

**ANNUAL REPORT  
2009**



**NATIONAL DISASTER MANAGEMENT AUTHORITY**  
Prime Minister Secretariat, Islamabad

# Table of Contents

	<b>ACRONYMS</b>	<b>3</b>
	<b>EXECUTIVE SUMMARY</b>	<b>4</b>
<b>1.</b>	<b>INTRODUCTION</b>	<b>9</b>
<b>2.</b>	<b>IMPLEMENTATION OF NDMC's DECISIONS</b>	<b>12</b>
<b>3.</b>	<b>INSTITUTIONAL DEVELOPMENT</b>	<b>17</b>
	3.1 STRENGTHENING OF DISASTER MANAGEMENT INSTITUTIONS	17
	3.2 NATIONAL INSTITUTE OF DISASTER MANAGEMENT (NIDM)	19
<b>4.</b>	<b>NATIONAL HAZARD AND RISK ASSESSMENT</b>	<b>22</b>
<b>5.</b>	<b>TRAINING, EDUCATION AND AWARENESS</b>	<b>24</b>
	5.1 TRAINING AND EDUCATION	24
	5.2 AWARENESS PROGRAMMES	26
<b>6.</b>	<b>DISASTER RISK MANAGEMENT PLANNING</b>	<b>31</b>
	6.1 DRM PLANNING AT THE NATIONAL LEVEL	31
	6.2 RESPONSE PLANNING	31
	6.3 PROVINCIAL/REGIONAL DRM PLANS	34
	6.4 DISTRICT DRM PLANS	35
<b>7.</b>	<b>COMMUNITY AND LOCAL LEVEL DRR PROGRAMMING</b>	<b>37</b>
	7.1 EARTHQUAKE RISK REDUCTION AND PREPAREDNESS	37
	7.2 COMMUNITY BASED MITIGATION PROGRAMMES	39
	7.3 GLOF RISK REDUCTION INITIATIVE	40
<b>8.</b>	<b>ENHANCING EARLY WARNING CAPACITIES</b>	<b>43</b>
	8.1 STRENGTHENING TSUNAMI EARLY WARNING SYSTEM IN PAKISTAN	43
	8.2 NATIONAL MULTI-HAZARD EARLY WARNING PLAN	45
<b>9.</b>	<b>MAINSTREAMING DRR INTO DEVELOPMENT</b>	<b>47</b>
	9.1 WORKING GROUPS ON DISASTER RISK REDUCTION (DRR)	47
	9.2 ACTIVITIES OF THE NATIONAL WORKING GROUP (NWG)	48
	9.3 ACTIVITIES OF THE MINISTERIAL WORKING GROUPS (MWGS)	48
	9.4 INTEGRATION OF DRR INTO CURRICULA	50
<b>10.</b>	<b>DISASTER PREPAREDNESS AND RESPONSE</b>	<b>51</b>
	10.1 DISASTER PREPAREDNESS	51
	10.2 DISASTER RESPONSE ACTIVITIES	54
<b>11.</b>	<b>CHALLENGES</b>	<b>57</b>
<b>12.</b>	<b>LOOKING AHEAD</b>	<b>59</b>
<b>13.</b>	<b>ANNEXURES</b>	<b>61</b>

## ACRONYMS

ADB	Asian Development Bank	NCBDRM	National Capacity Building for Disaster Risk Management.
AJ&K	Azad Jammu & Kashmir		
BCPR	bureau of Crisis Prevention and Recovery	NDMA	National Disaster Management Authority
CBO	Community Based Organization	NDMC	National Disaster Management Commission
CDGK	City District Government Karachi	CJCSC	Chairman Joint Chiefs of Staff Committee
NDMF	National Disaster Management Fund	CP	Contingency Plan
NDRMF	National Disaster Plan Management Framework	CRRTs	Community Repaid Response Teams
CSA	Civil Services Academy	NEOC	National Emergency Operation Center
CTP	Common Training program	NESPAK	National Engineering Services Pakistan
DCO	District Coordination Officer	NGOs	Non Government Organizations
DDMA	District Disaster Management Authority	NIDM	National Institute of Disaster Management
DDRMPs	District Disaster Risk Management Plans	DFID	Department for International Development
NSET	National Society for Earthquake Technology	DMEC	Disaster Management Exhibition and Conference
NSPP	National School of Public Policy		
NWFP	North West Frontier Province	DRM	Disaster Risk Management
NWG	National Working Group	DRR	Disaster Risk Reduction
PDMA	Provincial Disaster Management Authority	ECO	Economic Cooperation Organization
ERA	Earthquake Risk Assessment	PDRMP	provincial Disaster Risk Management Plan
ERC	Emergency Relief Cell	ERRA	Earthquake Reconstruction and Rehabilitation Authority
PEER	Prog. for Enhancement of Emergency Response		
EU	European Union	PEOCs	Provincial Emergency Operations Centres
EWS	Early Warning System	PIGIS	Pak. Institute of Geographic Information Sys.
FATA	Federally Administrated Tribal Areas	FFC	Federal Food Committee
PMD	Pakistan Metrological Department	FRC	Federal Relief Commission
PMU	Project Management Unit	GIS	Graphic Information System
FRCS	Pakistan Red Crescent Society	GLOF	Glacial Lake Outburst Flood
HRD	Human Resources Development	SOPS	Standard Operating Procedures
SSWA	Sahil Social Welfare Association	IDPs	Internally Displaced Persons
TOT	Training of Trainers	IEEE	Institute of Electrical and Electronics Engineering
UCS	Utility Stores Corporation		
UN	United Nations	INGO	International Non Government Org.
UNDP	United Nations Development Programme	JICA	Japan International Cooperation Agency
UNAID	United States Agency for Intl. Development	MDMC	Municipal Disaster Management Cell
MoFA	Ministry of Foreign Affairs	USAR	Urban Search and Rescue
NADMA	Northern Area Disaster Management Auth.	WAPDA	Water & Power Development Authority
NARC	National Agricultural Research Center	WB	World Bank
NAs	Northern Areas	WRRRI	Water Resource Research Institute

## EXECUTIVE SUMMARY

The existing Disaster Management System was introduced through the promulgation of the National Disaster Management Ordinance (NDMO) in December, 2006, (re-promulgated as NDMO 2009). Under the Ordinance, the National Disaster Management Commission (NDMC) is the apex policy making body in the field of disaster management. The National Disaster Management Authority (NDMA) is the lead federal agency to implement, coordinate and monitor the whole spectrum of disaster management activities including preparedness and mitigation, response, and reconstruction & rehabilitation programmes. Besides as the executive arm of the NDMC, the NDMA ensures the implementation of national policies & strategies on disaster management.

In the 2<sup>nd</sup> Meeting of the NDMC, held on 3<sup>rd</sup> January, 2009, under the chairmanship of the Prime Minister, several key decisions were taken to strengthen the exiting disaster management system in the country. The NDMA, being the executive arm of the NDMC pursued the implementation of these decisions by the relevant stakeholders during the reporting year. During the said Meeting, the NDMC also approved the National Action Plan 2009-2010. The NDMA, in collaboration with different donor agencies, especially the One UN System, implemented several key DRM initiatives envisaged under the National Action Plan. The initiatives mainly focussed on:

- Institutional Development
- National Hazard and Risk Assessment
- Training, Education and Awareness
- Disaster Risk Management Planning
- Community and Local level DRR Programming
- Enhancing Early Warning Capacities
- Mainstreaming DRR into Development
- Disaster Preparedness and Response

Institutional Development and Capacity Building remained the highest priority area for the NDMA. Accordingly, under the National Action Plan, multiple capacity building initiatives were implemented at the provincial and district levels across the country to enhance the capacities of PDMA and DDMA as reliable and efficient disaster management institution. The initiatives were part of the One UN Joint DRM Programme being implemented in partnership with One UN System. The key initiatives included the provision of experts and technical assistance to the selected Federal Ministries deemed crucial in the implementation of DRM Plans and Strategies, organizing workshops, development of Provincial and District DRM Plans and various DRM training programs for local officials.

Availability of resources remained the major challenge for the NDMA for implementing DRR programmes in the prioritised areas. Although the National Disaster Management Fund (NDMF) has been notified under the NDMA, yet the requisite funds have still not been provided by the Federal Government, despite the decision of the NDMC to provide Rs.300 million during the financial year 2009-10. In the given situation, the NDMA mobilized alternate resources to bridge the funding gap. In this regard, the NDMA entered into partnership arrangements with different donor agencies, especially the

## Annual Progress Report 2009

One UN System which remained the major contributor in implementation of DRR initiatives through National Action Plan 2009 across the country. Budget spent on National Action Plan 2009 is given as under:-

<b>Budget Spent on National Action Plan 2009</b>			
<b>#</b>	<b>Details of Activities</b>	<b>Sponsoring Agencies</b>	<b>Budget Spent (US\$)</b>
1	Establishment/ Strengthening of Institutions	NDMA/UNDP/ JICA	2,295,000
2	National Disaster Management Fund	NDMA	-
3	Risk Assessment	World Bank/Japan/FAO	657,043
4	Risk Sensitive Development Policy and Planning	UNDP	275,000
5	Community Based Mitigation Programmes	UNDP	79,969
6	Human Resource Development	UNDP	146,000
7	Awareness	NDMA/UNDP	50,000
8	Early Warning Systems	WFP/WHO/ UNESCO	331,000
9	Emergency Response Capacity Development	JICA	-
10	Risk Transfer and Catastrophe Financing	UNESCO	-
11	Adaptation to Climate Change	FAO	80,000
<b>TOTAL</b>			<b>3,914,012</b>

Table: No.1

National Institute of Disaster Management (NIDM), responsible for planning and promoting training and research and developing core competencies in the area of disaster management, is required to be established under Section 26 of the NDMA. The Project document of the NIDM has been prepared and the Government of Pakistan has allotted 50 kanals of land. The Federal Government has allocated an amount of Rs. 158.00 million in the PSDP (2009 -10) on account of cost of land and preliminary development expenditure.

Risk assessment, one of the components of the “National Risk Assessment and Emergency Operations System Project”, is based on multi-hazard risk mapping of all major hazards that threaten Pakistan. Out of US \$ 4.00 million budget available for the Project, US\$ 2.5 million is budgeted for risk mapping exercise. The deliverables under the project included: development of a GIS based National Multi-Hazard Risk Atlas, disaster risk reduction and response options, and training workshops for developing local capacities in the project areas. While the implementation of the risk component is expected to start in March 2010, National Disaster Response Plan has already been formulated.

To make the best use of opportunities to reduce risks during relief, recovery, and ongoing development activities, NDMA recognizes the need for better training, learning and integration of these lessons into DRM activities. During the reporting year,

the NDMA facilitated foreign training opportunities in the field of DRM to its own officials as well as officials from other federal and provincial departments to enhance their professional capacities. Apart from the foreign training courses, a comprehensive inland training programme was designed with a special focus on enhancement of DRM capacities of local officials.

In view of the importance of awareness of communities the NDMA organised a range of community based DRR training programmes. The NDMC declared 8<sup>th</sup> October as the National “Disaster Awareness Day” during its first meeting held in March, 2007. During the reporting year, the observance of the Day was marked with organizing of “Disaster Management Exhibition and Conference” and “SAARC Regional Workshop on Earthquake Risk Reduction”. The NDMA also organized seminars to sensitize parliamentarians on the importance of DRM for sustainable socio economic development. These included seminars for Members of National Assembly, Senate and Provincial Assembly (Sindh). In order to raise public awareness about Tsunami the NDMA conducted five Tsunami Evacuation Drills in Balochistan and Sindh coastal areas.

The objectives of Disaster Risk Management (DRM) planning are to minimize adverse effects of hazards through effective disaster risk reduction, preparedness and adequate, timely and coordinated response. In view of the importance of DRM Planning, the NDMA developed the First National Action Plan and prepared the National Disaster Response Plan. The NDMA has also formulated Contingency Plan to mitigate and respond to Industrial/Technical disasters through the judicious utilization and enhancement of existing capacities. These plans will be presented to the NDMC for approval during its 3rd meeting. Besides these plans, the NDMA updated Monsoon Contingency Plan, 2008 and finalized two provincial and sixteen (16) district DRM Plans during the year 2009.

The local communities and authorities are first responders to any disaster situation. During the reporting year, the NDMA initiated multiple community based DRR programmes which included Preparedness, Risk Assessment and Risk Mitigation initiatives at the local level. The Implementation of mitigation projects in eight (8) high risk districts - including emergency shelters, training and establishment of response teams, mangrove plantation, community evacuation drills, warning equipment, training in retrofitting and model safer construction, etc were important community based activities.

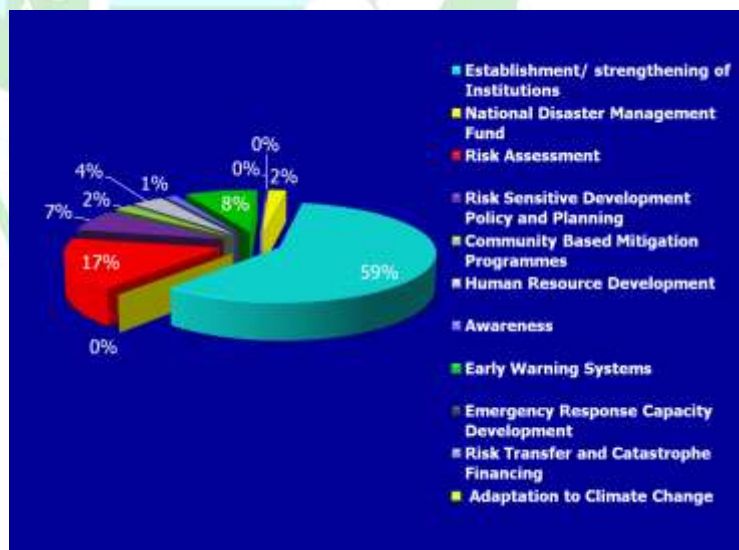


Fig: No.1.%agewise Budget Spent on National Action Plan 2009

The primary objective of an Early Warning System (EWS) is to generate advance warnings and thus improve capacity of decision makers and communities to take appropriate action prior to occurrence of a hazard. The NDMA with the technical and financial support of UNESCO-IOC initiated the project “Strengthening Tsunami Early Warning System in Pakistan” under the One UN Joint DRM Programme. The overall objective of the project is to assist the Government of Pakistan in strengthening its national systems for tsunami and other ocean-related hazards warning, as well as the associated preparedness for disaster risks of the most vulnerable coastal areas of Pakistan. During the reporting year, a mapping exercise on the existing capacity and institutional arrangements of different agencies involved in disaster risk preparedness and response in the coastal areas was carried out and draft capacity assessment report was prepared. The capacities of National Tsunami Warning Centres of Karachi and Islamabad for technical analysis and assessment for tsunami were strengthened by providing required equipments, analysis software and technical trainings. Under the project Tide Gauges will be installed at Gawadar, Ormara and Keti Bandar to provide real time data to the Tsunami Early Warning Centres in Karachi and Islamabad to generate the necessary warnings.

In order to develop a comprehensive National Multi-Hazard Early Warning System, the NDMA is currently in the process of developing a National Plan in close collaboration with Japan International Cooperation Agency (JICA) for PMD. During the reporting year, the draft National Multi-Hazard Early Warning Plan has been developed and in the process of finalization in consultation with the relevant stakeholders.

One of the 09 priorities under the National Disaster Risk Management Framework is “Mainstreaming Disaster Risk Reduction into Development”, with the purpose to ensure incorporation of elements of disaster risk reduction in the planning, design and implementation stages of development programmes so that sustainable economic and social development could be achieved by minimizing shocks from disasters. To this end, a strategy paper was prepared; and National as well as Ministerial Working Groups on Disaster Risk Reduction (DRR) were constituted, comprising of 05 key Federal Ministries, International Donors, Professional and Technical Bodies. The NDMA provided technical assistance through provision of consultancy services to the selected Ministries for their capacity building in mainstreaming of DRR into development processes. During the reporting year, the National Working Group (NWG) and the Ministerial Working Groups (MWGs) of 05 Ministries held regular meetings to devise strategies and plans for the mainstreaming of DRR into development processes to be undertaken within their respective jurisdictions. In December 2009, another 05 Ministries have been selected to form part of National Working Group.

Keeping in view the lessons learnt during Earthquake 2005, the NDMA has undertaken several programmes to enhance state of preparedness of communities as well as institutions. It has also undertaken several key initiatives to augment the response capacities of institutions and communities. Developing of 02 fully equipped heavy Urban Search & Rescue (USAR) Teams (86 persons each), one at Karachi (City District Government) and other with Capital Development Authority (CDA), Islamabad is one

of such initiatives. These teams are fully equipped with latest technology, sniffer dogs and their training was conducted by foreign experts. Both teams took part in a National Mock Exercise, which provided an opportunity to evaluate their readiness and skills. Both the teams have been formally commissioned and handed over by the NDMA to City District Government Karachi and CDA, Islamabad.

During the reporting year, the steady progress towards developing a comprehensive disaster management system, compatible with global best practices and capable of dealing with disasters and disaster risks, continued under the auspices of the NDMA. However, the challenges on account of lack of resources, awareness and capacities remained the major stumbling blocks in the path of progress which are required to be overcome in the coming years.





## 1. INTRODUCTION

Disaster loss is on the rise with grave consequences for the survival, dignity and livelihood of individuals, particularly the poor and hard-won development gains. Disaster risk is increasingly of global concern and its impact and actions on one region can have an impact on risks on another, and vice versa. Disaster risk arises when hazards interact with physical, social, economic and environmental vulnerabilities. Events of hydro meteorological origin lead to a large number of disasters. Despite the growing understanding and acceptance of the importance of disaster risk reduction and increased disaster response capacities, disasters and in particular the management and reduction of risk, continue to pose a global challenge.

There is growing international realization that efforts to reduce disaster risks must be systematically integrated into policies, plans and programmes for sustainable development and poverty reduction, and supported through bilateral, regional and international cooperation, including partnerships. Sustainable development, poverty reduction, good governance and disaster risk reduction are mutually supportive objectives and in order to meet the challenges ahead, accelerated efforts must be made to build necessary capacities at the community and national levels to manage and reduce risks. Such an approach is to be recognized as an important element for the achievement of internationally agreed development goals, including those contained in the Millennium Declaration.

The importance of promoting disaster risk reduction efforts on the international, regional levels as well as national and local levels has been recognized in the past few years in a number of key multilateral frameworks and declarations. The World Conference on Disaster Reduction was held from 18 to 22 January 2005 in Kobe, Hyogo, (Japan), which adopted the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters. International community participating at the World Conference on Disaster Reduction resolved to pursue the following expected outcome for the next 10 years:

*“The substantial reduction of disaster losses, in lives and in the social, economic and environmental assets of communities and countries.”*

On the basis of deliberations at the World Conference on Disaster Reduction and especially the agreed expected outcome and strategic goals, the Conference adopted a framework for implementation of worldwide strategies on disaster risk reduction known as “Hyogo Framework for Action” (HFA). The HFA envisages the following 05 priorities for action:

- i. Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
- ii. Identify, assess and monitor disaster risks and enhance early warning.
- iii. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
- iv. Reduce the underlying risk factors.
- v. Strengthen disaster preparedness for effective response at all levels.

Pakistan's exposure to natural hazards and disasters could be ranked between moderate to severe. Natural hazards including avalanches, cyclones and storms, droughts, earthquakes, epidemics, floods, glacial lake outbursts, landslides, pest attacks, river erosion and tsunami pose risks to Pakistani society. A variety of human-induced hazards also threaten the society, economy and environment. They include industrial and transport accidents, oil spills, urban and forest fires, civil conflicts and internal displacements of communities. High priority hazards in terms of their frequency and scale of impact are earthquakes, droughts, flooding, wind storms and Landslides that have caused widespread damage and losses in the past.

A number of factors lay behind vulnerabilities of Pakistani society to hazards. These include poor construction practices, poor livestock and agricultural management and fragile eco-systems, weak early warning systems, lack of awareness and education and poverty. Poor communication infrastructure and lack of critical facilities aggravate vulnerabilities of communities. In mountainous regions the non-availability of safer land for construction, scattered settlement patterns and harsh climatic conditions further intensify vulnerabilities. The size and growth of human and animal population, environmental degradation resulting from poorly managed urban and industrial development processes, and climate change and variability are major dynamic pressures that increase vulnerabilities of Pakistani society. In the coming decades frequency, severity and impact of certain hazards may increase which might lead to greater social, economic and environmental losses.

A reactive, emergency response approach was the predominant way of dealing with disasters in Pakistan till 2006. The Calamity Act of 1958 was mainly concerned with organizing emergency response. A system of relief commissionrate was primarily responsible to deal with calamities at the provincial level. An Emergency Relief Cell (ERC) in the Cabinet Division was responsible for organizing disaster response by the federal government. The awareness of policy makers, media, civil society, NGOs, UN agencies and other stakeholders was low about disaster risk management. Until 2006, country lacked a systematic approach towards disaster risk management.

The loss of life and property and the challenges that were faced in the aftermath of October 2005 earthquake affecting Azad Jammu and Kashmir and the NWFP Province exhibited the need for establishing appropriate policy and institutional arrangements to reduce losses from disasters in future. The need for strong institutional and policy arrangements was fulfilled with the promulgation of National Disaster Management Ordinance in December 2006. The Ordinance calls for the establishment of a comprehensive disaster management system, supported by dedicated institutions at the federal, provincial and district levels. Accordingly, the National Disaster Management Commission (NDMC) has been established as the apex policy making body under the chairmanship of the Prime Minister, in the field of disaster management. The National Disaster Management Authority (NDMA) is the focal agency for coordinating and facilitating the implementation of strategies and programmes on disaster risk reduction, response and recovery. Similarly, Disaster Management Authorities have been established at provincial, regional, and district levels which are independently working under the respective political leadership.

The National Disaster Risk Management Framework (NDMRF) is the major policy document in the field of Disaster Risk Management (DRM). The Framework was approved by the NDMC during its first meeting held on 1<sup>st</sup> March, 2007 and provides policy guidelines for the implementation of National Strategies defined therein. DRM being a cross cutting issue requires the involvement of all stakeholders including the Federal Ministries/Organizations, Provincial Departments, humanitarian organizations, communities and media. Accordingly, the Framework defines roles and responsibilities of the key stakeholders in implementation of disaster management policies. In line with the HFA, nine (9) priority areas have been identified in which DRR interventions will be implemented. These priority areas are:

- i. Institutional and legal arrangements of DRM.
- ii. Hazard and vulnerability assessment.
- iii. Training, education and awareness.
- iv. Disaster risk management planning.
- v. Community and local level programming.
- vi. Multi-hazard early warning system.
- vii. Mainstreaming disaster risk reduction into development.
- viii. Emergency response system, and
- ix. Capacity development for post disaster recovery.

The NDMA is mandated to ensure implementation of the National Policies and Strategies in the above priority areas by the relevant stakeholders. In line with its mandate, the NDMA has been providing guidelines, instructions and technical assistance, wherever required, to the stakeholders for implementation of DRR programmes pertaining to their respective roles and responsibilities as defined under the NDRMF. During the reporting year, the NDMA coordinated, implemented and monitored multiple DRR activities initiated in collaboration with different donor agencies specially, the One UN System through the One UN Joint DRM Programme. This Annual Report intends to provide detail account of activities undertaken by the National Disaster Management Authority (NDMA) during 2009.

## 2. IMPLEMENTATION OF NDMC DECISIONS

The National Disaster Management Commission (NDMC) is the apex policy making body in the field of disaster management. The second meeting of the NDMC was held under the Chairmanship of the Prime Minister on 03.01.2009 at the Prime Minister's House, Islamabad. The meeting was attended by the following:-

- i) Mr. Kamil Ali Agha, Leader of Opposition in the Senate.
- ii) Mir Aijaz Hussain Jakhrani, Minister for Health.
- iii) Dr. Arbab Alamgir Khan, Minister for Communications.
- iv) Mr. Tasnim Ahmad Qureshi, Minister of State for Interior.
- v) Mr. Amir Haider Khan Hoti, Chief Minister, NWFP.
- vi) Syed Qaim Ali Shah, Chief Minister, Sindh.
- vii) Sardar Zulfiqar Ali Khan Khosa, Senior Adviser to the Chief Minister, Punjab.
- viii) Mir Ghazanfar Ali Khan, Chief Executive, Northern Areas.
- ix) General Tariq Majeed, Chairman, JCSC.
- x) Lt. Gen. (R) Farooq Ahmad Khan, Chairman, NDMA.
- xi) Ms. Nargis Sethi, Principal Secretary to the Prime Minister.
- xii) Mr. Shaukat Nawaz Tahir, Senior Member, NDMA.
- xiii) Mr. Khalid Sultan, Chief Secretary, Government of AJ&K (for PM AJ&K).
- xiv) Mr. Hassan Zulfiqar, Director, NDMA.

During the meeting, the NDMC made several key decisions pertaining to the strengthening of existing disaster management system. The NDMA being the executive arm of the NDMC pursued implementation of the decisions with the relevant stakeholders during the reporting year. The decisions taken and implementation status thereof is given as under:-

### 2.1 Merger of Emergency Relief Cell (ERC) and 6<sup>th</sup> Aviation Squadron into NDMA

In keeping with the spirit of the National Disaster Management Ordinance (NDMO) and the new paradigm of disaster management spelt there in, it was proposed that the 6<sup>th</sup> Disaster Aviation Squadron, as well as the Emergency Relief Cell (ERC) of the Cabinet Division along with the ware houses and other resources be merged with the NDMA, and the Rules of Business be amended, accordingly. The NDMC agreed with the proposal in principal and directed the NDMA to move a summary for finalizing the change.

In pursuance of the above decision of the NDMC, the NDMA moved a formal summary for the approval of the Prime Minister. However, decision on the summary is pending till date.

### 2.2 Full operationalization of Provincial/Regional Disaster Management Commissions/Authorities and District Disaster Management Authorities.

The NDMC gave a new cut off date of 1st July, 2009 for full operationalization of Provincial / Regional Disaster Management Commissions / Authorities and District Disaster Management Authorities, as per the law by:-

- i) Issuance of notifications of Provincial / Regional Disaster Management Commissions, Authorities and DDMA's in line with the provisions of the NDMO.
- ii) Provision of proper budget, sanction of posts (officers and staffs) and office accommodation, including logistic support to the PDMA's and DDMA's.
- iii) Provision of resources for the establishment of ware houses and stockpiling of relief items at the Provincial/Regional/District levels.

During the reporting year, the NDMA consistently pursued the implementation of the above decisions with the relevant provincial/regional governments. However, the progress reported by the provincial/regional governments in this regard remained far from desirable level. The provincial governments, the governments of AJ&K and Gilgit-Baltistan and FATA Secretariat issued notifications for the establishment of provincial/regional as well as district disaster management institutions within their respective territorial jurisdictions. However, no substantial progress was reported on account of strengthening of operational capacities of these institutions. The summary of the progress reported by the provincial/regional governments on above mentioned decision of the NDMC is given as under:-

Progress by the Provinces/Regions/States								
#	Decisions	Punjab	Sindh	NWFP	Baluchistan	Gilgit-Baltistan	FATA	AJ&K
1	Notification of PDMCs /PDMA's/DDMAS	Notification issued	Notification issued	Notification issued	Notification issued	Notification issued	Notification issued	Notification issued
2	Provision of proper budget /sanction of posts	Pending	Initial allocation made. Sanction posts pending.	Budget/posts sanctioned for PDMA	Posts sanctioned and budget released.	PC-I is lying with P&D Division, Islamabad.	Pending	Proposal of Rs.0.7m sent to Finance Department
3	Establishment of warehouses and stockpiling of relief items	Pending	Pending	Godown of Food Department being used.	Ware houses established.	Civil Supply Godowns are being used .	Pending	Rub halls established (two).

Table: 2.1

### 2.3 Allocation of Resources for National Disaster Management Fund and Provincial Disaster Management Funds.

In order to ensure availability of dedicated resources for implementation for disaster management policies and strategies at the federal, provincial and district levels, the NDMC made following decisions:-

- i) Approval granted for the provision of Rs. 300 million in the National Disaster Management Fund (NDMF) by the Federal Government.

- ii) The PSPM will expedite the matter regarding merger of existing disaster relief funds, being maintained at the federal level (including the PM’s Disaster Relief Fund) into the NDMF, as required under Section 29 (3) of NDMO.
- iii) The Provincial / Regional Governments shall establish Provincial Disaster Management Funds by 01.07.2009, too.
- iv) Also, as per provision of the NDMO 2007, federal and provincial governments must allocate funds specifically for Disaster Management activities in every PSDP/ADP.

In pursuance to the above decision of the NDMC, the NDMA pursued the implementation of the above decision of the NDMC at the respective federal as well as provincial levels. The implementation status of the above mentioned decisions of the NDMC is given as under:-

Progress by the Federal/ Provinces/Regions/States									
#	Decisions	Federal	Punjab	Sindh	NWFP	Baluchistan	Gilgit-Baltistan	FATA	AJ&K
1	Allocation of Rs. 300 million for National Disaster Management Fund (NDMF)	Pending	-	-	-	-	-	-	-
2	Establishment of Provincial Disaster Management Fund	-	Pending	Fund established.	Pending with Finance Department	Fund established. not	Summary sent to Finance Division.	Pending	Pending with Finance Department.
3	Allocation of funds in PSDP /ADP for DM activities.	-	Pending	Funds allocated.	Funds not allocated.	Ware houses established.	Funds not allocated	Pending	Funds not allocated.
4	Merger of disaster relief funds into the NDMF.	Pending	-	-	-	-	-	-	-

Table: 2.2

## 2.4 Legislation to make violation of Building Codes a Criminal Offence.

To ensure implementation of Building Codes across the Country, the NDMC directed the Ministry of Housing and Works to move a summary through the Ministry of Law & Justice for necessary legislation to make violation of Building Codes a criminal offence.

The Ministry of Housing and Works has not been able to implement the above decision of the NDMC despite vigorous pursuance by the NDMA. In their last progress report, the Ministry of Housing & Works it has been intimated that since the publication of

National Building Codes is yet to be made, therefore, no progress has been made on account of the proposed legislation.

### 2.5 Annual Report of NDMA 2007 & 2008.

The NDMC approved the Annual Report for the year 2007 and 2008. Subsequent to the decision of the NDMC, the Report has been laid before both Houses of the Parliament as required under Section 41 of National Disaster Management Ordinance.

### 2.6 National Action Plan for 2009-10.

The NDMC approved the National Action Plan, 2009-10 for disaster management. The Plan envisaged different DRM initiatives across the Country with special focus on the following areas:-

- Institutional Development
- National Hazard and Risk Assessment
- Training, Education and Awareness
- Disaster Risk Management Planning
- Community and Local Level DRR Programming
- Enhancing Early Warning Capacities
- Mainstreaming DRR into development
- Disaster Preparedness and Response

As no funds were allocated by the federal government for NDMF during the reporting year to carry out DRM activities under the National Action Plan, the NDMA mobilized alternate sources of funding. The NDMA entered into formal partnerships with different donor agencies including the One UN System, JICA, World Bank etc. Through the assistance of the One UN Joint DRM Programme, a range of DRM initiatives were undertaken and implemented across the country. The detailed report of these initiatives in various areas has been given in the subsequent chapters of this report.

### 2.7 Augmentation of Existing Strength of NDMA.

In order to strengthen the existing capacities of the NDMA as the lead federal agency in disaster management, the NDMC approved the following additional posts subject to the fulfilment of codal formalities:-

S.No.	Posts	BPS	Number
1.	Deputy Directors	18	03
2.	Assistant Directors	17	08
3.	Steno typists	12	06
4.	Assistants	14	04
5.	Naib Qasid	02	06
<b>Total:-</b>			<b>27</b>

Table: 2.3

In line with the above decision of the NDMC, the NDMA approached the Finance Division for formal sanctioning of the above mentioned additional posts. On the advice

of Finance Division, the NDMA has filled up the existing vacant posts and refreshed its request for the sanctioning of additional posts to the Finance Division. Implementation of the above mentioned decision of the NDMC is awaited action on the part of Finance Division.

### 2.8 Integration of Civil Defence Department into the DDMA and PDMA

In order to streamline disaster management capacities at the provincial and district levels, the NDMC decided that the Civil Defence Department at the district and provincial levels be integrated into the DDMA and PDMA, respectively.

In pursuance of the above decision of the NDMC, the NDMA asked the respective provincial governments to take immediate administrative measures, accordingly. However, despite consistent pursuance by the NDMA, none of the provincial governments reported any substantial progress on the issue.



**PRIME MINISTER SYED YUSUF RAZA GILANI CHAIRING A MEETING OF NATIONAL DISASTER MANAGEMENT COMMISSION AT PM HOUSE ON JANUARY 3, 2009.**

Fig: 2.1





### 3. INSTITUTIONAL DEVELOPMENT

The successful implementation of national policies and strategies requires efficient execution mechanisms supported by appropriate dedicated institutions at the respective administrative levels. Accordingly, the National Disaster Management Ordinance envisages a comprehensive institutional structure at the federal, provincial and district levels for disaster management.

#### 3.1 Strengthening of Disaster Management Institutions

In terms of the National Disaster Management Ordinance disaster management is a devolved subject. Hence the whole disaster management structure is based on the cardinal principal of decentralization of powers and functions. Accordingly, the Provincial Disaster Management Commissions (PDMCs), and Provincial Disaster Management Authorities (PDMAs) have been notified by the Provincial Governments. Likewise State Disaster Management Commission (SDMC) and State Disaster Management Authority (SDMA) have been established by the Government of AJ&K. Similar institutional arrangements have also been introduced in Gilgit-Baltistan, and FATA. The District Disaster Management Authorities (DDMAs), being the first responders and lynchpin of the whole system, have been notified in each district/agency.

The newly established institutions at the federal, provincial/regional and district/agency level need to be strengthened through provision of adequate financial resources, human resource development, provision of equipment and machinery and other paraphernalia. The sustainable development of these institutions requires consistent capacity building interventions by the federal as well as the provincial/ regional governments.



APP59-13  
ISLAMABAD: March 13 - Prime Minister Syed Yousuf Raza Gilani talking to Chairman National Disaster Management (NDMA), Lt. Gen. (Retd) Farooq Ahmed Khan who called on him at Prime Minister House. APP

5

##### 3.1.1 Strengthening of NDMA

Fig: 3.1

At the Federal level, the realisation for the importance of strengthened DM institutions is comparatively more imminent. The NDMC and the NDMA are fully functional since 2007. The NDMC has held two meetings since its inception and made several important policy decisions for the establishment of an efficient disaster management system. The NDMA, as the operational arm of the NDMC has been fully operationalized through provision of adequate human resources, office accommodation, financial resources and other paraphernalia by the Federal Government. The Organogram of NDMA is at Annexure-I. The regular budget of NDMA for the Year2009-10 is given as under:-

Expenditure Head	Budget Estimate 2009-10	Revised Estimate 2009-10	Budget Utilized as on 31.12.2009
Employees Related	34,266,910	34,266,910	14,554,217
Operating/Physical Asset	32,374,090	32,374,090	20,329,422
<b>Total Allocation</b>	<b>66,641,000</b>	<b>66,641,000</b>	<b>34,883,639</b>

Table: 3.1

The sanctioned strength of the NDMA along with vacancy position is given as under whereas detail is at Annexure-II:-

### Sanctioned & Acquired Posts

Posts	Total	Filled	Vacant
BS-17 to BS-22	26	26	0
BS-01 to BS-16	85	77	8

Table: 3.2

During the reporting year, the operational capacities of the NDMA were further enhanced through filling of vacant posts and hiring of professionals/experts for specialized assignments. As a part of its human resource development strategy, the NDMA generated foreign as well as inland training opportunities to its officials in the field of disaster management. Under the Office Automation initiative, the NDMA is in the process of introducing the e-filing system to achieve its envisaged Paperless Working Environment. A state of the art Operations Room has been established to monitor and coordinate response operations. The Interim Disaster Response System (IDRS) has been introduced to archive and disseminate information and data on disaster losses and relief operations. Standard Operating Procedures (SOPs) have been developed for systematic and efficient execution of operational plans in the event of an emergency situation. Besides, an effective monitoring system has been introduced through daily coordination meetings to ensure timely implementation of organisational plans and strategies.

#### 3.1.2 Capacity Building of Provincial and District DM Authorities

Under the existing system disaster management is a devolved subject, the Provincial and District Disaster Management Authorities have been empowered and made responsible to deal with the whole spectrum of disaster management at respective levels. The Provincial Governments are under legal obligation to make appropriate arrangements for the operationalization and subsequent strengthening of the DM entities created under the law within their respective jurisdictions.

Given the multitude of hazard vulnerabilities that the provinces are exposed to, the respective Provincial Governments are required to prioritise Disaster Management as integral part of their development policies. Despite the NDMC's directive in its last meeting by giving a cut off date of 1<sup>st</sup> July 2009 to the Provincial/State Governments for full operationalization of DM institutions at the Provincial and District levels,

disaster management continued to be a low priority area during the reporting year, though the NDMA made consistent advocacy efforts for implementations of NDMC's decisions.

Under the National Action Plan 2009-10, the NDMA initiated and implemented several programmes for the capacity building of PDMAs and DDMA's. The initiatives were part of the One UN Joint DRM Programme being implemented in partnership with One UN System. Key initiatives in this regard which were implemented during the reporting year, are enumerated as under:-

- Provided technical assistance to the provinces for formulation of provincial disaster management plans.
- Provided technical assistance to 50 districts for formulation of district disaster management plans.
- Provided six DRM coordinators at Provincial level, including AJ&K and Gilgit Baltistan, and nine DRM coordinators at District level (Sialkot, Rajanpur, Jhang, Gwadar, Badin, Dadu, Haripur, Charsadda, Gilgit) to develop DRM capacities at the respective levels.
- Trained 150 district officials in DRM.
- Established Municipal Disaster Management Cells (MDMCs) in Chitral, Murree, Muzaffarabad and Mansehra.

### 3.2 National Institute of Disaster Management (NIDM)

Work has been initiated to establish the National Institute of Disaster Management (NIDM) as required under Section 26 of the NDMO. The Institute will be responsible for planning and promoting training and research and developing core competencies in the area of disaster management, documentation and development of national level information base relating to disaster management policies, prevention mechanisms and mitigation measures.

The project document of the NIDM has been prepared. The Government of Pakistan has allotted 50 kanals of land in Islamabad for the purpose. The PC-1 of the project for acquisition of land for NIDM was prepared by the NDMA, and approved by the CDWP in 2008. However, funds for execution of the project were not allocated by the Government due to financial crunch. During the reporting year, the project was submitted to Priorities Committee, and later in the Annual Plan Coordination Committee. After due deliberations at these two fora, an amount of Rs. 158.00 million was allocated in the PSDP (2009-10). Utilization Plan of the funds is as under:

S.#	ITEMS OF EXPENDITURE	HEAD OF A/C	APPROVED COST (Rs. million)	UTILIZED (Rs. million)
1.	Land Acquisition	A09103	136.00	136.00
2.	Consultancy	A09103	19.00	
3.	Soil Investigation	A09103	1.00	
4.	Boundary Wall, Gates etc.	A09103	2.00	
<b>TOTAL</b>			<b>158.00</b>	<b>136.00</b>

Table: 3.3

## Annual Progress Report 2009

The first release of an amount of Rs. 136.00 million, as cost of land payable to the Capital Development Authority, was made by the Finance Division in the 2<sup>nd</sup> quarter of the Financial Year 2009-10. Release of the remaining amount of Rs. 22.00 million has been scheduled for the 3<sup>rd</sup> quarter (January - April 2010).

The NDMA has since approached the Government of Japan/JICA for seeking technical and financial assistance for the design and construction of the NIDM on the internationally acceptable standards.

Although the physical infrastructure of NIDM is yet to be developed, the NDMA has already made the NIDM functional through alternate temporary arrangements. During the reporting year, different DRM courses were arranged for government officials, media personnel and civil society. Following courses were organized during 2009:

- 6-Day training course on Disaster Risk Management for all Provinces including Gilgit- Baltistan, AJ & K and FATA. A total of 04 courses were conducted at Karachi, Lahore and Islamabad.
- 6-Day specialized training course on Flood Mitigation was organized at Islamabad.
- 3-Day training course on Disaster Reporting was organized at Islamabad.
- 3-Day training course on Disaster Risk Management for Women was organized at Islamabad

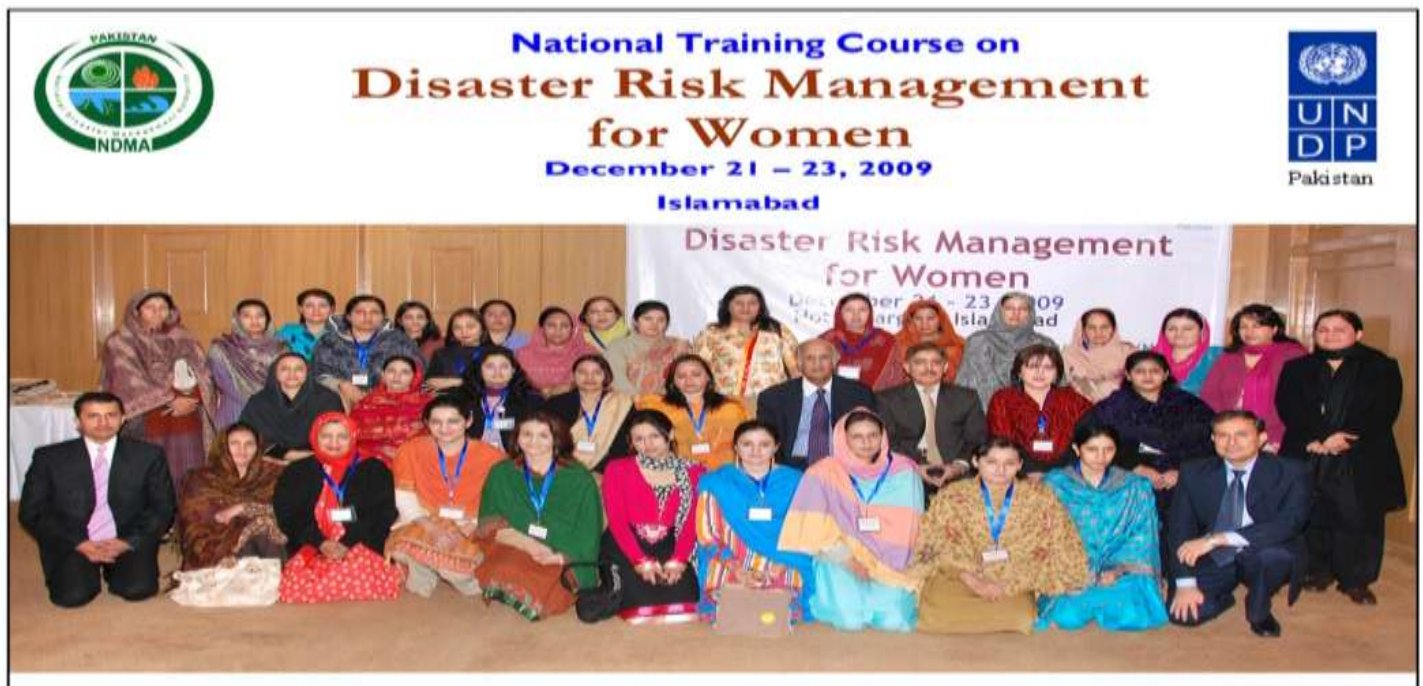


Fig: 3.2 National Training Course on Disaster Risk Management for Women

The NDMA has devised a comprehensive training schedule of the courses to be conducted through the NIDM during 2010. The training courses include the following:

- 4-training courses on Disaster Risk Management for 40 districts of all 04 provinces as well as Gilgit-Baltistan, AJ&K and FATA.
- 3-training courses on Disaster Risk Management for Women.
- 2-training courses on Disaster Reporting.
- A course on Earthquake Mitigation.
- A course on Flood Mitigation
- A course on Cyclone Mitigation
- A course on Drought Mitigation



#### 4. NATIONAL HAZARD AND RISK ASSESSMENT

No systematic information exists in Pakistan about vulnerability of various local areas (districts & municipalities) to impending hazards. In the absence of such information it is difficult to identify priorities and make decisions on allocation of resources for risk reduction. Risks and vulnerabilities are dynamic and they change over time and space. Therefore, it is essential to develop mechanisms and systems for continuous monitoring of hazard risks and vulnerabilities. Hazard and Risk Assessment exercise can provide crucial data and information about hazard risks and to enable decision makers at all levels to take effective decisions for developing risk reduction policies, strategies and programmes.

Realising the importance of hazard and risk assessment for effective management of disaster risks, the NDMA has initiated the National Composite Risk Assessment and Emergency Response System Project. The Project addresses 02 important priorities identified in the National Disaster Risk Management Framework, namely development of multi-hazard atlas and disaster response capability. World Bank, through an arrangement with ERRA, has provided the financial support of US\$ 4 million for the subject project. The project is broadly divided into 02 major components namely: Composite Risk Assessment and National Emergency Response System. The project was officially launched on 11 March 2008 after signing of the Memorandum of Understanding (MOU) between ERRA and NDMA. Through this MOU, ERRA transferred US \$ 4 million out of World Bank Earthquake Emergency national systems and capacity for disaster risk management.

The project envisages multi-hazard risk mapping of all major hazards in Pakistan. Out of the US \$ 4 million available for the Project, US \$ 2.5 million is budgeted for risk mapping exercise. The deliverables under the project include National multi-hazard risk atlas, viewer for browsing geo-database, disaster risk reduction and response options, and training workshops.

A consortium of France based consulting firm will carry out the risk assessment. The BRGM was selected complying the World Bank guidelines and that of Rules (PPRA) of Government of Pakistan. The draft contract was finalized on 28 August 2008 and the World Bank issued an NOL to the same. As the project activities were about to start, due to security concerns, the Government of France issued Travel Advisory to its citizens to restrict travelling to Pakistan. The internal security advisory of the consulting also advised its employees not to travel to Pakistan. Given the situation, the NDMA took requisite measures to keep the firm on board, including allowing French experts to work from France. The NDMA and the French Firm undertook a rigorous review of the proposed methodology to assess the impact and feasibility of allowing the foreign experts to work from France. Both sides reached the conclusion that this was possible with some special measures, by allowing the experts to work from France.

However, the subsequent requirements indicated by the Ministry of Finance to have an approved PC-I for payment of the foreign exchange component to the foreign

## Annual Progress Report 2009

consultants , caused delay of several months in kick starting the risk assessment component. Following the clearance by the Ministry, the consulting firm signed the contract afresh on 31 March 2009 and this was submitted to the World Bank for NOL, which was granted on 4 May 2009. Given that the project end date was 30 June 2009, and request of project extension was pending with the Bank, the NDMA postponed signing of the contract until the project extension was granted by the World Bank. The Bank granted the extension on 28 June 2009 for 23 months.

The French Firm is in process of contract revision in terms of cost, timeliness and human resources. The World Bank has given No Objection to the revised cost of the contract as well as for special arrangements regarding the implementation of the Project. Currently, the NDMA and the consulting firm are in the process of finalizing the contract. The implementation of the component is expected to start in March 2010.



## 5. TRAINING, EDUCATION AND AWARENESS

Enhancing knowledge and skills of decision makers and at-risk-communities is essential to promote a culture of safety and prevention. Purpose of training, education and awareness raising activities is to develop a cadre of experts at national, provincial and local levels that is able to analyze risks and develop and implement disaster risk management activities.

### 5.1 Training and Education

DRM education, training and awareness is required at multiple levels ; e.g. civil servants, Ministries and Departments at national and provincial levels, staff of district governments , provincial and national DM authorities, staff of technical agencies, UN staff, NGOs, media, politicians and most importantly communities. Enhancement of knowledge and skills of students would also be pertinent in order to enable future generations to deal with disaster risk problems.

#### 5.1.1 Foreign Training Courses in DRM

During the reporting year, the NDMA generated foreign training opportunities in the field of DRM to its own officials as well as officials of other federal and provincial governments to enhance their professional capacities. The summary of foreign training courses, encompassing different areas of DRR, availed by Government officials are as under:-

S.#	Department	Sponsoring Agencies	Officials Trained
1	National Disaster Management Authority	CEA, MTCP,SDMC, ADRC, APCCS, ERRP, JICA,	10
2	State Disaster Management Authority, AJK	ADRC	1
3	Geological Survey of Pakistan, Quetta	SDMC	3
4	Provincial Disaster Management Authority, NWFP	SDMC	1
5	Gilgit Baltistan Disaster Management Authority	SDMC	1
6	FATA Disaster Management Authority	CEA	1
<b>Total</b>			<b>17</b>

Table: 5.1

#### 5.1.2 Inland Training of Government Officials in DRM

Apart from the foreign training courses, a comprehensive inland training programme was implemented across the Country under the One UN Joint DRM programme as part of the National Action Plan 2009-10. The Programme was designed with a special focus on enhancement of DRM capacities of local officials. The summary of DRM training programmes conducted for the local officials during the reporting period is at Annexure-III.



### 5.1.3 DRM Training for Federal Government Officials

The training programmes implemented for the capacity building of Federal Government Officials included:

- Training Workshop on Mainstreaming DRR into Development: Strategic Issues and Prospects at Ministerial Level (August 17, 2009).
- Training Course For the Ministry of Housing & Works on Mainstreaming Disaster Risk Reduction in Development (November 11 -13 2009).
- Training Course for the Ministry of Industries & Production on Mainstreaming Disaster Risk Reduction in Development Process ( November 21-29,2009)
- Emergency Response Management Orientation and Simulation organized at the Civil Services Academy, Lahore. 50 trainees of the District Management Group participated.

### 5.1.4 DRM Training for Local Government officials

To enhance local capacities in DRM, multiple training programmes were implemented across the country including the following:

- Two training workshops on District DRM Planning were organized for the Districts officials of Sindh and Balochistan to develop the District DRM Plans;
- Training of local officials of Districts Mansehra and Muzaffarabad on earthquake vulnerability reduction and role of Municipal Governments;
- Training of 97 public officials in land use planning in Mansehra and Muzaffarabad;
- 71 Government Officials of District Chitral and Tehsil Murree trained in earthquake vulnerability reduction and role of municipal government;
- Simulation/rehearsal of 83 public officials and line agencies for effective delivery in case of earthquake disaster in Mansehra and Muzaffarabad
- Emergency Response Capacity Development Trainings in Mansehra and Muzaffarabad;
- Four training programmes on Flood/Cyclone Mitigation and Preparedness to 120 district officials of Sindh (Thatta & Badin), Balochistan (Kech & Quetta) and Punjab (Sialkot);
- 6-day Training Course on DRM for 14 Districts of Punjab organized (21 District Officers & 9 NGOs trained);
- 6-day Training Course on DRM for 14 Districts of Sindh organized ( 26 District Officers & 7 NGOs trained);
- 6-day Training Course on DRM for 13 Districts of Balochistan organized (30 District Officers & 4 NGOs trained);
- 6-day training course on DRM for 10 Districts of NWFP & 3 Agencies of FATA organized (25 District Officers & 6 NGOs trained);

### 5.1.5 Community Based Training Programmes

Vulnerable communities are likely victims of disasters yet they are the first responders in the event of a calamity. Awareness of communities about disasters as well as their management is highly imperative to mitigate the impact of disaster risks. In view of the important role in DRR initiatives, the NDMA organised a range of community based DRR training programmes during the reporting year under the One UN Joint DRM Programme, which included the following:-



Fig: 5.1

- 81 Masons trained in Earthquake Safer Construction Techniques in Mansehra and Muzaffarabad.
- 90 local engineers trained in Earthquake Safer Construction and Retrofitting Techniques in Mansehra and Muzaffarabad
- Community training, awareness and mobilization sessions were organized in 20 villages of District Thatta in Flood/Cyclone mitigation and preparedness.
- More than 100 volunteers trained in some 4 flood prone Union Councils of District Kech in Balochistan.
- Training sessions on Tsunami and Coastal hazard preparedness were held for the community volunteers and school children of Jewani, Gawadar, Pasni and Ormara.
- Training Workshop for students of NED University Karachi on Coastal hazard preparedness was held on 22-23 December.
- Community Volunteers Trainings on HVCA were arranged in Sialkot, Thatta and Badin from 4-19 December, 2009

### 5.2 Awareness Programmes

The National Disaster Management Commission declared 8<sup>th</sup> October as the National “Disaster Awareness Day”. In line with this decision, the NDMA has been organizing annual events since 2007 to mark this day. These events include organising the Disaster Management Conference & Exhibition (DMEC) and other awareness events at the federal level. Following this tradition, the NDMA organized a number of events to mark this day on 8th October 2009.

### 5.2.1 Disaster Management Exhibition and Conference (DMEC 2009)

The Disaster Management Exhibition and Conference was inaugurated by the Syed Yousaf Raza Gilani, Prime Minister of Pakistan, at the Prime Minister's Secretariat on 8 October 2009. The program of events included:

- National Disaster Management Conference: “Working Together for Disaster Risk Reduction” (8 October, 2009)
- Exhibition on Disaster Management, Fire Rescue, Safety & Security (8-9 October, 2009)
- SAARC Regional Workshop on Earthquake Risk Mitigation & Management, (8-9 October, 2009)



Fig: 5.2 Disaster Management Exhibition 2009

The Exhibition and SAARC Regional Workshop was inaugurated by Nawabzada Malik Amad Khan, Minister of State for Foreign Affairs. He also witnessed the simulation/drill conducted by the Urban Search and Rescue Team of CDA trained by NDMA.

#### ▪ The National Disaster Risk Management Conference

The National Disaster Risk Management Conference was held on October 08, 2009 at the Convention Centre, Islamabad and was attended by 350 participants, represented different key stakeholders of disaster risk management. The theme of the Conference was “Working Together for Disaster Risk Reduction”. The purpose of the Conference and Exhibition was to provide a forum to the policy makers, DRR practitioners, academia and private sector for knowledge and skills sharing on disaster risk reduction. It also provided an opportunity to enable the NDMA and other stakeholders to suggest measures to reduce the risks of potential disasters and to

encourage ongoing disaster preparedness and mitigation initiatives at national, provincial and district levels.

The Conference focused on different key aspects of disaster risk management including the following:

- Prevention & Preparedness Paradigm
- Hazard Profile of Pakistan
- Disaster and Development
- Mainstreaming of Disaster Risk Reduction
- Role of Community in Disaster Preparedness
- Building Back Better
- Climate Change and its Consequences on Hazards
- Early Warning Systems - Key to Saving Lives



APP84-08

ISLAMABAD: October 08 – Prime Minister Syed Yusuf Raza Gilani addressing at the inauguration of 2nd National Disaster Management Conference. APP

Fig: 5.3

### ▪ Exhibition on Disaster Management

The Exhibition on Disaster Management, Fire Rescue, Safety & Security showcased DRM initiatives by different organizations, latest technologies and services with displays of leading brands of ambulances, bullet proof vehicles, fire fighting equipment, health and safety products, policing and anti terrorism equipments, surveillance systems, state of the art security services, etc. Some 65 exhibitors, including the armed forces, NDMA, ERC of the Cabinet CDA, NLC, UN, academic institutes and different local and international non-governmental organizations, took part in the exhibition. The Exhibition was visited by 5,000 people from different walks of life.

▪ **SAARC Regional Workshop on Earthquake Risk Mitigation & Management**

On the sidelines of DMEC 2009, a 2-day SAARC Regional Workshop on Earthquake Risk Mitigation & Management was organized on 8-9 October, 2009. The Workshop was jointly organized by NDMA and SAARC Disaster Management Centre (SDMC), New Delhi.



Fig: 5.4 SAARC Regional Workshop 2009

The Workshop reviewed the strengths, weaknesses and gaps of current status of earthquake risk assessment, mitigation, response, recovery and reconstruction practices in the region and recommended that coordinated regional programmes should be taken up under the auspices of the SAARC Disaster Management Centre to supplement the efforts of the national, provincial and local governments in respective countries. The Workshop recommended the “Roadmap for Regional Cooperation for Earthquake Risk Management” in the region. The salient features of the Road map were:

- Seismic Hazard Assessment of South Asia be conducted
- Realistic attenuation models be developed for accurate estimation of seismic hazards
- Based on available data, a first order Microzonation Map be developed for select cities in the Member States as a prelude to full scale Microzonation
- A compendium of seismic provisions of the building codes of the Member States shall be prepared for dissemination to all the concerned stakeholders.
- Regional Plan of Action for School and Hospitals will be developed for implementation by the respective Member States.

The SDMC is the regional forum for disaster risk reduction in South Asia and is represented by all SAARC member states. The NDMA is the focal agency for Pakistan to deal with SDMC affairs and one of the members of the SDMC’s Governing Board. The Governing Board of the SDMC during its meeting held on 2-3 November, 2009

approved the above road map to be implemented by the SDMC in collaboration with the Member States.

### 5.2.2 Policy Dialogue on DRM with Parliamentarians

To sensitize the parliamentarians and engage them in a debate on the issues related to disaster management in Pakistan 06 seminars have been planned to be organized in Islamabad, Sindh, Balochistan, Azad Jammu and Kashmir (AJK), Punjab and NWFP during 2009-10. The national level seminar was conducted on 13 October, 2009 at Islamabad, with Members of National Assembly and Senators in attendance. First provincial level policy dialogue was held in Karachi (for Sindh Province) on December 7th, 2009.

### 5.2.3 Tsunami Evacuation Drills

In order to raise public awareness of the vulnerable communities of coastal areas and to test capacity building processes of all the stakeholders about Tsunami Risk, the NDMA conducted five Tsunami Evacuation Drills in partnership with the District Governments, civil society and response agencies at Gawadar, Pasni, Jewni, Ormara and Thatta in which more than 5000 people including women, children and elderly persons participated.



Fig: 5.6 Evacuation Drill for Tsunami Preparedness

During the evacuation drills the real life scenarios were created and the communities were trained in camp management, evacuation procedures, handling of health and food during emergencies.

## 6. DISASTER RISK MANAGEMENT PLANNING

Objectives of DRM planning are to minimize adverse effects of hazards through effective disaster risk reduction, preparedness and adequate, timely and coordinated response. The plans would include strategies for disaster risk reduction and measures for disaster preparedness. Disaster risk reduction actions may include; dykes, dams, safer construction, retrofitting, rainwater harvesting, relocation, community organizing, training, awareness raising, and provision of safer sources of livelihoods etc.

Preparedness involves development and regular testing of warning systems and plans for evacuation and other precautionary measures to be taken during a disaster alert period. It also entails education and training of officials, intervention teams and communities in search and rescue, fire fighting, evacuation, mass casualty management, etc. Establishment of policies, standards, organizational arrangements and operational plans to be executed following a disaster is also crucial. These plans also consider securing resources; e.g. stockpiling supplies and machinery/equipment.

### 6.1 DRM Planning at the National Level

The NDMA prepared the first National Action Plan for the year 2009-10 to implement DRR initiatives in a systematic manner. The Plan envisaged strategic interventions in key areas of disaster management indicating a road map for execution of various DRR initiatives as well as resource mobilization strategy to cover the costs thereof. The Plan mainly focused on institutional as well as communities capacity building in DRR.

The National Action Plan for 2009-10 was approved by the NDMC during its meeting held on 3<sup>rd</sup> January, 2009. The NDMA implemented various DRR initiatives in the above mentioned areas during the reporting year. Most of the initiatives were under taken under the One UN Joint DRM Programme. The detailed descriptions of the activities carried out under the Plan have been given in various chapters of this report.

### 6.2 Response Planning

Pre-disaster planning is a pre-requisite for efficient and effective response to future disasters. It involves institutional readiness to face any eventuality arising out of a man made or natural disasters. The NDMA has undertaken different initiatives to enhance institutional capacities for effective response.

#### 6.2.1 National Disaster Response Plan

National Disaster Response Plan (NDRP) and the Standard Operating Procedures (SOPs) are major components of the National Risk Assessment and Emergency Operations System Project being implemented by the NDMA. The draft Plan and the draft SOPs were prepared by the NDMA, and shared with over 80 key stakeholders including government, non-government organizations, UN and donor agencies for feedback. The NDMA received comments from different organizations. In addition to this five consultation workshops were held at provincial/regional and federal levels

respectively (Karachi, Lahore, Muzaffarabad, Quetta and Islamabad) to seek comments and finalise the plan in consultation with key stakeholders.

National Disaster Response Plan provides the framework regarding responding to small, medium and large scale disasters, both natural and man-made, in the country together with corresponding response mechanisms and procedures. It describes structures and mechanisms for providing operational direction to disaster management authorities at federal, provincial, regional/ state and district levels.

In addition, it classifies emergencies at all levels (national, provincial, regional and local) and clearly delineates the process of declaring emergency at each level and subsequent response, accordingly. The Response Plan also lays down roles and responsibilities and coordination among federal ministries, provincial departments, district authorities and other concerned agencies as well as UN, national & international NGOs, media, private organizations and civil society for effective response. It clearly lays down Standard Operating Procedures (SOPs) for each specific relief function in disaster situations and further categorizes the lead and support roles of concerned agencies.



Fig: 6.1 Consultation Workshop on National Disaster Response Plan

The draft National Response Plan will be presented to the NDMC for approval during its forthcoming meeting. Once the NDMC approves it, the Plan will be circulated to all concerned for implementation.



## 6.2.2 Industrial and Technical Contingency Plan

World wide industrial and technical disasters are a regular and recurring phenomenon. Unlike natural disasters which are difficult to prevent, industrial accidents can be prevented and their impacts can be reduced by better planning, preparedness and response. While delineating the gaps in our existing national response mechanism, policies and programmes, a need was felt to formulate a road map leading to formulation of a comprehensive participatory action plan for management of technical/industrial disasters. This however was a challenging process as no such mechanism existed in Pakistan. Moreover, Pakistan we lacked resources and capacity to mitigate industrial disasters. The NDMA has, therefore, formulated this Contingency Plan to mitigate and respond to Industrial/Technical Disasters through judicious utilization and enhancement of existing capacities. This document contains detailed and explicit instructions and Contingency Plans for Management of Industrial/Technical Disasters as under:

- a. National Contingency Plan to Manage Industrial Disasters
- b. To Combat Disasters at Port Terminals.
- c. To Combat Disasters Emanating from Chem-Biological Terrorists' Threats.
- d. To Combat Technical Disasters at Strategic Installations/Sites.

The Plan envisaged a robust coordination mechanism for prompt rescue and relief operations at various tiers for diverse emergencies and disaster situations. It has been finalized after detailed deliberations by the relevant stakeholders. A consultative workshop was organized on 23<sup>rd</sup> December, 2009 in Islamabad to further fine tune the Plan. The workshop was attended by representatives of relevant Federal Ministries, major industrial entities and strategic organizations. The plan awaits approval of the NDMC, after which, the same will be circulated to stakeholders for implementation. In order to review the implementation of this plan, the first meeting of National Industrial Disaster Management Committee is scheduled in January 2010. A mock exercise is also scheduled on Industrial Disasters in the first quarter of year, 2010. This will subsequently follow mock exercises to combat disasters at Ports Terminals and Chemical Bio terrorism incidents. The plan is envisaged to be a living document will be revised annually for up-gradations and to address any inadequacies.

## 6.2.3 Monsoon Contingency Plan (Supplement)

During 2008, the NDMA had finalized contingency plans for winter, cyclone as well as monsoon hazards and circulated the same to the relevant stakeholders for implementation. In order to update the "Monsoon Contingency Plan-08", the Pakistan Metrological Department (PMD) was requested to provide forecast for Monsoon-09. Preliminary assessment for Monsoon-09 by PMD, suggested following:-

- a. Normal to above normal monsoon rains in the country.
- b. Heaviest snowfall in the past five years in northern regions of the country, thus possibility of:-

- (1) Early flooding of western rivers (Kabul, Swat etc) as a result of rise in temperature in May-09.
- (2) Flash floods and land sliding in the vulnerable areas.

Accordingly, the Monsoon Contingency Plan 2008 was reviewed and a supplementary monsoon contingency plan was formulated and issued to all stakeholders in April, 2009 (well before the onset of Monsoon Season-2009), covering following aspects:-

- a. Review of risk analysis in light of PMD preliminary monsoon forecast.
- b. Review of availability / utilization of flood mitigation funds.
- c. Review progress of ongoing flood mitigation projects.
- d. Updating of resource mapping.

The current status of various flood mitigation projects was discussed in the plan and also deliberated upon during Flood Coordination Conference-09. However, progress on a significant number was observed to be far from satisfactory. The relevant authorities / departments were urged to put in concerted and coordinated efforts to ensure that these were completed as early as possible.

#### 6.2.4 Future Contingency Plans

The NDMA had planned to develop contingency plans for Droughts, Earthquakes, Tsunami and Mass Casualty Management during 2009. During the 1<sup>st</sup> meeting of the Disaster Management Team (DMT), the NDMA made a formal request to the United Nations Humanitarian Coordinator for provision of technical assistance through the One UN System for the formulation of these Contingency Plans. However, the formulation of these Plans did not materialize due to non provision of technical assistance by One UN System. The NDMA has now, planned to develop these Plans during 2010.

#### 6.3 Provincial/Regional DRM Plans

Under the current DRM dispensation disaster management is a devolved subject. The respective provincial/regional governments are required to develop and implement disaster risk management plans according to their respective hazard, risk and vulnerability perspective. The NDMA provided technical assistance to the provincial/regional authorities to develop their respective disaster risk management plans during 2008. Provincial Disaster Risk Management Plans have been developed for provinces/regions except for NWFP which is in process. During the reporting year the Provincial Disaster Management Plan of Sindh Province was formally launched followed by Balochistan.

In order to further enhance the capacities of Provincial and Regional Disaster Management Authorities in DRM Planning, the NDMA attached 06 DRM Coordinators at each provincial level as well as in AJ&K and Gilgit-Baltistan. These Coordinators are assigned not only to steer the implementation process of various DRM initiatives, but also guide and train the provincial officials in DRM Planning.



Fig: 6.2 Launching Ceremony of Baluchistan DRM Plan

#### 6.4 District DRM Plans

Under the existing DRM regime, the District Disaster Management Authorities (DDMAs), are the first responders in the event of disasters and also responsible for dealing with the whole spectrum of disaster management at the local level. Accordingly, the NDMA prioritised the capacity building of DDMAs in the National Action Plan for 2009-10. During the reporting year, 16 most vulnerable districts were selected and prioritized. The selection criteria also included the consideration that all Provinces and Regions are represented. Following districts were selected for the year 2009:-

S.No.	Province	District
1.	Sindh	Sanghar, Dadu, Tharparker, Qamber & Shahdadkot.
2.	Balochistan	Ziarat, Nasirabad, Lasbella, Bolan, Jhal Magsi.
3.	Punjab	Muzafargarh, Gujrat, Rajanpur, Jhang
4.	NWFP	Charsadda, Haripur
5.	AJ&K	Bhimber

Table: 6.1

Capacity building of DDMAs in DRM Planning remained the most prioritised intervention in these selected districts. Technical assistance was provided to the selected districts for the development of respective district DRM Plans. Multi

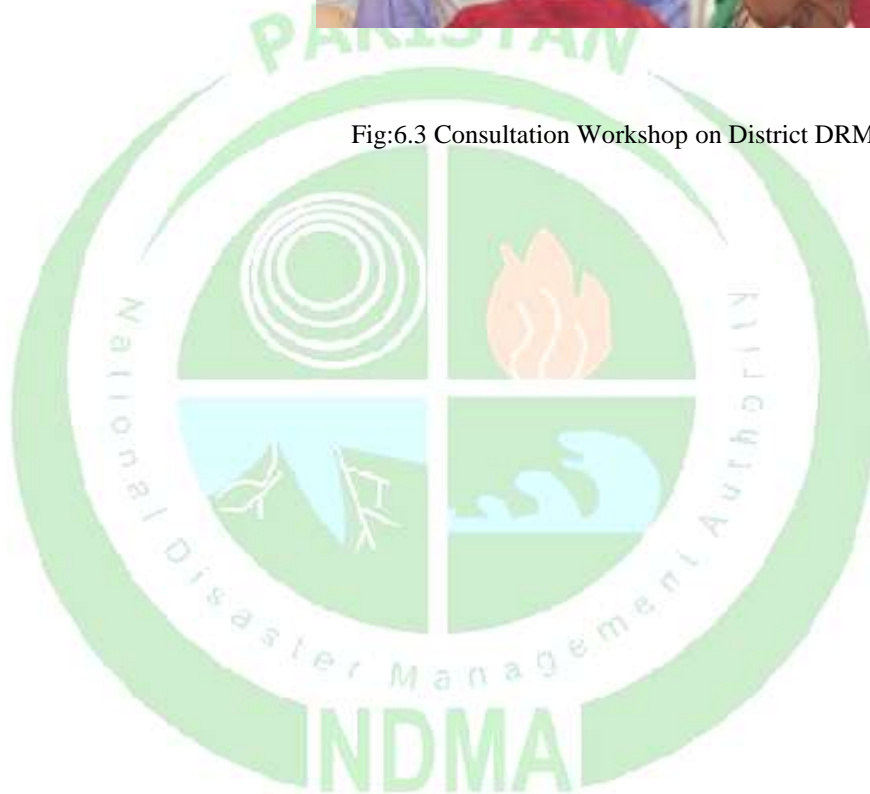
## Annual Progress Report 2009

stakeholders consultation was carried out in the above mentioned 16 districts. The draft DRM Plans have been formulated and are in the process of finalization.

To further augment the capacities of district officials in disaster risk reduction specially in DRM Planning, the NDMA has attached 09 DRM Coordinators in different districts of Punjab (Sialkot, Rajanpur, Jhang), Sindh (Badin, Dadu), Balochistan (Gawadar), NWFP (Charsadda, Haripur) and Gilgit-Baltistan (Gilgit).



Fig:6.3 Consultation Workshop on District DRM Plan



## 7. COMMUNITY AND LOCAL LEVEL DRR PROGRAMMING

Community and local level programme implementation is the heart of disaster risk reduction strategies. Disaster risks are essentially local in terms of their impact, as well as response. The local communities, local infrastructure and local economy are directly affected by disasters and women, children and elderly persons are usually disproportionately affected. At the same time, local communities and authorities are first responders to any disaster situation. Historical analysis of disasters also demonstrates that most disaster events are localized in their scale, affecting few villages, municipalities or districts. Mega-disasters such as earthquake of October 2005 happen rarely, requiring extraordinary response from provincial and national authorities. Considering this characteristic of disaster risks, it is imperative that risk reduction programmes are implemented at local levels for capacity development of local officials, communities, civil society organizations and other players; e.g. builders, contractors, masons, teachers, doctors, etc.

During the reporting year, the NDMA initiated multiple community based DRR programmes which included Preparedness, Risk Assessment and Risk Mitigation initiatives at the local levels.



Fig: 7.1

### 7.1 Earthquake Risk Reduction and Preparedness

The NDMA, under the One UN Joint DRM Project, initiated the community based Earthquake Risk Reduction and Preparedness Project in selected Districts that are most vulnerable to seismic hazards. The main purpose of this project is to contribute to the process of integration of earthquake vulnerability reduction into development programmes for safer communities in Mansehra, Muzaffarabad, Murree, Chitral and Quetta Municipalities. It also focuses on well functioning of institutional arrangements for earthquake vulnerability reduction i.e. Municipal Disaster Management Cells (MDMC), with adequate capacities for earthquake vulnerability reduction in selected municipalities. The expected outcomes of the project included the following:

- a. Making available effective decision making tools in the form of earthquake risk assessments, facilitating informed choices for risk responsive recovery/reconstruction and development planning.
- b. Developing improved human resource capacities within the municipalities to design and implement Earthquake Vulnerability Reduction strategies and programmes, through training and guidelines.

- c. Making available earthquake vulnerability reduction plans in the selected municipalities.
- d. Heightening the public awareness of earthquake vulnerability reduction processes and practices through demonstration projects/activities, publications and dissemination events.

During the reporting year, a range of earthquake mitigation and preparedness initiatives were implemented in the above mentioned selected districts, with main focus on capacity building of vulnerable communities. The major achievements under the project are enumerated as under:-

### ▪ **Mansehra and Muzaffarabad**

As a prelude to the disaster management planning, Earthquake Risk Assessment (ERA) was carried out and earthquake risk scenarios were developed. Earthquake vulnerability reduction plans indicating roles and responsibilities of line agencies and local institutions were prepared and launched. The capacities of DDMA's were enhanced through establishment of offices of Municipal Disaster Management Cells (MDMCs). Operational guidelines were developed and training workshop of MDMCs staff was conducted as to the use of operational guidelines.

As part of capacity building strategy for local communities, training programmes were organized for construction professionals & workers (architects, engineers and masons) in earthquake resistant construction design, materials, reinforcement and techniques. Easily understandable construction guidelines and retrofitting guidelines (Urdu & English)

### ▪ **Quetta City Earthquake Risk Assessment**

The Earthquake Risk Assessment Project of Quetta city was undertaken to identify the magnitude of disaster impact. The intervention in Quetta city is focusing on establishment of mechanisms for informed development decisions by local government and communities to reduce risks and to ensure sustainable social and economic development. It includes inventory survey of 3000 residential, commercial and public sector buildings, development of an earthquake risk scenario and preparation of an Action Plan for Mitigation of Earthquake awareness of communities and decision makers. The scenario has been developed on the basis of the data collected and in consultation with the stakeholders. The document has been sent to the consultant (NSET) for their vetting and finalization. The action plan will be developed after the finalization of the scenario document.

### ▪ **Earthquake Risk Assessment, Scenario Building and Action Planning in Chitral and Murree**

The initiative was undertaken to understand and assess earthquake risk vulnerabilities of Murree and Chitral cities. It was aimed at preparing simplified earthquake damage scenarios and subsequent disaster risk management plans for Chitral and Murree. Being the most vulnerable areas to seismic hazards, awareness raising of communities to earthquakes was an important part of the initiative.

## 7.2 Community Based Mitigation Programmes

During the reporting year, the NDMA launched different community based risk mitigation initiatives in selected vulnerable areas. Some important initiatives are highlighted as under:

### 7.2.1 Reconstruction and Retrofitting projects

Identification of vulnerable buildings and subsequent remedial measures are important to reduce the impact of future disasters. The NDMA, in collaboration with the implementing partners, initiated several pilot projects involving reconstruction and retrofitting of damaged or vulnerable buildings in the earthquake affected areas of AJK and NWFP, which included the following:

- Women Community Centre, Muzaffarabd
- Public Dispensary, TMA Mansehra
- Anjuman-e-Khawateen (Sethi Bagh, Muzaffarabad)
- Jinnah Dental Hospital, Muzaffarabad (RCC Frame Structure)
- DCO Building, Mansehra (Stone Masonry)



Fig:7.2 Retrofitted Wall of Jinnah Dental Hospital

### 7.2.2 Structural Mitigation Projects

Several pilot projects involving structural mitigation measures are being implemented in earthquake affected areas of Muzaffarabad and Mansehra. The projects are focused on mitigating the effects of landslides and floods. Some of them are highlighted as under:

- Two Debris Flow Control Projects at Gulshan Nullah, Muzaffarabad
- Construction of Suspension Bridge Sain Saheli Sarkar, Muzaffarabad
- Construction of Culvert at Pano Dheri Road, Mansehra
- Construction of Over-Head Water Tank DCO Office, Mansehra



Fig:7.3 Suspension Bridge selected for retrofitting

### 7.2.3 Community/Local Based Flood / Cyclones Mitigation and Preparedness Interventions

Under the One UN Joint DRM Project, the NDMA initiated community based flood / cyclones mitigation and preparedness interventions in selected districts of Sindh, Balochistan and Punjab. The areas of focus were coastal Districts of Thatta and Badin in Sindh Province, Quetta and Kech Districts in Baluchistan Province and District Sialkot in Punjab. The intervention included raising of community response teams equipped with basic search and rescue equipment and awareness raising of communities about flood and cyclone hazards.

One of the significant local mitigation interventions was Mangroves plantation on 200 hectares of coastal area of UC Kothi of District Thatta and on 111 hectares near Panwan village of Tehsil Jewni in District Gawadar. Likewise, community evacuation shelters are under construction in District Badin.



Fig: 7.4 Mangrove Plantation

### 7.3 GLOF Risk Reduction Initiative

Climate induced disasters have increased seven times in frequency and account for nine times as many deaths as those caused by non-climatic disasters. Moreover, noted economic losses for the same have also been three times higher. An evident impact of climate change has emerged in the form of GLOF hazard, especially in the Himalayan region. Recognizing severity of the situation and to strengthen GLOF risk mitigation efforts in the Himalayan Region, the NDMA has taken initiative with the assistance of UNDP to address this hazard.

The project was based in four countries geographically spread across the Himalayan region. In Pakistan, the project was implemented in Gilgit-Baltistan region at the northern junction of the Hindukush and Himalayan (HKH) ranges. The main objective of the project was to address the risks posed by GLOFs in the HKH region, through



strengthening non-structural and community-based risk management capacities. Broader components of the project included enhanced understanding of socio-economic risks associated with the hazard and assess existing gaps, needs, and limitations.

In order to understand the entire disaster cycle associated with GLOF hazard and to formulate measures for community-based risk mitigation and preparedness, the project has studied two GLOF/flash flood (Ghulkin and Passu in 2008) events in Pakistan, to assess their socio-economic impact; risk mitigation and preparedness measures adopted and to identify gaps and needs vis-à-vis capacity for responding to, mitigating and preparing for such events at community and local administration level. Efforts have also been made to build upon the knowledge and experience generated through studies conducted by various technical, research and academic institutions in the region, at national and regional level.

The data/information generated was compiled and validated through triangulation workshops and Focus Group Discussions (FGDs). The findings/observations have been shared with a whole range of stakeholders, including government departments/agencies, technical and research institutions, NGOs/CBOs, local administrations and other key actors at the district, national and regional levels.



Fig: 7.5 Community Based GLOF Risk Reduction Initiative

A month-long e-discussion was hosted on DRM Asia Network and focused on practitioners from the fields of disaster management, climate change, environmental management, development planning, experts from technical, research and academic institutions working on GLOF-related issues, independent experts, administrators, civil society organizations etc.

### 7.3.1 Knowledge Networking

One of the key activities under the Project has been the facilitation of a knowledge networking process on GLOF issues among various stakeholders. The Project has adopted a regional to national and local approach by collating the knowledge generated at regional and international level for GLOF risk mitigation and bringing it to bear upon national strategies and local implementation targeted at communities and local administrations. Moreover, the knowledge and experience generated through studies/research is largely dispersed across various technical, academic or research institutions. It is hoped that knowledge networking will enable practitioners to benefit from the knowledge, research and experience of practitioners from related streams.

Project updates and information about findings/observations are being regularly shared with key stakeholders through email groups and Pamir Times network. A dedicated webpage [www.managingclimaterisk.org](http://www.managingclimaterisk.org) has been created to upload information on project activities and findings.

### 7.3.2 Pilot Risk Mitigation and Preparedness Activities at Community Level

Going beyond the specific mandate and activities outlined under the Project, pilot initiatives to field-test the steps identified for mitigating the risks of GLOFs and for building community capacity, initiatives were identified through the consultative process have been implemented as pilot community activities in Ghulkin, Hussaini and Passu village communities. Information, Educational and Communication (IEC) materials, training and capacity building initiatives, sensitization meetings, pilot mitigation initiatives, school level awareness raising and painting competitions, first-aid and search and rescue trainings on a pilot basis have been conducted. The activities have been conducted in close collaboration with local administrations and with involvement of communities in GLOF-affected areas.

The activities, undertaken on a pilot basis, have helped provide valuable inputs about efficacy of community-based risk mitigation and preparedness advocated under the project. This has helped validate the findings/observations emanating from interactions with communities and local administrations as well as from the national level consultations with various stakeholders.

The scope of project activities has expanded to address impacts of hydro-meteorological and climate induced hazards on remote mountain communities. It will also identify mitigation and preparedness approaches. The project activities will be test piloted in two districts of the Gilgit Baltistan region. Key components of the project include assessment of risks and impacts of hydro-meteorological hazards in the Himalayan region. The project also includes identification and implementation of community-based risk reduction and preparedness measures such as first responder trainings, natural resource management as part of structural mitigation, awareness campaigns and capacity building. Knowledge networking and coordination among the region for risk reduction and support formulation of policy framework will remain an important component throughout the second phase.

## 8. ENHANCING EARLY WARNING CAPACITIES

The primary objective of a multi-hazard Early Warning System (EWS) is to generate advance warnings and thus improve capacity of decision makers and communities to take appropriate action prior to occurrence of a hazard. It consists of collection, consolidation, analysis and dissemination of risk information. An effective EWS involves availability of technology for hazard monitoring, technical capacity of scientific institutions to analyze observation data and make decisions regarding issuance of warning, application of multiple channels to communicate warning messages, and mechanisms for community action.

Pakistan needs to strengthen its early warning capacities for droughts and flooding which occur frequently and cause high impact. EWS will need to be developed for cyclones and tsunami, which although are low in frequency but could have high impact. Strengthening of monitoring and analysis capabilities with relation to seismic risks and landslides would also be a priority. In view of the importance of efficient Early Warning Systems in enhancing institutional capacities for better preparedness and response, the NDMA has undertaken a number of initiatives during the reporting year, specially under the One UN Joint DRM Programme.

### 8.1 Strengthening Tsunami Early Warning System in Pakistan

National Disaster Risk Management Framework (NDRMF), Provincial Disaster Risk Management Plans of Sindh and Balochistan states the need to develop tsunami early warning systems because the coastal belt/zone of Pakistan is at risk of both local and distant tsunami. In case of a local tsunami, generated by earthquakes in the Makran Subduction Zone, the vulnerable communities will have a limited reaction time for evacuation. This highlights the need for better preparedness at all levels to reduce risk to lives.

After the disaster of 26th December 2004, the Indian Ocean countries and the international community realised the need for creating an effective Indian Ocean Tsunami Early Warning System (IOTEWS) which is essential to save lives and properties in the future. The NDMA with the technical and financial support of UNESCO-IOC initiated the project “Strengthening Tsunami Early Warning System in Pakistan” under the One UN Joint DRM Programme. The overall objective of the project is to assist the Government of Pakistan in strengthening its national tsunami and other ocean-related hazards warning system, as well as the associated preparedness for disaster risks of the most vulnerable coastal areas of Pakistan. The project aims to establish and strengthen institutional arrangements for coastal hazards in Pakistan, develop a national tsunami and sea-level related hazards early warning system and initiate pilot community and local level risk reduction arrangements.

Following progress was made during the reporting period:

- a. A mapping exercise on the existing capacity and institutional arrangements of different agencies involved in disaster risk preparedness and response in the coastal areas was carried out and draft capacity assessment report is prepared.

The institutions involved in the exercise are the NDMA, Pakistan Metrological Department (PMD), National Institute of Oceanography (NIO), Pakistan Navy-Hydrography Department, and Provincial Disaster Management Authority (PDMA) Sindh. Other institutions namely Gawadar Port Authorities (GPA), Karachi Port Trust (KPT), Pakistan Maritime Security Agency (MSA) and Pakistan Red Crescent Society (PRCS) were also covered in the exercise because of their functions which support Tsunami early warning system.

- b. In the first quarter of 2009, the capacities of National Tsunami Warning Centers of Karachi and Islamabad for technical analysis and assessment for tsunami were strengthened by providing required equipments, analysis softwares and technical trainings. Two sets of 4-screen computer systems including the installation of specialized software programme SeisComp3<sup>1</sup> (which determines the location and the magnitude of an earthquake) were provided at tsunami warning centres in Karachi and Islamabad with the support of UNESCO-IOC. PMD staff and other stakeholder were also trained on tsunami inundation modelling during first week of December 2009. Workshop was organized at PMD Karachi and was attended by 27 participants from PMD, NDMA, NIO, University of Karachi and NED University.



Fig: 8.1 Training Session on GUITAR at

- c. A tsunami decision support system software GUITAR was installed and fifteen PMD staff were trained in GUITAR and SeisComp3 by experts from Geo Forschungs Zentrum (GFZ) Germany in August 2009. Currently both systems are integrated and are functional at both Karachi and Islamabad Centres. PMD staff has developed the capacity to locate the epicentre of earthquake, calculate earthquake magnitude and arrival time of tsunami to Pakistani coasts. PMD can now identify and analyze any tsunami threat to the country within 5-7 minutes and disseminate early warning to the relevant stakeholders immediately.



Fig: 8.2 Proposed tide gauge site -

- d. Site assessment missions to install new Tide Gauges (GLOSS standard) for Gawadar, Ormara and Keti Bandar were completed in August, 2009. Ormara Tide Gauge is handed over to implementing partner Pakistan Navy and installation work will be completed by the end of January 2010. Approval for installation of Tide Gauge at Keti

<sup>1</sup> SeisComP3 is a specialized software programme developed by scientists at the GFZ which, within minutes, determines the location and the magnitude of an earthquake. In this way several strong earthquakes and their individual parameters could be determined within two minutes.

Bandar is granted by Pakistan Navy. Pakistan Navy is constructing a new jetty at Keti Bunder which will be activated by the end of 2010, by then Tide Gauge will be installed on temporarily built platform. After the completion of new jetty tide gauge will be transferred to its proposed location on permanent basis. These tide gauges will provide real time data to the Tsunami Early Warning Centres in Karachi and Islamabad to generate the necessary warnings. Besides, the data will help to monitor storm surges and long term sea-level changes as well as harbour operations.

- e. The installation of the tide gauge at Gawadar Port was delayed because of the inability of installation facility (covered room or hut). A 20 feet container ordered to house Tide Gauge at Gawadar Port will be delivered in January, 2010.
- f. A 2-day training workshop was organized during first week of October, 2009 to highlight the role of media in dissemination of Tsunami Early Warning. 18 media professionals from renowned news channels, daily newspapers and radio attended the workshop. 12 staff members of PMD were also trained to liaison with media.
- g. Three workshops were organized for the Development of Standard Operating Procedures (SOPs) for end-to-end Tsunami Early Warning System. A 5-Day workshop was held in Karachi from 9-12 February 2009 in collaboration with Pakistan Metrological Department (PMD) and attended by 25 participants, including 3 women. The workshop enabled National Early Warning Centre to develop SOPs for tsunami warning. The second national SOP development workshop was held in Islamabad from 4-8 May 2009 and attended by 28 participants, including 2 women. As a follow-up of 1<sup>st</sup> workshop, PMD and NDMA developed their draft SOPs for tsunami and other costal hazards, which were refined and tested during the final workshop. The final workshop was held during the last week of November 2009 in Karachi in collaboration with PMD.

### 8.2 National Multi-Hazard Early Warning Plan

In order to develop a comprehensive National Multi-hazard Early Warning System, the NDMA is currently in the process of finalizing a National Plan in close collaboration with Japan International Cooperation Agency (JICA). As a part of broader JICA's initiative to strengthen the existing disaster management system in Pakistan, an Expert Japanese Team has been tasked to analyze the existing early warning capacities, identify gaps and suggest measures for strengthening of the same. The Expert Team will:-

- Review the division of roles of concerned authorities, information transmission, communication methods, criteria for warning and evacuation advisory
- Prepare list of equipment required for Early Warning System (EWS) operation
- Prepare a draft National Multi-Hazard Early Warning Plan
- Conduct communication and evacuation drills to identify shortcomings and

## Annual Progress Report 2009

- priority areas of the EWS to be improved and developed
- Undertake cost calculation of the system and equipment to be developed on priority basis
- Prepare draft scope of feasibility study for the development of prioritized EWS specified on the National Multi-Hazard Early Warning Plan

During the reporting year, the NDMA submitted PC-II of 27 months study, encompassing the above aspects with an estimated cost of US \$ 3.4 million (JICA grant).



## 9. MAINSTREAMING DRR INTO DEVELOPMENT

The purpose of mainstreaming DRR into development is to ensure that the development infrastructure in hazard-prone areas is built to higher standards of resilience against multiple natural and man-made hazards. This can be done by incorporating risk and vulnerability assessment in the project planning stage. The NDMA is currently working with the key Federal Ministries, which are involved in infrastructure development, to integrate disaster risk reduction into the National Development Plan and the National Poverty Alleviation Strategy.

### 9.1 Working Groups on Disaster Risk Reduction (DRR)

One of the nine priorities under the National Disaster Risk Management Framework is “Mainstreaming Disaster Risk Reduction into Development”, with the purpose to ensure that future development programs and projects of selected Ministries and donors in disaster prone areas incorporate elements of disaster risk assessment and risk reduction in the planning, design and implementation stages so that sustainable economic and social development could be achieved by minimizing shocks from disasters. To this end, a strategy paper was prepared and National as well as Ministerial Working Groups on Disaster Risk Reduction (DRR) were constituted comprising of following five federal ministries, international donors, professional and technical bodies in Phase-I:

S.No.	Ministry/Division	Int. Donors/Others
1	Ministry of Planning and Development	World Bank
2	Ministry of Housing and Works	DFID
3	Ministry of Water and Power	NESPAK
4	Ministry of Industries and Production	Pakistan Engineering Council (PEC)
5	Ministry of Defence	Pakistan Council of Architects and Town Planner

Table: 9.1

During the meeting of Task Force on Joint Programme Component under One UN DRM Programme held on 11<sup>th</sup> December, 2009, five (5) additional Ministries have been added to the National Working Group. Ministerial Working Groups of the additional 05 selected Ministries will also be formed. In line with the National Action Plan 2010, technical assistance will be provided to these Ministries to enhance their capacities in DRM mainstreaming into development processes. The five (5) Ministries added to the National Working Group during the reporting year are as under:-

- Ministry of Education
- Ministry of Communications
- Ministry of Environment
- Ministry of Health
- Ministry of Food and Agriculture

## 9.2 Activities of the National Working Group (NWG)

During the reporting year, two meetings of the National Working Group were held (Feb 2009 and July 2009) to steer the DRR mainstreaming process. The basic purpose of these meetings was to review the progress made on the initiative and the decisions of the previous meetings of NWG. As per decisions of the NWG a list of 50 Priority Districts was finalized and disseminated to the Planning Commission and 04 Ministries for implementation of DRM initiatives. The NDMA under the One UN Joint DRM Programme, has arranged the services of Consultants for the capacity building as well as technical guidance in DRM for the relevant Ministries.

## 9.3 Activities of the Ministerial Working Groups (MWGs)

During the reporting year, the Ministerial Working Groups took several key decisions for integration of DRM Mainstreaming in their respective domains. The summary of the activities of the MWGs during the reporting year is as under:-

### ▪ Planning Commission of Pakistan

- Following three sub-groups were constituted:
  - a) DRR Mainstreaming and Mitigation Group
  - b) Disaster Awareness Group
  - c) Disaster Response and Coordination Group
- It was decided that a contingency plan for Disaster Risk Management and Disaster Risk Reduction for the P&D Division may be prepared with the help of concerned sections of CDA.
- Five meetings of sub-working groups of the MWG were held in 2009.
- Ministerial Strategy on DRR has been developed
- First proposal for amendments in the PC1 &2 has been prepared
- Proposal for establishment of 'DRR Knowledge Centre' in the Planning Commission has been developed
- It was decided that checklist including all parameters of DRR should be prepared to evaluate DRR aspects during the project formulation cycle.

### ▪ Ministry of Industries and Production

Two meetings of MWG were held in 2009 with following decisions / outcomes:

- Ministerial strategy on DRR was finalized and approved.
- Projects proposal for developments of Demo Model DRR project like Marble City of PASDEC was approved.
- Reconnaissance study of existing regulatory framework with particular reference to industrial DRM is to be conducted.



- The participation of private sector is to be ensured in the DRR mainstreaming initiative.
- Outline for the guidelines for mainstreaming DRR in development was prepared
- Proposal for amendments in the existing planning process and procedures in MOIP was drafted.
- Review of the existing rules and regulations of explosives and compressed gases was made and a checklist for boilers was developed.
- Guidelines for treatment and disposal of hazardous waste were drafted.

### ▪ Ministry of Housing and Works

Two meetings of MWG were held in 2009. Some of the key decisions made in these meetings were:

- Ministerial strategy on DRR has been approved.
- The Ministry will undertake a country-wide study to categorize its physical assets with respect to their strategic importance and the risks posed to them.
- The feasibility and budgeting proposal for 'Federal Government Girls Primary School', at Khana Nai Abadi, Islamabad was approved for DRR Model project.

### ▪ Ministry of Defence

Two meetings of MWG were held in 2009. Following were the key decisions made in these meetings:

- Military Land and Cantonment Department was included in the MWG.
- The authority for building codes for earthquake resilient construction and seismic zoning maps should be official and reflected in the code formalities. Unauthorized building codes may not be used by any designer or consultant engineer working on the Ministry of Defence (MoD) projects.
- The classification of engineers to be employed on projects under various departments of MoD may also be appropriately done specially by DHAs for the purpose of giving consultancy.
- The departments would be asked by MoD to identify critical assets and undertake their vulnerability assessment in light of NDMA parameters.
- The pilot project of MoD for implementation of DRR concepts by NDMA and evaluation of efficacy was identified to be CMH Skardu (to be confirmed by E-in-C's Branch).

#### 9.4 Integration of DRR into Curricula

Besides the national working group initiative, the NDMA supported the Ministry of Education for mainstreaming DRM in school curricula by sharing information and materials from the region. The curriculum wing of the Ministry of education has finalized the DRR related curricula from class1 to 12, which covers all hazards and gradually improves the technical level of understanding hazard and preparedness for students at different levels. The DRR concepts are in Urdu and English language for children from class 1 to 5 (primary), whereas for the students from class 6-12 this information has been included into the curricula of Geography and Social Studies. It is expected that for the academic session starting from 2010 the syllabus text books would be containing DRR topics for school students.



## 10. DISASTER PREPAREDNESS AND RESPONSE

The importance of disaster preparedness and institutional capacities to affect timely and effective response to disasters was highlighted during Earthquake 2005. The institutional incapability to foresee the impacts of future disasters and forward planning to meet unfortunate eventualities rendered the existing disaster management incapacitated during the catastrophe of Earthquake 2005.

### 10.1 Disaster Preparedness

Keeping in view the lesson learnt during Earthquake 2005, the NDMA being the lead agency in disaster management has undertaken several initiatives to enhance state of preparedness of communities as well as institutions. It has also undertaken several key initiatives to augment the response capacities of institutions and communities.

#### 10.1.1 Urban Search and Rescue Teams

Upon a request from Pakistan, an INSARAG (UN agency-International Search and Rescue Advisory Group) fact finding mission was sent to Pakistan in January 2006. The aim was to assess and evaluate the existing facilities and to determine the requirements for support to establish adequate Urban Search and Rescue (USAR) response capacity.

The mission recommended following actions:

- Develop a Rapid Response Mechanism
- Develop Urban Search and Rescue (USAR) system
- Design a USAR training system
- Establish two fully equipped heavy USAR teams



Fig: 10.1 Urban Search and Rescue Teams

On the recommendation of this report National Disaster Management Authority (NDMA) initiated a project for developing USAR system, training facilities for two fully equipped heavy USAR teams (86 persons each) one at Karachi (City District

Government) and another with Capital Development Authority (CDA). The composition of the USAR Team is at Annexure-IV.

The goal of this project is to save lives in disasters involving structural building failures not only in Pakistan but also in the region. The purpose of the project is to establish USAR system in Pakistan by 2010 and institutionalize the overall preparedness and response mechanism including the development of institutional capacity to deploy two heavy teams in line with the INSARAG standards.

During 2009, two highly sophisticated and well equipped Urban Search and Rescue Teams raised by National Disaster Management Authority (NDMA) completed the training phase. After completion of 18 months training phase these teams have participated in first ever National Mock Exercise in Karachi and Islamabad on a simulated scenario of collapsed structures. On completion of exercise now both the teams have become operational. The operational command of the Karachi USAR Team was handed over to City District Government Karachi on 12<sup>th</sup> November, 2009 while the second team was handed over to Capital Development Authority (CDA), Islamabad in a ceremony held at USAR Academy, Sector H-11 Islamabad pm 23<sup>rd</sup> November 2009. The training and the state of the art equipment has been provided with assistance of MSB (Swedish Rescue agency), Department for International Development (UK), and Swiss Agency for Development and Cooperation (SDC).

In addition to the training and equipment, Standard Operating Procedures (SOPs) have been developed for the team as well as by NDMA for the mobilisation of the team.

Total outlay of the project is US\$ 4 m. Out of total amount, US\$ 2m has been spent on technical equipment and training facilities for both teams

### 10.1.2 Community Rapid Response Teams

Community Rapid Response teams were trained and equipped in 4 districts: Kech, Quetta, Badin & Thatta. Overall, 20 persons including women were trained as master trainers and 40 government officials and civil society representatives were trained as light search and rescue workers. Search & Rescue and First Aid kits were provided to the governments of the 4 districts.



Fig: 10.2 Community Rapid Response Team

### 10.1.3 Pre-positioning of Relief Items

As a part of its forward planning to meet the emergency requirements of future disasters, the NDMA have made arrangements for advance stockpiling of relief items at various locations across the country. The pre-positioning of relief items will enable the NDMA to effect a timely response to disasters. The summary of pre-positioned relief items during the reporting year is at Annexure-V.

### 10.1.4 Pre-monsoon Coordination Conference

Soon after its inception, the National Disaster Management Authority started the process of holding pre-monsoon meetings with all stake holders. The purpose of holding such meetings with the stake holders is to identify the gaps and weaknesses in the existing arrangements and to take remedial measures to deal with any monsoon related emergency situation. So far three such meetings have been held by the NDMA.

The third Pre-monsoon Coordination Meeting was held in NDMA on 29<sup>th</sup> April 2009 to make a pre-monsoon assessment of preparedness, response and recovery capacities of the concerned departments/agencies. Progress on some of the major issues discussed during these meetings is summarized as below:

- **Survey of Road and Railway Bridges for Assessing Flood Drainage Capacity**

Due to silting and encroachment of unauthorized structures, the water ways at different locations have either been blocked or their capacities have been reduced substantially. During the pre-monsoon meetings held in NDMA, Ministries of Railways and Communication were asked to carry out a survey of railways and road bridges in the context of assessing the flood drainage capacity beneath these bridges. The Ministry of Communication/NHA has prepared and forwarded to NDMA the list of 30 waterway bridges which require work/maintenance. Similar report from Railways is however still awaited. The issue was also discussed during the 44<sup>th</sup> special meeting of the FFC held in the Ministry of Water and Power on 17<sup>th</sup> June, 2009 in which it was again emphasized to give due attention to this potential hazard keeping in view the population growth and establishment of human settlements in the vicinity of the rivers.

During the following up meetings with the representatives of NHA and Ministry of Railways, the NDMA highlighted the Shahdara Railway Bridge as one of the potential site whose water passage capacity has been substantially reduced. It can accommodate 250,000 Cusec water flow whereas the downstream road bridge has a capacity of 350,000 Cusec. As such there was an urgent need to raise the level of the Railway Bridge and the adjacent old road bridge to avoid any flooding in the Shahdara Railway Bridge due to heavy floods. On the initiative of NDMA Ministry of Water and Power arranged a meeting of all the stakeholders relating to Shahdara Railway Bridge during July 2009 to deliberate upon different issues of the project.

- **Flood Early Warning System**

The other main decision of the pre-Monsoon Meeting of April 2009 was installation of Flood Early Warning System at different locations by the FFC. The system is yet to be installed due to lack of funds. The FFC has however approached the Government of Japan for financial assistance which will provide funds for the project under their 2010 program. A Japanese Mission, in this regard, is expected to visit Islamabad during February 2010 to carrying out an assessment of the project before making any firm commitment.

- **Improvement of Drainage at Pat Feeder Canal.**

Since the area lies on the boundary of Sindh and Balochistan, therefore a joint committee was formed consisting members from the Agriculture Departments of Balochistan and Sindh under FFC. The SOPs of the Committee are being finalized by the Irrigation and Power Departments of the two Provinces.

- **Flood Protection Bund (Maintenance Works)**

On the basis of the deliberations made during the conference, NDMA issued necessary instructions for initiation of necessary action on the pending issues including maintenance of old bunds. In response GHQ carried out a reconnaissance of Protection Bunds in vulnerable districts viz D.G. Khan, Rajanpur, Sahiwal and Okara; and identified weak points in these protection bunds which needed immediate attention to avoid any breach and consequent problems. NDMA on its part, has approached the provincial irrigation department for repair works.

## **10.2 Disaster Response Activities**

The NDMA is mandated under the law to deal with whole spectrum of disaster management including coordinating response and relief activities to be undertaken in the event of a man made or natural disaster. During the reporting year, the NDMA undertook following response activities:

### **10.2.1 First Meeting of the Disaster Management Team (DMT)**

Keeping in view the above legal and institutional arrangements under the new Disaster Management System and the lessons learnt during Earthquake 2005 and Cyclone/Floods of 2007, a Disaster Management Team (DMT) was established on 13<sup>th</sup> December, 2007 by NDMA, UNHRC, UN agencies/Funds/ Missions, Red Cross Movement, Pakistan Red Crescent Society, International NGOs, National NGOs and representative from Civil Society Organizations to establish a “Forum” where humanitarian situation and disaster preparedness and response can be planned, strategize and implemented. The coordination structure of the DMT is placed at Annexure-VI.

In the wake of ongoing unrest in certain parts of NWFP and FATA, the resultant challenge of dealing with the problem of Internally Displaced Persons (IDPs), the NDMA, in consultation the UNRC’s Office, convened the meeting of the DMT, on 16<sup>th</sup> February, 2009, at the NDMA’s Headquarters. The purpose of the meeting was to establish an effective, efficient and synergized disaster response, involving all stakeholders, to deal with the emergent situation.

### 10.2.2 Development of National Disaster Logistics Plan

Being one of the primary components of DRM, efficient logistic support from its point of origin to consumption is vital to alleviate the suffering of disaster victims in an early time frame. For this purpose logisticians must develop a comprehensive plan to ensure uninterrupted supply of relief goods during the periods of crisis through out the length and breadth of the country. The aspect of retaining flexibility for transportation of additional shipment needs to be in-built in the logistic plan to ensure smooth flow during the surge periods.

The National Disaster Risk Management Framework assigns the responsibility of preparing contingency plan and SOPs for transportation of emergency relief supplies to the National Logistic Cell (NLC). In view of the defined role of NLC under the Framework and its capacities as the lead logistics organisation, the NDMA assigned the NLC to prepare a National Logistic Plan for execution in the event of a major disaster situation.

After a protracted consultative process, the NLC has prepared National Logistic Plan for execution in the wake of a disaster for efficient and safe transportation of relief items. The Logistics Plan caters for all the three phases of disasters which are pre-disaster (planning), during and post-disaster. For the purpose of logistic support, the entire country has been divided into 03 Zones; South Zone covers the Province of Sindh and Balochistan with its headquarters at Karachi, Central Zone covers the Province of Punjab (Excluding Rawalpindi) with its headquarters at Lahore while North Zone covers Gilgit- Baltistan AJ&K, NWFP, Islamabad Capital Territory and District Rawalpindi with its Headquarters at Rawalpindi.

All the three zones have been assigned the task to prepare contingency plans and SOPs for transportation of emergency relief supplies from bases to forward locations during disasters through road, rail, air and sea by coordinating integral as well as private transport organizations. GM Logistics, Headquarters NLC, GHQ to act as Chief Coordinator, besides embedding of NLC Liaison Team with NDMA during operations.

### 10.2.3 Provision of Relief to Displaced People of NWFP and FATA

In line with its mandate under the law, the NDMA coordinated relief operations for the IDPs of NWFP and FATA upto May, 2009. However, as a matter of policy, the government decided thereafter to deal with the IDPs crisis through ad-hoc institutional arrangements. Nevertheless, the NDMA continued to provide relief items from its prepositioned stocks to the IDPs on the request of relevant authorities. The summary of relief



ISLAMABAD: May 04 – Federal Minister for Overseas Pakistanis Dr. Farooq Sattar handing over food and other relief items for internally displaced people of Buner and Dir to the National Disaster Management Authority.

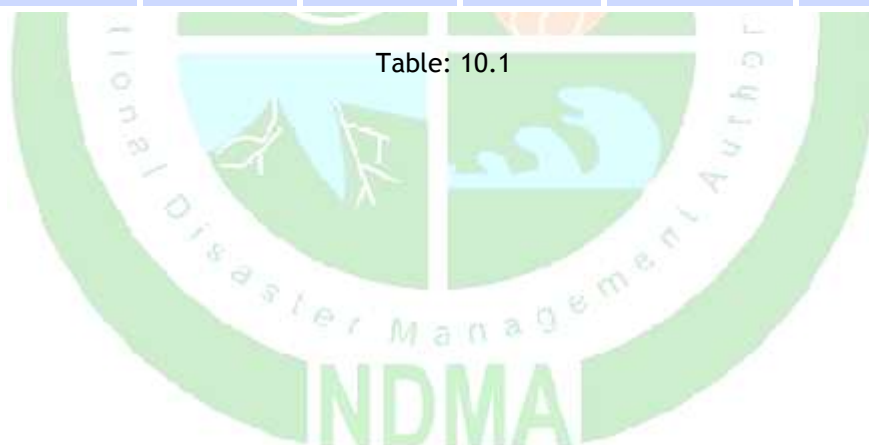
Fig: 10.3

## Annual Progress Report 2009

assistance provided to the IDPs of NWFP and FATA up to end December 2009 is given as under:

Recipients	Tents	P/Matts	B/ Quilts	Jackets	F/Ration P	Medicines	Shawls
NWFP Govt	19200	0	40900	0	600TONS	0	0
Malakand	0	0	300	1000	20000	0	0
Spl Eid Package	0	0	0	0	4 TONS	0	0
DIK	1000	20000	0	3000	25000	0	0
Bannu	0	0	0	0	5000	0	0
Tank	0	0	0	0	15000	0	0
Swat / Mangora	0	2700	0	0	26600	3.9	0
Tank	2185	0	0	0	1000	2.8	0
Bajaur	2000	4000	0	0	0	0	0
FATA	200	0	0	0	200	0	0
Lower Dir	500	0	1000	0	11000	0	0
DCO Rawalpindi	50	0	100	0	50	0	0
FC NWFP	0	0	20000	0	0	0	35000
HQ 37 Division	10000	0	0	0	0	0	0
<b>TOTAL</b>	<b>35135</b>	<b>26700</b>	<b>62300</b>	<b>4000</b>	<b>118850</b>	<b>6.7</b>	<b>35000</b>

Table: 10.1





## 11. CHALLENGES

The existing disaster management dispensation introduced through the promulgation of National Disaster Management Ordinance in December 2006 is at the nascent stage of formation. The new system entails a paradigm shift from the traditional reactive emergency response-oriented approach to pro-active preparedness and mitigation approach. Disaster Risk Management being relatively a new concept is bound to face numerous challenges in its acceptance as a concept and practice by the relevant stakeholders.

The NDMA since its inception in 2007 has been striving hard to strengthen the envisaged disaster management system under the law through various strategic interventions at the Federal, Provincial and District levels. However, the efforts of the NDMA alone may not suffice to develop a comprehensive efficient disaster management system in the country on a sustainable basis unless it has the consistent support of all key stakeholders. Some of the challenges faced by the NDMA in implementation of National Plans and Strategies in DRM have been as under:

- **Policy of ad-hocism**

The National Disaster Management Ordinance calls for the establishment of permanent legal entities for disaster management. Accordingly, disaster management institutions have been established at the Federal, Provincial/Regional and District levels. These institutions require enabling environment at the respective levels to function as per law and evolve themselves as dependable institutions. However, the evolution process of these institutions suffer set backs when the governments resort to creation of ad-hoc institutions to perform statutory functions in place of the DM entities already created under the law. The adhoc arrangement rendered the existing disaster management coordination mechanism, developed under the existing legal arrangements, irrelevant. Such adhoc policy retard the developing process of the newly established disaster management system.

- **Political attention**

Political will and consistency in policies is key for the successful implementation of National Policies and Strategies on DRR. The major challenge for the development practitioners in the field of DRR would be to secure consistent support from the federal and provincial governments to treat DRR as a prioritized item on the agenda list of its national priorities.

- **Non implementation of NDMC decisions**

The NDMC is the apex policy making institution in the field of disaster management. It is headed by the Prime Minister and constituted by Chief Ministers of all Provinces and Gilgit Baltistan, Prime Minister of AJ&K, Opposition Leaders of National Assembly and Senate, all key Federal Ministers, and Chairman Joint Chiefs of Staff Committee. Thus

the NDMC invariably represents the whole National Leadership and its decisions can be taken as the reflection of National aspiration.

- **Lack of awareness and non responsiveness by key stakeholders**

Although a paradigm shift has been effected through adoption of prevention, mitigation and preparedness approach in place of traditional Emergency and Response oriented approach, the implementing partners at the Government and Community level suffer from lack of awareness about the newly adopted approach. The Government Ministries/Departments have been practicing the traditional approach and their capacities developed over the decades are not compatible with the requirements of the new approach. This predicament is having an advance impact on the performance of roles and responsibilities by the relevant Ministries/Departments and Institutions as envisaged under the Framework. Lack of awareness coupled with deficit in DRM capacities continued to be one of the major challenges for the NDMA as the desirable response has not been as comprehensive from the relevant stakeholders in the implementation of National Policies and Strategies in the field of disaster risk reduction.

- **Overdependence on donor agencies**

The National Disaster Management Ordinance calls for provision of dedicated resources by the federal as well as provincial governments for disaster management. Accordingly, the National Disaster Management Fund (NDMF) has also been established under the NDMA but as of now the government is yet to provide any funds for the NDMF. As far as the provincial governments are concerned the notification for the establishment of Provincial Disaster Management Funds are even not issued. The situation renders the NDMA undesirably over dependent on donor agencies. The absence of any substantial financial contribution from the government for the DRR initiatives also wavers donor's commitment.

## 12. LOOKING AHEAD

The promotion of a culture of prevention and mobilization of adequate resources for disaster risk reduction, is an investment for future with substantial return. Therefore, all the challenges in the path of progress towards building institutional capacities in disaster risk reduction need to be overcome at the earliest. However, despite a multitude of challenges, the nascent disaster management system introduced in December, 2006, is evolving which is evident from the progress made in different areas of disaster risk reduction.

The National Disaster Management Commission (NDMC) as the apex policy making body and the NDMA as the lead Federal Agency in the field of disaster management are fully functional. The NDMC under the chairmanship of the Prime Minister has held two meetings since its inception and made several key decisions for the strengthening of disaster management system in the country. Likewise, Provincial/Regional and District entities have also been established and the awareness of the leadership as well as communities about the importance of DRR for sustainable socio economic development has shown a marked improvement. The NDMA, in line with its mandate, has been consistently making strategic interventions at the provincial and district levels to give impetus to institutional development of disaster risk management processes.

A substantial progress for the collection of accurate and easily accessible data encompassing different aspects of disasters has been made through National Risk Assessment Project. The availability of data after implementation of risk component of the project will play a key role for objective decision making. However, no such data is currently available in a centralized and digitized form. The NDMA initiatives of working on establishing a central data base will provide accuracy and objectivity to policies and strategies on DRR.

The National Composite Risk Assessment exercise is likely to be completed by 2011 as all the prerequisites have been met. The project will lead to the development of National Hazard Atlas of Pakistan. The response component of the Project has been completed and National Disaster Response Plan will be circulated to all stakeholders for implementation after its approval by the NDMC. The establishment of National Emergency Operations Centre (NEOC) equipped with modern technology is underway and the procurement plan for the equipments has been forwarded to World Bank.

The research/development and training capacities will be enhanced with establishment of National Institute of Disaster Management (NIDM). The land for the NIDM has been allotted and its conceptual design has been finalized by the Japanese expert hired by JICA. The Institute will be a Centre of Excellence, catering to the domestic as well as regional training and research needs. If the pace of development work remains in line with the defined milestones.

The National Working Group on Mainstreaming DRR has recommended the strategies and modalities for the integration of DRR into development policies and projects within a few months time. It is expected that by 2010, all development policies and programmes, will be designed with DRR element inherently built in as a matter of policy.

The capacity building measures taken by the NDMA has augmented the local capacities in preparedness and response; and established two state of the art Urban Search and Rescue teams for CDGK and CDA, Islamabad. The NDMA is currently negotiating with donor agencies to raise additional teams for more cities.

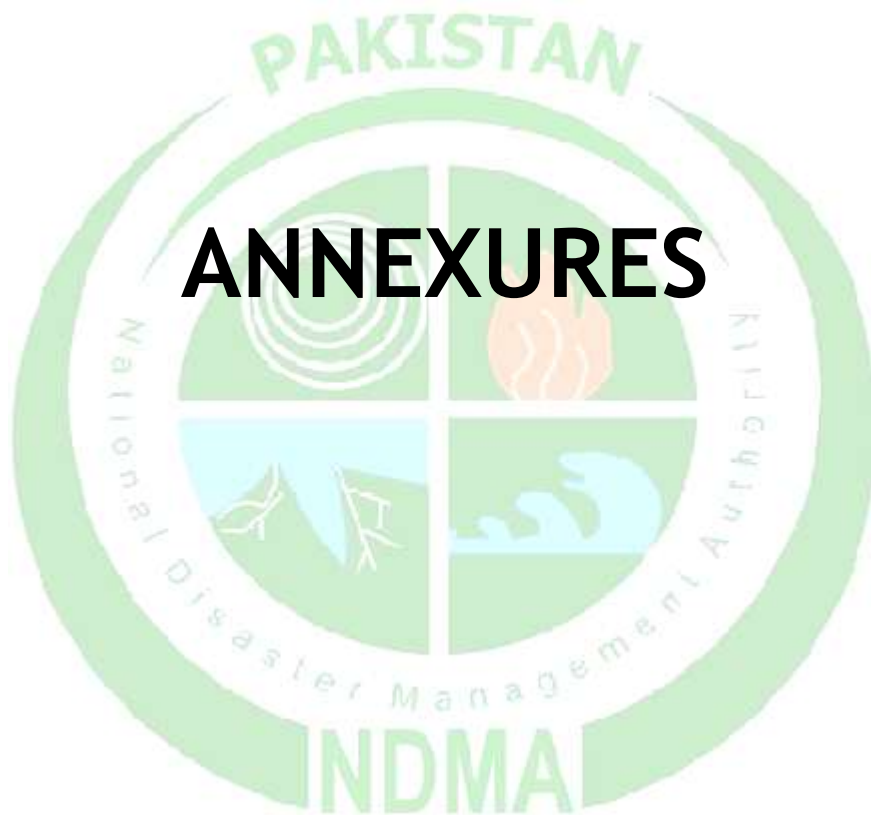
As a key initiative to raise public awareness, the NDMA is coordinating with Ministry of Education to incorporate the subject of DRR in National Syllabi. Likewise, the NDMA is working with the National School of Public Policy (NSPP) for the integration of DRR into the training modules for in-service training of civil servants. It is expected that a revised curricula integrated with DRR subject will be introduced by 2010. The NDMA conducted Tsunami Evacuation Drills in the coastal areas of Sindh and Balochistan which led to enhanced awareness among the vulnerable coastal communities about the tsunami risks and their management.

Keeping in view the importance of DRM planning in minimizing the effects of disaster risks, the NDMA has been implementing different capacity building programmes in DRM planning. As a result the provincial / regional DRM Plans of the four provinces, AJ&K and Gilgit-Baltistan have been prepared and ready for implementation by the respective governments. Likewise, capacity building initiatives in DRM Planning were launched and implemented in selected vulnerable districts across the country. District DRM Plans were developed for the sixteen (16) most vulnerable districts and are in the process of finalization. Once finalized, local level DRM programmes will be initiated and implemented by the respective district governments.

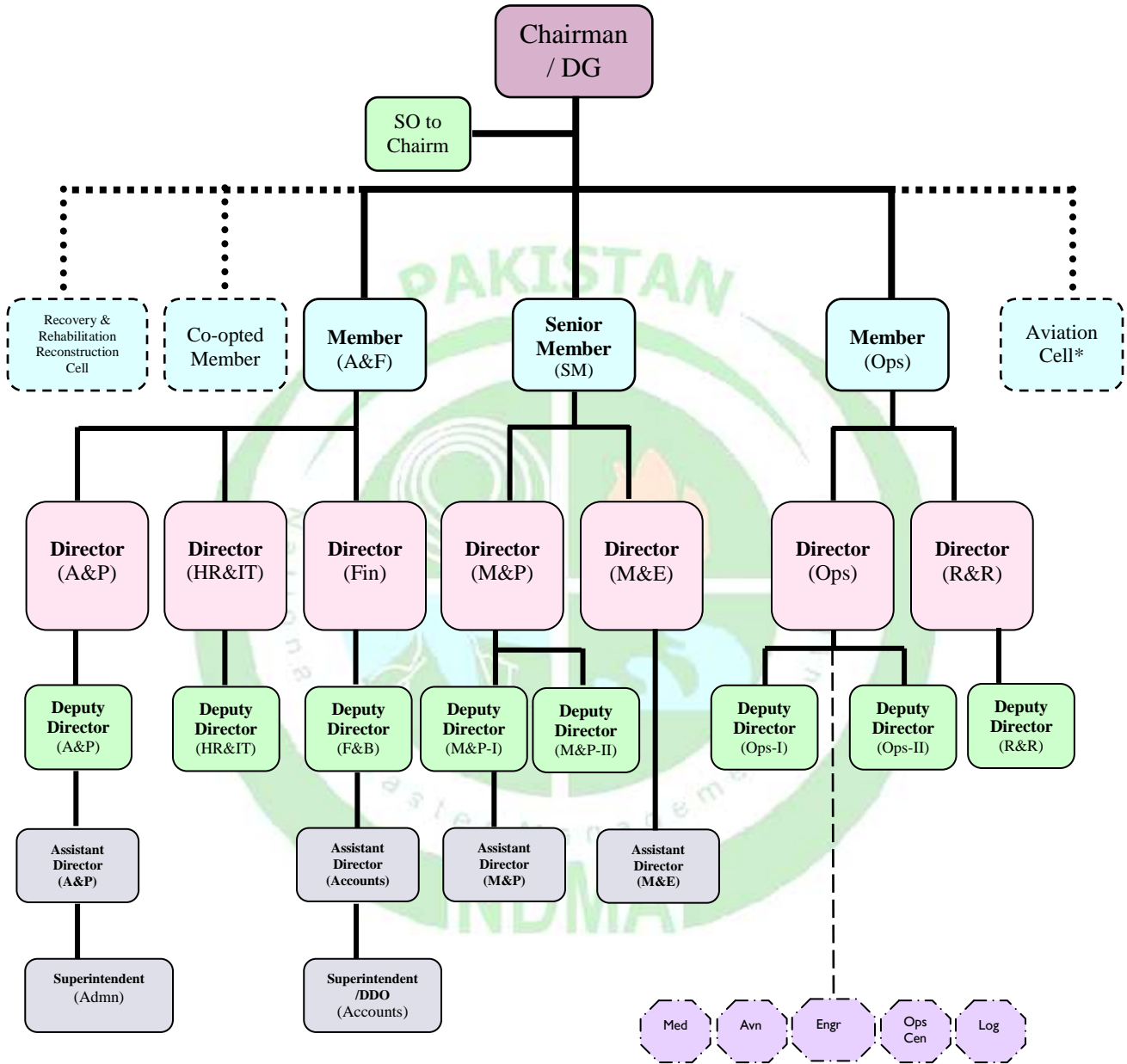
To enhance institutional preparedness in dealing with disaster risks, the NDMA has been implementing an integrative contingency planning process for all hazards and has developed several contingency plans. The contingency plans which have so far been finalized included: the winter contingency plan, cyclone contingency plan for Karachi, Monsoon contingency plan, Industrial and technical accidents contingency plan and Marine oil / chemical spill contingency plan. During 2010, contingency plans for drought, earthquakes, tsunami and mass casualty management will be developed. Besides the National Disaster Response Plan has been developed to ensure integrated institutional response to both natural and man made calamities.

The NDMA is also closely working with donor agencies for development of a Multi-Hazard Early Warning System in the Country. Several initiatives for capacity building in Early Warning System, especially for Tsunami Early Warning Systems in the coastal belt, have already been implemented and some are in progress.

Successful realization of the new disaster risk management, enhanced commitment for the implementation of national policies and strategies need to be made at the Federal as well as Provincial level, through allocation of dedicated resources and provision of administrative support to strengthen the disaster management entities at the respective level.



## ORGANOGRAM OF NDMA



## Sanctioned &amp; Acquired Posts in BS-17 and above

S.No.	Name of Post	Total Strength	Permanent / Deputation	Temporary / Contract	Vacant
1	Chairman (BS-22)	1	1	-	-
2	Senior Member (BS-21)	1	1	-	-
3	Member (BS-20)	2	2	-	-
4	Director (BS-19)	7	7	-	-
5	Deputy Director (BS-18)	8	7	1	-
6	Staff Officer to Chairman (BS-18)	1	1	-	-
7	Assistant Director (BS-17)	4	1	3	-
8	Librarian (BS-17/18)	1	-	-	1
9	Private Secretary (BS-17/18)	1	1	-	-
<b>Total</b>		<b>26</b>	<b>21</b>	<b>4</b>	<b>1</b>

## Sanctioned &amp; Acquired Posts in BS-1 to BS-16

S.No.	Name of Post	Total Strength	Permanent / Deputation	Temporary / Contract	Vacant
1	Superintendent (B-16)	2	2	-	-
2	Stenographer (B-15)	11	11	-	-
3	Assistant (B-14)	9	9	-	-
4	Stenotypist (B-12)	11	6	-	5
5	UDC (BS-9)	8	8	-	-
6	LDC (BS-7)	9	8	-	1
7	Driver (BS-4)	14	14	-	-
8	Naib Qasid (BS-2)	21	19	-	2
<b>Total</b>		<b>85</b>	<b>77</b>	<b>-</b>	<b>8</b>

**Human Resource Development (HRD) Database  
Capacity Building Programme  
Trainings during 2009**

S #	Project Title	Training Title	Training Duration	Date	Venue	# of participants trained		Total Participants
						Male	Female	
1	One UN DRM Programme	Simulation Exercise for Newly Inducted Probationary Officers (DMG Group)	2 days	19 May 2009	Lahore	39	6	44
2	One UN DRM Programme	Training Course on DRM for Sindh dist. Govt. officials	6 days	13-18 July 09	Karachi	32	1	33
3	One UN DRM Programme	Training Course on DRM for Punjab dist. Govt. officials	6 days	1-6 June 09	Lahore	30	-	30
4	One UN DRM Programme	Training Course on DRM for Balochistan distt. Govt. officials	5 days	8-12 Aug 09	Karachi	34	-	34
5	One UN DRM Programme	Training Course on DRM for FATA & NWFP govt. officials	6 days	5-10 Oct 09	Islamabad	24	2	26
6	Mainstreaming DRR into Development	Workshop on Mainstreaming DRR into Development: Strategic Issues and Prospects at Ministerial Level	01 Day	17 Aug. 2009	Murree	26	00	26
7		Training Course For Ministry of Housing & Works on Mainstreaming Disaster Risk Reduction in Development	03 Days	11-13 Nov. 2009	Muzaffarabad	24	03	27
8		Training Course for Ministry of Industries & Production on	03 Days	19-21 Nov. 2009	Islamabad	31	01	32



## Annual Progress Report 2009

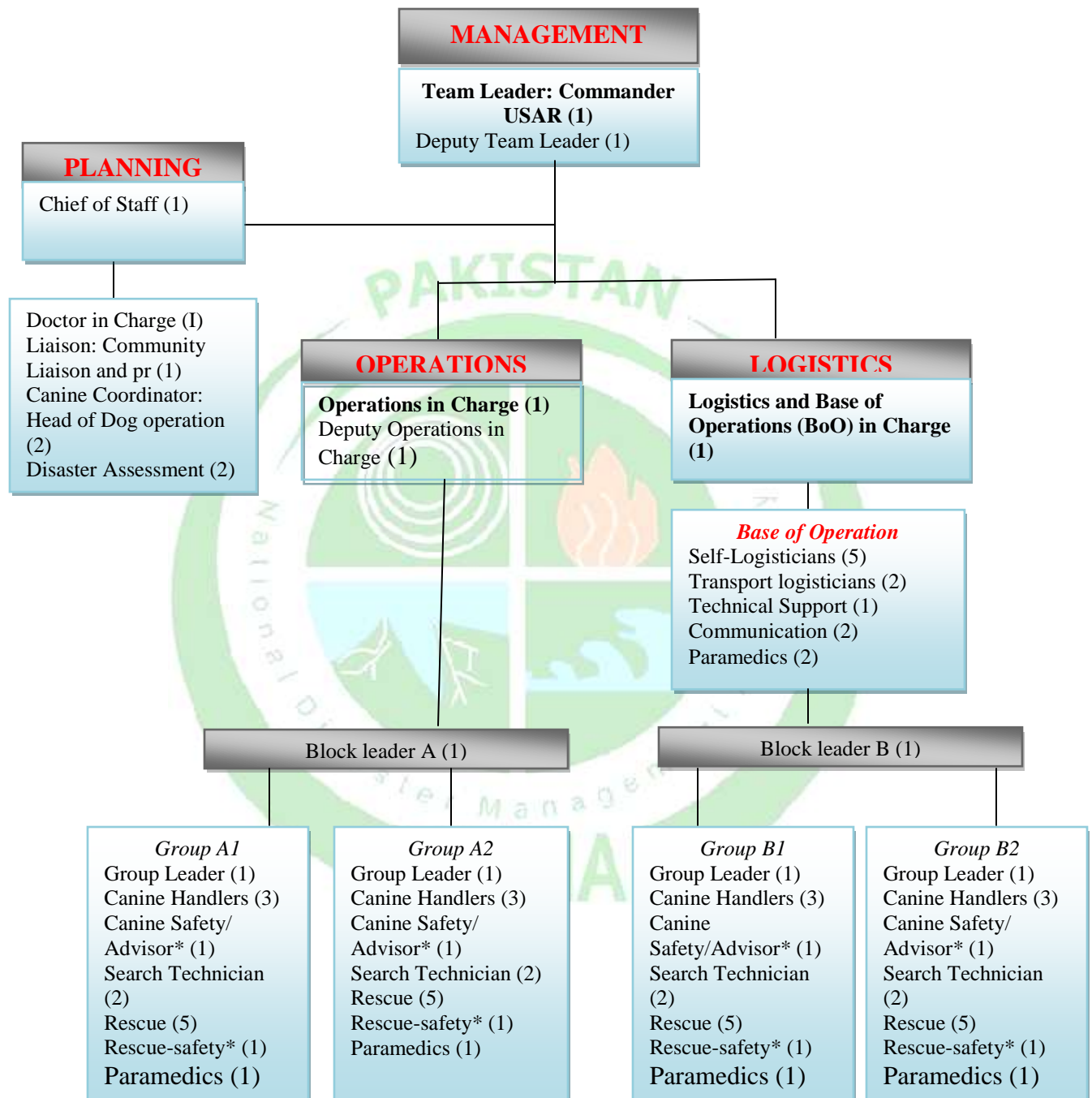
		Mainstreaming Disaster Risk Reduction in Development Process						
9	Strengthening TEWS in Pakistan	Tsunami and Coastal Hazard Preparedness for community volunteers	½ day (7 session )	12-15 July, 2009	Gwadar, Pasni & Ormara	89	82	171
10	Strengthening TEWS in Pakistan	Workshop on Tsunami & Coastal Hazard Preparedness	2xday	17-18 Aug, 2009	Karachi	54	6	60
11	Strengthening TEWS in Pakistan	School children training on Tsunami & Coastal Hazard Preparedness	1x day (8 sessions)	7-15 Sep, 2009	Jewni, Gwadar, Pasni & Ormara	468	382	850
12	Strengthening TEWS in Pakistan	Tsunami Evacuation Drill	1xday	Nov 01, 2009	Jewni	500	400	900
13	Strengthening TEWS in Pakistan	Tsunami Evacuation Drill	1xday	Nov 14, 2009	Ormara	700	600	1300
14	Strengthening TEWS in Pakistan	Tsunami Evacuation Drill	1xday	Nov 17, 2009	Pasni	800	600	1400
15	Strengthening TEWS in Pakistan	University Students training for Coastal Hazard Preparedness	2x days workshop	22-23 Dec, 2009	Karachi	50	10	60
16	Flood/ Cyclone Mitigation	SAR Provincial Training Karachi	7 days	8 January	Karachi	14	08	22
17	-do-	Volunteers Trainings on EWS	2 days each	4 trainings March to April	Kech	108	12	120
18	-do-	Volunteers training on HVCA	3 days	4 -6 DEC	Sialkot	06	13	19
19	-do-	Volunteers training on HVCA	3 days	7 -9 DEC	Thatta	16	--	16
20	-do-	Volunteers training on HVCA	3 days	17 -19 DEC	Badin	10	05	15
21	Consultative workshop on Earthquake Risk Scenario and Action Planning	With relevant stakeholders	2 days	19-20th March, 2009	Islamabad	55		55
22	Regional workshop on structural &	With relevant stakeholders	2 days	28-29th April 2009	Muzaffarabad	98		98

## Annual Progress Report 2009

	non-structural solutions for earthquake risk reduction, Islamabad							
23	Orientation workshop on retrofitting techniques, design and methodology		1day	4th June, 2009	Muzaffarabad	54		54
24	Workshop on operational guidelines for municipal disaster management cell			19th June, 2009	Muzaffarabad	28		28
25	Workshop on land use planning for earthquake risk reduction and preparedness			27th September 2009	Muzaffarabad	60		60
26	Emergency response simulation exercise for public officials			1st October, 2009	Muzaffarabad	30		30
27	Strengthening Early Warning System in Pakistan	Development of Standard Operating Procedures for end to end Tsunami Early Warning System --I	5-Days	9-12 February 2009	Karachi	22	03	25
28	Strengthening Early Warning System in Pakistan	Development of Standard Operating Procedures for end to end Tsunami Early Warning System --II	5-Days	4-8 May 2009	Islamabad	26	02	28
29	Strengthening Early Warning System in Pakistan	Developing Capacities for Tsunami Decision Support System	6-Days	04-09 August 2009	Karachi	15	0	15
30	Strengthening Early Warning System in Pakistan	Tsunami Warning Dissemination Through Media	2-Days	October 5-6, 2009	Karachi	27	03	30

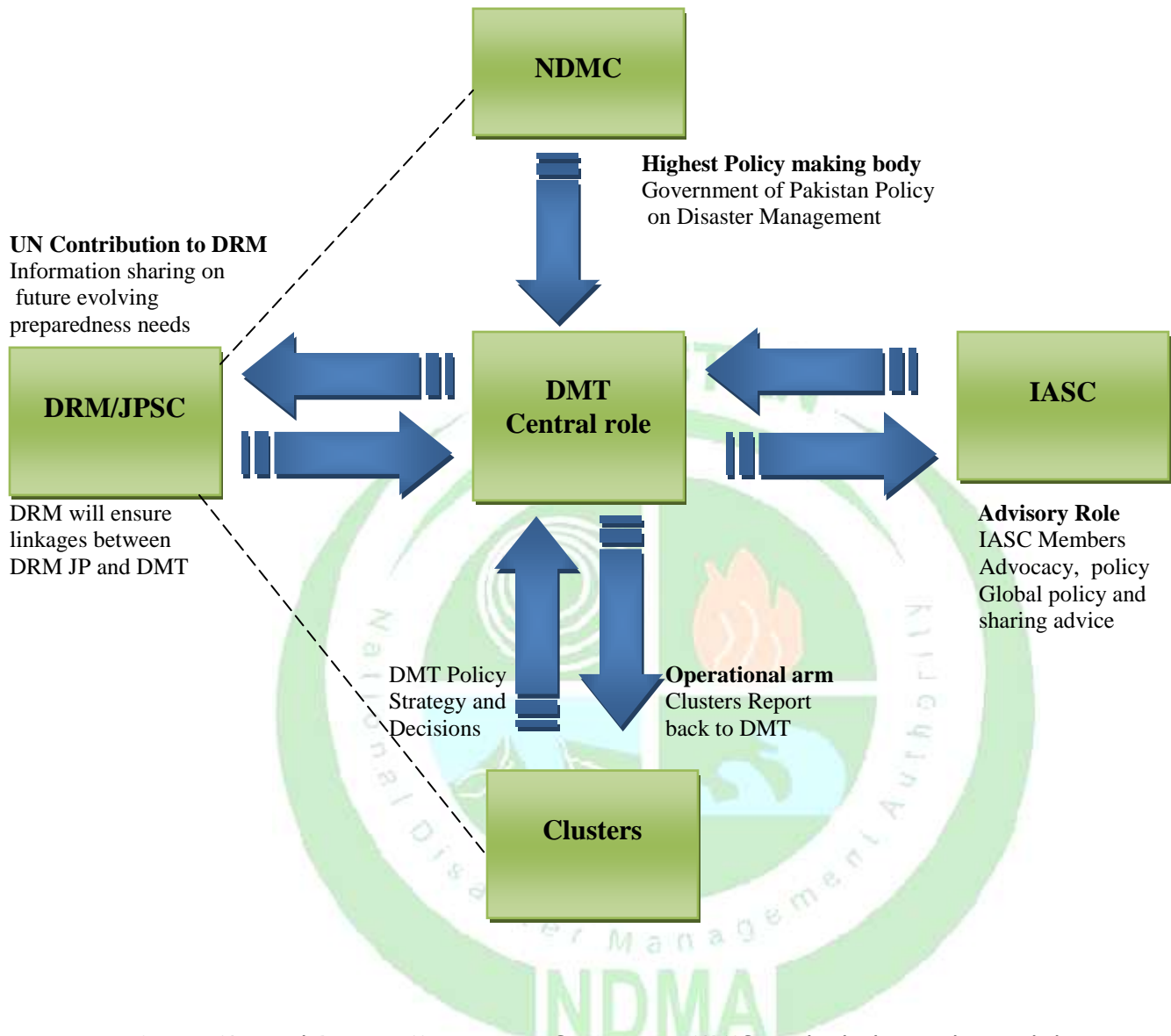
31	Strengthening Early Warning System in Pakistan	Development of Standard Operating Procedures for end to end Tsunami Early Warning System -III	5-Days	23-27 November 2009	Karachi	22	03	25
32	Strengthening Early Warning System in Pakistan	Tsunami Simulation and Inundation Modelling	5-Days	7-11 December 2009	Karachi	25	02	27
33	Master Trainers Training Course	Training on Basic Principles of Earthquake Resistant Construction	3 Days	21 October	Rawalakot	35	0	35
34	Master Trainers Training Course	Seismic Vulnerability Assessment of Buildings	3 Days	28 <sup>th</sup> to 30 <sup>th</sup> October	Abottabad	20	0	20
35	Master Trainers Training Course	Communication, Presentation, Group Dynamics and Facilitation Skills	3 Days	4 <sup>th</sup> to 6 <sup>th</sup> November	Rawalakot	21	0	21
36	Training of Trainers	Training on development of project proposal	2 Days	27 <sup>th</sup> -28 <sup>th</sup> October 2009	Islamabad	11	0	11
37	Training Course	Orientation on Shelter need assessment and construction-How to start field activities	4 Days	23 <sup>rd</sup> to 26 <sup>th</sup> November 2009	Mardan	80	0	80
38	Training course for media persons	Disaster Reporting	3 days	16 <sup>th</sup> to 18 <sup>th</sup> December	Islamabad	28	02	30
39	Training course / workshop	Disaster Risk Management For Women	3 days	21 <sup>st</sup> to 23 <sup>rd</sup> December	Islamabad	0	38	38

**COMPOSITION OF HEAVY USAR TEAM**



PRE-POSITONING & STOCKPILING OF RELIEF ITEMS								
ITEMS	ISLAMABAD	KARACHI	RAWALPINDI	LAHORE	QUETTA	GILGIT-BALTISTAN	AJ&K	TOTAL
Tents	43,103	5232	6414	3620	4,111	114	1900	64,494
Blankets	234,800	114,020	36,711		10,096	2,519		398,146
Shawls			71,000					71,000
Plastic Mats	105,235	57,805			30,000	1,365	6,000	200,405
Plastic Sheets	985		152					1,137
Sleeping Bags		280	2185			75		2,540
Self Inflations Mattress +Mattress	800		1,188					1,988
Carpets ex Saudi Arabia (Cotton Mats)		1,000						1,000
Fiber Glass Sheets	3,363						300	3,663
Net Mosquito	5,604							5,604
Shelter		400	212					612
Jackets	10,323							10,323
De-Watering Pump	13							13
Hygiene Kit Module	6,384							6,384
Emergency Medical Module	4,545							4,545
Mixed Climates/ Orphanage Module	1,862							1,862
Newborn Kit Module	816							816
Tent Latrines	100							100
Rural Plastic Slabs	100							100
Water Tank	1	35						1
Water Purification Unit	1							1
Emergency Water Filtration Kit		1520						1,520
Collapsible Water Carrier (10 Lits)	8,000							8,000
Generator	61							61
Small Boots	43							43
Rub Hall		3			2			5
Rice	17 Tons	113 KG				2 Tons	1 MT	19.3 MT
Tea(Kg)	7						16	23
Utensil Cooking Sets						100		100

**COORDINATION MECHANISM BETWEEN THE GOVERNMENT AND HUMANITARIAN COMMUNITY**



1. National Disaster Management Commission (NDMC) is the highest policy and decision making body for Disaster Management in Pakistan. The policies of the NDMC are to be executed by the NDMA.
2. Disaster Management Team (DMT) will be the Central decision making and coordination body for the entire humanitarian community (UN, International NGOs, Red Cross Movement/Red Crescent Society and National NGOs) in Pakistan.
3. DMT will make policy & strategy in line with NDMC's directions
4. DMT will receive advocacy/policy advice from the Inter-Agency Standing Committee (advisory role)
5. Clusters will report to DMT for guidance and direction and will be the operational arm of the DMT
6. Disaster Risk Management- Joint Program Steering Committee (DRM/JPSC) will ensure linkages with DMT, complementing Disaster Preparedness, Response and Early Recovery, DRM Thematic Working Group (TWG) is responsible for planning and formulation of joint Programme. Subsequently follow up implementation of JP would be managed by JP Steering Committee.