALI	2011	AFR	Mali	ARD	Technical Assistance Loan	Active	1.40	0.00			x			
P126109	GFDRR MAINSTREAMING DISASTER REDUCTION IN Burkina Faso	2011	AFR	Burkina Faso	ARD	Technical Assistance Loan	Active	1.40	0.00			x			
P103518	Eastern Nile Flood Prevention and Early Warning Project - Phase 1	2007	AFR	Africa	ARD	Specific Investment Loan	Closed	4.08	0.00	x	x				
P112830	Climate Observations and Regional Modeling in Support of Climate Risk Management and Sustainable	2009	AFR	Eastern Africa	ENV	Technical Assistance Loan	Closed	0.40	0.00	x		x			
P083177	ST-Adaptations Strategies for Climate Change (FY05)	2005	AFR	Sao Tome and Principe	ENV	Technical Assistance Loan	Closed	0.20	0.00			x			
P119877	GFDRR Recipient Grant for IGAD in Eastern Africa regional risk reduction and sustainable development Initiative	2010	AFR	Eastern Africa	UD	Technical Assistance Loan	Closed	0.10	0.00	x					
<b>Africa Sub-total</b>								<b>1,612.28</b>	<b>818.90</b>	<b>20</b>	<b>12</b>	<b>18</b>	<b>4</b>	<b>1</b>	<b>4</b>
P108904	PH - Regional Infrastructure for Growth	2012	EAP	Philippines	UD	Financial Intermediary Loan	Active	50.00	50.00	x					
P070197	URBAN UPGRADING PROJECT	2004	EAP	Vietnam	UD	Specific Investment Loan	Active	417.49	222.47				x		
P086508	VN-Priority Infrastructure Investment Project	2008	EAP	Vietnam	UD	Specific Investment Loan	Active	218.46	152.44				x		
P102398	Road Sector Project	2010	EAP	Lao People's Democratic	TR	Specific Investment Loan	Active	43.18	27.80	x					
P129347	LA - Additional Financing Road Sector Project	2013	EAP	Lao People's Democratic	TR	Specific Investment Loan	Active	21.00	21.00	x					
P121234	Infrastructure Reconstruction Financing Facility - Additional Financing	2011	EAP	Indonesia	UD	Specific Investment Loan	Active	36.70	0.00	x					
P101829	Xining Flood and Watershed Management	2009	EAP	China	ARD	Specific Investment Loan	Active	188.00	100.00	x	x				
P075523	Second Infrastructure Asset Management Project	2004	EAP	Samoa	TR	Adaptable Program Loan	Active	22.60	12.80	x					x
P091025	Second Infrastructure Asset Management Project (Supplemental)	2007	EAP	Samoa	TR	Adaptable Program Loan	Active	12.72	8.27	x					x

PROJECT ID	PROJECT NAME	FY	REGION	COUNTRY	SECTOR BOARD	LENDING INSTRUMENT	PROJECT STATUS	TOTAL PROJECT COST (USD mil.)	LENDING PROJECT COST (USD mil.)	NDM	WRM	CC	USHP	VAM	EPI
P073361	Natural Disaster Risk Management Project	2006	EAP	Vietnam	ARD	Adaptable Program Loan	Active	102.50	86.00	x	x				
P125032	Timor Leste Road Climate Resilience Project	2011	EAP	Timor-Leste	TR	Specific Investment Loan	Active	20.00	20.00			x			
P112085	Supporting Sustainable Post-Earthquake Recovery	2009	EAP	China	UD	Emergency Recovery Loan	Pipeline	1.00	0.00	x					
P104806	Mekong Integrated Water Resources Management	2012	EAP	Mekong	ARD	Specific Investment Loan	Active	26.59	26.00	x	x				
P121830	Mainstreaming Flood and Drought Risk Mitigation in East Mekong Delta	2010	EAP	Cambodia	ARD	Adaptable Program Loan	Pipeline	0.18	0.00	x					
P121075	Ketsana Emergency Reconstruction and Rehabilitation Project	2011	EAP	Cambodia	UD	Emergency Recovery Loan	Active	40.00	40.00	x					
P124673	BNPB Capacity Building	2011	EAP	Indonesia	UD	Technical Assistance Loan	Pipeline	0.30	0.00	x				x	
P132449	Pacific Catastrophe Risk Assessment and Financing Initiative Phase 3 - (RETF)	2013	EAP	Pacific Islands	ENV	Technical Assistance Loan	Pipeline	1.17	0.00			x			
P128763	Papua New Guinea Settlement Upgrading Programme	2013	EAP	Papua New Guinea	UD	Technical Assistance Loan	Active	0.35	0.00	x			x	x	
P122975	KH Strategic Program for Climate Resilience-Phase 1	2011	EAP	Cambodia	ENV	Technical Assistance Loan	Active	1.50	0.00			x			x
P124807	Samoa Pilot Programme for Climate Resilience	2011	EAP	Samoa	ENV	Technical Assistance Loan	Active	0.50	0.00			x			x
P133255	Pacific catastrophe risk insurance pilot program	2013	EAP	Pacific Islands	ENV	Technical Assistance Loan	Pipeline	3.00	0.00	x		x			
P130975	Timor Leste Road Climate Resilience Project - Additional Financing	2013	EAP	Timor-Leste	TR	Specific Investment Loan	Pipeline	92.00	40.00			x			
P112615	Kiribati Adaptation Phase III (LDCF)	2012	EAP	Kiribati	ENV	Specific Investment Loan	Active	10.80	0.00	x	x				
P118783	Vietnam - Managing Natural Hazards Project	2013	EAP	Vietnam	ARD	Specific Investment Loan	Active	167.60	150.00	x	x				
P119684	VN- Natural Disaster Risk Management Project - Additional Finance	2010	EAP	Vietnam	ARD	Specific Investment Loan	Active	75.00	75.00	x					
P103457	Community Based Settlement Rehabilitation for Yogyakarta	2007	EAP	Indonesia	UD	Emergency Recovery Loan	Active	61.00	0.00	x					
P120594	Samoa Post Tsunami Reconstruction	2011	EAP	Samoa	TR	Emergency Recovery Loan	Active	11.79	10.00	x					
P125648	COMMUNITY-BASED SETTLEMENT REHABILITATION AND RECONSTRUCTION PROJECT	2011	EAP	Indonesia	UD	Specific Investment Loan	Active	11.50	0.00	x					
P120595	Tonga Post Tsunami Reconstruction	2011	EAP	Tonga	UD	Emergency Recovery Loan	Active	5.00	5.00	x					
P129541	Improving Disaster Risk Management in Mongolia	2012	EAP	Mongolia	UD	Technical Assistance Loan	Active	2.73	0.00	x					
P126996	PNG Disaster Risk Management Program	2011	EAP	Papua New Guinea	ARD	Technical Assistance Loan	Active	1.87	0.00	x					



PROJECT ID	PROJECT NAME	FY	REGION	COUNTRY	SECTOR BOARD	LENDING INSTRUMENT	PROJECT STATUS	TOTAL PROJECT COST (USD mil.)	LENDING PROJECT COST (USD mil.)	NDM	WRM	CC	USHP	VAM	EPI
P128911	GRDRR-Vietnam DRM Capacity Building	2011	EAP	Vietnam	ARD	Technical Assistance Loan	Active	1.50	0.00	x					
P116889	DISASTER RISK REDUCTION CITY-TO-CITY SHARING INITIATIVE for DEVELOPING COUNTRIES	2010	EAP	Philippines	UD	Technical Assistance Loan	Active	0.45	0.00	x					
P129375	Increasing Resilience to Climate Change and Natural Hazards.	2012	EAP	Solomon Islands	ENV	Specific Investment Loan	Active	2.73	0.00	x		x			
P127201	Vietnam Climate Change Development Policy 2	2013	EAP	Vietnam	ENV	Development Policy Lending	Active	70.00	70.00			x			
P126504	Enhancing the Climate Resilience of the West Coast Road	2013	EAP	Samoa	TR	Specific Investment Loan	Pipeline	17.02	0.00			x			
P129182	Lao PDR - Mainstreaming Disaster and Climate Risk Management into Investment Decisions	2012	EAP	Lao People's Democratic	TR	Technical Assistance Loan	Active	2.77	0.00			x			
P112613	COMMUNITY RESILIENCE TO CLIMATE AND DISASTER RISK IN SOLOMON ISLANDS PROJECT	2013	EAP	Solomon Islands	ENV	Specific Investment Loan	Pipeline	8.30	0.00			x			
P126871	Climate Change Partnership-Capacity Building Component	2011	EAP	Vietnam	ENV	Technical Assistance Loan	Active	1.07	0.00			x			
P125943	Disaster Risk Management Development Loan with a CAT DDO	2012	EAP	Philippines	UD	Development Policy Lending	Closed	500.00	500.00	x					
P074591	Second Ulaanbaatar Services Improvement Project	2004	EAP	Mongolia	UD	Specific Investment Loan	Closed	22.98	18.00				x		
P106262	Bicol Power Restoration Project	2008	EAP	Philippines	EMT	Emergency Recovery Loan	Closed	21.60	12.94	x					
P118636	Samoa Economic Crisis Recovery Support Credit	2010	EAP	Samoa	EP	Development Policy Lending	Closed	20.00	20.00	x					
P096647	Community Recovery in Earthquake Affected Areas through UPP	2006	EAP	Indonesia	UD	Emergency Recovery Loan	Closed	17.96	0.00	x			x		
P109710	Livelihood Recovery for DI Yogyakarta and Central Java	2009	EAP	Indonesia	FPD	Specific Investment Loan	Closed	11.26	0.00	x					
P089326	Adaptation Program Phase II - Pilot Implementation Phase (KAP II)	2006	EAP	Kiribati	ARD	Specific Investment Loan	Closed	6.58	0.00	x		x		x	
P112245	Strengthening ASEAN through the Myanmar Cyclone Response	2008	EAP	EAP	UD	Emergency Recovery Loan	Closed	0.85	0.00	x					
<b>East Asia and Pacific Sub-total</b>								<b>2,351.60</b>	<b>1667.72</b>	<b>34</b>	<b>5</b>	<b>13</b>	<b>5</b>	<b>3</b>	<b>4</b>
P098948	Inland Waters Project	2007	ECA	Croatia	WAT	Specific Investment Loan	Active	140.08	133.41		x				x
P112775	Additional Financing to cover a gap of the Disaster Hazard Mitigation Project (DHMP, P83235)	2011	ECA	Kyrgyz Republic	ENV	Specific Investment Loan	Active	1.00	1.00	x					
P110845	Disaster Risk Mitigation and Adaptation Project	2008	ECA	Albania	UD	Adaptable Program Loan	Active	10.17	9.16	x					
P123896	Southeast Europe and Caucasus Catastrophe Risk Insurance Facility GEF	2012	ECA	South Eastern Europe and	UD	Specific Investment Loan	Active	27.00	0.00	x		x			

PROJECT ID	PROJECT NAME	FY	REGION	COUNTRY	SECTOR BOARD	LENDING INSTRUMENT	PROJECT STATUS	TOTAL PROJECT COST (USD mil.)	LENDING PROJECT COST (USD mil.)	NDM	WRM	CC	USHP	VAM	EPI
P127788	SEEC Catastrophe Risk Insurance Facility APL3 (Bosnia and Herzegovina)	2013	ECA	Bosnia and Herzegovina	UD	Adaptable Program Loan	Pipeline	5.00	5.00	x		x			
P082239	Hydrometeorological System Modernization Project	2005	ECA	Russian Federation	ENV	Specific Investment Loan	Active	133.33	80.00	x	x				
P127044	SEEC Catastrophe Risk Insurance Facility APL2 (Montenegro)	2013	ECA	Montenegro	UD	Adaptable Program Loan	Pipeline	2.50	2.50	x		x			
P117069	Swiss SECO for South East and Central Europe Catastrophe Risk Insurance Facility	2010	ECA	ECA	UD	Adaptable Program Loan	Active	2.50	0.00	x				x	
P120788	Central Asia Hydrometeorology Modernization Project	2011	ECA	Central Asia	UD	Specific Investment Loan	Active	27.70	20.70	x					
P115634	Disaster and Climate Risk Management Project	2011	ECA	Moldova	UD	Specific Investment Loan	Active	10.00	10.00	x					
P126819	KG Coordination of Emergency Situations	2011	ECA	Kyrgyz Republic	UD	Specific Investment Loan	Active	1.48	0.00	x					
P127676	RUSSIA HYDROMETEOROLOGICAL SERVICES MODERNIZATION	2013	ECA	Russian Federation	ENV	Specific Investment Loan	Pipeline	141.50	60.00	x	x	x			x
P086768	ODRA RIVER BASIN FLOOD PROTECTION	2007	ECA	Poland	ARD	Specific Investment Loan	Active	489.00	184.00	x	x				x
P105270	Serbia Irrigation and Drainage Rehabilitation Project Additional Financing	2007	ECA	Serbia	WAT	Specific Investment Loan	Active	62.50	49.37	x	x				
P075163	Hazard Risk Mitigation & Emergency Preparedness Project	2004	ECA	Romania	UD	Specific Investment Loan	Closed	196.66	150.00	x	x				
P073806	SUPPLEMENTAL BAKU WATER SUPPLY	2003	ECA	Azerbaijan	WAT	Specific Investment Loan	Closed	14.21	12.92	x			x		
P110910	South East Europe and Caucasus Catastrophe Risk Insurance Facility (Serbia and Macedonia)	2011	ECA	South Eastern Europe and	UD	Adaptable Program Loan	Closed	10.00	10.00	x		x			
P080376	Georgia Earthquake Work	2003	ECA	Georgia	SP	Specific Investment Loan	Closed	6.18	5.00	x			x		
<b>Europe and Central Asia Sub-total</b>								<b>1,280.80</b>	<b>733.06</b>	<b>17</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>3</b>
P085539	Port-City of Limon Integrated Infrastructure Project	2008	LCR	Costa Rica	TR	Specific Investment Loan	Active	79.70	72.50				x		
P111479	Rio Bogota Environmental Recuperation and Flood Control Project	2011	LCR	Colombia	WAT	Specific Investment Loan	Active	487.00	250.00		x				
P130749	AF Infrastructure & Institutions Emergency Recovery	2013	LCR	Haiti	TR	Emergency Recovery Loan	Active	35.00	35.00	x					
P129465	Second Programmatic Fiscal Sustainability and Growth Resilience Development Policy Loan	2013	LCR	Colombia	EP	Development Policy Lending	Active	200.00	200.00	x					
P081436	Bahia Poor Urban Areas Integrated Development	2006	LCR	Brazil	UD	Specific Investment Loan	Active	82.20	49.30				x		
P123505	Fiscal Risk Management Development Policy Loan	2012	LCR	Mexico	EP	Development Policy Lending	Active	300.75	300.75	x					
P121391	Haiti Post-Disaster Partial Credit Guarantee Program Support Project	2011	LCR	Haiti	FPD	Specific Investment Loan	Active	35.50	3.00	x					

PROJECT ID	PROJECT NAME	FY	REGION	COUNTRY	SECTOR BOARD	LENDING INSTRUMENT	PROJECT STATUS	TOTAL PROJECT COST (USD mil.)	LENDING PROJECT COST (USD mil.)	NDM	WRM	CC	USHP	VAM	EPI
P088966	BR Municipal APL: Teresina Enhancing Municipal Governance and Quality of Life Project	2008	LCR	Brazil	WAT	Adaptable Program Loan	Active	44.47	31.13	x			x		
P122206	Costa Rica Pilot on Early Warning Systems for Hydrometeorological Hazards	2010	LCR	Costa Rica	UD	Technical Assistance Loan	Active	0.26	0.00			x		x	
P106699	Haiti - Urban Community Driven Development Project / PRODEPUR	2008	LCR	Haiti	ARD	Specific Investment Loan	Active	16.70	15.70				x		
P089013	Recife Urban Development and Social Inclusion (CAPIBARIBE MELHOR)	2008	LCR	Brazil	UD	Adaptable Program Loan	Active	46.80	32.76		x		x		
P114292	HT Emergency Bridge Reconst & Vulnerab Reduction Project	2009	LCR	Haiti	UD	Emergency Recovery Loan	Active	20.00	20.00	x					
P006553	BR - Integrated Water Management In Metropolitan Sao Paulo	2010	LCR	Brazil	WAT	Adaptable Program Loan	Active	233.50	104.00		x		x		
P108974	Nicaragua Hurricane Felix Emergency Recovery Project	2008	LCR	Nicaragua	ARD	Emergency Recovery Loan	Active	17.00	17.00	x					
P132108	Hurricane Felix Emergency Recovery Additional Financing	2013	LCR	Nicaragua	ARD	Specific Investment Loan	Active	5.00	5.00	x					
P116471	Community-based Landslide Risk Reduction (JSDF Grant)	2010	LCR	Jamaica	UD	Specific Investment Loan	Active	2.50	0.00	x					
P106449	Emergency Recovery and Disaster Management	2008	LCR	Bolivia	UD	Emergency Recovery Loan	Active	12.50	12.50	x					
P121152	Second Land Administration Project (PRODEP II)	2013	LCR	Nicaragua	ARD	Specific Investment Loan	Pipeline	38.00	38.00	x					
P126735	Rio State TAL AF - PROGET	2013	LCR	Brazil	UD	Technical Assistance Loan	Pipeline	48.00	48.00	x					
P125205	Saint Lucia Hurricane Tomas Emergency Recovery Loan	2011	LCR	St. Lucia	UD	Emergency Recovery Loan	Active	15.00	15.00	x					
P131094	Disaster Risk Management Project	2013	LCR	Honduras	UD	Specific Investment Loan	Pipeline	30.00	30.00	x					
P107666	Water Resources Management Modernization	2010	LCR	Peru	WAT	Specific Investment Loan	Active	23.67	10.00		x	x			
P126346	Disaster Risk Management and Reconstruction	2012	LCR	Haiti	UD	Emergency Recovery Loan	Active	60.00	60.00	x					
P126583	Second Disaster Risk Management DPL with Catastrophe Deferred Draw Down Option	2013	LCR	Colombia	UD	Development Policy Lending	Active	250.00	250.00	x					
P120860	Catastrophe Development Policy Loan DDO	2011	LCR	Peru	UD	Development Policy Lending	Active	100.00	100.00	x					
P122370	Emergency Support for Social Services	2011	LCR	Guatemala	EP	Emergency Recovery Loan	Active	100.00	100.00	x					
P122738	Disaster Risk Management Development Policy Loan with a CAT DDO	2012	LCR	Panama	UD	Development Policy Lending	Active	66.00	66.00	x					
P111926	Costa Rica Catastrophe Deferred Draw Down Option (CAT DDO)	2009	LCR	Costa Rica	UD	Development Policy Lending	Active	65.00	65.00	x					
P120895	Infrastructure & Institutions Emergency Recovery	2010	LCR	Haiti	UD	Emergency Recovery Loan	Active	65.00	65.00	x					

PROJECT ID	PROJECT NAME	FY	REGION	COUNTRY	SECTOR BOARD	LENDING INSTRUMENT	PROJECT STATUS	TOTAL PROJECT COST (USD mil.)	LENDING PROJECT COST (USD mil.)	NDM	WRM	CC	USHP	VAM	EPI
P124939	Hurricane Tomas Emergency Recovery Loan	2011	LCR	St. Vincent and the Grenadines	UD	Emergency Recovery Loan	Active	5.00	5.00	x					
P129640	Bolivia Climate Resilience - Integrated Basin Management	2013	LCR	Bolivia	ENV	Specific Investment Loan	Pipeline	50.00	0.00	x	x	x			
P109932	DO Emergency Recovery & Disaster Mgmt	2008	LCR	Dominican Republic	ARD	Emergency Recovery Loan	Active	80.00	80.00	x	x				
P126840	DO AF to Emergency Recovery & Disaster Management.	2012	LCR	Dominican Republic	WAT	Specific Investment Loan	Active	20.00	20.00	x	x				
P125899	Central America DRR & CCA Program	2011	LCR	Central America	UD	Technical Assistance Loan	Active	0.69	0.00	x		x			
P129992	Third Phase Disaster Vuln.Reduction APL for Dominica	2013	LCR	Dominica	UD	Adaptable Program Loan	Pipeline	23.00	17.00	x		x			
P126487	Modernization of the National Meteorological Service for Improved Climate Adaptation (MOMET)	2012	LCR	Mexico	WAT	Specific Investment Loan	Active	171.26	105.26	x	x	x			
P125156	BO Pilot Program for Climate Resilience Ph 1	2011	LCR	Bolivia	ENV	Technical Assistance Loan	Active	1.50	0.00		x	x		x	
P127226	Second Phase Disaster Vulnerability Reduction APL for St. Lucia	2013	LCR	OECS Countries	UD	Adaptable Program Loan	Pipeline	22.00	10.00	x		x			
P132408	Cunha Canal Rehabilitation	2013	LCR	Guyana	UD	Specific Investment Loan	Pipeline	2.50	0.00	x	x				
P127088	Adaptation of Nicaraguas Water Supplies to Climate Change	2013	LCR	Nicaragua	ENV	Technical Assistance Loan	Active	6.00	0.00			x			
P122391	Rio de Janeiro Metropolitan Urban and Housing Development	2011	LCR	Brazil	UD	Development Policy Lending	Closed	485.00	485.00	x			x		x
P120170	Strengthening Social Resilience to Climate Change	2012	LCR	Mexico	SDV	Development Policy Lending	Closed	300.75	300.75	x					
P113084	Disaster Risk Management DPL w/Catastrophe Deferred Draw Down Option	2009	LCR	Colombia	UD	Development Policy Lending	Closed	150.00	150.00	x					
P070371	Mexico Affordable Housing and Urban Poverty Programmatic Sector Adjustment Loan	2004	LCR	Mexico	UD	Sector Adjustment Loan	Closed	100.00	100.00				x		
P112544	CATASTROPHE DEVELOPMENT POLICY LOAN DEFERRED DRAW DOWN OPTION (DDO)	2009	LCR	Guatemala	UD	Development Policy Lending	Closed	85.00	85.00	x					
P122640	Disaster Risk Management Development Policy Loan with a CAT DDO	2011	LCR	El Salvador	UD	Development Policy Lending	Closed	50.00	50.00	x					
P094539	OECS-Catastrophe Insurance	2007	LCR	OECS Countries	UD	Specific Investment Loan	Closed	14.20	14.20	x					
P090159	Emergency Recovery and Disaster Management	2005	LCR	Haiti	UD	Emergency Recovery Loan	Closed	12.00	12.00	x	x				
P073389	Mainstreaming Adaptation to Climate Change Project	2003	LCR	Caribbean	ENV	Specific Investment Loan	Closed	10.95	0.00	x		x		x	x
P092692	Grenada Hurricane Ivan Emergency Project	2005	LCR	Grenada	UD	Emergency Recovery Loan	Closed	10.00	10.00	x					
P109575	Jamaica Hurricane Dean ERL	2008	LCR	Jamaica	UD	Emergency Recovery Loan	Closed	10.00	10.00	x					

PROJECT ID	PROJECT NAME	FY	REGION	COUNTRY	SECTOR BOARD	LENDING INSTRUMENT	PROJECT STATUS	TOTAL PROJECT COST (USD mil.)	LENDING PROJECT COST (USD mil.)	NDM	WRM	CC	USHP	VAM	EPI
P104690	Haiti Catastrophe Insurance	2007	LCR	Haiti	UD	Specific Investment Loan	Closed	9.00	9.00	x					
P105386	Natural Disaster Mitigation - Additional Scale Up Financing	2007	LCR	Honduras	UD	Specific Investment Loan	Closed	9.00	9.00	x				x	
P086469	LC Disaster Management Project II	2004	LCR	St. Lucia	UD	Specific Investment Loan	Closed	8.90	7.47	x	x				
P115261	HT: Emergency School Reconstruction Project	2009	LCR	Haiti	ED	Emergency Recovery Loan	Closed	5.00	5.00	x					
P111708	Additional Financing to the St. Lucia Disaster Management Project II	2009	LCR	St. Lucia	UD	Specific Investment Loan	Closed	3.96	3.00	x					
P115674	Central America Mitch +10 Report and Summit	2009	LCR	Central America	UD	Technical Assistance Loan	Closed	0.16	0.00	x					
<b>Latin America and Caribbean Sub-total</b>								<b>4,125.43</b>	<b>3483.32</b>	<b>46</b>	<b>12</b>	<b>10</b>	<b>8</b>	<b>4</b>	<b>2</b>
P115178	RY-FLOOD PROTECTION AND EMERGENCY RECONSTRUCTION ADDITIONAL FINANCING II	2009	MNA	Yemen, Republic of	UD	Emergency Recovery Loan	Active	41.00	35.00	x					
P130493	DJ- Power Access and Diversification Project Additional Financing II	2012	MNA	Djibouti	EMT	Emergency Recovery Loan	Active	5.20	5.20	x					
P122687	Yemen: Pilot Program for Climate Resilience Phase I (PPCR I)	2011	MNA	Yemen, Republic of	ENV	Technical Assistance Loan	Active	1.50	0.00			x			
P073433	Iran Urban Upgrading and Housing Reform Project	2004	MNA	Iran, Islamic Republic of	UD	Adaptable Program Loan	Closed	100.00	80.00				x		
P102527	Morocco Urban WS&S Access Pilots	2007	MNA	Morocco	WAT	Specific Investment Loan	Closed	7.00	0.00				x		
<b>Middle East and North Africa Sub-total</b>								<b>154.70</b>	<b>120.20</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>
P099040	HIGHWAYS REHABILITATION PROJECT	2006	SAR	Pakistan	TR	Specific Investment Loan	Active	100.00	100.00	x					
P100155	Highways Rehabilitation Project	2006	SAR	Pakistan	TR	Specific Investment Loan	Active	85.00	65.00	x					
P123311	Highways Rehabilitation Project	2011	SAR	Pakistan	TR	Specific Investment Loan	Active	130.00	130.00	x					
P111272	Emergency 2007 Cyclone Recovery and Restoration Project	2009	SAR	Bangladesh	ARD	Emergency Recovery Loan	Active	109.00	109.00	x	x				
P143382	Tamil Nadu and Puducherry Coastal Disaster Risk Reduction Project	2013	SAR	India	UD	Specific Investment Loan	Pipeline	225.00	150.00	x		x			
P127725	Bihar Flood Rehabilitation Phase II	2013	SAR	India	UD	Specific Investment Loan	Pipeline	600.00	500.00	x					
P125105	Pakistan Flood Emergency Cash Transfer Project	2011	SAR	Pakistan	SP	Emergency Recovery Loan	Active	580.00	125.00	x					
P122096	Bihar Kosi Flood Recovery Project	2011	SAR	India	UD	Emergency Recovery Loan	Active	259.00	220.00	x					
P127253	Balochistan Disaster Management Project	2012	SAR	Pakistan	UD	Specific Investment Loan	Active	5.00	0.00	x					

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P125447	Community Climate Change Project	2013	SAR	Bangladesh	ENV	Specific Investment Loan	Pipeline	12.50	0.00	x		x			
P092217	India National Cyclone Risk Mitigation Project (1)	2010	SAR	India	UD	Adaptable Program Loan	Active	319.00	255.00	x					
P122014	Emergency 2007 Cyclone Recovery and Restoration Project Additional Financing	2011	SAR	Bangladesh	ARD	Emergency Recovery Loan	Active	75.00	75.00	x	x				
P127508	Building Resilience to Climate Related Hazards	2013	SAR	Nepal	ENV	Specific Investment Loan	Pipeline	31.00	0.00	x	x	x			
P094513	India: Emergency Tsunami Reconstruction Project	2005	SAR	India	UD	Emergency Recovery Loan	Closed	682.80	465.00	x					
P099110	PK: Pakistan Earthquake ERC	2006	SAR	Pakistan	UD	Emergency Recovery Loan	Closed	400.00	400.00	x					
P123914	Additional Financing and Restructuring for the Pakistan Earthquake Emergency Recovery Credit	2011	SAR	Pakistan	PO	Emergency Recovery Loan	Closed	300.00	300.00	x					
P094193	Post Tsunami Emergency Relief and Reconstruction Project	2005	SAR	Maldives	SP	Emergency Recovery Loan	Closed	214.00	14.00	x					
P094205	Sri Lanka Tsunami ERL	2005	SAR	Sri Lanka	UD	Emergency Recovery Loan	Closed	75.00	75.00	x			x		
P099046	AJK-Community Infrastructure and Services Project (AJK-CISP) - Earthquake Additional Financing	2006	SAR	Pakistan	SDV	Specific Investment Loan	Closed	30.00	30.00	x			x		
P121620	Building climate change and disaster resilient communities in Bhutan	2010	SAR	Bhutan	ENV	Technical Assistance Loan	Closed	3.00	0.00	x		x			
P096087	Tsunami Disaster Recovery in India	2006	SAR	India	UD	Specific Investment Loan	Closed	2.50	0.00					x	
P103294	DFID Bihar Flood Management	2007	SAR	India	ARD	Technical Assistance Loan	Closed	0.56	0.00		x				
<b>South Asia Sub-total</b>								<b>4,238.36</b>	<b>3013.00</b>	<b>20</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>0</b>
<b>Total Directly Relevant Urban Resilience Projects</b>								<b>13,763.16</b>	<b>9836.20</b>	<b>139</b>	<b>39</b>	<b>51</b>	<b>23</b>	<b>10</b>	<b>13</b>