

PAKISTAN

Extensive internal and external consultations were undertaken for the preparation of the Country DRM Note. As part of the internal World Bank consultations various Country Sector Teams were involved in review of the concerned activities listed in the proposal and helped in further refinement and finalization of these activities. Members of the World Bank's Pakistan Country Team were also briefed on the proposal. Consultative meetings with external stakeholders such as the Government, Donors and other Bilateral International Agencies/UN were also held. This entailed detailed discussion with the National Disaster Management Authority (NDMA) on national priority areas in DRM in relation to the overall needs as well as all aspects of the country proposal. In addition, The Bank DRM Team also held three rounds of consultations under the G-7 Coordination Forum with the UN (UNDP, WFP, UN-Habitat, WHO), Japanese Embassy/JICA, USAID, European Commission, DFID, ADB and the WB. The proposed GFDRR grant funding proposal was finalized after incorporation of the views and suggestions of all the above stakeholders and therefore has strong ownership.

The matrix of priority areas and actions for DRM was developed in consultation with all members of the G-7 Coordination Forum and discussed with the National Disaster Management Authority (NDMA) and shared with The National Working Group (NWG) for mainstreaming DRM in the country which includes key ministries/line agencies representatives as members.

1. DISASTER RISK PROFILE

Pakistan has been at risk to various types of natural disasters of which cyclones, flooding, landslides, earthquakes and drought are more common. The country is one of the most flood prone countries in South Asia. During its history the floods of 1950, 1992 and 1998 resulted in a large number of deaths and severe loss of property valued at an estimated \$1.3 billion. Pakistan is also located in a seismically active zone on account of its proximity to the Indo-Australian and Eurasian plates. This vulnerability was proven in October of 2005 when a major earthquake measuring 7.6 on the Richter scale hit 9 Districts in NWFP and AJK, killing over 73,000 people and damaging / destroying about 450,000 houses. Droughts are also a serious hazard in the country as 60 percent of the country is classified as semi-arid to arid. The droughts of 2000-2002 are estimated to have cost economic losses of about \$ 2.5 billion. The country does not have a very high risk to cyclones; however fourteen cyclones have been recorded between 1971 and 2001 which have caused a certain amount of damage.

Pakistan is impacted by both manmade and natural disasters. The types of disasters that occurred from 1954-2004 and the frequency of the occurrence of the most common disasters are listed in Table 1.

However, the incidence of disaster events is not necessarily correlated with the loss of human life, the number of people impacted and/or the monetary damages inflicted by the disasters. To that end, efforts have been made to estimate the number of people who were killed and/or affected by many of the most significant disasters and their corresponding monetary damages over the years 1926-2006 (Table 2). These estimates illustrate the severity of the problem posed by disasters. However, some experts believe the true financial cost of disasters over the past 50 years comes close to \$50 billion—far more than the combined estimates in the table below. In particular, the monetary estimate for earthquake damage is a gross underestimate of the true costs since the devastating Azad Jammu and Kashmir and the NWFP earthquake in 2005 will require an estimated \$5.2 billion for reconstruction. This represents slightly more than 25 percent of Pakistan's entire national budget.

Table 1. Hazards in Pakistan and Frequency of Most Significant Hazards: 1954 - 2004

Natural	Frequency (%)	Human-Induced	Frequency (%)
Avalanches		Epidemics	6
Cyclones (Storms)	16	Industrial/Transport Accidents	
Droughts	4	Nuclear Accidents	
Earthquakes	18	Radiological Accidents	
Epidemics		Oil Spills	
Floods	33	Urban and Forest fires	
Glacial Lake Outbursts		Civil Conflicts	
Landslides	10		
Pest Attacks	1		
River Erosion			
Tsunami			
Extreme Temp.	12		

Source: *Disaster Risk Management, TWG Working Group Meeting, United Nations, May 17, 2007.*

Table 2. Estimated Number of People Impacted and Killed and the Financial Losses Associated with Various Selected Disasters: 1926-2006

Disasters	Number of Events	Killed	Frequency (%)	Damage (Millions U.S. \$)
Drought	4	223	2,269,300	247
Earthquake	22	142,812	4,236,110	5200
Epidemic	10	283	16,486	0
Extreme	15	1,406	574	0
Flood	53	11,767	47,600,694	2500-6000
Landslides	13	413	3,419	0
Windstorms	21	11,654	950,313	4
Transport	19	420	18,395	179

Source: *Disaster Risk Management, TWG Working Group Meeting, United Nations, May 17, 2007.*

SOME UNDERLYING RISK FACTORS

There are a number of underlying risk factors that increase vulnerability and contribute to the severity of disasters in Pakistan. These 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
- Disaster susceptibility of large number of impoverished communities

EXPOSURE AND VULNERABILITY

Disasters are unevenly distributed among Pakistan's 139 districts as a result of at least some of the factors listed above (Table 3). Districts are distributed across Pakistan as follows: Punjab Province (35), Baluchistan Province (29), Sindh

Province (23) Northwest Frontier Province (NWFP) (24), Islamabad (ICT) (1), Federally Administered Tribal Areas (FATA) (13), Azad Jammu and Kashmir (AJK) (8) and the Northern Areas (6). However, the table below illustrates that several areas and provinces suffer a disproportionate share of either very high or high risk disasters or both. In particular, in the Northern Areas 33 percent of the districts face a very high risk of disasters while none of the districts in Punjab Province face a very high risk for disasters. This is particularly noteworthy since Punjab Province is the wealthiest province in Pakistan while the people who live in the Northern Areas are among the poorest. Clearly there is some relationship between economic prosperity and the incidence of disasters. In total, 50 percent of the provinces in the Northern Areas face either a high or very high risk of disasters followed by 30 percent of the districts in Baluchistan and only 3 percent in Punjab Province. The provinces and regions also face a wide range of different disaster threats. For example, southern Punjab is mostly impacted by the threat of droughts and flooding, Baluchistan is confronted by the risk of drought, earthquakes and flash floods, Sindh province is faced with the possibility of drought and floods, while the NWFP is faced with earthquakes, landslides, avalanches and glacial lake flooding.¹

Table 3. Percentage of Districts in Each Province or Area Potentially Impacted by Very High or High Risk Disasters

Province/Area	Very High Risk (%)	High Risk (%)	Total (%)
Baluchistan	21	17	38
NWFP	17	13	30
Northern Areas	33	17	50
AJK	13	13	26
Sindh	4	30	34
Punjab	0	3	3

Based on: Disaster Risk Management, TWG Working Group Meeting, United Nations, May 17, 2007.

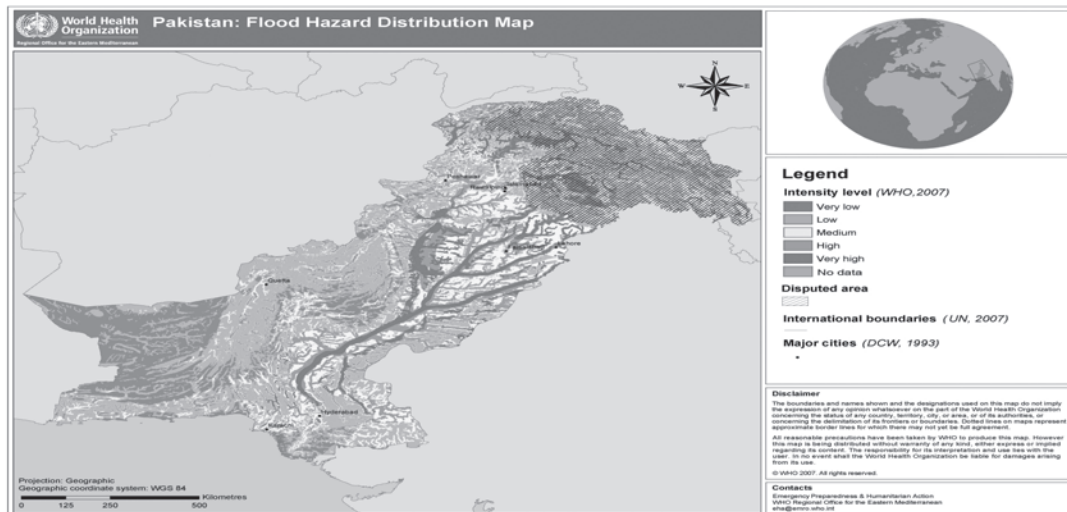
FLOODS

Pakistan is one of the most flood prone countries in South Asia. River related floods are the most severe in Punjab and Sindh provinces while hill torrents that are common in hilly terrain tend to affect NWFP, Baluchistan and the Northern Areas. There have been a number of floods in Pakistan that caused a significant amount of damage, particularly during 1950, 1992 and 1998 which resulted in a large number of deaths and a severe loss of property valued at an estimated \$1.3 billion. Most of the flooding occurs in late summer during the monsoon season but flooding can also occur as the result of glacial lakes breaking (termed GLOF) that are caused by high summer temperatures. In 2007 monsoon rain induced flooding damaged the rice crop in Sindh and Baluchistan provinces and reduced production by as much as 200 thousand tons—which equals approximately 3.5 percent of the crop. Since rice is a high value crop the loss will have a significant impact on the farm value added in the agriculture sector and lead to a reduction in export earnings.

EARTHQUAKES

The earthquakes in Pakistan are primarily related to the fact that the country along with India and Nepal lies on the Indo-Australian Plate. The plate is continuously moving northward and colliding with the Eurasian plate which formed the Himalayan Mountains. As part of this process the release of energy results in earthquakes. In addition, there are a number of fault lines in various parts of Pakistan due to the stresses resulting from the movement of the Indo-Australian plate which also cause earthquakes. The Koh-e-Sulieman, Hindu Kush and Korakuram mountain ranges are particularly vulnerable and the resulting devastation can be immense because of the poor construction of the buildings. In 1935, the entire city of Quetta—a city that now has a population of approximately 1 million in Baluchistan, was entirely destroyed and as many as 30 thousand people were killed. Five years earlier Quetta had also been destroyed by an earthquake. Prior to the October 8, 2005 earthquake in Azad Jammu and Kashmir and the NWFP there were other large destructive

¹ Based on National Disaster Management Authority (NDMA) Communications



earthquakes in 1974 and 1990 in which approximately 5669 people were killed in the Northern Areas, NWFP and Baluchistan. In February 2004, an earthquake in the NWFP killed 24 people and impacted another 129 thousand.²

DROUGHT

Pakistan is characterized by low rainfall, extreme temperature variations and as much as 60 percent of the country is classified as semi-arid to arid. Nearly all of Baluchistan province is arid—although its rainfall distribution ranges from a low of 50 mm in the SW to 400 mm in the NE. Arid regions receive less than 200 mm of rain per annum, while in comparison, Punjab province annually receives an average of 400 mm of rainfall while the NWFP receives an average of 630 mm of rainfall. Given the precarious nature of rainfall even a slight deviation can result in drought conditions. The most susceptible regions experience a drought 2 or 3 years every decade. Droughts were so severe in 2000 and 2002 that the livelihoods of people were destroyed, thousands of people were forced to migrate and millions of livestock were killed. By one estimate, 15 million cattle died and the drought caused overall economic losses of \$2.5 billion. The 2001 drought was so severe that the economic growth rate was reduced from an average of 6 percent to only 2.6 percent.³

WINDSTORMS/CYCLONES:

Cyclones cause significant damage in the coastal areas of Sindh and Baluchistan provinces. The low-lying coastal belt allows storms to travel several hundred kilometers inland and along the way destroy crops, agricultural productivity by creating water-logging and settlements. Fourteen cyclones have been recorded between 1971 and 2001. A 1999 cyclone in the Thatta and Badin districts of Sindh province destroyed 73 settlements, killed 168 people, impacted .6 million people, and killed 11 thousand cattle. The estimated economic losses amounted to \$12.5 million.⁴

GLOBAL WARMING & CLIMATE CHANGE:

Policy makers in Pakistan are quite concerned about the potential problems associated with global warming. They have observed that over the past decade weather patterns have changed for the worse resulting in more storms, longer droughts and most significantly that the glaciers, which form the core of the headwaters of the Indus River Basin, are receding at a rapid pace. By some estimates the glaciers are retreating by as much as 400 meters per year and if the glaciers vanish the immediate release of water will result in even more flash flooding. Even though Pakistan's dams in combination with recharged groundwater along the path of the Indus River canal system are capable of storing a significant amount of water, they would fall far short of storing sufficient water to meet Pakistan's needs for irrigation,

2 WCDR, A Review of Disaster Management Policies and Systems in Pakistan, January, 2005.

3 National Disaster Risk Management Framework (NDRMF), 2007

4 NDMA, Disaster Risk Management Thematic Working Group, March, 2007.

drinking and power generation. In the short-term, there will likely be increased droughts and flooding, the agricultural sector will need by changing crops and cropping patterns, biodiversity will be adversely impacted and the composition of forests will change. In addition, the flow of irrigation water will become less predictable and power generation by existing facilities will likely be somewhat reduced.⁵ Over the long term, if temperatures increase by just a few degrees above the current average temperature, which has already, increased by 1.4 degree Celsius above the historical average⁶, it will be necessary to radically retool some sectors of the economy such as agriculture and power generation. If retooling is impossible either because of a lack of resources, political will and/or technology the resulting disaster could be far worse than anything Pakistan has experienced to date.

2. DISASTER RISK MANAGEMENT FRAMEWORK

National Disaster Risk Management Policy

The massive October 2005 earthquake that hit northern Pakistan highlighted the country's high vulnerability to disaster risks. Since then the Government of Pakistan has been making concerted efforts towards establishing a comprehensive disaster management regime. This has essentially involved a strategic shift from the previous reactive to a proactive approach; and the setting up of an integrated management structure that links the vital functions of preparedness/risk reduction, and early disaster recovery to longer term reconstruction and rehabilitation. The National Disaster Management Authority (NDMA) has been established and operationalized.

The NDMA is the apex coordinating agency for disaster risk reduction at the national level, which along with the Earthquake Reconstruction and Rehabilitation Authority (ERRA) and other agencies, is responsible for the various aspects of disaster management from early recovery to post-disaster reconstruction. The NDMA effectively serves as a secretariat to the National Disaster Management Commission (NDMC) chaired by the Prime Minister with representatives from various federal ministries and provincial governments. The NDMA is tasked with the broad overall regulation of the disaster management structures and functions in the country, along with the provincial and district disaster management authorities, tehsil and town authorities, and union council set-ups down to community based organizations.

Disaster response in Pakistan has historically been governed and regulated under the Calamity Act of 1958, recently replaced by the National Disaster Management Ordinance (NDMO) 2006. The NDMO provides the institutional and regulatory framework for the functioning of the overall national disaster management regime, including all federal, provincial, and local government institutions tasked with disaster management responsibilities.

The NDMA has in turn, through a multi-stakeholder consultative process, recently developed a National Disaster Risk Management Framework (NDRMF), which has been approved by the Government of Pakistan and constitutes the agreed national policy document on disaster risk reduction (DRR). The mandate of the NDRMF is comprehensive, including DRR in all relevant sectors of the economy. It calls for the integration of risk assessment in the planning and design stages of all new infrastructure projects, and holds the promotion of multi-stakeholder, multi-sectoral, and multi-disciplinary approaches in disaster risk reduction as its foremost policy principle.

Historically, the Government has pursued DRR in the developmental agendas for some of the key sectors, including flood protection and management programs covering irrigation, agriculture, and road infrastructure. Such programs have mostly been designed and executed by federal and provincial agencies including the Flood Relief Commissions and related line departments. However, with the enactment of the NDRMF, the scope of DRR has been expanded to cover developmental planning for all sectors of the economy. Promoting disaster risk management planning across multiple sectors figures high in the list of 5-year priorities set out by the NDRMF, including preparation of disaster risk

5 Pakistan Agricultural Research Council Estimates and Analysis

6 National Disaster Risk Management Framework (NDRMF), 2007

management plans of selected line ministries over the next 2-3 years. The NDRMF is considered as the national strategy document on DRM.

The NDRMF also accords high priority to proactive reduction of the enhanced disaster risks related to the global climate change phenomenon. It builds on the analytical work and studies carried out by various national and international agencies on the already visible impacts of climate change on the natural and ecological resources of the country. It concludes that climate change together with environmental degradation are likely to result in an enhanced frequency of natural disasters in Pakistan, as well as amplify the social, economic, and environmental impacts created by such disasters. In response to this situation assessment the NDRMF, while laying out disaster management priorities for the next 5 years, includes a composite national hazard and vulnerability assessment (Being funded by the Bank) in the first program year, followed by a detailed study on the impacts of climate change on glaciers and ice cap in Northern Pakistan in a 2-3 year time horizon. The NDRMF climate change risk mitigation strategy is attuned with mitigation measures proposed under various international conventions, including the Framework Convention on Climate Changes (UN FCC) - 1992, the Vienna Convention for the Protection of Ozone Layer and the Montreal Convention - 1992, and the all-encompassing Hyogo Framework for Action 2005-15.

The Government has also recently instituted a National Working Group (NWG) on Disaster Risk Management led by The National Disaster Management Authority (NDMA) which includes key government ministries and donors such as The World Bank as members with the mandate of integrating and mainstreaming Disaster Risk Management in planning processes / development agenda and overall coordination with different stakeholders. In addition to these government mechanisms the donor community in Pakistan, with the Bank in the lead have created a coordination mechanism between donors known as the G-7 which discusses national DRM issues and coordinates suitable interventions. NDMA recently conducted a meeting with key government agencies and donors including the Bank under the NWG and presented an immediate / short term 10 point action plan based on the NDRMF. Under this short term action plan the following activities were identified for immediate implementation in line with the NDRMF:

- i. National Capacity Building in Disaster Risk Management (NCBDRM) including design and construction of a National Institute of Disaster Management (NIDM)
- ii. Establishment of National & Provincial Emergency Operation Centers (NEOCs & PEOCs)
- iii. Operationalization of Provincial and District Disaster Management Agencies (PDMAs & DDMAAs)
- iv. Capacity Building of Urban Emergency Response Services including capacity assessments and required trainings
- v. Education, Training and Awareness in Disaster Risk Management (DRM)
- vi. Mainstreaming DRM in the Development Agenda through enhancing capacity of Planning Commission of Pakistan
- vii. Disaster Mitigation and Climate Change Initiatives related to earthquake flood and GLOF including studies and assessments
- viii. Formation of Mobile Response Teams for immediate disaster response, recovery and coordination
- ix. Improving Early Warning Capacity through Enhancement of Organizational Capacity and System Resources of Key Agencies such as Pakistan Metrological Department
- x. Conduct of a National Risk Assessment and Development of a Risk Atlas of Pakistan

NDMA is particularly fast tracking the national risk assessment exercise which is under way with Bank support so that

the overall risk environment could be better defined. This would subsequently be followed by a micro level hazard risk and exposure mapping of the identified hot spots which would lead to suitable mitigation investments. Some mitigation investments have already taken place in the housing sector through Bank support in the case of the earthquake affected areas where about 350, 000 earthquake resistant houses have been constructed. NDMA is also focusing on improving early warning and response capacity as a priority and is undertaking activities such as inundation profiling of vulnerable coastal communities and strengthening the existing flood forecasting / telemetry network. National Emergency Operations Centre operationalization and formulation of necessary protocols is also an activity being undertaken by Bank support which will improve the Government's disaster response capacity.

The Government is in the process of establishing the National Institute of Disaster Management (NIDM) for which land has already been allocated. This would act as a platform for promoting disaster management education in the country. Currently the Government frequently conducts DRM trainings, seminars work shops and other events, particularly on October 8 which has been declared as National Disaster Awareness Day.

3. INTEGRATION OF DRM IN DEVELOPMENT STRATEGIES

The NDRMF, as the overarching framework for DRR in the country, seeks to build and strengthen linkages with all applicable national and international protocols and sectoral developmental policies. At the national level, these include the Poverty Reduction Strategy Paper (PRSP), Medium Term Development Framework 2006-10, Ten Year Perspective Development Plan 2001-11, Agricultural Perspective and Policy, National Conservation Strategy, National Environment Action Plan - 2001, National Environment Policy - 2005 and the Draft National Water Policy - 2006.

Pakistan's PRSP recognizes that achieving sustained economic growth for poverty reduction would require enhancing the country's environmental sustainability, since the poor are mostly dependant on natural resources for their livelihoods as well as most affected by environmental degradation. Thus it identifies the linkage between environment and vulnerability as the key, noting that the poor are particularly vulnerable to environmental disasters. It then commits to providing sustained protection to vulnerable communities from natural disasters, particularly those triggered or catalyzed by environmental degradation. However, the current PRSP falls short of fully taking cognizance of the important role of broader DRR as a tool for reducing poverty through a reduction in the vulnerability of the poor to natural shocks. But with the NDMA, NDRMF and a NWG now in place, efforts are underway to mainstream DRR as a vital component of the broader poverty reduction / sustained development agenda and strategy.

Another recent development is the drafting of a revised multi-disaster risk responsive National Building Code, that will help reduce the vulnerability of public, private, and commercial buildings to seismic and other disaster risks. The code will be applicable to both urban and rural areas, although enforcement of the code would pose a significant challenge, and require requisite capacity and skills of the concerned agencies for proper implementation. Under the NDRMF, the development of a strategy for implementation of the Building Code is a priority over a 2-year horizon.

Pakistan CAS: Support for Hazard Risk Management and Disaster Risk Reduction

The Bank's current Country Assistance Strategy (CAS) for Pakistan is committed to supporting the government in the development of a comprehensive hazard risk management strategy for Pakistan, through dialogue, advisory activities, and technical assistance. CAS support for more effective hazard risk management and disaster risk reduction in the country is premised on: (a) the high and recurring fiscal costs of post-disaster reconstruction, as in case of the 2005 earthquake as well as recurrent floods, and its adverse impacts on public sector development budget/activities; and (b) supporting GOP's poverty reduction strategy which provides for targeting and reducing vulnerabilities of the poor and marginalized

sections of the population. (c) Pakistan's adhoc approach towards disaster management with interventions primarily focused on relief and recovery with insufficient ex-ante measures. Therefore a major portion of traditional post-disaster spending in Pakistan was aimed at providing direct monetary assistance to affected people. But such subsidies are untenable from a sustainability perspective and severely tax routine developmental spending. The CAS while highlighting Pakistan's susceptibility to natural disasters and its amplified impact based on mortality and economic risks induced by such hazards supports development of hazard prevention / mitigation strategies, development of a strategic approach to hazard risk management and building in-country capacity for effective implementation of these strategies.

The New CAS (2010-2014) which is currently being drafted and is at the concept note stage also supports the outcome for improvement in Pakistan's disaster risk management capacity under the sustainable development strategic pillar. It outlines Pakistan's vulnerability to various types of disasters and the paradigm shift in moving from a predominantly reactive approach to a more pro-active approach. While the CAS acknowledges the work being done for promotion of effective disaster management in the country it also underlines the various challenges such as a general lack of awareness and the limited in-country technical capacity in DRM. The current state of the DRM systems and response mechanisms are also highlighted as they are still in the process of being outlined and operationalized, while the national risk environment in terms of multiple disasters is yet to be fully defined. The CAS also presents the current and ongoing activities and some of the broad planned interventions by the Bank in order to support effective DRM in the country.

Bank's Disaster Risk Management Country Strategy

The Bank's country disaster risk management strategy is based on a 5 pillar approach. The 5 pillars include Risk Identification and Assessment, Risk Mitigation, Emergency Preparedness, Catastrophe Risk Financing or Transfer and Institutional Capacity Building. The various activities being initiated and undertaken by the Bank on DRM correspond to this approach and have been planned / staggered using the strategic framework as well as the national priorities identified through the NDRMF. The Bank's ongoing projects such as the Earthquake Emergency recovery Credit (ERC) and various activities under it support Pillar I, II, III and V of the DRM Country strategy through macro level hazard mapping exercise of earthquake affected districts, structural mitigation through seismic resistant reconstruction as well as building capacity of the government for effective disaster response and better coordination. Additional critical activities have been undertaken by making some ERC funds available to NDMA for undertaking a national level hazard risk assessment and operationalization of National Emergency Operations Centre which support Pillars I and III respectively. The Bank has also leveraged funds through other donors / sources such as inundation profiling exercise of cyclone affected districts of Baluchistan with UNDP assistance in line with strategy Pillar II while GFDRR ongoing activities on earthquake results documentation and lessons learnt as well as post disaster cash transfers support pillars III and V. Another GFDRR proposal on catastrophe risk financing which supports Pillar IV is under preparation. The activities under the current proposal are also in line with the Bank's Country's DRM strategy under the 5 pillar approach as well as the national priority areas identified through the NDRMF.

4. KEY DONOR ENGAGEMENTS

There has been an active donor consultation process in Pakistan ever since the 2005 earthquake disaster struck the country. These consultations include both multi-donor consultations as well as multi-stakeholder consultations, including the Government of Pakistan. In the aftermath of the earthquake donors formed a consultative group known as the G-7⁷. The group periodically met to discuss issues and collective strategies on how to deal with the disaster. Recently the group became more involved in overall disaster management issues in the country. The G-7 regularly holds internal meetings and then meets with the concerned government agencies such as Earthquake Reconstruction Rehabilitation

7 The Group consists of the WB, ADB, EC, USAID, UN, DFID and Embassy of Japan

Authority (ERRA) and the National Disaster Management Authority (NDMA). The key donor engagement table is based on the Country DRM Matrix which was developed after extensive consultations between all leading donors, G-7 members and the Government of Pakistan. All current and ongoing activities in DRM are listed in the table below while for planned activities please refer to Annex 1. It is apparent from both the table and the annex that there is quite a large need in the DRM sector while the realized commitments are a small percentage of the overall need.

Ongoing Projects and Organizations	Indicative budget (where available, details on years covered)	HFA activity area(s)
<p><i>The World Bank</i> ERRA DRM Program DRM Support Program to NDMA Activities funded through GFDRR</p>	<p>\$ 2.9 million \$ 4 million</p>	<p>HFA Priority 1: Ensure that Disaster Risk Reduction is a National and Local Priority with a strong institutional basis for implementation HFA Priority 2: Identify, Assess and Monitor Disaster Risks and Enhance Early Warning HFA Priority 3: Use Knowledge, Innovation and Education to Build a Culture of Safety and Resilience at All Levels HFA Priority 4: Reduce the underlying risk factors HFA Priority 5: Strengthened Disaster Preparedness for Effective Response at All Levels</p>
<p><i>DFID</i> Disease Early warning System (DEWS) Joint Protection Monitoring System DRR Conference Urban Search & Rescue Project</p>	<p>UK£ 1.848 million UK£ 152,567 UK£25,000 UK£ 1.5 million</p>	<p>HFA Priority 2: Identify, Assess and Monitor Disaster Risks and Enhance Early Warning HFA Priority 3: Use Knowledge, Innovation and Education to Build a Culture of Safety and Resilience at All Levels HFA Priority 4: Reduce the underlying risk factors</p>
<p><i>United Nations: (UN joint Program)</i> Only about 10 % of the under-mentioned funding is expected to be immediately mobilized under following activities of the UN Joint Program which have commenced National Capacity Building for Disaster Risk Management (NCBDRM) Institutional Strengthening</p>	<p>\$ 46.5 Million \$ 60,000</p>	<p>HFA Priority 1: Ensure that Disaster Risk Reduction is a National and Local Priority with a strong institutional basis for implementation</p>

5. GLOBAL FACILITY FOR DISASTER REDUCTION AND RECOVERY (GFDRR): ACTION PLAN

Ongoing GFDRR Funded Activities

Ongoing GFDRR funded activities (years covered)	Partnerships	Budget and years covered	HFA activity area(s)
Documentation & Dissemination of Results and Lessons Learnt in the Rural Housing Reconstruction Response to the 2005 Pakistan Earthquake	NDMA, ERRA and UN-Habitat	\$ 250,000	HFA Priority 3: Use Knowledge, Innovation and Education to Build a Culture of Safety and Resilience at All Levels
Building capacity to effectively deliver Safety Nets in post-disaster situations in Pakistan	Pakistan Baitul Maal and Ministry of Social Welfare	\$ 250,000	HFA Priority 4: Reduce the underlying risk factors

Indicative New Program Areas and Projects for GFDRR Funding

Indicative new program areas and projects for GFDRR funding	Partnerships	Indicative budget for GFDRR funding and years covered	HFA activity area(s)
Development of public-private sector collaborative forums and partnerships on DRR	NDMA, relevant Line Ministries and Private / Corporate Sector	\$200,000 2 years	HFA Priority 1: Ensure that Disaster Risk Reduction is a National and Local Priority with a strong institutional basis for implementation [Sub Priority: Support the creation and strengthening of national integrated disaster risk reduction mechanisms such as multi-sectoral national platforms] HFA Priority 3: Use Knowledge, Innovation and Education to Build a Culture of Safety and Resilience at All Levels & HFA Priority 4: Reduce the underlying risk factors through improved building safety and protection of critical facilities
Study and strengthen existing forecasting and early warning systems for hydro metrological events in high risk areas	NDMA, Federal Flood Commission (FFC) and Pakistan Metrological Department (PMD) and WFP	\$ 1,000,000 3 years	HFA Priority 2: Identify, Assess and Monitor Disaster Risks and Enhance Early Warning
Disaster Risk Assessment and Risk-based Microzonation of One Major City and in One Medium Industrial City	NDMA, City Government, PDMA and UN-Habitat	\$ 1,000,000 3years	HFA Priority 2: Identify, Assess and Monitor Disaster Risks and Enhance Early Warning HFA Priority 5: Strengthened Disaster Preparedness for Effective Response at All Levels
International Exposure Visits for Government Officials & Bank staff in DRR	NDMA, ERRA and Line Ministries	\$ 300,000 1 year	HFA Priority 3: Use Knowledge, Innovation and Education to Build a Culture of Safety and Resilience at All Levels

(Cont.)

Indicative new program areas and projects for GFDRR funding	Partnerships	Indicative budget for GFDRR funding and years covered	HFA activity area(s)
Development and implementation of a school safety program	NDMA, ERRA, Ministry of Education and UNESCO	\$ 1,000,000 3 years	HFA Priority 3: Use Knowledge, Innovation and Education to Build a Culture of Safety and Resilience at All Levels HFA Priority 4: Reduce the underlying risk factors through improved building safety and protection of critical facilities
Analytical work towards identification of potential disaster risk insurance options and development of a strategy for catastrophe risk financing mechanisms and solutions.	NDMA, Ministry of Finance, SECP, Adamjee Insurance, KASHF Foundation / Bank, RSPN and PPAF	\$ 300,000 2 years	HFA Priority 4: Reduce the underlying risk factors [Sub Priority: Promote the development of financial risk sharing mechanisms, particularly insurance and reinsurance against disasters] HFA Priority 5: Strengthened Disaster Preparedness for Effective Response at All Levels
Technical assistance in development of a national action plan on climate change for Pakistan	NDMA, Ministry of Environment and Planning Commission	\$ 200,000 2 years	HFA Priority 4: Reduce the underlying risk factors [Sub Priority: Promote the integration of risk reduction associated with existing climate variability and future climate change into strategies for the reduction of disaster risk and adaptation to climate change] HFA Priority 5: Strengthened Disaster Preparedness for Effective Response at All Levels
Capacity and skill gap assessment of urban emergency services and subsequent training to enhance emergency response capability in one large/medium/small city/s.	NDMA, Urban Fire and Rescue Services and Planning Commission	\$ 400,000 3 years	HFA Priority 1: Ensure that Disaster Risk Reduction is a National and Local Priority with a strong institutional basis for implementation HFA Priority 3: Use Knowledge, Innovation and Education to Build a Culture of Safety and Resilience at All Levels HFA Priority 5: Strengthened Disaster Preparedness for Effective Response at All Levels
Human Resource Capacity Development through creation of a DRM / GFDRR Focal Point position in the Pakistan Country Office to facilitate mainstreaming and better coordination of all DRM related activities with donors and all national / international DRM platforms	NDMA, UN and other donors	\$ 100,000 2 years	HFA Priority 1: Ensure that Disaster Risk Reduction is a National and Local Priority with a strong institutional basis for implementation [Sub Priority ii - Resources] HFA Priority 5: Strengthened Disaster Preparedness for Effective Response at All Levels
Technical Assistance and hardware support for Operationalization of the National Emergency Operations Centre	NDMA & JICA	\$ 500,000 3 years	HFA Priority 1: Ensure that Disaster Risk Reduction is a National and Local Priority with a strong institutional basis for implementation HFA Priority 2: Identify, Assess and Monitor Disaster Risks and Enhance Early Warning HFA Priority 5: Strengthened Disaster Preparedness for Effective Response at All Levels

(Cont.)

Indicative new program areas and projects for GFDRR funding	Partnerships	Indicative budget for GFDRR funding and years covered	HFA activity area(s)
Technical Assistance and hardware support for operationalization of selected Provincial / District Disaster Management Agencies	NDMA & UN	\$ 500,000 3 years	HFA Priority 1: Ensure that Disaster Risk Reduction is a National and Local Priority with a strong institutional basis for implementation HFA Priority 5: Strengthened Disaster Preparedness for Effective Response at All Levels
Program of Rapid Emergency Preparedness, Assessment and Response Execution (PREPARE)	NDMA, Ministry of Health & WHO	\$ 400,000 3 years	HFA Priority 2: Identify, Assess and Monitor Disaster Risks and Enhance Early Warning HFA Priority 5: Strengthened Disaster Preparedness for Effective Response at All Levels
Institutionalization of Damage and Needs Assessment Methodology and Expertise in Pakistan	NDMA & Relevant Line Ministries / Departments / Agencies	\$ 100,000 3 years	
Total Indicative Budget:		\$ 6.0 Million	

ANNEX 1

Ongoing Projects and Organizations	Indicative budget (where available, details on years covered)	HFA activity area(s)
<i>European Commission</i> 1. NWFP & Baluchistan Program (Program areas to be determined)	Euro 30 million	To be determined
<i>JICA</i> 1. Technical Assistance in Development of design of National Institute of Disaster Management (NIDM) 2. Technical Cooperation in capacity development of NDMA & PDMA & District Governments 3. Up-gradation and Modernization of Weather Forecasting and Early Warning System 4. Flood/Disaster Protection Works 5. The Project for Strengthening of Flood Risk Management	To be determined To be determined To be determined To be determined To be determined	HFA Priority 2: Identify, Assess and Monitor Disaster Risks and Enhance Early Warning HFA Priority 5: Strengthened Disaster Preparedness for Effective Response at All Levels
<i>United Nations: (UN joint Program)</i> 1. DRM Training Initiative 2. Support to DRM Planning 3. DRR Mainstreaming into Development Process 4. Earthquake Vulnerability Reduction and Preparedness Programme for Muzaffarabad and Mansehra Municipalities 5. Capacity Building of DDMA's and Community based Mitigation in Badin, Thatta, Kech, and Quetta 6. Glacial Lake Outburst Flood (GLOF) Risk Reduction in the HKH Region - Pakistan 7. Program for Enhancement of Emergency Response (PEER) 8. Urban Search and Rescue Project 9. Strengthening Tsunami Early Warning System in Pakistan 10. Integration of Seismic Resistant Design and Construction Elements in Diploma in Associate Engineering Curricula	Only about 10 % of the under-mentioned funding is expected to be immediately mobilized under UN Joint Program \$ 94,000 \$ 50,000 \$ 80,000 \$ 760,000 \$ 370,000 \$ 150,000 8.4 Million \$ 340,000 \$ 600,000 \$ 47,000	HFA Priority 1: Ensure that Disaster Risk Reduction is a National and Local Priority with a strong institutional basis for implementation HFA Priority 2: Identify, Assess and Monitor Disaster Risks and Enhance Early Warning HFA Priority 3: Use Knowledge, Innovation and Education to Build a Culture of Safety and Resilience at All Levels HFA Priority 4: Reduce the underlying risk factors HFA Priority 5: Strengthened Disaster Preparedness for Effective Response at All Levels