

TOWARDS A DISASTER RESILIENT
KHYBER PAKHTUNKHWA

ROAD MAP FOR DISASTER RISK MANAGEMENT 2014 - 2019



**Towards a Disaster Resilient
Khyber Pakhtunkhwa**

Road Map for Disaster Risk Management 2014 - 2019



**Provincial Disaster Management Authority (PDMA),
Khyber Pakhtunkhwa**

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Acronyms

This is an alphabetical list of acronyms, terms or words that are found in this document or related to the text of this document.

ADPC	Asian Disaster Preparedness Center
CBDRM	Community Based Disaster Risk Management
CDPM	Centre for Disaster Preparedness and Management
DC	Deputy Commissioner
DDMAs	District Disaster Management Authorities
DDMO's	District Disaster Management Officers
DDMU's	District Disaster Management Units
DRM	Disaster Risk Management
DRMSU	Disaster Risk Management & Climate Change Adaptation Strategic Unit
DRR	Disaster Risk Reduction
DWG	Departmental Working Group
EDRM	Earthquake Disaster Risk Management
EEC	Earthquake Engineering Center
ERM	Emergency Response Management
EWS	Early Warning Centre
FDRM	Flood Disaster Risk Management
FEWS	Flood Early Warning Centre
FFC	Federal Flood Commission
GIS	Geographical Information System

GPS	Global Positioning System
HEC	Higher Education Commission
INGO	International Non Government Organization
KP	Khyber Pakhtunkhwa
LGA	Local Government Authority
MC	Municipal Corporation
MHVRA	Multi Hazard Vulnerability and Risk Assessment
MOU	Memorandum of Understanding
NCEG	National Centre of Excellence in Geology
NDMA	National Disaster Management Authority
NDM Act	National Disaster Management Act
NGO	Non Government Organization
PaRRSA	Provincial Reconstruction, Rehabilitation & Settlement Authority
PDMA	Provincial Disaster Management Authority
PDMC	Provincial Disaster Management Commission
PMD	Pakistan Meteorological Department
PWG	Provincial Working Group
P&DD	Planning and Development Department
RR&SD	Relief, Rehabilitation and Settlement Department
SAR	Search and Rescue
TMA	Tehsil Municipal Administration
TNA	Training Need Assessment
TOT	Training of Trainers
UCDRMC	Union Council Disaster Risk management Committee
UET	University of Engineering and Technology
UN	United Nations
UNDP	United Nations Development Programme
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children's Fund
WFP	World Food Programme

Foreword and Acknowledgements

Khyber Pakhtunkhwa is a province burdened with an alarming and diverse portfolio of natural and human-induced disasters including an ongoing complex emergency. The province also has the shortest warning time to respond to some types of disasters. We are also only too aware of the increased severity and frequency of disasters due to Climate Change, and cognizant of the existing vulnerabilities in our province. Regional issues - particularly the close proximity of the province to the Federally Administered Tribal Areas (FATA) and Afghanistan and ongoing conflict there - have increased the disaster management challenges for Khyber Pakhtunkhwa.

Millions of refugees and Internally Displaced Persons (IDPs) fleeing conflict have flooded into the province stretching the resources and capacity of the province beyond its limits. At the time of writing, the province is faced with managing more than 1 million displaced persons (DPs) of North Waziristan Agency in addition to the existing 1 million displaced persons and 1.6 million Afghan refugees, posing a huge challenge to overcome. This entails enormous pressure on each and every sector from public service delivery to health, education, livelihoods and governance. These social and economic vulnerabilities, if combined with more disasters - and there is, without doubt, a high risk of future shocks - it may lead to further violence and unrest. Therefore, Disaster Risk Reduction (DRR) is absolutely critical in Khyber Pakhtunkhwa.

To address these immense challenges, the Road Map for Disaster Risk Management 2014-2019 has been prepared following more than nine months of thorough discussions and consultations with almost 60 stakeholders including Federal Agencies, Provincial Departments, District Administrations, Academia, Military, Clusters, UN Agencies, Donors, various Civil Society Forums and vulnerable communities. The consultations emerged as a very useful and collaborative tool to exchange ideas and experiences and for the finalization of the Road Map. The Road Map - and the implementation of its projects - will be a great help to our province and the country in building systems for preventing disasters and dealing with their fall-out. The extensive participation of all the stakeholders has already underlined the importance that we all attach to Disaster Risk Management in Khyber Pakhtunkhwa.

In response to the need for a dedicated Unit in place to guide and monitor the implementation of the Road Map, a Disaster Risk Management/Climate Change Adaptation (DRM & CCA) Strategic Unit

has been notified in PDMA. This Unit will be further strengthened in the near future as an activity in the Road Map and as reflected the Annual Development Plan 2014-2015 of the province.

PDMA also firmly intends to involve all stakeholders, particularly those organizations with extensive experience in DRM, in the implementation of this Road Map. As an example of this, PDMA recently signed a Memorandum of Understanding with the Asian Disaster Preparedness Center (ADPC), Bangkok, to work together in a technical collaborative alliance to usher in a culture of safety and resilience in all districts of Khyber Pakhtunkhwa. It should also be highlighted that an “Inclusive Disaster Risk Reduction” approach will be adopted while implementing all the activities of the Road Map to ensure participation of, and catering for, the special needs of women, the elderly, persons with disabilities, and marginalized and vulnerable groups.

We gratefully acknowledge the support of all stakeholders who took part in our consultations and provided their valuable input to prepare the document. CARE Pakistan provided technical and financial support. We are thankful to Mr. Falak Nawaz, Mr. Aziz ur Rehman, Amjad Ali, Irfan Hameed of CARE, and Shahida Arif (SC) for their technical input in the preparation of this document. We are grateful to all our ex Directors Generals (DGs) of PDMA, Mr. Shakeel Qadir Khan, Mr. Shahzad Bangash, Mr. Zaheer Ul Islam, Mr. Atif Rehman and our present DG Mr. Tahir Orakzai for the highest level of encouragement and support; and to Mrs. Ammara Aamer Khattak (Director Relief, Operations and Coordination, PDMA) and Muhammad Khalid (Director HR & Admin) for their continuous advice and reassurance during the process.

PDMA Khyber Pakhtunkhwa highly appreciates Jennifer McKay (Disaster Management and Civil Military Coordination Consultant - based in Islamabad), and Sean Wright (Executive Director) and Irfan Maqbool (Section Head) of the Asian Disaster Preparedness Center (ADPC) Bangkok, for their valuable suggestions, guidance and advice during the process and for their contribution of the Action Plan for the Road Map.

The Road Map is a ‘living document’ and this may be considered as a first version. Feedback and comments from the Governmental and Non-Governmental organizations and other stakeholders will be highly appreciated to assist in future revisions.

Engr. Shah Nasir Khan

Head DRM & CCA Strategic Unit / Advisor PDMA



Message from the Chairman PDMA/Secretary RR&S Department

It is indeed a matter of great pleasure that the Provincial Disaster Management Authority has managed to identify the priorities of Khyber Pakhtunkhwa in the field of Disaster Risk Management for the coming five years.

Khyber Pakhtunkhwa is faced with and prone to a number of hazards, both natural and human induced, and we must work with dedication and commitment to usher in a culture of safety and resilience to prevent, mitigate and reduce the risks of and prepare for any potential disaster.

I congratulate the PDMA for dedicated efforts, carrying out various exhaustive consultations and coming up with this comprehensive document. The document can be considered as one of major milestone efforts in bridging the existing gaps among disaster prevention, mitigation, preparedness, response, recovery and sustainable development.

We are sure of the fact that any approach to bring in Development to the province and any efforts for Stabilization and Governance will be unsuccessful without holistic approach to DRM.

I also want to reassure that Relief, Rehabilitation & Settlement Department resolves to undertake various initiatives, as outlined in the Road Map for DRM, to realize our vision of Disaster Resilient and Sustainably Developed Khyber Pakhtunkhwa. The few most important ones are the formulation of Provincial Disaster Management Plan, Risk Assessment & Research, capacity development plan and a robust Monitoring and Evaluation system to ensure accountability and perfection.

I further assure that the Road Map for DRM will not only be implemented through Development partners and Humanitarian organization's support but the Department and the Government will utilize its resources to usher in a culture of safety and resilience for the greater benefit of the people of Khyber Pakhtunkhwa.

Tariq Rashid

Message from the Director General

It gives me a great sense of satisfaction that Khyber Pakhtunkhwa has come up with Road Map for Disaster Risk Management.

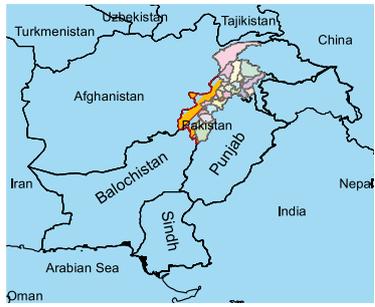
Khyber Pakhtunkhwa is faced with innumerable challenges, not only in terms of multiplicity of hazards, but also in terms of its diversity, magnitude and frequency of disaster it is prone to. The province due to its geographical location is vulnerable to and victim of complex humanitarian emergencies, waves of terrorism and influx of IDPs and refugees. The province in the past nine years alone faced a huge earthquake, super floods affecting all 25 districts and IDPs crisis with a single displacement of 3.2 million people in 2009 and still continuing. These disasters of historical proportions have taught us some hard and harsh lessons. The most important being is to invest in prevention and risk reduction and to mainstream DRR into Development planning. The Road Map is the first step in this direction and will act as a principle-guiding document to ensure activities in DRM are synergized to achieve our vision of resilient communities, infrastructure and disaster resilient development in the province.

I must acknowledge and appreciate the efforts of Director Relief, Mrs Ammara Aamer Khattak and Head DRM & CCA Strategic Unit, Shah Nasir Khan for their dedication and full time commitment to prepare this document. I also appreciate all the stakeholders; more than sixty organizations, departments and institutions that managed to give their precious time and joined during our consultative sessions. I also want to thank CARE Pakistan for their generous support in making this process possible. I assure you that we will be reviewing and revising the document yearly with all stakeholders to keep track of our vision, count on our achievements and identify the gaps and challenges.

A holistic approach is required and the support of all stakeholders is critical for making the Road Map for DRM a successful initiative. I invite you all to play your active role in making Khyber Pakhtunkhwa a disaster resilient province.

Muhammad Tahir Orakzai

Khyber Pakhtunkhwa Map



Boundary
— International
— Provincial/FATA
— District

Executive Summary

Despite being extremely prone to both natural and human-induced hazards, no proper system existed in Pakistan to identify, treat and manage risks and disasters until the aftermath of the 2005 Pakistan earthquake. Following this massive disaster, the National Disaster Management Ordinance (NDMO) was introduced as a legal instrument for disaster management in Pakistan. The Ordinance was converted to the National Disaster Management Act in 2010. The Ordinance, and the subsequent Act, was developed in alignment with the global Hyogo Framework for Action (HFA, 2005-2015) to incorporate the benefits of international disaster management practice and experience.

The Ordinance and Act provide for the establishment of an institutional system and legal framework for all phases of disaster including: prevention, mitigation, preparedness, contingency planning, rescue, response, relief and early recovery, rehabilitation and reconstruction. Provision is also made for devising policies and strategies and developing Disaster Risk Management (DRM) plans and programs at federal, provincial, and district levels. The National Disaster Management Act 2010 and National Disaster Management Policy 2012 govern the full spectrum of Disaster Risk Management through legal bodies and the establishment of an institutional system in all provinces and regions.

In accordance with this, the Government of Khyber Pakhtunkhwa established the Provincial Disaster Management Authority at Peshawar and District Disaster Management Units in all 25 districts of the province. Taking into account the unique geography, specific circumstances and needs of the province, especially the complex emergency it has been faced with, the Provincial Government amended the National Disaster Management Act 2010 in 2012 to broaden the scope to encompass these issues.

The Government of Khyber Pakhtunkhwa is committed to taking proactive measures to ensure that the communities are well equipped to mitigate the risks, and manage any type of disaster if and when it occurs. The Provincial Disaster Management Authority (PDMA) Khyber Pakhtunkhwa has now aligned all Disaster Risk Reduction (DRR) related activities with the UNISDR Hyogo Framework for Action (HFA, 2005-2015), National Disaster Management Plan (NDMP, 2012-2022) and National Disaster Management Policy 2012 to ensure maximum effectiveness of disaster policy and planning.

To address the urgency of building resilience against natural and human-induced disasters in the province, PDMA Khyber Pakhtunkhwa has developed the Road Map for Disaster Risk Reduction 2014-2019 to identify and strategically plan for the urgent needs in DRM.

The Road Map presents a vision for a safer and disaster resilient Khyber Pakhtunkhwa within the next five years. The Road Map is broadly focussed on eight thematic components, which are consistent with the National Disaster Management Plan 2012-2022 and UNISDR's Hyogo Framework for Action 2005-2015. These are:

- i. Legislation, Policy, Institutional Mandates & Institutional Development;
- ii. Hazard, Vulnerability and Risk Assessments;
- iii. Public Awareness, Education and Training;
- iv. Community Resilience through Community Based Disaster Risk Management (CBDRM);
- v. Mainstreaming Disaster Risk Reduction into Development Planning;
- vi. Early Warning System;
- vii. Preparedness and Response Planning;
- viii. Post Disaster Recovery planning.

The Provincial Government is fully committed to implement the Road Map from its own resources

and with the support from donors and partners. As a first step towards sustainability of the planned activities, the DRM & CCA Strategic Unit (DRMSU) has been notified at PDMA-PaRRSA to manage and coordinate the implementation of the Road Map for DRM. The Unit has been reflected in the Annual Development Plan 2014-15 of the province signifying the importance being attached to it by the Provincial Government.

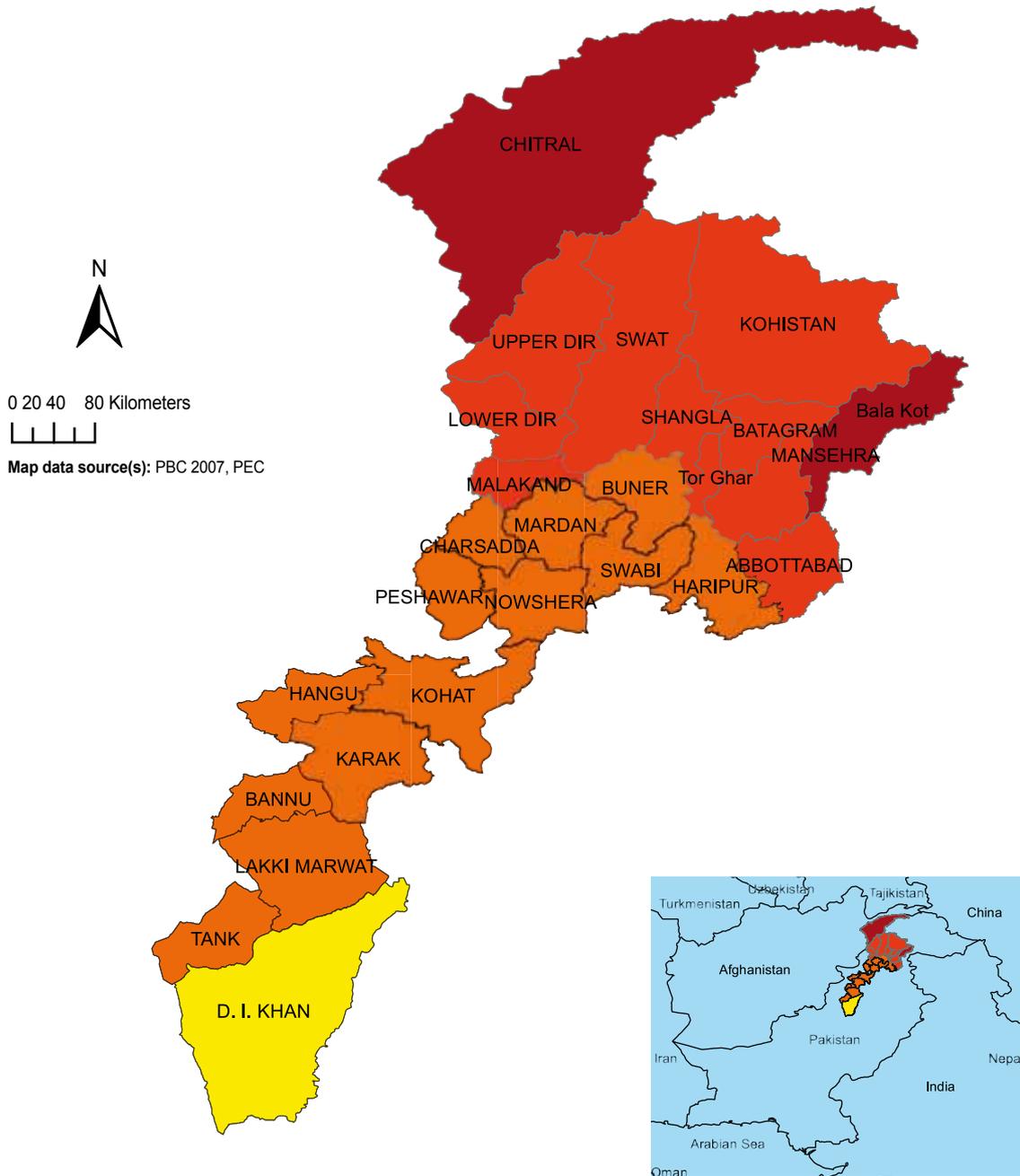
In addition, to expand its reach and capabilities, PDMA has signed MOUs with ADPC Bangkok, University of Engineering & Technology (UET) Peshawar, and IM-Sciences Peshawar to access the expertise of technical and research institutes for the effective implementation of the Road Map activities. An approach of "Inclusive Disaster Risk Reduction" will be adopted in the implementation of all the activities of the Road Map to ensure participation of and catering for the special needs of women, the elderly, persons with disabilities, and marginalized and vulnerable groups. The Action Plan prepared by ADPC and authored by Jennifer McKay, highlights the priorities and mechanisms to implement the Road Map.

Section

1

**Road Map for Disaster
Risk Management
2014 - 2019**

Earthquake Risk in Khyber Pakhtunkhwa



1.1 Hazard and Risk Profile of Khyber Pakhtunkhwa Province

Introduction

Khyber Pakhtunkhwa, covering the area of 74,521 km², is home to over 27 million inhabitants¹. The province shares borders with Gilgit-Baltistan, Azad Jammu & Kashmir, Punjab and the Federally Administered Areas (FATA). In addition to the threat of multiple natural hazards, the Province is susceptible to complex humanitarian emergencies, armed-conflicts and civil strife due to its proximity with war torn Afghanistan as well as the troubled FATA. The Province has also been hosting over 1.8 million registered Afghan refugees since decades now.

Due to the unique geography of the province, an effective disaster response remains a challenge both for the Provincial Government and for the humanitarian organizations. Inadequate road infrastructure makes it difficult to quickly reach the population living in the remote and inaccessible mountainous areas in the wake of any natural or human-induced disaster.

In this backdrop, the government of Khyber Pakhtunkhwa is committed to focus on the taking proactive measures in all 25 districts of the province,

so that the communities are well equipped to mitigate the risk and manage a disaster well, if and when it occurs.

The PDMA Khyber Pakhtunkhwa is committed to align all DRR related activities with the UN-ISDR Hyogo Framework for Action (HFA, 2005-2015) and National Disaster Management Plan (NDMP, 2012-2022) and National Disaster Management Policy 2012.

Hazard and Risk Profile of Khyber Pakhtunkhwa Province

Khyber Pakhtunkhwa Province has a very diverse and ironic hazard and risk profile with almost all natural and human-induced hazards embodied:

Natural Hazards

Floods: Riverine and Flash Floods are a recurrent phenomenon in the Province and it experiences floods almost every year. The main cause of the floods is the rain fed rivers e.g. Swat, Kabul and Indus besides many small rivers, streams, nullahs including Adezai, Bara, Jindi and Kalpani. During the summer season (July to September) precipitation coupled with snow melting due to extreme heat causes flash and further riverine floods. Especially people at risk have very little time to react to and respond against flash floods. Swat, Upper and Lower Dir, Chitral,

¹ Estimated. As per Census Report 1998, the population of KP was 17,735,912. (Source: <http://kpbos.gov.pk>)

Shangla, Kohistan, Peshawar, Mardan, Kohat and D.I Khan are prone to frequent floods. Although Khyber Pakhtunkhwa Province have witnessed devastating floods during 1976, 1982, 1988, 2004, 2006 & 2007 but 2010 floods were unique in nature and intensity, killing 1,070 persons and affecting around a million of people. It was the worst flooding in the history of Pakistan and the Province. The floods hit all the 25 districts of the province with 312,477 houses damaged or destroyed.² Worst hit districts included, Nowshera, Charsadda, Peshawar, D.I. Khan, Swat, Peshawar, Kohistan, Shangla, Upper Dir, Lower Dir and Tank.

Earthquake: Historically, Khyber Pakhtunkhwa Province has experienced some devastating earthquakes with continual tremors of comparatively low magnitude. According to the seismic data compiled by the Pakistan Meteorological Department (PMD), the Province has witnessed a total of 222 earthquakes over the last 100 years or so. Out of the total, 201 were of moderate intensity whereas remaining 21 were of severe intensity i.e. over 6.0 on the Richter scale. Some of the important earthquake disasters happened in 1974, 2004 and 2005.

With a magnitude of 7.6 Richter Scale, the 2005 earthquake was the worst in the history of Pakistan. Around 72,000 and even more were killed in Kashmir, Khyber Pakhtunkhwa and Islamabad. Of the total, 29,342 people died and another 37,190 were injured in the province alone. Abbotabad, Mansehra, Battagram, Shangla and Kohistan were severely hit by this earthquake. The town of Balakot proved to be a burial ground for its 24,511 residents when the earthquake hit it early in the morning. Some 30,585 people received serious injuries.

Besides the above two major disasters, other natural disasters occurring in Khyber Pakhtunkhwa are landslide, snow avalanches, GLOFs, and drought.

Human-induced hazards: Besides natural hazards, the province is also prone to and victim of continuing complex humanitarian emergency, terrorism, armed conflicts and civil strife. Some of other human induced

hazards are fire eruption, transport accidents, industrial hazards, diseases, dam failures, river embankment failure/breach, river encroachments, no land use planning.

1.2 Disaster Risk Management in Khyber Pakhtunkhwa Province

Introduction

Despite being prone to a host of natural and human-induced hazards, there existed no proper system of identifying, treating and managing risks and disasters until December 2006 when in the backdrop of Hyogo Framework for Action (HFA, 2005-2015) and earthquake 2005 in the country, the National Disaster Management Ordinance (NDMO) was introduced as a legal instrument for disaster management in Pakistan. National Parliament, Senate and Four Provincial Assemblies approved and gave a status of permanent act during December 2010 and hence now called as National Disaster Management Act 2010. The Act provides for the establishment of an institutional system and legal framework for all phases of disaster including inter-alia: prevention, mitigation, preparedness, contingency planning (Pre-disaster phase), rescue, response, relief (during disaster phase) and early recovery, rehabilitation, reconstruction (Post-disaster phase) in addition to devising policies and strategies and developing DRM plans and programs at federal, provincial, and district levels. NDM Act 2010 and National Disaster Management Policy 2012 govern the whole spectrum of DRM through following legal bodies at different levels. Under the NDM Act 2010, the institutional setup for DRM has been constituted as follows:

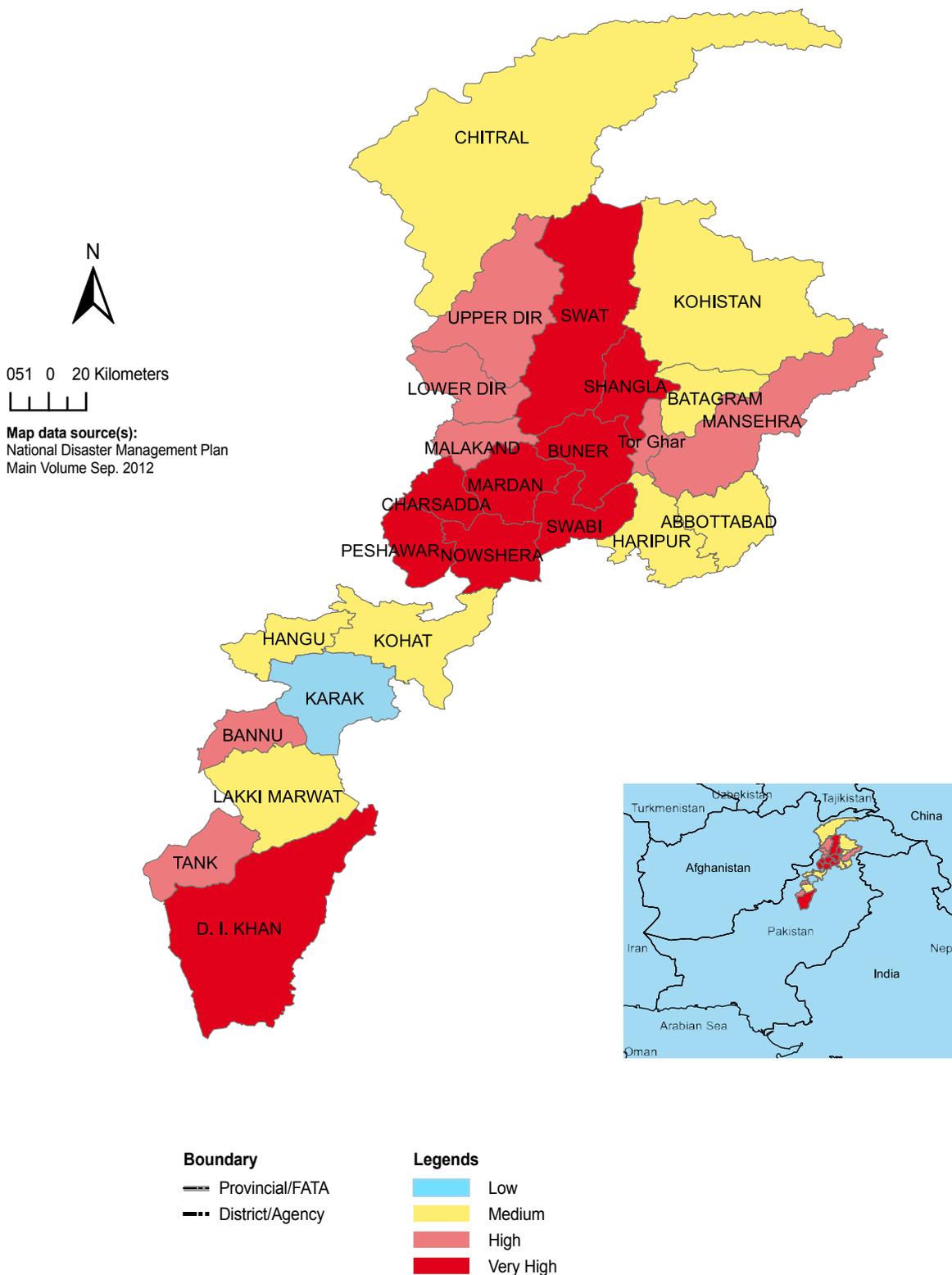
Disaster Management System at National Level

a. National Disaster Management Commission (NDMC)

NDMC is the Apex DM policy and decision-making body chaired by the Prime Minister and

² Citizens Damages Compensation Programme Report-(Source: www.pdma.gov.pk)

Flood Risk in Khyber Pakhtunkhwa



represented by a number of key stakeholders which include: Leader of the Opposition in the National Assembly, and the Senate, Chief Ministers of all the four provinces, Prime Minister of AJ & K, Chief Minister Gilgit-Baltistan, Governor Khyber Pakhtunkhwa (for FATA), Chairman Joint Chiefs of Staff Committee (JCSC) of Pak Army or his nominee. Additionally, seven key federal ministries and a civil society representative are also part of the Commission.

b. National Disaster Management Authority (NDMA)

National Disaster Management Authority (NDMA) was established in March 2007 under the National Disaster Management Ordinance, 2006. NDMA is the prime and apex federal agency to act as the planning, implementing, coordinating and monitoring Agency/Authority for disaster management.

Disaster Management System in Khyber Pakhtunkhwa Province

Keeping in view the unique circumstances of Khyber Pakhtunkhwa Province, the provincial Assembly made some amendments and inserted new clauses in NDM Act, 2010. Currently, National Disaster Management Khyber Pakhtunkhwa (Amendment) Act, 2012, governs the institutional arrangements in the province.

a. Provincial Disaster Management Commission (PDMC)

The Government of Khyber Pakhtunkhwa established PDMC on 27 October 2008 under NDMO 2007, with following composition and powers:

Composition of the PDMC

- Chief Minister as Chairperson - ex officio;
- Leader of the Opposition and one member

nominated by him to be member of the provincial commission;

- The Secretary to Government of the Khyber Pakhtunkhwa Relief, Rehabilitation and Settlement Department, shall be ex-officio member³;
- The Director General of the Provincial Authority, to be ex-officio member-cum- secretary⁴;
- Other members to be nominated by Chief Minister;
- The Chairperson of the Provincial Commission may designate one of the members nominated under clause (c)⁵ to be the Vice-Chairperson.

b. Provincial Disaster Management Authority (PDMA)

PDMA was established on 27 October 2008 under the National Disaster Management Ordinance 2007 to cater to the whole spectrum of policy and coordination for Disaster Management.

c. Provincial Relief, Rehabilitation and Settlement Authority (PaRRSA)

PaRRSA was created as an autonomous body under PDMA to plan and coordinate the overall damage assessment, rehabilitation, reconstruction and settlement for post-war-on-terror of the affected areas. It also provides ease, facilitation, speed and one-window facilitation to all the partners involved and helping provincial government to rehabilitate the affected people of the province.

d. Relief, Rehabilitation & Settlement Department (RR&SD)

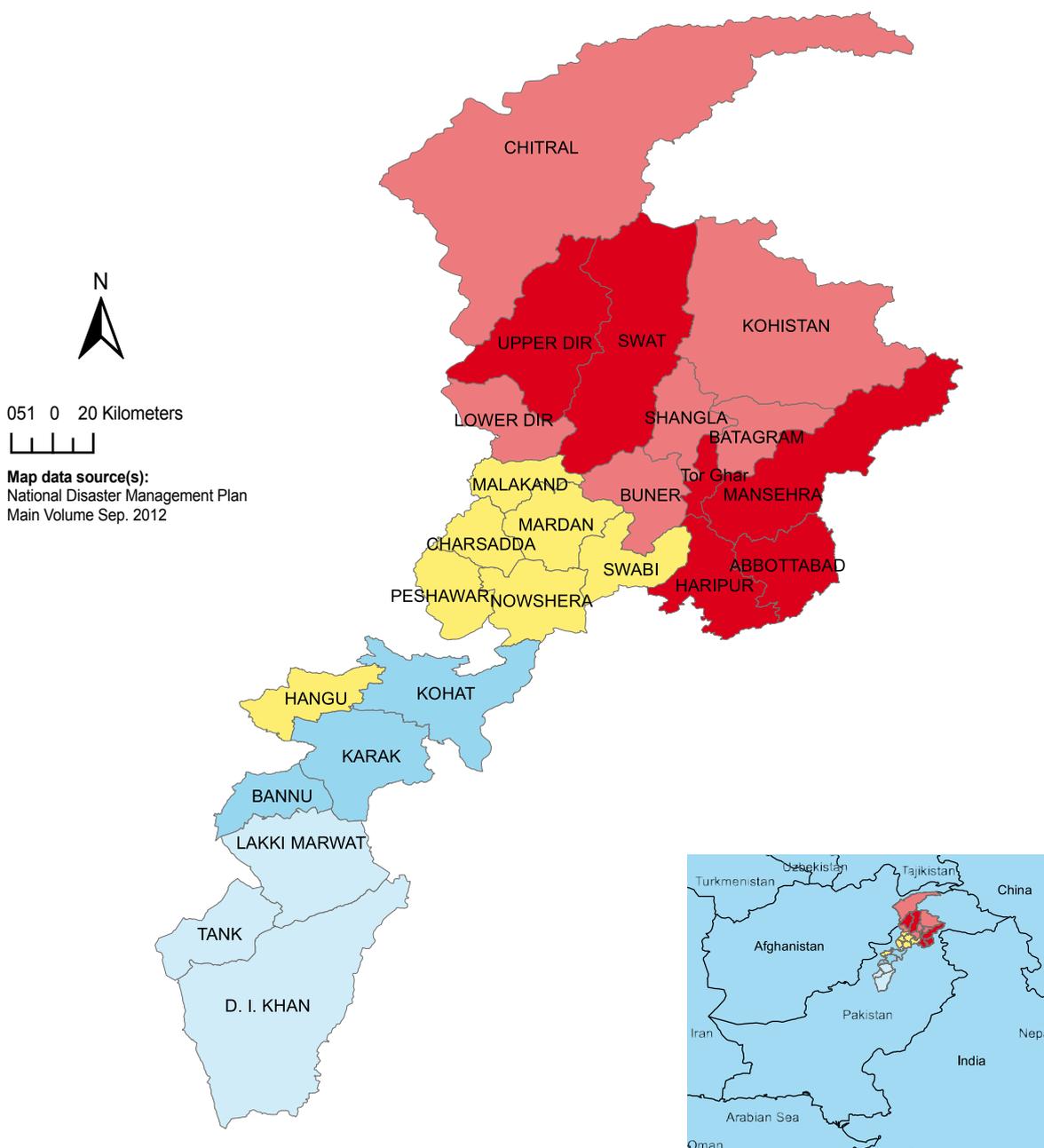
The Relief, Rehabilitation & Settlement Department (RR&SD) had been in existence since 2002. However, after some revitalization, its functions have been revised with a view of making its role more robust for disaster risk reduction and disaster management. PDMA was declared as its attached authority along with Rescue 1122 and Civil Defence.

³ Inserted vide National Disaster Management (Khyber Pakhtunkhwa) (Amendment) Act, 2012

⁴ Ibid.

⁵ Clause (c) Other members to be nominated by the Chief Minister;

Landslide Risk in Khyber Pakhtunkhwa



Boundary

- Provincial/FATA
- - - District/Agency

Legends

- Very Low
- Low
- Medium
- High
- Very High

e. District Disaster Management Units (DDMUs)

In Khyber Pakhtunkhwa, District Disaster Management Authorities (DDMAs) as prescribed in NDM Act 2010 are called as District Disaster Management Units. The Provincial government has notified DDMUs in all the districts of Khyber Pakhtunkhwa Province. Efforts are being made to equip DDMUs with all the necessary facilities and capacities to further decentralize the DRM system in the Province.

1.3 Key opportunities and Challenges in DRM System in Khyber Pakhtunkhwa Province

With the establishment of PDMA, a new DRM system was introduced in the Province where significant capacities have been put in place to cater for various aspects of the DRM. The setting up of Provincial Emergency Operation Centre at PDMA linked to the vulnerable districts is a step in improving the much-needed coordination before and during disastrous situations. However, the capacity is yet to be fully harnessed to address all aspects of the DRM especially Disaster Risk Reduction.

There is a dire need to invest in Disaster Risk Reduction and mainstream DRR into development. The PDMA Khyber Pakhtunkhwa is inclined and taking keen interest to align all DRR related activities with the UN-ISDR Hyogo Framework for Action (HFA, 2005-2015), National Disaster Management Plan (NDMP, 2012-2022) and National Disaster Management Policy 2012.

Although, the Provincial Government of Khyber Pakhtunkhwa is committed in putting together its efforts and resources in order to increase the capacities of all stakeholders involved in DRM system, there is a strong realization that still needs a lot to be done for making the disaster prone communities resilient to disasters.

Major challenges faced at present are limited financing available for the DRR activities both at provincial and district levels. There is a need to put more emphasis on addressing the underlying causes of disasters, such as poverty, unplanned urbanisation and environmental degradation. This being extremely important in case of Khyber Pakhtunkhwa as the province is faced with complex humanitarian emergency situation and urbanization issues due to influx of displaced population from the FATA region. A province of 27 million is hosting 2.6 million⁶ DPs and over a million refugees, which poses a huge challenge for the province, its communities which are hosting them. Moreover, other challenges include lack of advocacy campaigns, insufficient research in DRM, no proper hazard and risk assessment and mapping of the province and no mechanism for risk transfer and risk insurance.

The recent notification of a Disaster Risk Management & Climate Change Adaptation Strategic Unit (DRMSU) can be considered as a milestone to ensure effective and efficient implementation of the Road Map for DRM. Creation of Disaster Management Fund with sub funds including one for Conflict Victim Support is also seen as a step to ensure allocation of resources to DRR activities. The recently created linkages with academia like UET Peshawar and Institute of Management Sciences; and technical collaboration with Asian Disaster Preparedness Center, Bangkok can be considered as a potential strength of PDMA to conduct research in DRR & CCA and come up with innovative approaches to increase the resilience of communities and divert special attention to the retrofitting and strengthening of vulnerable infrastructure especially schools, hospitals and private housing in the province.

⁶ As of 22nd July 2014 a total of 92,702 families (approximately one million individuals) of IDPs from North Waziristan Agency have arrived in settled Districts of KP (Source: DSR PEOC PDMA 220714). This is in addition to existing 1.6 m IDPs in province.

Section **2**

**Road Map for Disaster
Risk Management
2014 - 2019**

2.1 Road Map for Disaster Risk Management

a. Key Objectives

While formulating provincial level Disaster Risk Management Plans, there is a need to streamline resources, time frame and dedicated partners to implement these plans in an effective manner. In acknowledging the immediate needs, PDMA Khyber Pakhtunkhwa proposes comprehensive framework, which identify and coordinate multi stakeholders in next five years through a holistic approach of building a “Disaster Resilient Khyber Pakhtunkhwa”. The road map will be implemented by identifying prioritized projects across different areas of action. The key objectives are as follows;

- To identify the DRM gaps;
- Establish plan of action;
- To identify resources, time frame and mutually beneficial partnerships required for the implementation of the DRM programs;
- To provide conducive environment for integrating DRM into development plan and programs from provincial level down to grass root levels.

b. The Consultation Process

The road map is broadly focused on eight thematic components, which are consistent with

the National Disaster Management Plan 2012-2022 and UN-ISDR’s Hyogo Framework for Action 2005-2015. The thematic components are;

- i. Legislation, Policy, Institutional Mandates & Institutional Development;
- ii. Hazard, Vulnerability and Risk Assessments;
- iii. Public Awareness, Education and Training;
- iv. Community Resilience through CBDRM;
- v. Mainstreaming Disaster Risk Reduction into Development Planning;
- vi. Early Warning System;
- vii. Preparedness and Response Planning;
- viii. Post Disaster Recovery Planning.

These components have been developed and agreed through series of consultations with the relevant government, donors and humanitarian stakeholders for the identification of gaps, priorities and strategies for implementation.

- **Inception Meeting on 15th May, 2013 at PDMA KP**
An inception meeting was organized on dated 15th of May 2013 at PDMA to orientate the stakeholders on the development of Road Map, establish guiding principles and seek support from them for the DRM planning process. The Director General PDMA chaired the meeting while representative from Provincial Departments, Academia and various organizations attended. The organizations

were briefed about the process, its importance and how their input will be required during the formulation of the Road Map. It was agreed that in-depth consultations and interviews to identify the gaps, needs and priorities of their respective departments would be initiated. Complete List of participants and pictures of the meeting can be seen at Annexure I.

- **Individual meetings and key Informant Interviews organized for in-depth consultation**

In-depth meetings were organized separately during May to October 2013 with various Provincial and Federal Departments, Academia, UN Agencies, NGOs / INGOs, District Administrations and technical experts.

The meetings were very useful as it helped in identifying the gaps, understanding the requirements and exploring the potential resources and dedicated partners to be required for implementation of the road map. Key questions asked during the meetings can be seen at Annexure II.

- **Stakeholder's Consultation Workshop on 29th January 2014 at Peshawar**

Consultation workshop was organized on 29th January 2014 at Pearl Continental Peshawar to share the Draft Road Map and take further input and suggestion for improvement and identify potential partners during implementation of the road map.

Workshop was chaired by the Director General PDMA and Secretary Relief, Rehabilitation and Settlement Department while representative from the Provincial Departments, NDMA, Federal Ministries, Military, Academia, UN Agencies, National DRR Forum, National Humanitarian Network, Media, INGOs, Local NGOs attended the workshop. Extensive Group works to refine each and every thematic component by relevant experts was carried out. NDMA presented on the fact that all thematic areas of the Road Map for DRM in KP are in complete relevance to and correlated with NDMP (2012-2022). Complete list of participants and pictures can be seen at Annexure III.

- **Consultative Meeting with Humanitarian Clusters on 12th February 2014 at UNOCHA Office Peshawar**

Consultative meeting with Humanitarian Cluster leads and UN Agencies along with FDMA was organized on dated 12th February 2014 at UNOCHA Peshawar to share the Draft Road Map and take further technical input from the participants.

The meeting was co-chaired by the Director General PDMA and Head of Mission UNOCHA while representatives from the Humanitarian Clusters, UN Agencies and FDMA attended the meeting. An intensive discussion on the thematic components was carried out especially in the context of the on going complex humanitarian emergency and recovery needs and the feedback of participant was incorporated in the document. Complete list of participants and pictures can be seen at Annexure IV.

- **Donor's Consultations on 05th March, 2014 at Islamabad**

To involve donors in the consultation process and get their valuable feedback, a Consultative Meeting was organized on dated 05th March 2014 at Marriot Hotel Islamabad to share the draft Road Map and take further input and suggestion for improvement.

Workshop was co-chaired by Chairman National Disaster Management Authority and Director General PDMA. Representative from Donors Organizations, Foreign Missions in Pakistan, World Bank, Asian Development Bank, Economic Affairs Division and leading UN Agencies attended the workshop (Complete list of participants and pictures can be seen at annexure V);

Besides these meetings and workshops, series of in-house meetings were conducted at PDMA. Based on continued discussion and in-house consultation, the road map was revised to incorporate suggestions given by the stakeholders. Detail activities, potential partners and indicative budget have been mentioned in the following tables.

2.2

Component 1:**Legislation, Policy, Institutional Mandates & Institutional Development****Key Issues**

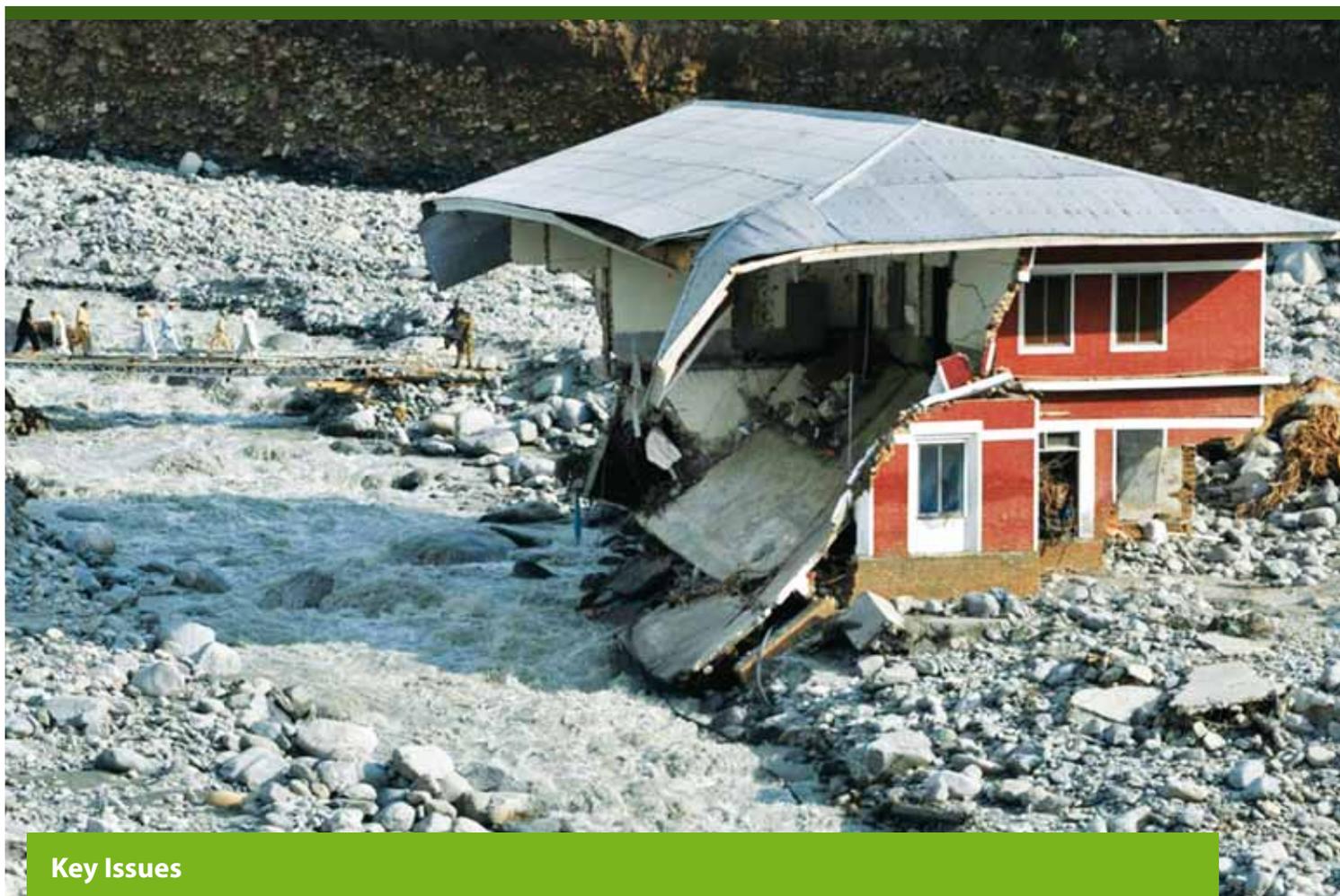
In the aftermath of 2005 Earthquake in Khyber Pakhtunkhwa and Kashmir the National Disaster Management Ordinance (NDMO) was promulgated which led to the enactment of National Disaster Management Act 2010. The Act of the Parliament provides institutional system and legal framework to implement DRM policies, plans and programs at Federal, Provincial, and District Level.

However, keeping in view the unique circumstances of Khyber Pakhtunkhwa Province, especially the Complex Humanitarian emergency it was faced with, the provincial Assembly made some amendments and inserted new clauses in NDM Act, 2010. Currently, National Disaster Management Khyber Pakhtunkhwa (Amendment) Act, 2012, governs the institutional arrangements in the province.

However, the PDMA still has to develop a Provincial Disaster Management Plan, keeping in view the multiplicity of natural hazards as well as the conflict situation and Humanitarian Crisis it is faced with due huge influx of DPs from FATA. The DDMUs needs to be strengthened and practical District DRM Plans developed to increase the resilience at District Level. The presence of a dynamic and strengthened DRM Strategic Unit and an operational Provincial Disaster Management Fund at PDMA are extremely necessary for the implementation of the Road Map. Furthermore, sector specific disaster management and response plans at the provincial and district level needs to be formulated.

Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority a. Short term (ST) with 1-2 years b. Med Term (MT) with 2-3 years c. Longer Term (LT) with 4-6 years
Develop Provincial Disaster Management Plan	a. Desk review; b. Conduct series of workshops/ consultations/simulations with stakeholders for finalizing the Plan; c. Produce hard copies of the approved PDM Plan and distribute them to relevant stakeholders	PDM Plan developed and available for Disaster Management in the province	3,000,000	PDMA, and all other relevant stakeholders	ST
Develop Various Sectoral Disaster Management Plan	a. Desk review; b. Conduct series of workshops/ consultations/simulations with stakeholders for finalizing the Plans; c. Produce hard copies of the approved Sectoral DM Plans and dissemination	Sectoral DM Plan developed and available for Disaster Risk Reduction in various sectors of the Province	800,000	Various Line Depts and PDMA, and Federal agencies	MT
Functionalize DDMUs at District Level and Develop DRM Plans	a. Provision of office equipment and office space at all DDMUs; b. Build capacities of the staff through series of training courses; c. Organize periodic meetings/ workshops among DDMUs to learn from best practices; d. Conduct regular hazard specific drills/simulation.	<ul style="list-style-type: none"> • DDMUs are fully functionalized • Detail Hazard and Risk Assessment Mapping available as planning tools • Capacities of the DDMUs have been built-up 	2,500,000	PDMA, RR & SD, P&D, & all DDMUs	ST to MT
Establishment of DRM & CCA Strategic Unit at PDMA Khyber Pakhtunkhwa	a. Recruiting staff for Strategic unit; b. Provision of office equipment and office space for Strategic unit; c. Build capacities of the staff through different training courses/ workshops.	An independent DRM/CCA Strategic Unit has been established responsible for all proactive activities related with DRM & CCA	9,00,000	PDMA, and RR&SD	ST
Operational Plans	a. Desk review; b. Conduct series of consultation workshops with stakeholders for finalizing the Operation Plans;\n c. Produce hard copies of the approved Operational Plans; d. Capacity Building of the relevant stakeholders on the plans.	Operational Plans to provide guidance to the process of managing relief, early recovery and reconstruction/ rehabilitation in case of any disaster including human induced disasters/ conflicts.	500,000	PDMA & all Concerned Departments	MT
Development of Rules/ Procedures for Provincial Disaster Management Fund (PDMF)	a. Draft Rules for the Operationalization of PDMF b. Drafting regulations for the sub funds under PDMF including conflict victim support fund (CVSF) c. Policy Dialogue with relevant stakeholders to bring all the departments, donors, civil society, private sector d. Advocacy for functionalized PDMF and sub funds through public private partnerships	A system on recovery needs assessment and programme planning	50,000	PDMA, MoF and RR&SD	ST
Budget Required for Component 1			6,850,000		

2.3

Component 2:**Hazard, Vulnerability and Risk Assessment****Key Issues**

Any effective disaster risk management planning and implementation requires specific, accurate and up-to-date information on hazard, existing vulnerabilities and the potential risks associated with the communities, infrastructure, livelihood etc. This component aims to prepare hazard specific risk cataloguing and maps, using latest scientific methodologies for whole province and for each disaster prone districts in the province. Development of such database and maps act as a planning and decision-making tools for prioritization of risk reduction measures and strategies.

After 2005 devastating earthquake, although many institutions are involved in mapping hazard risks in the country, however, it was felt that such assessment are conducted for specific project purposes and the information are available in bit and pieces and can't be complemented due to use of different scales, tools and methodologies. Besides, there are limitations of sharing and exchanging of the available databases. There is also lack of capacity building initiatives in providing technical assistance and trainings to support the relevant institutions to develop their own cadre of specialists responsible for database development and usage as well as for Risk Assessments. There is lack of basic and advance level technical trainings e.g. GIS and Remote Sensing. Furthermore, there is intense need for digitizing and analysing the underlying risk and production of digital database to be made available to agencies involved in development activities.

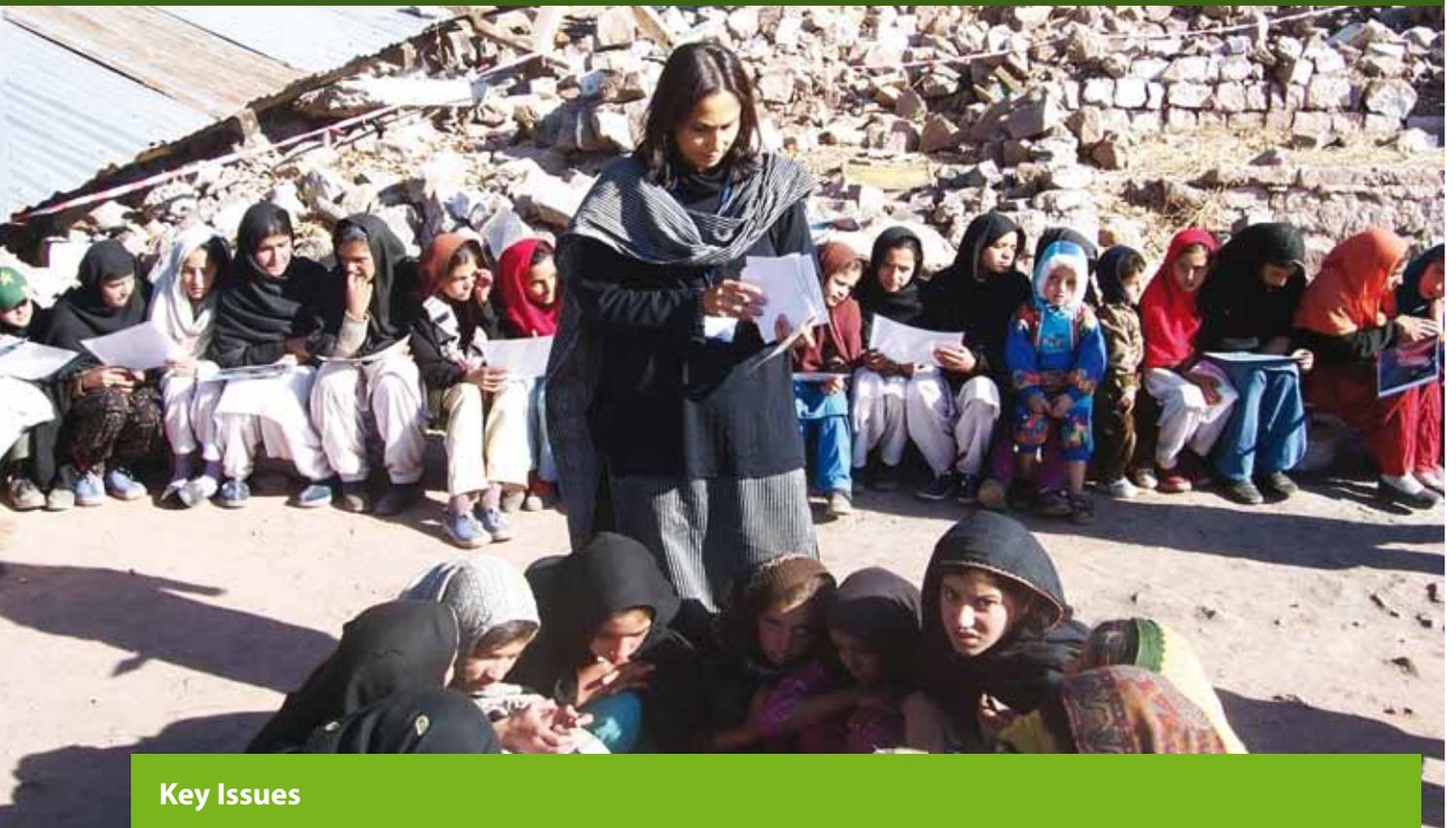
Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority a. Short term (ST) with 1-2 years b. Med Term (MT) with 2-3 years c. Longer Term (LT) with 4-6 years
Establishing Provincial Working Group on Risk Assessment	a. Develop coordination mechanism with the National Working Group on Risk Assessment; b. Develop standard guidelines for risk assessment surveys in the province; c. Advice on policy level decision on risk assessment; d. Set up code of conduct for the assessment e. Development of the Risk Assessment database and maps. f. Establishment of Sub-working group i.e, Hydro-metrological, Geology, Climate Change etc. g. Data sharing mechanism with relevant data producers in the form of contract, MoU	Risk assessment working group has been formed responsible for standardizing the scale and methodology of assessment at Provincial level	200,000	PDMA, NDMA and all concerned line Depts/ ministries	ST
Establishment of GIS and RS Labs at PDMA Khyber Pakhtunkhwa	a. Purchase of advance level GIS and RS related software; b. Purchase of equipment including heavy duty computers, workstations, GPS, plotter, printers, smart phones and furniture etc.; c. Develop and maintain web portal about risk information and maps; d. Hiring technical staff for GIS/RS labs including GIS expert, RS expert, Cartographers and Database Management Staff etc.;; e. Maintenance of the spatial and non-spatial database of the province.	<ul style="list-style-type: none"> • GIS based system established with provision of the state of the art equipment and technologies • Smart phone based damage need assessment are available 	1,200,000	PDMA, SUPARCO and Academia	ST
Multi Hazard Vulnerability and Risk Assessment for Khyber Pakhtunkhwa Province at a appropriate scale of 1:500,000 or as per requirements	a. Compile Meta Database & Catalogue of Natural Disasters in the province; b. Assess Vulnerabilities of Physical, Economical and Social Elements; c. Develop Risk profiles for Khyber Pakhtunkhwa Province; d. Hazard and Risk Atlas of Khyber Pakhtunkhwa Province; e. Train and build capacities of stakeholders for the application of MHVRA database.	<ul style="list-style-type: none"> • Province-wise Risk Atlas on digital and hard copies available • Meta data available for future analysis and modelling 	500,000	PWG on risk assessment, PDMA, and Academia	ST

Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority f. Short term (ST) with 1-2 years g. Med Term (MT) with 2-3 years h. Longer Term (LT) with 4-6 years
Hazard Vulnerability and Risk Assessment for all districts start with pilot project in five selected disaster prone districts of Khyber Pakhtunkhwa Province at appropriate scale of 1:50,000 or as per requirements (Phase I)	<ul style="list-style-type: none"> a. Compile Meta Database & Catalogue of Natural Disasters for the selected districts b. Assess Vulnerabilities of Physical, Economical and Social Elements c. Develop Risk profiles for Selected districts d. Hazard and Risk Atlas of the selected districts e. Train and build capacities of stakeholders for the application of MHVRA database 	<ul style="list-style-type: none"> • District-wise Risk Atlas on digital and hard copies available • Meta data available for future analysis and modelling 	1,000,000	PWG on risk assessment, PDMA, DDMUs, and LGAs	ST- MT
Flood Risk Assessment and Modelling for all cities start with pilot project of three flood prone cities at appropriate scale of 1:5,000 or as per requirements (Phase 1)	<ul style="list-style-type: none"> a. Compile Meta Database including rainfall data analysis; b. Acquire Digital Elevation Model; c. Assess Vulnerabilities of Physical, Economical and Social Elements in the selected cities; d. Flood Hazard and Risk Atlas of the selected cities; e. Train and build capacities of stakeholders for the application of MHVRA database. f. Identify specific risks and mitigation measures for persons with special needs- elderly, persons with disabilities, child headed households, female headed households etc. 	Detailed Flood Risk Assessment data available on high resolution for planning and implementation	600,000	PWG on risk assessment, PDMA, DDMUs, TMAs and MCs	ST- MT
Earthquake Risk Assessment and Modelling for all cities with pilot project of three earthquake prone selected cities at appropriate scale of 1:5,000 or as per requirements (Phase 1)	<ul style="list-style-type: none"> a. Compile Meta Database including earthquake hazard zonation; b. Acquire Digital Elevation Model c. Assess Vulnerabilities of Physical, Economical and Social Elements in the selected cities; d. Earthquake Hazard zonation and Risk Atlas of selected cities; e. Train and build capacities of stakeholders for the application of MHVRA database; f. Identify specific risks and mitigation measures for persons with special needs- elderly, persons with disabilities, child headed households, female headed households etc. 	Detailed Earthquake Risk Assessment data on high resolution available for planning and implementation	600,000	PWG on risk assessment, PDMA, DDMUs, TMAs and MCs	ST- MT
Budget Required for Component 2			4,100,000		

2.4

Component 3:

Public Awareness, Education and Training



Key Issues

Recent devastating disasters in Khyber Pakhtunkhwa Province including earthquake in 2005, DPs crisis in 2008 and floods in 2010 highlight the importance of public awareness, and emphasise the need for enhancing capacities through awareness, training and education in Disaster Risk Management. The Hyogo Framework for Action priority area number three and National Disaster Risk Management Plan (NDMP) of the NDMA have also identified the importance of Training and Education.

Since 2005, many International and National NGOs and UN organizations and agencies are actively engaged in creating awareness through imparting trainings and education in Disaster Risk Management to change the mind set of the people. However, it has been observed that lot of duplication has occurred with more concentration on few disaster effected districts and Union Councils (UCs) while many effected districts and UCs are ignored or deprived. Besides, at provincial and district level, trainees database not maintained to track the record of established human resource that got training from various CSO and Government Departments. Moreover, the training component have never been substantiated with some structural reduction measures thus make it non sustainable and elusive. For e.g there were number of trainings carried out at schools and committees formed at community level but no actual retrofitting/ strengthening and no capacity building on it have been carried out to sensitize them that the schools must be retrofitted/ strengthened against fire, earthquake or winds. Such projects, thus, had minimum effect on the minds and behaviors of the target audience.

Efforts were carried out in conducting series of trainings, however without having proper Training Needs Assessment (TNA), identifying appropriate target audience, requirement of trainings, professional trainers and training toolkit, the quality of the training courses is far less than satisfactory. There is lack of apparent coordination with regard to the relevance of trainings and consistency of contents of the trainings mainly due to lack of proper TNAs.

Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority a. Short term (ST) with 1-2 years b. Med Term (MT) with 2-3 years c. Longer Term (LT) with 4-6 years
Public Awareness Programme	<ul style="list-style-type: none"> a. Develop comprehensive Provincial and District Public Awareness Plans to be implemented at the Province and District level; b. Celebrate the “National Disaster Earthquake Safety Day” as an annual commemoration to earthquake 2005; c. Celebrate the “National Disaster Flood Safety Day” as an annual commemoration to flood 2010; d. Organize National/ International Conference on DRM during October and July in commemorations to EQ 2005 and Flood 2010; e. Awareness through School Children; f. Awareness through Civil Societies involvement; g. Awareness through electronic and print media; h. Award Scheme for best practices among DM practitioners including I/NGOs, Civil Societies, Govt institution, academia, media etc; i. Prepare, publish and widely distribute public awareness materials (posters and booklets) on different aspects of the DRM; j. Television series, documentaries and radio talk on public awareness. k. Development and wide dissemination of Simplified Disaster Resilient Construction Buildings and Retrofitting Codes and guidelines 	Established an effective Public Awareness Programme on DRM to build disaster resilient culture in the province	900,000	<ul style="list-style-type: none"> a. PDMA,& DDMUs b. PDMA, Earthquake Eng Center, UET & Concerned Ministries & DDMUs c. PDMA, PMD Concerned Ministries, & DDMUs d. CDPM, PDMA, PMD & other concerned ministries e. Ministry of Education & PDMA f. Social Welfare Deptt, and PDMA g. Press Information Department & PDMA h. PDMA & concerned deptt i. PDMA, DDMUs & CDPM j. Information Department& PDMA 	ST to LT
Strengthening Disaster Management Institutions in the Province	<ul style="list-style-type: none"> a. Establishment of dedicated PIDM b. Constitute an Expert Panel of professors, educational specialists and DRM professionals for research paper review; c. Developing linkages with universities, MOUs, joint research initiatives/studies; 	Created a multiplier effect in spreading DRM Knowledge, education and skills throughout the province, and surrounding countries	1,200,000	PDMA, NIDM/ NDMA, and Academia	MT

Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority d. Short term (ST) with 1-2 years e. Med Term (MT) with 2-3 years f. Longer Term (LT) with 4-6 years
	<ul style="list-style-type: none"> d. Publish research papers in different well reputed journals; e. Affiliation of DRM related department with other foreign universities/Center of Excellence. f. Conduct scientific research through M.Phil/Ph.D researchers/scholars through link programme with various universities; g. Develop a fellowship programme for researchers; h. Learning exchange programmes among provinces and outside the country; 				
<p>Training and Research programme through Disaster Management Institutions/ PIDM</p>	<ul style="list-style-type: none"> a. Conduct TNAs by involving all stakeholders to develop a tailor made training toolkits and identifying relevant training courses; b. Develop and standardize training material on DRM related subjects i.e. FDRM, EDRM & ERM etc; c. Trainings of the Government employee on DRM related subjects; d. Trainings at Community Level on DRM related subjects; e. Trainings for school children and teachers on DRM related subjects; f. Trainings for health services on DRM related subjects; g. Trainings for agriculture, fisheries, forestry on DRM related subjects like controlling soil erosion, Climate change Adaptation, bioengineering techniques for flood and landslides managements; h. Trainings for Emergency Preparedness and Response at community level and for concerned organization; i. Develop technical trainings, guidelines and case studies on building infrastructure and retrofitting etc.; 	<ul style="list-style-type: none"> a. Training toolkits are available for capacity building of the DRM stakeholders in the province b. Scientific research work is carried out and published through periodicals/ journals 	1,000,000	PDMA, Academia, PEC, Rescue 1122 and Civil Defence	ST

Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority c. Short term (ST) with 1-2 years d. Med Term (MT) with 2-3 years e. Longer Term (LT) with 4-6 years
	<ul style="list-style-type: none"> j. Trainings for women on Gender mainstreaming into DRM; k. Trainings for Electronic and Print media on Disaster Reporting; l. Trainings and Capacity Development for Post Disaster Recovery and Reconstruction; m. Develop pool of Trainers through Regular ToT programmes; n. Inclusion of DRM & CCA as subject in school, college and universities curriculum. o. Trainings for Engineers /Sub Engineers/ Artisans on Disaster Resilient Construction and Building Codes p. Training and Research programme on Multi Hazard Early Warning Systems 				
Research on Climate Change Adaptation and DRR	Conduct community level studies through universities research scholars and civil societies on CCA and DRR	Scientific research is conducted on CCA and DRR	800,000	Academia, PDMA, DDMUs, concerned I/ NGOs	LT
Disaster Information Resource Centre at PDMA	<ul style="list-style-type: none"> a. Establishing state-of-the-art library at PDMA; b. Develop, regular update and maintenance of the Disaster Database; c. Web portal development for Disaster Management Information Resource Centre; d. Maintain alumni and DRM professional database at Provincial level; e. Collect International and National research journals and publication on DRM; f. Developing annual magazine and its wide publicity and dissemination. 	Develop and provide up-to-date information on DRM among DRM practitioners	700,000	PDMA, RR&SD, and Academia	MT
Budget Required for Component 3			4,600,000		

2.5

Component 4:

Community Resilience through CBDRM



Key Issues

Communities are the first responders and are in front line whenever disaster strikes. At the same time they are the one who better understand local hazards, risk and resources, and are in the better position to execute immediate response, rescue and relief actions. Therefore, a well-prepared community can play a pivotal role in Disaster Risk Reduction. Several studies have highlighted that a well-prepared community bounce back to normalcy much faster than the less prepared community in the aftermath of any disaster. This component aims to build the capacities of the disaster-affected communities through CBDRM approach for initiating community level disaster preparedness and risk reduction activities.

After 2005 Earthquake, the need was felt to strengthen the communities' capacities in order to enable them to effectively respond to disasters. The need was further aggravated during flood 2010. Realizing the needs, the UN agencies, I/NGOs and other government stakeholders tremendously supported in building the capacities of the disaster-affected communities. However, it has been observed that lot of duplication has been occurred with more concentration on few disaster effected districts and Union Councils (UCs) while many effected districts and UCs are ignored or deprived. Lack of clear guidelines and strong monitoring & evaluation by NDMA and PDMA is yet another barrier for implementation of the risk reduction measures. Moreover, there is a lack of using PRA tools together with modern GIS/RS Techniques so that both complement each other for an accurate risk assessment and planning. Moreover the CBDRM has been restricted to non-structural measures only like formation of committees and like ignoring the structural measures required for enhancing community resilience.

Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority a. Short term (ST) with 1-2 years b. Med Term (MT) with 2-3 years c. Longer Term (LT) with 4-6 years
Formation of DM Committees at communities level in all districts start with pilot case of 05 Selected Districts (Phase I)	<ul style="list-style-type: none"> a. Organize training workshops on TOT of CBDRM for the communities; b. Formation of Village Level DM Committees and make sure adequate participation of women, elderly and persons with disabilities is assured c. Formation of Union Council Level DM Committees 	Established standard CBDRM model, operational guidelines and tools	500,000	DDMUs, LGAs, PDMA and other stakeholders	ST
Conduct detail risk assessment surveys and develop hazard and risk maps in all districts start with pilot case of 05 Selected Districts (Phase I)	<ul style="list-style-type: none"> a. Conduct village level risk assessment survey using PRA tools and make sure adequate participation of women, elderly and persons with disabilities is assured; b. Conduct UCs level risk assessment survey using PRA tools as well as GIS based techniques; c. Prepare village level hazard and risk maps; d. Prepare UCs level hazard and risk maps; e. List out and prioritize elements at risk at village and UCs levels. 	<ul style="list-style-type: none"> a. Hazard and risk maps developed b. Elements at risk are identified 	500,000		MT to LT
Enhancing capacities through training and develop pool of master trainers at village and UC levels in all districts with pilot case of 05 Selected Districts (Phase I)	<ul style="list-style-type: none"> a. Develop and standardize training material in Urdu or any other local language on different aspects of the CBDRM; b. Trainings of selected trainers at village and UC levels on TOT for CBDRM; c. Trainings for Emergency Preparedness and Response at village and UC levels; 	<ul style="list-style-type: none"> a. Professional mater trainers have developed at the UCs b. Created a multiplier effect in spreading CBDRM knowledge and skills throughout the UCs and communities 	500,000	Civil Defence, Social Welfare, Rescue 1122, DDMUs, LGAs, PDMA	LT
Stockpiling and necessary equipment supply to the DRM committees in all districts start with pilot case of 05 Selected Districts (Phase I)	<ul style="list-style-type: none"> a. Purchase of SAR equipment; b. Purchase of medical first aid boxes; c. Purchase of emergency response kits. 	UCDRMC are well equipped with life saving equipment	500,000	PDMA, DDMUs, LGAs, Social Welfare, Rescue 1122, Civil Defence	LT

Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority d. Short term (ST) with 1-2 years e. Med Term (MT) with 2-3 years f. Longer Term (LT) with 4-6 years
CBDRM related projects through Civil Societies	<ul style="list-style-type: none"> a. Involvement of different NGOs, CSO, in the CDRM projects; b. Building capacities through structural and no structural measures. 	Civil Societies support in building the capacities of the disaster prone communities in the province	800,000	DDMUs, PDMA, DDMUs, Social Welfare, LGAs,	LT
Small grants program for Village/UC level risk reduction measures and CCA	<ul style="list-style-type: none"> a. Constitute DDMUs level Small Grant Committees with members consisting of government officials and representatives from non-government organizations and UCDMCs; b. Establish disaster mitigation measures incorporated with the existing development program at UC level c. UCDMCs prepare proposals in collaboration with UC level government representative and DDMUs; d. Undertake pilot projects in selected villages from the UCs based on selected proposal; e. Pilot projects to cover risk assessment surveys and prepare hazard and risk maps; f. Grants for organizing village level training workshops by the master trainers. 	<ul style="list-style-type: none"> a. Community owned risk reduction measures proposed and accomplished; b. Risk reduction measures for community are in lined with the local government development program; c. Community and UCDRMC have resources to utilize to complete risk reduction measures 	900,000	PDMA, DDMUs, LGAs, Rescue 1122, Civil Defence	LT
Documentation of the CBDRM good practices	<ul style="list-style-type: none"> a. Selection of case studies from different I/NGOs, concerned government organizations, academia and research organization; b. Constitute committee to filter the good practices from the country and province; c. Publish the material in form of CBDRM journals; d. Printing hard copies of the journals. 	Records of CBDRM good practices properly documented for possible replication in the future	50,000	PDMA, DDMUs, Universities, concerned I/NGOs	LT
Model Disaster Resilient Villages/ communities in five selected districts as pilot	To develop a disaster resilient villages through various Structural and Non-structural measures	Model villages to show case	4,000,000	DDMUs, PDMA, C&W, Local Government and all concerned line deptts	ST to MT
Budget Required for Component 4			7,750,000		

2.6

Component 5:**Mainstreaming Disaster Risk Reduction into Development Planning (MDRDP)****Key Issues**

After the devastating earthquake in 2005 and Floods of 2010, there has been increased recognition of the need to mainstreaming disaster risk reduction into development planning - that is, to consider and address risks emanating from natural and human induced hazards in the sectors and in the design of individual projects.

Mainstreaming is an ongoing process not a one-off technical activity. Successful mainstreaming requires more than just developing appropriate approaches and tools. A change in organizational culture is required to ensure integration at all levels of the organization and across all programmes. Political commitment and motivation, including financial support, can contribute to strengthening the organizational culture.

In Khyber Pakhtunkhwa province, the need was felt mainly due to gradual upward rise in reported disaster losses during recent decade and increased vulnerability due to multiplicity of natural and human induced hazards. The Provincial Working Groups and Departmental Working groups for Mainstreaming are either missing or extremely weak. There has been lack of coordination between PDMA, Provincial Departments and especially Planning and Development Department on MDRDP. The proformas being circulated by the Planning Commission are rarely followed in its true spirit. There has been lack of understanding on the subject when it comes to development and approval of PC-1s, where the projects proposals are rarely vetted through DRR lens.

Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority a. Short term (ST) with 1-2 years b. Med Term (MT) with 2-3 years c. Longer Term (LT) with 4-6 years
Functionalize Provincial Working Group on Mainstreaming DRR	<ul style="list-style-type: none"> a. Conduct quarterly meetings of the PWG; b. Conduct bi-annual experience sharing workshops and exchange of best practices; c. Responsible for situation analysis at provincial & District level; d. M&E of the projects by looking at DRR perspectives. 	PWG exist at provincial level for taking Mainstreaming DRM initiatives	100,000	PDMA,RR&SD, P&DD, Academia and concerned line department	ST
Functionalize Departmental Working Group on Mainstreaming DRR	<ul style="list-style-type: none"> a. Departmental review b. Conduct monthly meetings of the DWG; c. Conduct technical studies integrating DRM; d. Responsible for situation analysis at District level; e. Design proposal/PC-1 with DRR as strong component for project and allocate budget in Annual Development Plans; f. Result based M&E of projects by looking at DRR perspectives; g. Policy formulation at department level; h. Specific trainings for technical officers of the concerned department especially the Planning Units/ Sections. 	DWG exist at District level for taking Mainstreaming DRM initiatives	100,000	Concerned line department, P&D and PDMA	ST to MT
Infrastructure development for DRM in various sectors	<ul style="list-style-type: none"> a. Design proposal/PC-1 for project; b. Conduct technical studies integrating DRM into the projects i.e. Education, Health, P&D, C&W, Irrigation, 11 Corps, Environment Department & Meteorological Departments; c. Conduct retrofitting studies of Schools and Hospitals (both Govt and Private) with multi-hazard assessment approach in selected disaster prone districts; d. Retrofitting and re-enforcement of Building codes in all infrastructure in five selected districts; e. Disaster Risk Reduction measures in Urban areas especially related to Fire Risk Management, Urban flooding, earthquakes; f. Risk Assessments of Government buildings, Schools, Hospitals, Agriculture, Housing, bridges and Industries in five selected districts; g. Monitoring and Evaluation of the studies, document studies and lesson learned. 	Technical studies and documents are available for experience sharing and lesson learned	5,000,000	Concerned line department and PDMA	ST to MT
Budget Required for Component 5			5,200,000		

2.7

Component 6:**Early Warning System****Key Issues**

During recent decade, occurrence of floods has tremendously increased, both in magnitude and frequency. Only during last 5 years, the country has faced devastating flood of 2010 and unprecedented change in rainfall patterns in 2012 and 2013. There is intense need to have scientific research to examine and monitor the behavior and change pattern in the monsoon rainfall and river dynamics.

The Early Warning System, a very weak one and only available for floods is not capable enough to serve the purpose. There are no or very less proper river water gauges installed in the province and beyond. For e.g. there are no gauges installed in FATA areas which can be used for the EWS during monsoons in Peshawar. A scientific research and setting up a flood forecasting and warning system has been proposed in this component to develop a system of end-to-end early warning system approach. For this purpose, Budhni Nullah has been proposed as pilot case study to inform the general public of Peshawar City during any kind of flooding situation. Besides, structural measures, the component propose non-structural measures to build the capacities of the flood effected communities to be well prepared and take appropriate action during any kind of flood disaster.

Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority a. Short term (ST) with 1-2 years b. Med Term (MT) with 2-3 years c. Longer Term (LT) with 4-6 years
Flood Forecasting and Warning System for different cities with pilot case study of Budhni Nullah in Peshawar city	<ul style="list-style-type: none"> a. Developing hazard and risk maps along the Budhni Nullah in Peshawar City; b. Establishing Master Control Room at PMD Peshawar; c. Establishing monitoring station; d. Establishing rainfall gauging station in upper basin; e. Establishing water level gauging station along the river Bara at different location; f. Establishing warning posts at different location; g. Developing wireless LAN network link; h. Establishing telemetry system radio link; i. Establishing warning system through radio link. 	Improved flood forecasting and warning system in place on Budhni Nullah for Peshawar City	2,000,000	PMD, SUPARCO, FFC, Irrigation, PDMA and City Government, PDA, Rescuee 1122, and civil defence	LT
Develop and pilot technology based Multi hazard EWS in five selected District	<ul style="list-style-type: none"> a. Application Development b. Voice based EWS in local languages c. Simulation/Drills and develop scenarios 	Effective EWS applied and tested for future expansion	200,000	PDMA, DDMUs, PMD and other line deptt	MT-LT
Public awareness programme	<ul style="list-style-type: none"> a. Organize trainings workshops on dissemination of information; b. Conducting Hazard and Risk Mapping exercises; c. Conducting simulation/drill exercises on safe evacuation; d. Wide dissemination of information through publishing booklets/brochure/pamphlets printing; e. Radio programme on flood EWS. 	Established an effective Public Awareness Programme on FEWS in Peshawar City	300,000	PMD, PDMA, FFC, and City Government, PDA, Rescue 1122, and civil defence	LT
Budget Required for Component 6			7,000,000		

2.8

Component 7:**Preparedness and Response Planning****Key Issues**

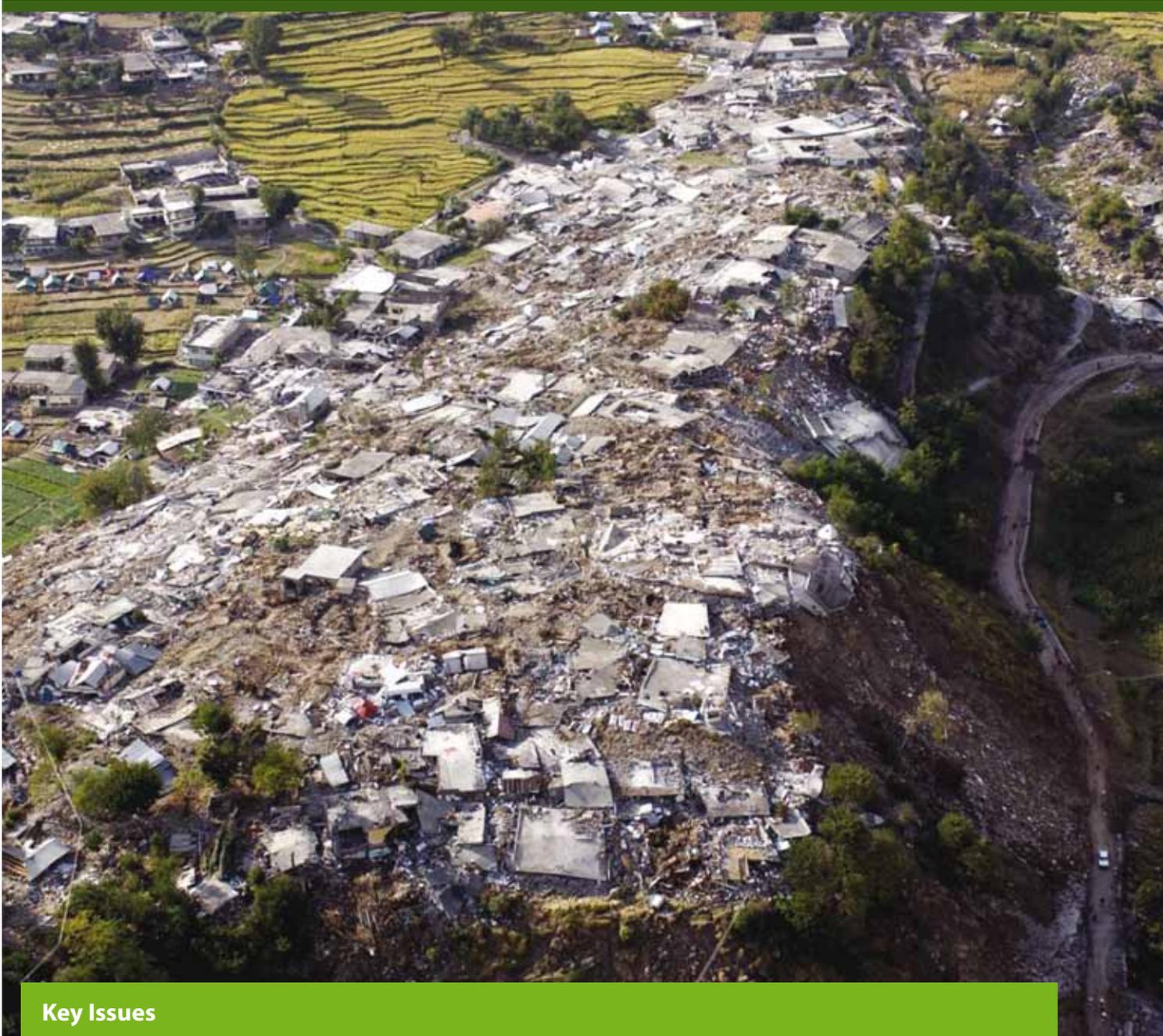
The objective of disaster preparedness and response planning is to minimize the adverse effects of a hazard through effective and appropriate actions and adequate responses to ensure the timely and coordinated delivery of relief and assistance following a disaster.

No proper DRM Planning and response planning exercise have been carried out in districts. Districts and PDMA yearly carry out Monsoon Contingency Planning exercise only. There has been no contingency planning for other hazards especially earthquakes, DP influx and fires at District and Provincial Level just like they are non-existent at National Level. Sector specific contingency plans are also not developed yet. The contingency planning for DPs influx has gained much attention due to the on-going displacement of NWA, where a single district of KP, Bannu has received nearly one million DPs, almost equal to its total population. Peshawar, is undergoing the same situation where hundreds and thousands of DPs families from FATA are settled.

Under this component, the development of Provincial and District Level DRM plans and sector specific Contingency plans have been proposed. Besides this, the establishment of Rapid Response Team at UC level have been proposed as volunteer force to strengthen the DRM system in the province.

Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority a. Short term (ST) with 1-2 years b. Med Term (MT) with 2-3 years c. Longer Term (LT) with 4-6 years
Develop/Revise the DM Plans for the disaster prone districts	a. Evaluation of previous District DRM plans / Collection & analysis of secondary data b. Preparation of fresh out line plans c. Conduct series of workshop with stakeholders for finalizing the DM Plans; d. Produce hard copies of each DM plans and their dissemination; e. Conduct simulation exercises to test the DM Plans.	<ul style="list-style-type: none"> District level DRM Plans exist for concerned districts Conduct regular drills/ simulation exercises for preparedness to emergencies 	750,000	Concerned DDMUs, PDMA and all other relevant stakeholders at district level	ST to MT
Develop/ Revise the Contingency Plans (Provincial/ District wise and Sector Specific) including Conflict Management and DPs influx Management	a. Evaluation of previous contingency plans. b. Preparation of outline Provincial, District and Sector Specific Contingency Plans c. Conduct series of workshop with stakeholders for finalizing the Contingency Plans at each levels; d. Produce hard copies of the Contingency plans; e. Conduct simulation exercises/ drills to test the Plans.	<ul style="list-style-type: none"> Provincial, District and Sector Specific contingency Plans exist for concerned government authorities Conduct regular drills/ simulation exercises for preparedness to emergencies 	1,500,000	Concerned DDMUs, PDMA and all other relevant stakeholders at district level	ST
Establishing Rapid Response Teams in 05 selected districts at community level Phase 1	a. Identification of specialized team with a definite legal mandate; b. Provide technical trainings to the rapid response team; c. Equipping the team; d. Establish SOP, command and control procedures; e. Link with contingency and DRM plans; f. Wide dissemination about existence of team to general public.	Timely, effective and efficient disaster response support provided	1,000,000	Rescue 1122, Civil Defence, PDMA, DDMUs, LGAs & City government etc	MT
Administration and Logistics Planning	a. Resource mapping / identification of resources (public / private); b. Procurement of heavy equipment Link with contingency and DRM plans; c. Earmarking of resources to specific hazard prone areas; d. Establishment / construction of DM Hubs and their management;	Resources are pooled up in anticipation for timely and effective disaster response.	2,500,000	DDMUs, PDMA, LGAs, Army, Rescue, Civil Defence	ST to LT
Establishment of District Emergency Operation Centre (DEOC) / Incident Command System	a. Establishment of EOC and its location. b. Composition of EOC c. Establishment of Command and control structure and preparation of SOPs. d. Act as liaison with Line departments, Army, NGOs and INGO. e. Management of Volunteers.	Proper coordination system at district level is in placed to face the disasters and emergencies	1,000,000	DDMU, PDMA, Rescue 1122, Army, LGAs, TMAs, Civil Defence	ST to MT
Budget Required for Component 7			6,750,000		

2.9

Component 8:**Post Disaster Recovery Planning****Key Issues**

The objective of Post Disaster Recovery Planning is to manage recovery programmes in an effective manner, and therefore it is essential to put in place institutional arrangements and systems and build the capacities of relevant stakeholders for better recovery management. Keeping in view the frequency of disasters the Departments, Authorities and district administration must be trained on recovery needs assessments and post disaster planning.

Under this component PDMA will develop guidelines for needs analysis for PDR beside establishment of databases of relevant stakeholders and capacitating them for effective planning and implementation of PDRP.

Key Intervention	Activities	Outcomes	Indicative Budget in USD	Lead Agency (Lead agency in bold)	Priority a. Short term (ST) with 1-2 years b. Med Term (MT) with 2-3 years c. Longer Term (LT) with 4-6 years
Guidelines for recovery needs assessment	<ul style="list-style-type: none"> a. Desk review b. Consultations c. Recovery needs for multi-hazards identified and guidelines developed d. Capacity building for DNA and RNA e. Conduct series of workshop with stakeholders for finalizing the PDRP designs and Implementation 	A system on recovery needs assessment and programme planning established	100,000	PDMA	ST
Database on technical capacity of relevant stakeholders for PDRP	<ul style="list-style-type: none"> a. Identification of relevant stakeholders through regular consultation, meetings and workshops b. Collaborations with technical agencies for enhancing the capacities on PDRP c. Roster on recovery capacity of various agencies and Ministries 	<ul style="list-style-type: none"> • Methodology on recovery needs assessment and guidelines on recovery planning developed • Roster on recovery capacity of various agencies and Ministries available 	100,000	PDMA	ST
Development of Sectoral specific strategies for PDRP	<ul style="list-style-type: none"> a. Development of PDRP guidelines b. Printing and dissemination 	Curriculum on training of recovery programme available	100,000	PDMA	MT
Development of Implementation Strategy for Compensation and provision of support to the Conflict Victims	<ul style="list-style-type: none"> a. Guidelines for the Implementation Plan b. Mechanism for the functioning of the components c. Finalization of various type of assistance to be provided and clarifying the roles and responsibilities of various stakeholders i.e. cash and in kind assistance which will include educational scholarships, food subsidies, psychosocial and orthotics and prosthetic support 	Plan for the functioning of component and role definition in terms of assistance	200,000		
Budget Required for Component 8			500,000		

Section

3

**Road Map for Disaster
Risk Management
2014 - 2019**

3.1 Summary of Budget required implementing the Road Map in the Province

Key Component	Required Indicative Budget in USD
Component 1: Legislation, Policy, Institutional Mandates & Institutional Development	6,850,000
Component 2: Hazard, Vulnerability and Risk Assessment	4,100,000
Component 3: Public Awareness, Education and Training	4,600,000
Component 4: Community Resilience through CBDRM	7,750,000
Component 5: Mainstreaming Disaster Risk Reduction into Development Planning	5,200,000
Component 6: Early Warning System	7,000,000
Component 7: Preparedness and Response Planning	6,750,000
Component 8: Post Disaster Recovery Planning	500,000
TOTAL REQUIRED BUDGET	42,750,000

3.2 Tentative Time Table for Mid Term Review, Consultation and Revision of Road Map

December 2015	Mid-Term Consultation & Review of the Road Map
December 2016	Mid-Term Consultation & Review of the Road Map
December 2017	Mid-Term Consultation & Review of the Road Map
December 2018	Mid-Term Consultation & Review of the Road Map

3.3

Khyber Pakhtunkhwa Implementation Framework for the Road Map for Disaster Risk Management 2014-2019

By: Asia Disaster Preparedness Center (ADPC), Bangkok

Authored by: Jennifer McKay

Introduction

Disaster statistics from the past 100 years indicate that the Khyber Pakhtunkhwa (KPK) Province has been extremely prone to a multiplicity of disaster types with recent years experiencing the largest catastrophic events in the province's history. Earthquakes are a regular occurrence, the worst of which occurred in 2005 when 29,342 people died and 37,190 were injured. The reconstruction cost was estimated at \$1.54 billion and additional reconstruction costs in agriculture, industry and other services, made the total loss well above this figure¹. Similarly, the province has faced devastating floods; the worst was in 2010 when 1,070 people were killed and reconstruction costs reached \$1.172 billion². Other smaller, but deadly, natural disasters such as landslides and glacial lake outbursts are also regular occurrences. The province is affected by shifting rain and flood patterns caused by climate change, which is also affecting glacier lakes in the north, and future dangerous floods are likely.

Human-induced disasters including industrial and transport accidents, disease, dam failures, river encroachments and embankment breaches, defective construction, poor land use and urban planning have added to the substantial disaster management challenges for the province. Khyber Pakhtunkhwa has also carried the burden of terrorism and the resulting humanitarian and environmental impact of armed-conflict in the region. Several million Internally Displaced Persons (IDPs) have taken refuge in the province in recent years. Currently, over two million remain including those recently displaced by military operations in North Waziristan. Khyber Pakhtunkhwa has also hosted huge numbers of refugees from Afghanistan over many years, with at least 1.6 million still residing in the province.

The movement of these displaced populations to urban areas has substantially increased urban vulnerability in cities like Peshawar, DI Khan, Tank and most recently, Bannu, by placing additional stress on local communities, already inadequate infrastructure, low quality housing and public facilities, livelihoods, food security, and services. This further increases the susceptibility of these areas to risk in the event of a natural disaster.

Natural disasters place enormous strains on the economy of the province, but human-induced disasters - including terrorism and conflict - can have an even more damaging impact. In Pakistan, the cost of terrorism and conflict far outweighs the cost of natural disasters³. Khyber Pakhtunkhwa has suffered much of this. A recent report prepared by Pakistan's Ministry of Planning, Development and Reform and the United Nations Development Program (UNDP)⁴, assessed the challenges in attaining the Millennium Development Goals (MDGs) in Pakistan. The report noted that the overall cost of conflict (\$68 billion between 2001-2011) far outweighs that of major natural disasters in the same period (more than 3:1), contributing to the inability of the country to achieve the MDGs. Since 2011, the cost of terrorism and conflict has surpassed \$100 million, much of this attributed to the impact of attacks in KPK. In an overview of progress in the provinces, the UNDP notes that progress in all but one of MDG areas in Khyber Pakhtunkhwa has suffered in part due to the unprecedented natural, as well as man-made, calamities which have afflicted the province⁵. These challenges must be addressed holistically and urgently to build resilience against future disasters.

¹ Preliminary Damage and Needs Assessment (DNA), Pakistan 2005 Earthquake: Asian Development Bank and World Bank

² Preliminary Damage and Needs Assessment (DNA), Pakistan 2010 Floods: Asian Development Bank and World Bank

³ Asian Disaster Preparedness Center 2014: Asia Pacific Input Document for the Post-2015 Framework for Disaster Risk Reduction (HFA2) Building Community Resilience – Sustainable Development, Climate Change and Disaster Risk Reduction Integration

⁴ UNDP 2014: Pakistan Millennium Development Goals Report 2013

⁵ <http://www.pk.undp.org/content/pakistan/en/home/mdgoverview/>

The Provincial Disaster Management Authority (PDMA) of KP has taken this into account when assessing the disaster management challenges for the province and included strategies for both natural and human-induced disasters in the development of the comprehensive Road Map for Disaster Risk Management 2014-2019. This is a progressive step in disaster management in Pakistan and is in line with the mandate of the PDMA, and the National Disaster Management Act, which contemplates both natural and man-made disasters. There are many overlaps and parallels between natural and human-induced disasters in prevention, mitigation, relief, early recovery, reconstruction and rehabilitation. Specific strategies for each, along with integrated solutions, will be identified in the proposed Provincial Disaster Management Plan, a key project of the Road Map. Addressing both natural and human-induced disasters together in the implementation of the Road Map will ultimately lead to a safer and more resilient province.

Overview of the Road Map

With an over arching goal of building a disaster-resilient Khyber Pakhtunkhwa, the Road Map has been designed to address the numerous risks and vulnerabilities in the province and aligns with the National Disaster Management Act 2010, National Disaster Risk Reduction Policy 2013, National Climate Change Policy 2012, National Disaster Risk Management Plan 2012,

and the UNISDR's Hyogo Framework for Action (HFA 2005-2015).

The key objectives of the Road Map are to identify the DRM gaps and establish the comprehensive Provincial Disaster Management Plan, which will guide all DRM activities; identify the timeframes, resources and partnerships for implementation; assess and build the capacity of the provincial and district agencies; and provide a mechanism for mainstreaming Disaster Risk Management into development plans and programs from provincial down to grass roots levels. The Road Map was developed after extensive consultations and workshops with all stakeholders over a period of nine months. It has clearly identified strategies in eight components as well as the interventions required for each to achieve the goal.

The Government of KPK is committed to the Road Map, but requires financial and technical support, as well as implementing partners with the necessary core skills to ensure effective implementation. A Disaster Risk Management/Climate Change Adaptation (DRM/CCA) Strategic Unit has been notified in PDMA to oversee the implementation of the Road Map. The over-arching principles in implementation will be a holistic approach to natural and human-induced disasters, and close coordination and collaboration between the Strategic Unit and stakeholders over the next five years.

Guiding Principles of the Road Map

- Holistic approach for all types of disasters
- Government leadership and effective coordination and collaboration with all stakeholders
- Inclusiveness
- DRM will be mainstreamed into planning and development at all levels
- Clarity in communications – simple and accessible language in all communications
- Clear identification of roles and responsibilities of all stakeholders
- Community Focus
- Accountability and transparency
- Gender sensitive
- Rights-based implementation
- Alignment with National Disaster Management Plan (2012-2022), the National Disaster Management Policy (2012), and the Hyogo Framework for Action (2005-2015)

Key Challenges to Implementation

Significant challenges must be addressed to achieve effective implementation of the Road Map. Limited funding is available for DRM activities at provincial and district levels. A lack of capacity at all levels is a critical issue and an assessment is required to identify the gaps and develop capacity building programs. To date, there has been little focus on the underlying causes of disasters including poverty, unplanned urbanization, and environmental degradation. These issues have been exacerbated by the complex humanitarian situation, and increased urban vulnerability is caused mainly by the influx of displaced populations from the Federally Administered Tribal Agencies (FATA) region and refugees from Afghanistan.

Community participation is at a low level and needs to be addressed through awareness campaigns and a Community Based Disaster Risk Management (CBDRM) program. Advocacy campaigns are required to encourage government agencies, the private sector, and NGOs to mainstream Disaster Risk Management into their planning and implementation processes. Insufficient research in Disaster Risk Management means there is little understanding of the issues and remedies needed to manage disasters. The province - and the country itself - does not have comprehensive hazard and risk assessment or mapping. No mechanism for risk transfer and risk insurance has been developed. Strategies to address these challenges are included in the Road Map.

Implementation Framework

Prioritizing activities

The Road Map has been divided into eight components, each with a number of initiatives and activities. Each activity has been prioritized to indicate the level of immediacy. It should be noted though, that while the Road Map indicates some initiatives as being, for example, medium or long term, this indicates the period over which the activity will most likely be conducted, rather than a later starting point. However, those identified as 'short term' should be implemented as first priority.

Mobilizing Resources

The Provincial Government has announced that it will utilize its own resources where possible to support

the Road Map, but will seek assistance from donors and other supporting partners for implementation when needed.. In addition to financial support, the PDMA will seek partners for technical expertise and implementation of projects. Many discussions have been held with stakeholders interested in participation, but none are formalized. A resource mobilization plan will be developed to guide the process.

Mainstreaming DRM into Development Planning

The implementation of all initiatives in the Road Map will be linked to the province's annual and five-year plans to ensure that DRM and CCA are mainstreamed into the overall development planning process. Sectoral DRM plans have been identified as an intervention required for all levels of government. Research projects and training programs in Climate Change Adaptation is also a feature throughout the various components of the Road Map.

Defining Roles and Responsibilities

The DRM Strategic Unit will have overall responsibility for the implementation of the Road Map. The work will be conducted by a team of PDMA personnel and officers from other government agencies, as well as specialist disaster management consultants, under the direction of the DRM/CCA Strategic Unit, and will commence when the first tranche of funding is received from either the Provincial Government or a specific donor. The DRM/CCA Strategic Unit will coordinate with all stakeholders including donors and implementing partners.

Monitoring & Evaluation

All projects will be monitored and evaluated according to international DRM standards to ensure financial propriety and compliance with project documentation. In this regard, a monitoring and evaluation (M&E) framework will be developed in consultation with partners.

Impact Assessment

To measure the impact of the Road Map to ensure that it has achieved its goals of building resilience and sustainable development, a mechanism for a thorough impact assessment will be developed.

Key Thematic Components and Indicative Budget

The Road Map focuses on eight key components of

disaster management, each with a series of proposed interventions / projects, activities and indicative timeframes. Some projects will run concurrently during the five-year period.

Implementation

The Government of Khyber Pakhtunkhwa is committed to addressing DRM across the province. Implementing the many activities identified in the Road Map will require a coordinated and collaborative approach between the Provincial and District Government agencies and all other stakeholders including the Government of Pakistan, bilateral and multi-lateral donors, UN agencies, NGOs and the military. To date, extensive stakeholder consultations have been conducted and their interest in support and participation has been positive.

The first step to implement the Road Map has already been taken with the establishment of the DRM/CCA Strategic Unit within the PDMA. The Unit is now operational with funding of Pak Rs 500 million over three years with an additional Pak Rs 10 million for the first year (2014-2015) allocated by the KPK Government. While the DRM/CCA Strategic Unit will require support to build its capacity, its establishment is a positive indication of the Government's commitment. However, funding for implementing Road Map activities will be a challenge for the province. The support and collaboration of donors and implementing partners will be vital to achieve the level of resilience against natural and human-induced disasters.

Effective implementation requires clarity for stakeholders to ensure a common operating picture on activities and timelines at all times. This will enable potential donors to identify projects that align with their sectoral funding directions and timeframes. Similarly, it will be beneficial for potential implementing partners to have the ability to identify areas where they can focus on their core capabilities and available capacity. The projects identified in the Road Map have been prioritised with some running concurrently from short term to long term throughout the entire period. The time spans indicate the likely amount of time needed to fully implement the various initiatives. The Road Map is a 'living document' and will be updated regularly according to prevailing

circumstances.

Timelines

Immediate Actions - Administrative Processes

A number of immediate actions – not identified in the Road Map - are required to prepare for implementation.

- Develop a detailed Resourcing Strategy
- Identify donors, implementing and strategic partners, and initiate formal discussions
- Develop a Communications Strategy
- Identify roles and responsibilities for each stakeholder group
- Develop Monitoring and Evaluation (M&E) criteria
- Prepare TORs for PDMA personnel and consultants and engage consultants to support PDMA
- Develop a comprehensive Implementation Plan assigning responsibilities for each initiative
- Develop M&E Framework

Priority Projects - Short Term - 1 to 2 years

The priority projects for the Road Map that should be implemented at the earliest possible stages are:

- Strengthen the capacity of the newly established DRM Strategic Unit.
- Institutional capacity assessment and capacity enhancement plan of PDMA Khyber Pakhtunkhwa, to effectively manage disaster and crisis situations. The assessment will consider the needs of PDMA/PaRRSA KP and analyse the capacity and resource gaps that limit the Provincial Government's ability to respond to disaster and emergency situations, including IDPs, in Khyber Pakhtunkhwa.
- Develop the Provincial Disaster Management Plan taking into account both natural and human-induced disasters including conflict. The Plan will be aligned with the National Disaster Management Plan.
- Functionalise District Disaster Management Units
- Develop Operational Plans
- Develop Rules/Procedures for DRM Fund and operationalize the Fund

- Establish Provincial Working Group on Risk Assessment
- Establish GIS and Remote Sensing Labs at PDMA
- Conduct Multi Hazard Vulnerability and Risk Assessments
- Training and Research programs through Disaster Management Institutions
- Formation of DRM Committees at the community level in all districts – Phase 1 will be a pilot project in five selected districts
- Functionalise Provincial Working Group on Mainstreaming DRR
- Develop Contingency Plans (Provincial, District and Sector Specific) including Conflict Management
- Guidelines for Recovery Needs Assessments
- Database on technical capacity of relevant stakeholders for Post Disaster Recovery Planning (PDRP)

Short to Medium Term - 1 to 3 years

- Develop Sectoral Disaster Management Plans
- Operational Plans
- Flood Risk Assessment and Modelling for all cities: Phase 1 - pilot project of three flood prone cities
- Earthquake Risk Assessment and Modelling for all cities: Phase 1 - pilot project of three earthquake prone cities
- Disaster Resource Center at PDMA
- Model Disaster Resilient Villages in five selected Districts
- Functionalise Department Working Group on Mainstreaming DRR
- Infrastructure development plan for DRM in various sectors
- Develop/revise the DM Plans for disaster prone Districts
- Establishment of District Emergency Operation Center (DEOC) / Incident Command System
- Hazard Vulnerability and Risk Assessments for Districts: Phase 1 - pilot project in five disaster prone

Districts of Khyber Pakthunkhwa.

Short Term to Long Term - 1 to 6 years (ongoing)

- Develop Sectoral Disaster Management Plans
- Operational Plans
- Flood Risk Assessment and Modelling for all cities: Phase 1 - pilot project of three flood prone cities
- Earthquake Risk Assessment and Modelling for all cities: Phase 1 - pilot project of three earthquake prone cities
- Disaster Resource Center at PDMA
- Model Disaster Resilient Villages in five selected Districts
- Functionalise Department Working Group on Mainstreaming DRR
- Infrastructure development plan for DRM in various sectors
- Develop/revise the DM Plans for disaster prone Districts
- Establishment of District Emergency Operation Center (DEOC) / Incident Command System
- Hazard Vulnerability and Risk Assessments for Districts: Phase 1 - pilot project in five disaster prone Districts.

Medium Term - 2 to 3 years

- Establish Rapid Response Teams in five selected districts
- Develop sectoral specific strategies for Post Disaster Recovery Planning (PDRP)
- Implementation strategy for compensation and provision of support for victims
- Strengthen Disaster Management Institutions

Medium to Long Term - 2 to 6 years

- Conduct detailed risk assessment surveys and develop hazard and risk maps in all District: Phase 1 - pilot project of five selected Districts
- Develop and pilot technology based Multi Hazard Early Warning Systems (EWS) in five selected District

Long Term - 4 to 6 years (Ongoing throughout)

- Research on Climate Change Adaptation and Disaster Risk Reduction (DRR)
- Enhance capacities through training and develop pool of master trainers at village and Union Council (UC) levels in all districts: Phase 1 - pilot project of five selected Districts
- Stockpile equipment for the DRM committees in all Districts: Phase 1 - pilot project of five selected Districts
- Develop Community Based Disaster Risk Management (CBDRM) projects through Civil Societies
- Small grants program for Village / UC-level risk reduction measures and CCA
- Documentation of CBDRM good practices
- Flood forecasting and warning system for various cities: Phase 1 - pilot study of Budhni Nullar in Peshawar city

Conclusion

The need for action on DRM and CCA in KP is clear and urgent. The Road Map provides the strategic direction for what needs to be done. The Government of KP, the PDMA, and the newly established DRM / CCA Strategic Unit are committed to the implementation of the Road Map and making the province disaster resilient. However, financial, technical, implementing partnerships, and commitment of all stakeholders will be needed to ensure the positive outcomes are achieved. Stakeholders have contributed much to the development of this Road Map and their support will be sought not only for the implementation of projects, but also for annual reviews of progress and updating this 'living' document according to the prevailing circumstances in the future.



Annexures

**Road Map for Disaster
Risk Management
2014 - 2019**

Annexure I: Participants List of the Inception Meeting organized on dated 15th of May 2013 at PDMA KP office

S #	Name	Designation	Organization
1	Syed Zaheer Ul Islam	Director General	PDMA
2	Mr. Alam Zaib	Deputy Director	Pakistan Meteorological Department
3	Dr. Syed Muhammad Ali	Director	Earthquake Engineering Center, University of Engineering & Technology, Peshawar
4	Dr. Amir Nawaz Khan	Dean & Director	Center for Disaster Preparedness and Management, University of Peshawar
5	Nasir Mehmood Qureshi	Additional Director	PESCO, WAPDA Peshawar
6	Muhammad Tariq	Research Officer	P & D
7	Dr. Khatir	Deputy Director	Rescue 1122
8	Mr. Maqbali Khan	Section Officer	Civil Defence
9	Mr. Muhammad Khalid,	Director HR and Administration	PDMA
10	Mrs. Ammara Aamer Khattak	Director Relief	PDMA
11	Mr. Muhammad Masood	Deputy Director	PDMA
12	Mr. Muhammad Bakhtiar,	Deputy Director	PDMA
13	Mr. Yasir Imran	Assistant Director (DRM)	PDMA
14	Mr. Shah Nasir Khan	Advisor (Housing & Disaster Resilient Construction)	PDMA
15	Aziz Ur Rehman	DRR Manager	Care International
16	Irfan Hameed	DRR Consultant	CADR Consortium Manager
17	Falak Nawaz	DRR Consultant	Care International

Glimpses from the Inception Meeting Inception Meeting organized on dated 15th of May 2013 at PDMA KP office



Annexure II: Questionnaire used for the Data Collection during visit to various organizations

1. Details of activities of the organizations specific to DRM

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2. Areas of involvement of PDMA and other partners in the above mentioned areas of the DRM

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3. Capacity of the organization in the DRM

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4. Level of coordination with other partners for mainstreaming DRR into the development activities

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5. Identify new projects/activities for future, within the framework of DRM that would like to prioritize for implementation. PI also mentioned an indicative budget to be included against the activities?

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6. Any other relevant details

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You may like to add brochure, reports etc on completed and ongoing projects if any

Annexure III: Participants List of the Consultation Workshop organized on dated 29th of January 2014 at PC Hotel Peshawar

S #	Name	Designation	Organization
1	Aurangzeb Khan	Secretary	Relief Rehabilitation & Settlement Department
2	Muhammad Tahir Orakzai	Director General	PDMA-PaRRSA
3	Mrs. Ammara Aamer Khattak	Director Relief	PDMA
4	Brig. Zia-Din	Brigdare	11 Corps
5	Brig. Zahir-U-Din Babar	Chief Engineer	Military
6	Brig. Fayaz Hussain Shah	Commandant	Survey Brigade
7	Muhammad Farooq	General Manager	SUPARCO
8	Muhammad Islam	Assistant Chief	P & D
9	Mujahid Saeed	Sub Eng. (HQ)	Irrigation
10	Sajjad Ahmad	XEN	Irrigation
11	Sameullah Khan		Forest / Environment
12	Col. Dr. Naseem Baig	Dean	Military College of Engineering (MCE)
13	Dr. S. M. Ali	Professor/Director	Earthquake Engineering Centre UET Peshawar
14	Dr. Ashed Rehan	Professor	Earthquake Engineering Centre UET Peshawar
15	Dr. Sagheer Iqbal	Professor	Earthquake Engineering Centre UET Peshawar
16	Dr. Muhammad Shafiq	Assistant Professor TTS	National Centre of Excellence in Geology of University, UOP
17	Dr. Siraj Muhammad	Deputy Secretary	Health
17	Dr. Siraj Muhammad	Deputy Secretary	Health
18	Sajjad Ahmad	Planning Officer	Agriculture
19	Nasir Qureshi	Director	WAPDA
20	Mr. Nasir Mehmood	Additional Director	PESCO
21	Mr. Waseem	EMO	Rescue 1122
22	Mr. Hamayon Khan	Communication Specialist	Urban Policy Unit P&D
23	Ihsanullah	Section Officer	Social Welfare Department
24	Mr. Shah Nasir Khan	Advisor (Housing & DRR)	PDMA-PaRRSA
25	Mr. Tahir Kamran	Chief Infrastructure	PaRRSA
26	Mr. Shakeel Iqbal	Donors Coordinator	PaRRSA
27	Mr. Ikhtlaq Ahmad	AD (DRM)	PDMA
28	Mr. Masam Khan	Planning Officer	PaRRSA
29	Mr. Qaiser Khan	GIS Assistant	PaRRSA
30	Latif Ur Rahman	Media & Communication Officer	PDMA-PaRRSA
31	Mr. Michal Juma	Head of Office	UN OCHA
32	Hussain Raza	Focal person DRR	WFP
33	Ms. Maria Khan	External Relation Officer	Islamic Relief
34	Mr. Syed Shahid Kazmi	DRR Climate Change Coordinator	National DRR Forum/Islamic Relief
35	Mr. M. Arif	Project Manager	DRR Forum

S #	Name	Designation	Organization
36	Mr. Muhammad Wasif Jan	Program Coordinator	Joint PRCS / ICRC Programme KP
37	Mr. Bakht Afsar	Monitoring Officer	ESRU
38	Mr. Fawad Shah	Educational Specialist	UNICEF
39	Mr. Adnan Sher	Chief of Party	CSVP
40	Herman Bergsma	Chief Technical Advisor DRM	UNDP
41	Dr. Amir Taj	Professor	IMS
42	Mr. M. Asrar-UI-Haq	DRR Coordinator	Solidarities International
43	Shaokat	FAO	FAO
44	Ms, Mahjbeen Qazi	Provincial Coordinator	FAO
45	Mr. Shakeel Malik	DRR Emergency Preparedness	Save the Children
46	Anwar Ali		OXFAM
47	Sumayya Sajjad	Manager Programme	Islamic Relief
48	Mr. Aftab	Coordinator	CVSP (USAID)
49	Dr, Muhammad Javed Iqbal	NUST/MCE	HOD
50	Abdul Hameed Khan	District Admin.	CAN.
51	Salman Shehzad	Journalist	Freetance
52	Syed Amjad Gillani	Provincial Advisor	UN-Habitat
53	Mr. Amad	Coordinator	NHN
54	Mr. Falak Nawaz	Consultant	Care
55	Mr. Irfan	Consultant	Care
56	Mr. Waleed Rauf	Country Director	Care
57	Mr. Bilal Sherpao	Manager Public Private Enterprise Development	CVSP (USAID)
58	Junaid Iqbal	Director Education	IDEA
59	Khurshid Khan	Head of Program	IDEA
60	Shaukat	DRR Coordinator	FAO
61	Abdul Hameed Khan	AC /DDMO	District Administration Nowshera
62	Shah Nasir Khan	Advisor	PDMA-PaRRSA

Glimpses from the consultation Workshop organized on dated 29th of January 2014 at PC Hotel Peshawar



Annexure IV: Consultative Meeting with Humanitarian Clusters at UNOCHA Peshawar Office On 12th February, 2014

S#	Name	Title/Designation	Organization/Dept/Cluster
1	Muhammad Tahir Orakzai	Director General	PDMA
2	Mrs. Ammara Aamer Khattak	Director Relief, Operations and Coordination	PDMA
3	Mr. Shah Nasir Khan	Advisor (Housing & DRR)	PDMA-PaRRSA
4	Mr. Wasim Khattak	Chief Coordinator IDPs	PDMA
5	Dr. Kashif Saeed	Advisor DRM	FDMA
6	Mr. Michal Juma	Head of Office	OCHA
7	Mr. Otunga	HAO	OCHA
8	Mr. Muhammad Amad	Provincial Coordinator	NHN
9	Dr. Sardar Hayat	Provincial Coordinator Health Cluster	WHO
10	Dr. Umair Kamal	S.O	WHO
11	Mr. Syed Wajid	Senior Prog. Officer	UN WOMEN
12	Mr. Sajjad Akbar	WASH Specialist/CO	UNICEF
13	Mr. Farid Gul	GBV Cluster Coordinator	UNFPA
14	Mr. Abdul jabbar	HAO	OCHA
15	Mr. Khalid Khan	PCC	FAO
16	Mr. Mohammad Shoukat	DRM Officer	FAO
17	Mr. Zahir Shah Khan	PO/FSC Co-Head	WFP/FSC Co-Head
18	Safina Ijaz	Provincial Coordinator	IOM
19	Shaista Bibi	SC Liaison Officer	IOM
20	Mr. Akhtar Gul	Coordinator DRR	BEST
20	Mr. Nasir Mehmood	Additional Director	PESCO
21	Mr. Zia-U-Rahman	Assistant Director	PDMA
22	Mr. Ikhtlaq Ahmed	Assistant Director (DRM)	PDMA

Annexure V: List of Participants for Donors Consultative Meeting on 5th March, 2014 Islamabad

S#	Name	Title/Designation	Organization/Dept/Cluster
1	Major General Saeed Aleem	Chairman	NDMA
2	M. Idrees Mahsud	Director (DRR)	NDMA
3	Muhammad Tahir Orakzai	Director General	PDMA
4	Ammara Aamer Khattak	Director (Relief Ops & Coord)	PDMA
5	Engr. Shah Nasir Khan	Head of DRM Strategic Unit	PDMA
6	Muhammad Saleh	Section officer	EAD
7	Haris Khan	Senior DRM Specialist	World Bank
8	Shiraz Ali Shah	DRM Specialist	World Bank
9	Mujahid Saleem	Activity Manager	USAID
10	Lisa Campbell	Program Officer, KP / FATA Office	USAID / US Embassy
11	Dinah Zeltser	Human Foreign Affairs Officer	USAID / US Embassy
12	Poppy Whitfield	Head of Humanitarian Unit	DFID
13	Mian Shaukat Shafi	Head of Urban and Emergencies Unit	Asian Development Bank
14	Jennifer McKay		DRM Consultant
15	Taheeni Thammanagoda	Head of Office	ECHO / DIPECHO
16	Mahvash Zafar	Program Manager	Australian Aid
17	Raba Sabri	Associate Director	PHF
18	Ernesto Morosin	Coordinator, Humanitarian Aid	SDC
19	Khurshid Ahmed	National Program Officer/Focal Point DRR	SDC
20	Peter Scott Bouden	Deputy Country Director	WFP
21	Bella Evidente	Country Programme Manager	UN-HABITAT
22	Mr. Zia-U-Rahman	Assistant Director	PDMA
23	Hamid Mumtaz	Manager	UNHABITAT
24	Tauqeer Ahamad Abbasi	Team Leader	UNHABITAT
25	Yoshimi Saita	Assistant Representative (Operations)	UNHCR
26	Al Haji Bah	Chief of Field Operation	UNICEF
27	Idrees khan	Emergency Specialist	UNICEF
28	Zafar Hayat Malik	National Program Officer	UNESCO
29	Amer Shahzad	Goodwill Ambassador for DRM	Hazara University
30	Ole Ramsing	Donor Liaison	DCA
31	Sajidin Hussain	Execution Director	ADMC
32	Shizza Khan	Associate Coordinator	LEAD PAKISTAN
33	Shahzad Badar	MR Officer	FAO-UN
34	Amjad Ali	Emergency Coordinator	CARE
35	Irfan Hameed	Manager CADR	CARE
36	Falak Nawaz	DRR Consultant	NDMP

Glimpses from the Donor's Consultation workshop organized on dated 05th of March 2014 at Marriot Hotel Islamabad



Annexure VI: Glimpses from the Consultative meetings with Technical Institutes and organizations and MOUs signing ceremonies with ADPC, UET and IM-Sciences





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