

NDMA

National Disaster Management Authority (NDMA)
Prime Minister's Secretariat, Islamabad

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2010



Annual

NDMA Annual Report 2010

National Disaster Management Authority
Prime Minister's Secretariat, Islamabad
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ABBREVIATIONS

ADB	Asian Development Bank
ADPC	Asian Disaster Preparedness Center
AJ&K	Azad Jammu and Kashmir
AKRSP	Agha Khan Rural Support Programme
ARC	American Red Cross
BOQ	Bill of Quantity
CADRE	Community Action for Disaster Response
CBDRM	Community Based Disaster Risk Management
CBOs	Community Based Organizations
CDA	Capital Development Authority
CDWP	Central Development Working Party
CIDA	Canadian International Development Agency
CSOs	Civil Society Organizations
DAE	Diploma in Associate Engineering
DCO	District Coordination Officer
DMS	Disaster Management System
DNA	Damage and Need Assessment
DRR	Disaster Risk Reduction
EMME	Earthquake Model of the Middle East
ERA	Earthquake Risk Assessment
ERRP	Earthquake Risk Reduction and Recovery & Preparedness
FAO	Food and Agriculture Organization
FC	Frontier Crops
FFC	Federal Flood Commission
FOBs	Forward Operating Bases
FODP	Friends of Democratic Pakistan
GB	Gilgit Baltistan
GBDMA	Gilgit Baltistan Disaster Management Authority
GDP	Gross Domestic Product
GEM	Global Earthquake Model
GIS	Geological Information System
HIM	Humanitarian Information Management
HLV	Hazards Livelihood Vulnerability
HVCA	Hazards Vulnerability and Capacity Assessment
IAG	Industrial Advisory Group
ICT	Islamabad Capital Territory
IFIs	International Financial Institutions
IM	Information Management
IOM	International Organization for Migration
IOs	International Organizations
IPs	Implementing Partners
IT	Information Technology
JICA	Japan International Cooperation Agency
KP	Khyber Pakhtunkhwa
LFS	Logistic Flow System
MDMCs	Municipal Disaster Management Cells
MOB	Main Operating Base
MOD	Ministry of Defence

MOFA	Ministry of Foreign Affairs
MOHW	Ministry of Housing and Works
MOI	Ministry of Interior
MOIP	Ministry of Industries and Production
MOU	Memorandum of Understanding
MSA	Maritime Security Agency
MTBF	Medium Term Budgetary Framework
NADRA	National Database Registration Authority
NAVTEC	National Vocational and Technical Education Commission
NDMA	National Disaster Management Authority
NDRMF	National Disaster Risk Management Framework
NDRP	National Disaster Response Plan
NEOC	National Emergency Operation Centre
NESPAK	National Engineering Services of Pakistan
NFC	National Finance Commission
NFI	Non-Food Items
NGOs	Non-Governmental Organizations
NHA	National Highway Authority
NHEPRN	National Health Emergency Preparedness and Response Network
NIDM	National Institute of Disaster Management
NOC	No Objection Certificate.
OFDA	Office of Foreign Disaster Assistance
PAF	Pakistan Air Force
PCG	Pakistan Coast Guard
PCO	Pakistan Census Organization
PDF	Pakistan Development Forum
PDMA	Provincial Disaster Management Authorities
PEER	Programme for Enhancement of Emergency Response
PEOCs	Provincial Emergency Operation Centers
PFRRRP	Pakistan Floods Relief and Early Recovery Response Plan
PHF	Pakistan Humanitarian Forum
PIM	Pakistan Institute of Medical Sciences
PMD	Pakistan Meteorological Department
PN	Pakistan Navy
PSDP	Public Sector Development Programme
PTCL	Pakistan Telecommunication Corporation Limited
R&R	Rescue & Relief
RCC	Regional Consultative Committee
RCDC	Rural Community Development Council
SDMA	State Disaster Management Authority
SOPs	Standard Operating Procedures
SRF	Single Reporting Format
SUPARCO	Space and Upper Atmosphere Research Commission
TMA	Tehsil Municipal Administrations
UAE	United Arab Emirate
UCs	Union Councils
UN	United Nations
UNDP	United Nations Development Programme
UNDRMP	United Nations Disaster Risk Management Programme
UNESCO	United Nations Educational Scientific and Cultural Organization
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
USAR	Urban Search and Rescue
WB	World Bank
WFP	World Food Programme
WHO	World Health Organization



SUMMARY

Fortunately, after the massive Earthquake of 2005, Pakistan was blessed with a National Disaster Management System, which though was at a nascent stage of development, but the flood of 2010, propelled it to the fore front and provided a framework to launch the Relief / Early Recovery work. All the wings of National Disaster Management Authority (NDMA) to include Operations Wing, Disaster Risk Reduction (DRR) Wing and Support and Services (S&S) Wing, being functional arms of NDMA, were strengthened and their capacity to respond to natural disasters was enforced through institutional capacity building, training and effective human resource management. Additionally support structures like National Institute of Disaster Management (NIDM), National Disaster Management Fund (NDMF) were fully operationalised which helped NDMA to effectively manage a wide range of disasters including Floods 2010, Attabad Lake Crisis in Hunza, PHET Cyclone, Kohistan Snow Avalanches, Evacuation of 260 Pakistani Students and Families from Osh, Kyrgyzstan and Air Blue Crash.

It was an exceptional year for NDMA both in terms of challenges and opportunities. On one hand, unprecedented flood of June 2010 brought massive scale of devastation throughout the country resulting in human casualties, collapse of infrastructure, houses, and agriculture land worth over US\$ 10 billion, while on the other hand, it posed serious challenges for NDMA to manage the aftermath of the flood and meet high level of expectations with limited capacity both in terms of human and financial resources. Nevertheless, NDMA took up the challenge with an unprecedented determination to serve the nation. Within a limited period of time it not only completed initial relief operations throughout every nook and corner of the country but also graduated successfully from relief to early recovery phase. The year 2010 has tested resilience of the nation but alongside also helped NDMA to analyze its functional capacity and identify institutional gaps for improvement.

The initial appeal was launched on August 11, 2010 seeking US \$ 459 million to respond to the immediate relief needs of flood-affected people. Subsequently, a revised "Pakistan Floods Emergency Relief and Early Recovery Response Plan" was launched on November 05, 2010, requesting assistance of US\$ 1.96 billion. This was finalized by NDMA in collaboration with United Nations (UN) to enable the humanitarian community to support Government of Pakistan in addressing the residual relief and early recovery needs of the flood affected population for next twelve months. As on December 31, 50.9% of funds out of the required amount of US\$ 1.96 billion have been received. All these projects are to be implemented by UN agencies, international organization, INGOs and NGOs and no amount is being routed through government channels

NDMA managed to rescue more than 1.4 million, besides providing food assistance, health coverage, WASH facilities and Shelter support to entire affected population through Govt and non govt channels. Under the financial relief package to the affectees, a financial package of PKR 20,000 each to the affected households was provided through Watan Card. The modalities were


finalised by NDMA and NADRA jointly and till date a total of 1.42 million household were issued these cards through which PKR. 26.6 billion were disbursed.

In order to facilitate inflow of foreign assistance and relief workers, NDMA devised a policy of issuance of visa on arrival for relief workers to Pakistan. On the request of NDMA the Government of Pakistan exempted import duties on all items. A comprehensive Logistic Flow System (LFS) was established to ensure timely and efficient receipt and dispatch of relief goods. NDMA remained main hub for coordination of rescue and relief activities implemented by government agencies, donors, local and international NGOs. As a result of collaborative efforts 97 percent of displaced population returned to their homes as of December 31, 2010. As against the 5,928 relief camps all over the country during peak floods, the figure came down to 103 relief camps where 91,773 flood affected people are still living as of December 31, 2010.

Year 2010 also witnessed significant organizational improvement in NDMA in relation to enhancing its response capacity. Several management initiatives were undertaken and a number of new additions like Strategic Planning Unit (SPU), Gender and Child Cell, Call Centre, E-Office, Logistic Unit and Media Cell were created within NDMA to make it work at an optimum level.

Disaster Risk Management remained the cornerstone of NDMA's working during 2010. NDMA had active role in carrying forward the risk mitigation agenda in a coordinated manner under the National Disaster Risk Management Framework (NDRMF) 2007 to meet the objectives of Hyogo Framework for Action (HFA) 2005-2015. A medium term DRM plan was develop for implementation over a period of five years (2011-2015). One UN DRM programme, which is a joint initiative of 13 UN agencies with total budget of US\$ 3.7 million, was successfully implemented in 50 high risk districts. Tsunami early warning system, floods and cyclone mitigation and earthquake risk reduction and preparedness were all undertaken in collaboration with UN agencies, government agencies and other development partners. To ensure streamlining DRR in disaster prone areas, integration of DRR in planning, design and implementation stages was initiated in ten ministries. Additionally few other projects on strengthening DRM System in Pakistan are in hand with the financial support of Japan International Cooperation Agency (JICA), World Bank and United States Agency for International Development (USAID).

During the year 2010, NDMA faced and continues to face many challenges which need to be addressed at priority. These have been highlighted in the last chapter of the report and need urgent attention of the Federal Government.


Lt. Gen. (Retired)
(Nadeem Ahmed)





N D M A

Chapter

1

Disaster Management System in Pakistan

Chapter-1: Disaster Management System in Pakistan

1.1 Pakistan Vulnerability to Disasters

Geographically, Pakistan lies between latitudes 24 and 37 degrees north and longitudes 62 and 75 degrees east covering a total land area of 796,095 sq km. The country shares its borders with Iran to the west, India in the East, Afghanistan in the north-west, and China in the north. The Arabian Sea lies to its south. Pakistan is a land of great topographic and climatic contrasts. The topography varies from coastal beaches, sandy deserts, plateaus, plains, high mountains to snow-covered peaks. The country is geographically divided into three areas: the northern highlands, the Indus river plains and the Balochistan plateau.



Figure 1.1

Like other South Asian countries, Pakistan continues to suffer from a plethora of natural and human induced hazards that threaten to affect the lives and livelihood of its citizens. Natural disasters including floods, earthquakes, landslides, cyclones, and droughts to human induced disasters such as fires, civil unrest, terrorism, refugees and internally displaced people, health epidemics, transport accidents, industrial accidents and war continue to frequent Pakistan intermittently

Coupled with a range of physical, social and economic vulnerabilities, Pakistan is highly prone to disasters which have been further compounded by climate change. An overview of the major disasters in Pakistan is given as under:

Floods: Pakistan is one of the five South Asian countries with the highest annual average number of people physically exposed to floods, which occur normally due to storm systems that originate from Bay of Bengal during the monsoon from July to September. The storms originating in Bay of Bengal passing over lower Central India and Rajputana, enter Pakistan and continue towards north into Kashmir. The mountain ranges in the extreme north of Pakistan provide a perennial source of inflow into the rivers. Floods particularly hit Punjab and Sindh while hill torrents tend to affect the hilly areas of Khyber Pakhtunkhwa, Baluchistan, Gilgit Baltistan (GB) and Federally Administered Tribal Areas (FATA). Flood events of 1950, 1973, 1976, 1988, 1992, 1997 and particularly recent abnormal 2010 floods caused huge human and financial losses. The magnitude of 2010 floods was significantly high both in scale and destruction in comparison to the Earthquake of 2005, Cyclone Katrina 2005, Indian Ocean Tsunami 2004, Cyclone Nargis 2008 and Haiti Earthquake 2010.

Droughts: Drought has become an intermittent problem of the country. In recent years drought has brought extensive damages to Balochistan, Sindh and Southern Punjab where average rainfall is as low as 200-250 mm. Severe drought periods in 2000 and 2002 affected livelihoods, resulted in human deaths, pushed tens of thousands people to migrate and killed large numbers of cattle. The drought led to 120 deaths and affected 2.2 million people. The main arid rangelands are Tharparkar, Cholistan, Dera Ghazi Khan, Dera Ismail Khan, Thal, and Western Balochistan. Except Balochistan, all of these areas are within the range of monsoon rainfall, which however, is erratic and scattered. Pakistan is vulnerable to long duration droughts and also to seasonal droughts. Hence, at an average, in every 10 years drought prevails for 2-



3 years in these areas.

Earthquake: Pakistan lies in a seismic belt and therefore suffers from frequent earthquakes of small, medium and high magnitudes. Mountain ranges of Koh-e-Sulieman, Hindu Kush and Karakoram are significantly vulnerable. Within the Suleiman, Hindu Kush and Karakoram mountain ranges, GB and Chitral district in KP, Kashmir including Muzaffarabad, and Quetta, Chaman, Sibi Zhob, Khuzdar, Dalbandin, the Makran coast including Gawadar and Pasni in Balochistan are located in high or very high risk areas. Cities of Islamabad, Karachi and Peshawar are located on the edges of high risk areas. Four major disasters hit in 20th Century including: 1935 Quetta earthquake, 1945 Makran Coast Earthquake, 1976 GB and 2005 Earthquake Azad Jammu & Kashmir (AJ&K) and KP earthquake.

Cyclones: Coastal belt of Pakistan is highly vulnerable to cyclones and associated storm surges. Fifteen cyclones were recorded between 1971 and 2010. Cyclones can cause large-scale damage to the coastal areas of Sindh and Balochistan. The cyclone of 1999 in Thatta and Badin districts wiped out 73 settlements, and resulted in 168 lives lost, nearly 0.6 million people affected and killing of 11,000 cattle. It destroyed 1,800 small and big boats and partially damaged 642 boats, causing a loss of PKR 380 million. The losses to infrastructure were estimated at PKR750 million. In the recent past Pakistan has suffered from Cyclone YEMYEN in 2008 and Cyclone PHET in 2010. The PHET Cyclone in June 2010 caused 44 death besides damages to 20 boats.

Landslides: The regions of AJ&K, GB and parts of the KP province are particularly vulnerable to landslide hazard. Aside from the young geology and fragile soil type of mountain ranges, accelerated deforestation is a major cause

behind increased incidences of landslides. On January 4, 2010 a massive landslide triggered in Attaabad village of district Hunza Nagar GB. It took lives of 20 individuals, injured 8 and destroyed 141 houses. Further, flooding due to rise in level of the lake affected 1736 households and causing internal displacement of 13,436 people.

Avalanches: The regions of AJ&K and GB of Pakistan experience avalanches on a regular seasonal basis. Communities in the hazardous region and tourists are vulnerable to this hazard. A study conducted by WAPDA in 1985-89 under the Snow and Ice Hydrology Project, identified the potential avalanche paths. On February 18, 2010 the Snow Avalanche hit remote villages Seri and Gultoo in district Kohistan, of KP. Resultantly the inhabitants suffered casualties, damages to their properties and losses of livelihoods.

Climate Change: Additionally global warming is causing damage to Pakistan's environment. Many factors are contributing to climate change, including fossil fuel use, deforestation, rapid industrialization, population growth and unchecked rural to urban migration. Among the impacts felt and seen are biodiversity loss, rise in the sea level, increased droughts, shifting weather patterns, increased flooding, changes in fresh water supply, intrusion of saline water in the Indus delta, adversely affecting coastal agriculture, mangroves and breeding grounds of fish and above all increase in extreme weather events resulting in increased hydro-meteorological disasters. Changing rainfall patterns could also badly affect arid and semi-arid regions leading to reduced agriculture productivity as well as impacting power generation negatively. Climate changes could also affect human health, animals and ecosystems.

The Table 1.1 shows ranking of disasters and damages caused by these disasters.

No	Disaster	People Homeless	Deaths	Injured	People Affected	Total Affected	Total Loss (000\$)	%	Ranks
1.	Wind Storm	22,597	11,654	1,183	1,057,000	1,080,780	4,100	2	4
2.	Earthquake	2,853,585	142,812	88,096	1,294,429	4,236,110	5,019,255	8	2
3.	Flood	8,927,685	11,702	1,262	38,669,447	47,598,394	2,746,030	86	1
4.	Land Slides	3,100	384	114	200	3,414	-	0	5
5.	Drought	-	223	-	2,269,300	2,269,300	247,000	4	3
	Total	11,806,967	166,775	90,655	43,290,376	55,187,998	8,016,385		

Source: Internal Study NDMA & WFP

Table 1.1

1.2 Historical Perspective

Historically, disaster management policies in Pakistan were limited to flood disasters with primary focus on rescue and relief operations. Disasters were viewed in isolation from the mainstream development and poverty alleviation planning processes. Moreover, state-level disaster preparedness and mitigation measures were more focused on structural aspects and undermined non-structural elements such as the knowledge and capacities of local communities and related livelihood protection issues. Disaster and relief departments/ organizations largely remained under-resourced, incapacitated, and could not attract appropriate attention within the administrative hierarchy. A dedicated fund for disaster management at the federal level had never been a part of the overall development planning. In terms of disaster management the government had two-pronged flood management strategy: Structural and Non-Structural measures with no integrated national policy framework to deal with pre-post disaster management. Also, little efforts were made to mainstreaming disaster risk reduction into development policy and plans for achieving sustainable development.

In addition, there were no long-term, inclusive and coherent institutional arrangements to address natural disasters with a long-term vision. For instance, the Emergency Relief Cell (ERC) in the Cabinet Division was responsible for organizing disaster response by the federal government with Relief Commissioners at provincial level, mandated to deal only with post-disaster scenarios. Conventional national emergency services such as Police, Emergency Relief Cell, Crisis Management Cell, Fire Services, Civil Defense Agency, Federal Flood Commission and Metrological Department were the key agencies for disaster management in Pakistan. In case of larger emergencies Armed Forces were assigned the role of disaster management. As late as 2003, a Task Force was appointed under the aegis Ministry of Interior for revamping the emergency services with the objective of responding to disasters in a comprehensive and effective manner. The recommendations of the Task Force were, however, not considered for implementation at

the federal level. This process, nevertheless, led to the creation of 1122 Emergency Rescue Service in Punjab.

Since 1955 – 2003, different Five Years Development Plans were prepared and implemented. These development plans however remained oblivious of the disaster management needs of the country, though they did identify the mismanagement and scarcity of water resources, poor health infrastructure and flood threats at few stages of planning and implementation during the last three decades. Nonetheless, the proposed strategies and solutions were either relief-driven or event-based without having an integrated disaster management plan focusing on preparedness and mitigation.

1.3 Institutional Perspective

At the global level, with launch of United Nations International Strategy for Disaster Reduction (UNISDR) in 2000, it was recognized that disasters should no longer be dealt in a 'reactive' manner. While it is essential to remain well prepared to respond to disasters, it is more important to play 'proactive' role in reducing underlying risks and addressing root causes to address vulnerabilities. The 'Hyogo Framework for Action (HFA) "2005-2015" endorsed by 168 states including Pakistan at the World Conference on Disaster Reduction held in Kobe, Japan in 2005, urges all countries to make efforts to reduce their disaster risk by 2015, which called for the establishment of appropriate legal and institutional arrangements for managing disaster risks in a scientific and holistic manner.

In Pakistan, the term Disaster Risk Management was not much understood till October 2005 Earthquake. This catastrophe exposed the deficiencies of the existing institutional arrangements and mechanisms to deal with large calamities. The October 8, 2005 earthquake proved a wake-up call for decision makers at policy level for a well coordinated disaster risk management system in the country as the Government of Pakistan had no institutional set-up available to effectively respond to the disaster of this magnitude. The Government of Pakistan



immediately established Federal Relief Commission (FRC) to undertake a massive relief efforts and Earthquake Reconstruction and Rehabilitation Authority (ERRA) on October 24, 2005, with the mandate to ensure reconstruction and rehabilitation of the affected districts of KP and AJ&K. ERRA is working for reconstruction and rehabilitation of areas devastated by 2005 Earthquake, with Provincial Earthquake Reconstruction and Rehabilitation Agency (PERRA) in KP and State Earthquake Reconstruction and Rehabilitation Agency (SERRA) in AJ&K as its organs. The organisation was mandated only for the reconstruction and rehabilitation of the public and private infrastructure of the earthquake hit districts of two regions. In order to cover the entire spectrum of disaster risk management, a need of national level institution for disaster management was direly felt.

Amidst this background, a proposal for establishing a comprehensive disaster management system was presented to the Prime Minister on February 01, 2006. After the approval of the Prime Minister, all Provincial Assemblies passed resolutions under Section 144 of the Constitution thus authorizing the Federal Government to legislate on disaster management which, being a residual subject was within the Provincial legislative purview. Accordingly, the President promulgated the National Disaster Management System Ordinance (NDMO), in December, 2006 which led to the establishment of the current system. As required under the Ordinance the Federal Government notified the establishment of the National Disaster Management Commission (NDMC) and National Disaster Management Authority (NDMA) in February, 2007. Subsequently, the Provincial Governments also notified establishment of Provincial Disaster Management Commissions (PDMCs), Provincial Disaster Management Authorities (PDMAs) and District Disaster Management Authorities (DDMA) in each district. National Disaster Management Ordinance (NDMO) 2006 was presented to and approved by both the upper and lower houses of the Parliament in November 2010 thereby recognizing the status of NDMA as

the only national level apex legal entity to address both natural disaster as well as complex emergencies disasters in Pakistan.

During 2010, the country faced major disasters of different natures (low, medium and high level). The year 2010 proved a real test for NDMA to handle such kind of calamities throughout the year starting from January 4, 2010 to December 2010. NDMA effectively managed a range of disasters including Floods 2010, the worst ever disaster in the history of Pakistan. The year 2010, not only tested the resilience of the nation but also helped NDMA to analyze its functional capacity and identify gaps to improve upon it.

The requisite disaster management structures at provincial and district levels (PDMAs and DDMA) provided a readily available platform to the Government to address the massive scale of catastrophe and providing active support and assistance for rescue, relief and recovery operations throughout the country.

National Disaster Management System

The NDM Act 2010 provides a comprehensive institutional system to deal with whole spectrum of pre, during and post disaster management at federal, provincial and district levels. The diagram below depicts schematically the National Disaster Management System in Pakistan.

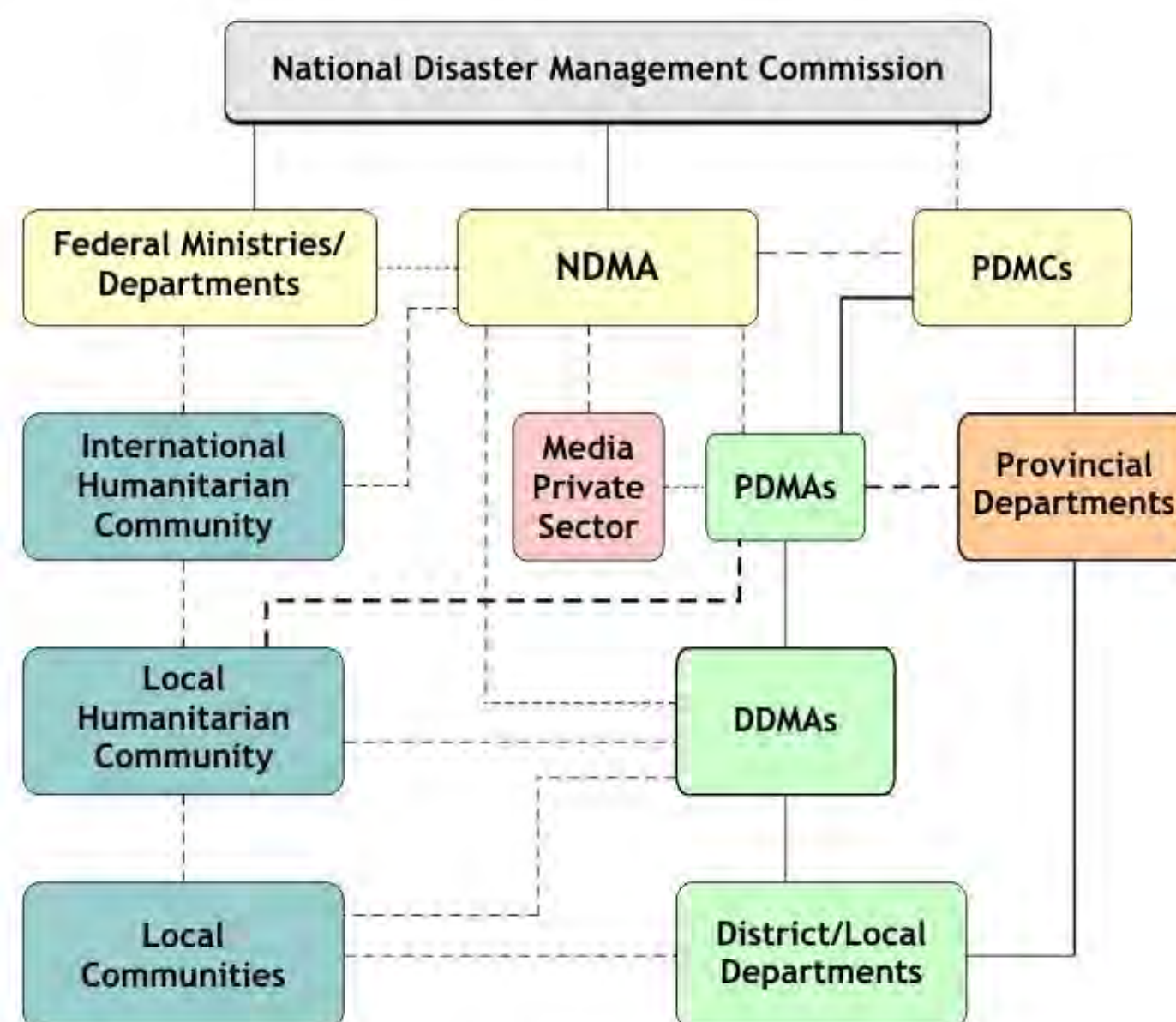


Figure 1.2

1.4 Federal Level DM Institutions

1.4.1 National Disaster Management Commission (NDMC)

NDM Act 2010, provides the establishment of NDMC at national level as an apex body for policy making in the field of disaster management under the chairmanship of Prime Minister of Pakistan. The NDMC consists of the following.

- The Prime Minister of Pakistan who shall be the Chairperson, ex-officio
- Leader of the Opposition in the Senate
- Leader of Opposition in the National Assembly
- Minister for Defence
- Minister for Health
- Minister for Foreign Affairs
- Minister for Social Welfare and Special Education
- Minister for Communications
- Minister for Finance
- Minister for Interior
- Governor KP for FATA
- Chief Ministers of all the Provinces
- Prime Minister, AJ&K
- Chief Minister GB
- Chairman, Joint Chiefs of Staff Committee (JCSC) or his nominee
- Representatives of civil society or any other person appointed by the Prime Minister.

1.4.1.1 Meetings of the NDMC

The National Commission meets as and when necessary and at such time and place as the Chairperson of the National Commission may think fit. The chairperson of the Commission presides over the meeting.

1.4.1.2 Powers and Functions of NDMC

- a. Lay down policies on disaster management;
- b. Approve National Plan;

- c. Approve plans prepared by the Ministries or Divisions of the Federal Government in accordance with the National Plan;
- d. Lay down guidelines to be followed by Federal Government and Provincial Authorities;
- e. Arrange for, and oversee, the provision of funds for the purpose of mitigation measure, preparedness and response;
- f. Provide such support to other countries affected by major disasters as Federal Government may determine; and
- g. Take such other measures for the prevention of disaster or the mitigation or for preparedness and capacity building for dealing with disaster situation as it may consider necessary.

1.4.2 National Disaster Management Authority (NDMA)

NDMA was established in 2007. The NDMA is the lead federal agency to implement, coordinate and monitor the whole spectrum of pre, during and post disaster management including prevention, preparedness, mitigation, response and reconstruction and rehabilitation programmes. As per the NDM Act 2010, the Authority is headed by Chairman/Director General and three members. The Chairman/DG acts as ex-officio Secretary of the NDMC.

The following is the vision and mission statements of the NDMA:

Vision: To achieve sustainable social, economic and environmental development in Pakistan through reducing risks and vulnerabilities, particularly those of the poor and the marginalized groups, and by effectively responding to, and recovering from all types of disaster events.

Mission: To manage complete spectrum of disasters by adopting a disaster risk reduction perspective in development planning at all levels, and through enhancing institutional capacities for disaster preparedness, response and recovery.



1.4.2.1 Powers and Functions of NDMA

- a. Act as the implementing, coordinating and monitoring body for disaster management;
- b. Prepare the National Plan to be approved by the National Commission;
- c. Implement, co-ordinate and monitor the implementation of the national policy;
- d. Lay down guidelines for preparing disaster management plans by different Ministries or Departments and the Provincial Authorities;
- e. Provide necessary technical assistance to the Provincial Governments and the Provincial Authorities for preparing their disaster management plans in accordance with the guidelines laid down by the National Commission;
- f. Co-ordinate response in the event of any threatening disaster situation or disaster;
- g. Lay down guidelines for or give directions to the concerned Ministries or Provincial Government and the Provincial Authorities regarding measures to be taken by them in response to any threatening disaster situation or disaster;
- h. For any specific purpose or for general assistance requisition the services of any person and such person shall be a co-opted member and exercise such power as conferred upon him by the Authority in writing;
- i. Promote general education and awareness in relation to disaster management; and
- j. Perform such other functions as the NDMC may require it to perform.

1.4.3 National Institute of Disaster Management (NIDM)

Section-26 of the NDMO, 2006 (now NDM Act, 2010), envisages the establishment of the National Institute of Disaster Management (NIDM). The NIDM is charged with the responsibility for planning, promoting training, research and developing core competencies in the area of disaster management.

The role of NIDM is to build capacities to prepare

the disaster managers, at all levels, to effectively and efficiently respond to disasters. This Disaster Management Institute will strengthen the efforts of the Government of Pakistan to promote Disaster Risk Reduction (DRR) to ensure sustainable development as disasters are one of the major stumbling blocks in attaining development goals and very often reverse the gains from development. After its launching, significant progress has been made during the year, which is given in Chapter 3 of the report.

1.4.4 National Disaster Management Fund (NDMF)

NDMF was established under the Sub section (2) of Section 29 of the NDM Act 2010. According to the law, the Fund shall be financed from the sources: (a) grants made by the federal government; (b) loans, aid and donations from the national or international agencies; and (c) donations received from any other source. According to the statutory provision of the Act, the Finance Division notified the establishments of NDMF vide its Notification on July 02, 2007. In December, 2010, an amount of PKR 300.00 million was allocated by the Finance Division as Seed Money. The amount was also credited to the NDMF and is fully regularized. Accounting Procedure for operationalisation of this fund has been vetted by Controller General of Accounts (CGA) and approved by Ministry of Finance.

1.4.5 National Disaster Response Force (NDRF)

Currently, no dedicated force is being contemplated to be raised due to financial crunch. NDMA has, however, raised three state of the art Urban Search and Rescue (USAR) Teams one each at Karachi and Islamabad and one with the Army. These teams have been trained for retrieving trapped people from collapsed structures. Additionally Armed Forces of Pakistan will provide all assistance in any part of Pakistan, should there be a need.

1.4.6 National Disaster Response Plan (NDRP)

In 2010, NDRP was developed which clearly

spells out the roles and responsibilities of federal agencies, ministries, divisions, and departments for dealing with emergencies of a national scale including coordination and resource mobilization.

1.4.7 National Disaster Management Plan (NDMP)

In 2010, NDMA has also drafted the NDMP for the country. The NDMP studied the whole picture of the present DRM system in Pakistan. The Plan portrayed complete picture of legal and institutional framework of DRM in Pakistan.

1.4.8 National Disaster Risk Management Framework (NDRMF)

NDMA formulated National Disaster Risk Management Framework (NDRMF) identifying nine priorities based on Hyogo Framework for Action. The NDRMF clearly articulated guidelines and roles & responsibilities of all stakeholders for the implementation of National Strategies and Policies on disaster management in Pakistan. The nine priority areas are as under:

- Institutional and legal arrangements for DRM
- Hazard and vulnerability assessment,
- Training, education and awareness,
- Disaster risk management planning,
- Community and local level programming,
- Multi-hazard early warning system,
- Mainstreaming disaster risk reduction into development
- Emergency response system, and
- Capacity development for post disaster recovery.

1.5 Provincial Level Disaster Management Institutions

1.5.1 Provincial Disaster Management Commission (PDMCs)

The NDM Act provides for establishment of PDMCs at provinces and regional levels to cope with challenges of Disaster Management in a

professional and efficient and holistic manner. The Chief Minister of the province is an ex-officio Chairperson of the PDMC while:

- a. Leader of the Opposition and one member nominated by him to be member of the Provincial Commission;
- b. Other members to be nominated by the Chief Minister; and
- c. The Chairperson of the Provincial Commission may designate one of the members nominated under clause (c) to be the Vice-Chairperson.

1.5.1.1 Powers and Functions of Provincial Commissions

- a. Lay down Provincial disaster management policy;
- b. Lay down Provincial Plan in accordance with guidelines laid down by the National Commission;
- c. Approve the disaster management plans prepared by the departments of the Provincial Government;
- d. Review implementation of the plan;
- e. Oversee provision of funds for mitigation and preparedness measures;
- f. Review development plans of the different departments of the Province and ensure that prevention and mitigation measures are integrated therein; and
- g. Review measures being taken for mitigation, capacity building and preparedness by the departments of Provincial Government and issue such guidelines or directions as may be necessary.

1.5.2 Provincial Disaster Management Authority (PDMA)

The PDMA's were established under the NDM Act in each province/ region and are mandated to implement policies and plans for disaster management in provinces/ regions. PDMA's are headed by Director General appointed by the Provincial/ Regional Government.



1.5.2.1 Powers and Functions of Provincial Authority

- a. Formulate the provincial disaster management policy obtaining the approval of the Provincial Commission;
- b. Co-ordinate and monitor the implementation of National Policy, National Plan and Provincial Plan;
- c. Examine vulnerability of different parts of the province to different disasters and specify prevention or mitigation measures;
- d. Lay down guidelines to be followed for preparation of disaster management plans by the provincial departments and district authorities;
- e. Evaluate preparedness at all governmental or non-governmental levels to respond to disaster and to enhance preparedness;
- f. Co-ordinate response in the event of disaster;
- g. Give directions to any provincial department or authority regarding actions to be taken in response to disaster;
- h. Promote general education, awareness and community training in this regard;
- i. Provide necessary technical assistance or give advice to district and local authorities for carrying out their functions effectively;
- j. Advise the provincial government regarding all financial matters in relation to disaster management;
- k. Examine the construction in the area and if it is of the opinion that the standards laid down have not been followed, it may direct for following the same to secure compliance of such standards;
- l. Ensure that communication systems are in order and disaster management drills are being carried out regularly; and
- m. Perform such other functions as may be assigned to it by the National or Provincial Authority.

1.6 District level Disaster Management Institutions

1.6.1 District Disaster Management Authority (DDMA)

Each Provincial/ Regional Government has issued notification for establishment of District Disaster Management Authority for every district. The District Disaster Management Authority consists of the following members.

- a. Head of the local council at the district level (by whatever name called) who shall be Chairperson, ex-officio;
- b. The District Co-ordination Officer;
- c. The District Police Officer ex-officio;
- d. The Executive District Officer, Health; and
- e. Such other district level officers, to be appointed by the District Government.

1.6.1.1 Powers and Functions of District Authority

- a. Prepare a disaster management plan including district response plan for the district;
- b. Co-ordinate and monitor the implementation of the National Policy, Provincial Policy, National Plan, Provincial Plan and District Plan;
- c. Ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disaster and the mitigation of its effects are undertaken by the departments of the government at the district level as well as by the local authorities;
- d. Ensure that the guidelines for prevention, mitigation, preparedness and response measures as laid down by the National Authority and the Provincial Authority are followed by all departments of the Government at the district level and the local authorities in the district;
- e. Give directions to different authorities at the district level and local authorities to take such other measures for the prevention or

- mitigation of disasters as may be necessary;
- f. Lay down guidelines for preparation of disaster management plans by the departments of the Government at the district level and local authorities in the district;
 - g. Monitor the implementation of disaster management plans prepared by the departments of the Government at the district level;
 - h. Lay down guidelines to be followed by the departments of the Government at the district level;
 - i. Organize and co-ordinate specialized training programmes for different levels of officers, employees and voluntary rescue workers in the district;
 - j. Facilitate community training and awareness programmes for prevention of disaster or mitigation with the support of local authorities, governmental and non-governmental organizations;
 - k. Set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public;
 - l. Prepare, review and update district level response plan and guidelines;
 - m. Co-ordinate with , and give guidelines to, local authorities in the district to ensure that pre-disaster and post-disaster management activities in the district are carried out promptly and effectively;
 - n. Review development plans prepared by the departments of the Government at the district level, statutory authorities or local authorities with a view to make necessary provisions therein for prevention of disaster or mitigation;
 - o. Identify buildings and places which could, in the event of disaster situation, be used as relief centers or camps and make arrangements for water supply and sanitation in such building or places;
 - p. Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;
 - q. Provide information to the Provincial Authority relating to different aspects of disaster management;
 - r. Encourage the involvement of non-governmental organizations and voluntary social-welfare institutions working at the grassroots level in the district for disaster management;
 - s. Ensure communication system are in order and disaster management drills are carried out periodically; and ,
 - t. Perform such other functions as the Provincial Government or Provincial Authority may assign to it or as it deems necessary for disaster management in the district;

1.7 Organizational Structure of NDMA

NDMA comprises of three main wings, namely Operations Wing, Disaster Risk Reduction (DRR) Wing and Support and Services (S&S) Wing based on the mandate of the Authority. The following sections briefly explain functional mandate, roles and responsibilities of these wings.

1.7.1 Operations Wing

The Operation Wing of the NDMA is headed by Member (Operations) who acts as the focal person/ national coordinator to coordinate with all Federal/ Provincial Ministries/ Departments/ Organizations, Provincial Disaster Management Authorities (PDMAs), Armed Forces, International/UN Agencies and INGOs/ NGOs during disasters. He is responsible to plan, monitor and coordinate recovery & rehabilitation initiatives as well. Operations Wing comprises of three Sections/Cells; Response Section, Recovery and Rehabilitation Section and Logistics Cell.

Response Section is an important organ of Operation Wing with a mandate of providing all kind of operational assistance in real time disasters in the country. In order to ensure efficient and timely relief operation in the event of disaster, it also coordinates, supervises and



deploys Urban Search and Rescue Team as well as the Armed Forces should there be a need for it. In addition, the Section is also responsible for overall functioning of National Emergency Operation Centre (NEOC) and coordination of one window relief operations with the Provincial Emergency Operations Centers (PEOCs) and other relevant national, regional and international institutions during disaster. To ensure efficient response it can raise, induct and speedily integrate civil- military human and material resources, on need basis.

UN agencies, INGOs/ NGOs to undertake one window operation. This Section closely works with the Strategic Planning Unit (SPU) that is raised in emergencies for providing policy level inputs and functions as the brain of NDMA.

Logistic Cell has been assigned with the responsibility of receiving and dispatching of all the humanitarian aid/goods through air, sea and land routes along with the proper documentation and inventory management. All activities of handling, segregating, stockpiling of relief items

Organogram of NDMA

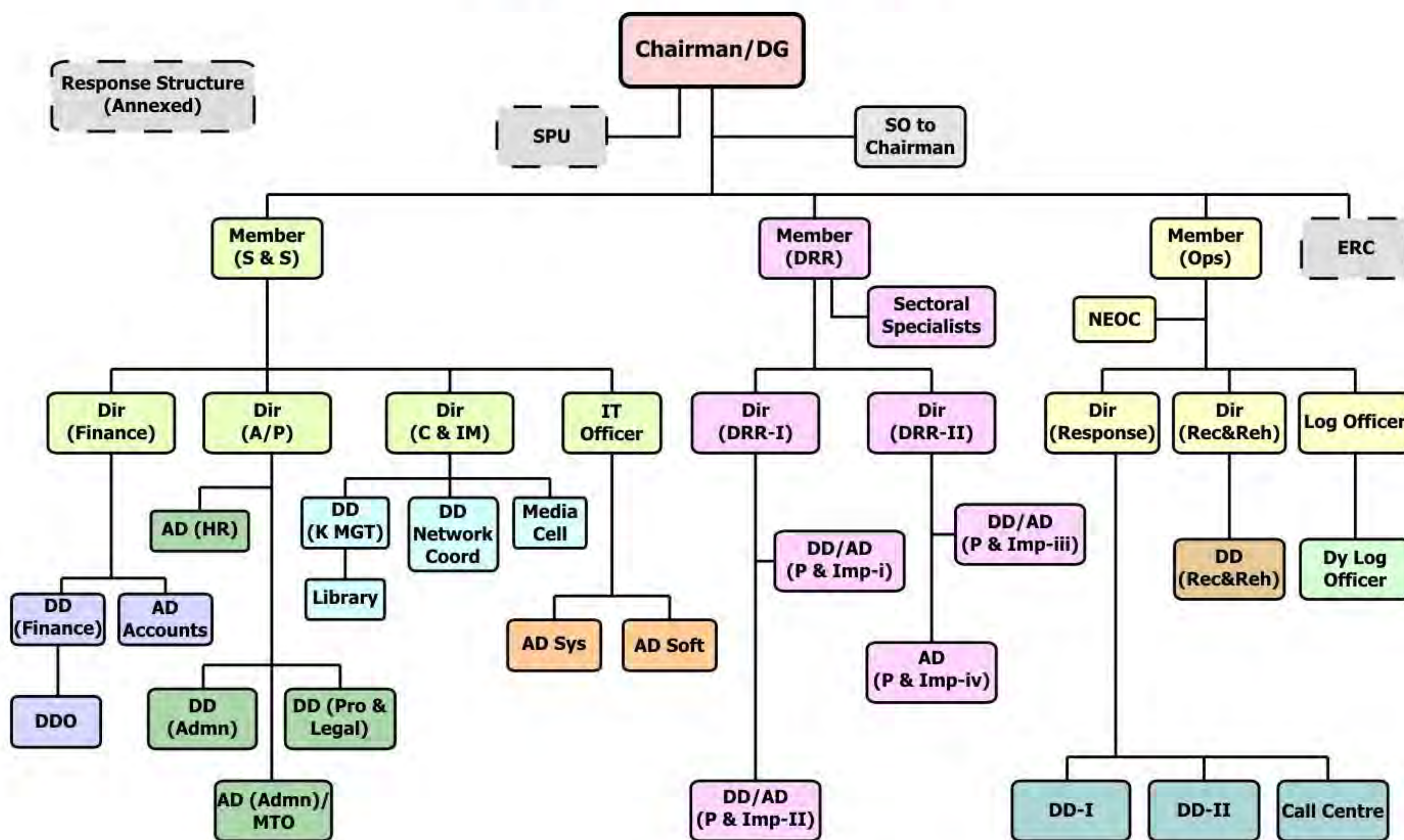


Figure 1.3

Recovery and Reconstruction Section is mainly responsible to prepare post disaster recovery and rehabilitation plan in the disaster affected areas and coordinate with relevant stakeholders for the implementation within stipulated timelines. In addition it also devises NDMA's Plan for Capacity Development for Post Disaster Recovery and to coordinate with all federal and provincial ministries and departments and organizations, PDMAs/ Disaster Management Authorities (DDMAs), international

in coordination and liaison with concerned internal & external departments and agencies as well as maintaining and updating of NDMA's warehouses in the country are being taken care by the Logistic Unit.

1.7.2 Disaster Risk Reduction (DRR) Wing

DRR Wing is headed by Member DRR and comprises of two sections, i.e. DRR I and DRR II.

DRR Wing of the NDMA serves as the Hub for the planning to steer the risk reduction initiatives at all levels. It is one of the core platforms from where NDMA design policies and implement programmes and projects related to prevention, mitigation and preparedness. DRR Wing is mainly responsible to develop a draft National Plan for Disaster Management in coordination with all stakeholders. The wing also devises ways and means to implement the National Plan and National Strategies on Disaster Management as envisaged under the National Disaster Management Act 2010. In addition, the Wing supervises the preparation of PC-1 of development projects and programmes to be initiated by NDMA including negotiation and coordination with relevant Ministries, Departments and Institutions for smooth implementation of the projects within stipulated time period.

DRR I is mainly responsible to look after all projects/ programmes funded by the World Bank (National Risk Assessment and Emergency Response System, NEOC, CBDRM), Earthquake Model of the Middle East Region, Hazard Risk Assessment, Economic and Mitigation (JTI), Programme for Enhancement of Emergency Response, Programme on Safer Schools, Hospital and Safer Cities, Progress on implementation of Hyogo Framework for Action (HFA) 2005-2015, Collaboration with USAID/ OFDA under ODRP Civil Military Cooperation (CMEP), Contingency Planning (Tsunami, Drought, Floods, Cyclones, Complex Emergencies, IDPs management), Coordination for pre-Monsoon related activities and management /raising of Urban Search and Rescue (USAR) Teams.

DRR II is responsible to look after One UN Disaster Risk Management Programme (DRM) including the Annual Work Plans (AWPs), budgeting, conducting Steering Committee and Task Force meetings, Coordination with UNDP, WFP, FAO, WMO, WHO, UNESCO, UNHABITAT, UNICEF, UNHCR & UNIFEM regarding their relevant projects, all JICA assisted projects including preparation and updating of National Disaster Management Plan,

all issues relating to Climate Change Policy of Ministry of Environment and all actions relating to different MOUs with countries on Disaster Management.

1.7.3 Support & Services (S&S) Wing

The Support and Services Wing is responsible for efficient management of the organization through optimum provision and utilization of the given human and financial resources by using the latest techniques of information technology and through effective coordination with the government agencies and the media in order to achieve the organizational goals and objectives of NDMA. This Wing integrates overall operations of the other wings of NDMA through a cohesive process to ensure delivery of efficient and effective support services.

The Wing is headed by a Member (S&S) who supervises dealing with all administrative and legal matters of the NDMA, besides ensuring the overall discipline of the organization. The Member ensures implementation of prescribed rules and regulations in dealing with recruitment / hiring and service matters of NDMA's staff. Timely procurement of services and necessary items in accordance with Pakistan Public Procurement Regulatory Authority (PPPRA) and NDMA Rules to meet the needs of the organization also falls in the domain of S&S Wing.

Some changes have been introduced during the reporting year to enhance the output of the Wing. The Wing is now responsible for developing organization strategy with respect to Human Resource Management, Information Technology, Internal Administration and financial resource management in order to attain organizational targets. The S&S Wing has five main sections to ensure smooth discharge of its functions.

Administration Section: This Section is responsible for overall discipline of the organization, to deal with disciplinary and service matters of the staff, development and implementation of Standard Operating Procedures for the performance of staff duties, recruitment/ hiring process, procurement of goods & services through a transparent manner



and in compliance with the procedures of PPPRA and NDMA Rules. The legal matters of the NDMA with respect to the National Disaster Management Act, NDMA Rules, Service Rules and Court matters are also being dealt by the Administration Section. To meet the urgent and emergent operational necessities of NDMA, the Administration Section is in charge of emergency procurements in coordination with ERC. In the wake of disasters and the resultant exigencies, the Administration Section ensures timely provision of services and administrative support to the NEOC.

Information Technology (IT) Section: This section is responsible for development and maintenance of websites, designs databases, regular administrative/operational support to operational software. Also provides day to day repair, maintenance of IT equipment and IT support to NDMA users.

Coordination and Information Management (C & IM) Section: This Section mainly deals with documentation/archiving dissemination of disaster management related information/knowledge management as well as the best practices and lessons learnt. The Section deals with the national and international media for projection of the true image of NDMA and compiles annual progress reports and quarterly news letter's for their uploading at the website of NDMA.

Finance and Budget Section: The Finance Section of NDMA develops and updates financial and accounting procedures and controlling mechanism to ensure financial propriety with respect to the utilization of all financial resources at the disposal of the NDMA including the National Disaster Management Fund. It is mandated to present budgetary proposals in

coordination with other wings to the NDMA and helps in all kinds of procurement including emergency procurements. The section is also responsible for undertaking internal and arranging external audits of the authority.

Human Resource Section: Procurement of human resources and enhancement of professional capacities of officials dealing with the disasters at National, Provincial and Local level is the responsibility of Human Resource Section which does so by utilizing the opportunities inside and outside the country. During the year under review, the human resource section of NDMA provided ample opportunities to the officials dealing with disaster management for their professional grooming and equips them to deal with various disasters.

1.8 Conclusion

In conclusion, the establishment of national, provincial and district level disaster management structures and systems have been a significant development in the history of disaster management in Pakistan. These institutions have been given adequate constitutional coverage and mandate to address disaster management issues at different levels in the country. These institutions are though equipped in terms of physical and financial resources and are fully functional in all provinces/regions and around 96 districts for promoting disaster preparedness and management among local communities and institutions, but would need a lot of handholding and technical assistance, financial support of the provincial/regional governments and above all political ownership to bring in the much talked about paradigm shift from a response centric to a more pro-active approach.



NDMA

Chapter

2

NDMA Response to Major Disasters in Pakistan

Chapter 2: NDMA Response to Major Disasters in Pakistan

NDMA during the reporting year effectively managed a range of disasters including Floods 2010, the worst ever disaster in the history of Pakistan. NDMA was actively engaged in providing un-interrupted relief to the affectees and responded to all disasters which hit the country and resulted in serious damages to human lives, properties, livelihoods and environmental degradation. During these disasters, NDMA not only ensured smooth and efficient response, relief and recovery but also put in place strong coordination and distribution mechanisms as well as a robust logistical system to ensure timely receipt, segregation, storage and dispatch of relief goods to affected areas based on local needs. A brief description of such disasters which hit Pakistan during 2010 is given below.

2.1 Floods - July 2010

Monsoon 2010 brought with it abnormal rains in Pakistan resulting into countrywide massive and large scale flash flooding which was termed as the worst ever floods in living memory of the entire region. The first-spell of these severe rains hit south-western Province of Balochistan in the third week of July 2010, followed by second spell of heavy monsoon rains over KP, which commenced in the last week of July 2010 and persisted up till first few days of August. These rains generated unprecedented flood flows in major, secondary and tertiary rivers including nullahs in KP followed by Punjab and Sindh. Local rivers and nullahs of Balochistan also

received unprecedented floods. Rivers Swat, Panjkora and Kabul in KP in particular, experienced historic flood flows. All this resulted in an extremely unprecedented flood situation in River Indus passing through Punjab and Sindh.

Pakistan Flood-2010 was termed as a 'Slow Evolving Tsunami' by the UN Secretary General and was announced as an unprecedented natural disaster, affecting entire length of the country and causing maximum damages in the provinces of KP, Punjab and Sindh. Within approximately one and a half month, these floods affected 78 districts out of a total of 141 districts of the country. Detail of affected districts is given below in table 2.1.

Table 2.1: Province-wise details of affected districts

Number of Flood Affected Districts			
Regions/ Provinces	Severely Affected	Moderately affected	Affected Districts
KP	10	14	24
Punjab	7	4	11
Sindh	9	8	17
Balochistan	2	10	12
AJ&K	1	6	7
GB	0	7	7
Grand Total	29	49	78

Source: NDMA

The magnitude and scale of destruction was more than twice the Pakistan Earthquake 2005, Cyclone Katrina 2005, Indian Ocean Tsunami 2004, Cyclone Nargis 2008 and Haiti Earthquake 2010, all put together, in terms of geographical space and population affected. Table 2.2 given below shows the comparison.

Table 2.2: Comparison of Flood 2010 with other Major Disasters in the World

	Pakistan Floods 2010	Pakistan Earthquake 2005	Katrina Cyclone USA 2005	Nargis Cyclone Myanmar 2008	Indian Ocean Tsunami 2004	Haiti Earthquake 2010
Population Affected (No.)	20,251,550	3,500,000	500,000	2,420,000	2,273,723	3,200,000
Area affected (Sq Km)	132,000	30,000	N.A.	23,500	N.A.	13,226
Deaths (No.)	1,985	73,338	1,836	84,537	238,000	230,000
Injured (No.)	2,946	128,309	N.A.	19,359	125,000	300,000
House Hold Damaged (No.)	1,894,530	600,152	200,000	450,000	N.A.	250,000

Source:
Internal Study by DRR Wing, NDMA



Colossal devastation brought a total human death toll of 1,985 with 2,946 injured; affecting approximately 20 million people with over 100,000 Sq Km of area inundated by the flood waters including over 2.1 million hectares cultivated land. Roads, bridges and railway network being the mainstay of communication links were severely damaged besides colossal damage to the Housing Sector totalling 1.6 million houses. A sizeable portion of livestock perished inflicting severe blow to the existing livelihood patterns of already marginalized communities who lost their main and the only source of income and living.



Women Flood Affectees



Flood Affectees Waiting for Rescue Operation

Likewise, Health and Education sectors received major brunt of severe flooding. Total 10,436 educational and 515 health facilities were destroyed or damaged in the entire country. The Irrigation Sector, besides flood control network on Indus River Basin also sustained huge losses due to some major breaches in flood protection embankments along River Indus, besides completely out flanking of some of the Headworks like Munda Headworks on River Swat in KP.

The World Bank (WB) and Asian Development Bank (ADB) jointly conducted Damage and Need Assessment (DNA) on the request of Government of Pakistan. The objective of the DNA was to provide strategic underpinning for mid-term to long-term post floods reconstruction, recovery planning, prioritization and programming.

The overall recovery and reconstruction cost associated with the floods is estimated at approximately US\$ 8.74 billion to US\$ 10.85 billion, which includes estimated costs for relief, early recovery, and medium to long-term reconstruction. Table 2.3 below shows the detailed cost of the same.

Table 2.3: Overall Cost of the Relief, Early Recovery and Reconstruction of Flood 2010

Category	US \$ Million
Relief	928
Early Recovery	956
Relief / Early Recovery	53
Reconstruction	6,799-8,915

Source: Pakistan Flood 2010, DNA Report of WB

The Table 2.4 given below illustrates detailed of sector-wise damages along with its cost.

Table.2.4: Sector-wise total Damages and Cost

S.No.	Name of Sectors	Damages	Cost (US \$ Millions)
1.	Housing	1.6 Million	1,588
2.	Education Facilities	10,436 No	311
3.	Health Facilities	515 No	50
4.	Communication	25,088 Km	1,328
5.	Water & Sanitation Schemes	6,841	109
6.	Energy	92 Plants, 32 Grids, 3000 km line	309
7.	Irrigation Channels	Irrigation Channels	278
8.	Agriculture Land & Livestock	2.1 m Hector Land, 1.5 m livestock	5,045
9.	Private Sector	146 industries, 0.1 m Hotels / Shops	282
10.	Financial Sector	90 Banks, 10 ATMs	674
11.	Governance & Environment	1457 Structures	82

Source: Pakistan Flood 2010, DNA Report of WB

total cost of damage: US \$ 10.056 billions

Overall damage is estimated at PKR 855 billion which is 5.8 percent of 2009/10 Gross Domestic Product (GDP) with damages in agriculture sector amounting to PKR 429 billion (over 14 percent of sectoral income). On the other hand, rupee value of damage to the housing sector is less than one-third of that in agriculture as mentioned in above table, yet comprises almost 39 percent of the sectoral value, added with 43 percent of total (direct and indirect) damages. Sindh was the worst affected 43%, followed by Punjab 26%, KP 12%, federal government 11%, Balochistan 6%, and 1% in AJ&K and FATA.

Total Damages

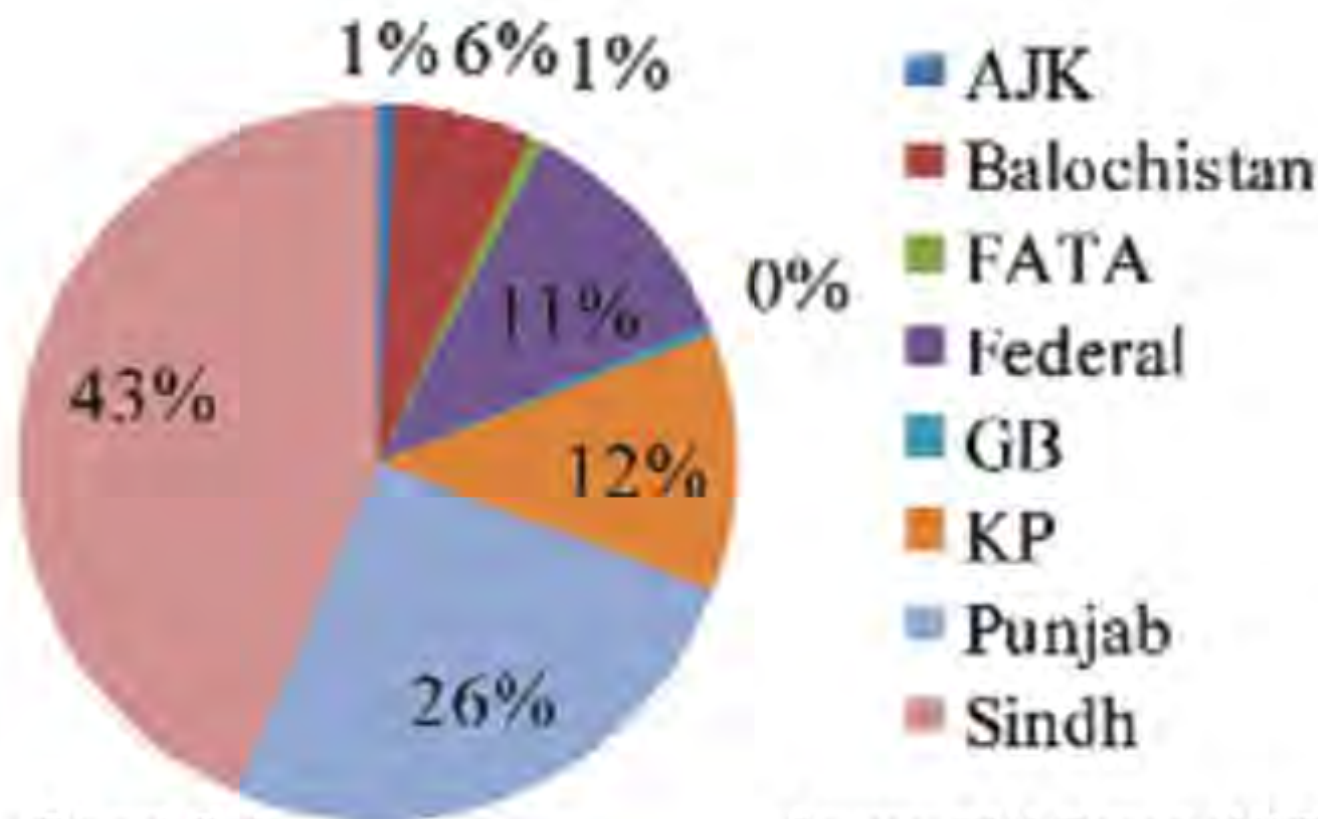


Chart 2.1

Source: DNA Report of WB

Flood Preparation: The NDMA made efforts to manage the current disaster which included both pre and post flood measures. In this regard the NDMA conducted a pre-monsoon conference involving all stakeholders on June 28, 2010. The objective of the conference was to review the preparatory measures taken by the respective provinces and other relevant stakeholders and urge them to take all necessary safeguards. First flood advisory was issued by the NDMA on July 20 to PDMAs, KP, Punjab and State Disaster Management Authority (SDMA) AJ&K, which was followed by two other advisories on 26th and 29th July, 2010 subsequently.

2.1.1 Flood Response

No country including its armed forces would have the wherewithal and the resources required to effectively manage this kind of natural disaster. In such situations, one is often dependent upon

international assistance which did not materialize in the early days since no one could understand the gravity of the situation, because of slow evolving nature of the disaster. However, it picked up momentum later. Even the limited resources that were available in the country could not be utilized optimally due to continuous bad weather, which hampered the relief and rescue efforts in the country. The losses of roads and bridges infrastructure further added to the already complex and grim situation where even commuting through road became impossible in certain areas like GB, Kalam, Shangla, Lower and Upper Dir, DG Khan, Rajanpur, Jafarababd and Naseerabad etc.

Policy decisions related to rescue & relief operation, recovery and reconstruction and rehabilitation were taken by NDMC in its third meeting held on August 19, 2010. NDMA prepared a comprehensive framework of response comprising three phases i.e. Rescue & Relief Phase, Early Recovery Phase and Reconstruction & Rehabilitation Phase. The response framework with clear timelines is as under:

- a. Rescue & Relief Phase had already started from July 2010 , initially for a period of 3 months, which was later extended till Jan 31, 2011 in view of flood devastation. However, residual relief continued in the districts of Jacobabad, Qambar-Shahdad Kot, Dadu and Tehsil Sehwan of District Jamshoro in the province of Sindh as well as in District Jaffarabad in province of Balochistan till March 31, 2011.
- b. Early Recovery Phase was also initiated simultaneously during the rescue and relief operation which started in September 2010 and is likely to be completed by end 2011.
- c. Reconstruction & Rehabilitation Phase of the affected districts will be initiated in January 2011 and is expected to be completed in 3 to 5 year time frame.

As per policy decision of the Federal Government, the Planning Commission was assigned task of reconstruction and rehabilitation of the flood affected areas, thus the role of NDMA



remained confined to relief and early recovery efforts in the affected areas.

2.1.2 Establishment of National Emergency Operations Center (NEOC)

In order to ensure real-time information on floods damages, NEOC was established and fully operationalized to receive first hand information from the field regarding the floods situation reports including damages, losses, water level in flood affected areas and the needs. Based on information provided in these reports, NDMA coordinated and monitored flood relief operation to ensure effective and timely assistance to the affectees in accordance with the requirements. Schematic representation of NEOC is given below:



Chart 2.2

2.1.3 Launch of Appeal

The initial appeal was launched on August 11, 2010 seeking US \$ 459 million to respond to the immediate relief needs of flood-affected people. Subsequently, a revised “Pakistan Floods Emergency Relief and Early Recovery Response Plan” was launched on November 05, 2010 for

requesting assistance of US\$ 1.96 billion. This was finalized by NDMA in collaboration with UN to enable the humanitarian community to support Government of Pakistan in addressing the residual relief and early recovery needs of the flood affected population for next twelve months. As on December 31, 50.9% of funds out of the required amount of US\$ 1.96 billion have been received. The appeal contains a total of 397 projects which have been approved after a detailed scrutiny ensuring that the projects have been formulated in line with the government priorities. The PFERRP with a total out lay of US\$ 1.96 has 139 relief projects worth US\$ 928 million, 224 Early Recovery Projects worth US\$ 956 million and 34 Relief and Early Recovery combined projects worth US\$ 53million. It may however be noted that the early recovery component of the plan has so far received only 34% funding. All these projects are to be implemented by UN agencies, international organization and INGOs/NGOs and no amount is being routed through government channels

2.1.4 Sources of Relief

In the wake of the disaster, besides the federal and provincial governments tremendous outpouring of support came from friendly countries, donor agencies, international communities, financial institutions, INGOs/NGOs, private sector, Pakistani community living abroad, philanthropists as well as civil society organizations in the form of immediate rescue operations for survivors and humanitarian aid in the form of medical supplies, food, clothing Non Food Items (NFIs) and shelter kits. Following countries and organizations donated relief assistance to Pakistan:

Table No. 2.5 : Name of Donor Countries

Australia	Azerbaijan	Bahrain	Belgium	Canada	China	Denmark	Egypt	France	Germany
Indonesia	Iran	Italy	Japan	Kazakhstan	Kenya	Korea	Kuwait	Libya	Malaysia
Morocco	Norway	Qatar	Russia	Saudi Arabia	Spain	Sri Lanka	Sudan	Thailand	Turkey
Turkmenistan	UAE	UK	USA	Uzbekistan	Yemen	N.A.T.O.	USAID	RYANAIR	

2.1.5 Facilitation for Relief Operations from Abroad

In order to facilitate inflow of foreign assistance / relief workers, NDMA, with the approval of government of Pakistan devised a policy of issuance of visa on arrival for all the relief workers coming to Pakistan. In addition, NDMA requested the government for allowing tax free import of relief items for which the government agreed. Recovery & Rehabilitation Cell of Operation Wing was made responsible for issuance of No Objection Certificates (NOCs) for all tax free imports of relief items for the flood affectees.

NDMA received a number of foreign relief flights from various countries and Logistic Cell managed



Relief Items/Goods Shifted to Truck for Despatch to Flood Affected Areas.

reception, segregation, warehousing and distribution of relief items. Initially, all the foreign flights were received at Islamabad and later on these flights were diverted to the provincial hubs to speed up provision of relief items to the affectees. The Table 2.6 gives an update of flights received during the flood:

Table 2.6: Detail of International Relief Flights

S. No.	Air Base	Flights Landed
1.	Chaklala / Islamabad	148
2.	Multan	23
3.	Peshawar	19
4.	Quetta	06
5.	Karachi	32
6.	Lahore	03
Grand Total		231

NDMA transported all relief items to the affected areas by using C-130 aircrafts and trucks. The detail of aircrafts and trucks along with

destination is given in Table 2.7 as under:

Table 2.7: Province-wise detail of Trucks and Flights

S.No	Province/ Regions	Total Trucks	Total Flights
1	Punjab	86	64
2	KP	83	8
3	Sindh	126	90
4	Balochistan	25	53
5	GB	43	103
6	A J & K	12	-
Grand Total		375	318

NDMA also arranged distribution of food items through airdrop in areas where transportation was not possible through roads and to inaccessible areas due to inundation. During floods around 12,000 tons relief items were airlifted by NDMA.

2.1.6 Rescue and Relief Operation

NDMA initiated immediate rescue operation with the help of Armed Forces which was subsequently joined by other humanitarian agencies. NDMA remained the hub for coordination of rescue and relief activities undertaken by all stakeholders.

During the rescue operation more than 1.4 million people stranded in floods were rescued across



Heli Rescue & Evacuation of Affectees

the country. Total 88 Helicopters including 48 from foreign countries, 4 Hovercrafts, 1,238 boats and a number of Field Rescue Teams from the Armed Forces were used during the rescue operation.



Few friendly countries provided airlift support to NDMA comprising aircrafts and helicopters as per following details given in Tables 2.8 below;

Table 2.8: Country-wise detail of Airlift Support

S.No.	Name of Country	Helicopters	Aircrafts
1.	USA	24	2 x C 17 & 3 x C130
2.	Turkey	---	1 x C 130
3.	Egypt	---	1 x C 130
4.	Afghanistan	4	
5.	UAE	3	
6.	Japan	5	
7.	China	4	
8.	WFP/ UNHAS	8	
9.	NATO, 24 flights carrying 120 Metric Tons humanitarian Assistance in 500 hours		
Grand Total		48	7

2.1.7 Provision of Relief Items

NDMA along with all the stakeholders made utmost efforts to provide relief items to the flood affectees. The relief support was provided in four main sectors Food, Shelter, Health and Water, Sanitation and Hygiene (WASH). In food supply, ready to eat meals were provided because affected population living in the camps could not

Table 2.9: Details of Relief Support

Food	
Food items (Tons)	.41 m
Meal Ready to Eat (No)	10.76 m
Shelter	
Tents	489,177
Tarpaulin	931,317
Blankets	1,918,483
Plastic mats	129,537
Mosquito nets	290,262
Kitchen sets	412,401
Health	
Medicines (Tons)	428
Hygiene kits	160,470
Water purification tablets	250 m
Medical consultations	20.11 m
WASH	
Water purification kits/buckets	11,341
Water purification plants/units	3,896
De-watering pumps	45

Source: NDMA



Relief Goods (Food) Distribution among the Affectees of Punjab

cook food. The table 2.8 above provides an update on relief support in food, shelter, health and Wash supplies as of December 31, 2010:

2.1.8 Despatch and Distribution Mechanism

NDMA in coordination with all stakeholders developed a comprehensive Logistic Flow System (LFS), to ensure timely and efficient receipt and despatch of relief goods. The Pakistan Air Force (PAF) Base Chaklala was declared as Main Operating Base (MOB), which was linked with Forward Operating Bases (FOBs) at Gilgit, Quetta, Sibbi, Karachi, Sukkur, Hyderabad, Lahore, Multan and Peshawar. As per instructions from the NDMA, relief assistance in kind received at MOB was dispatched to FOBs through air transportation or by road for onward transportation to the District Nodal Points in coordination with local formations of armed forces and PDMAs/district administrations. From District Nodal Points the relief assistance was

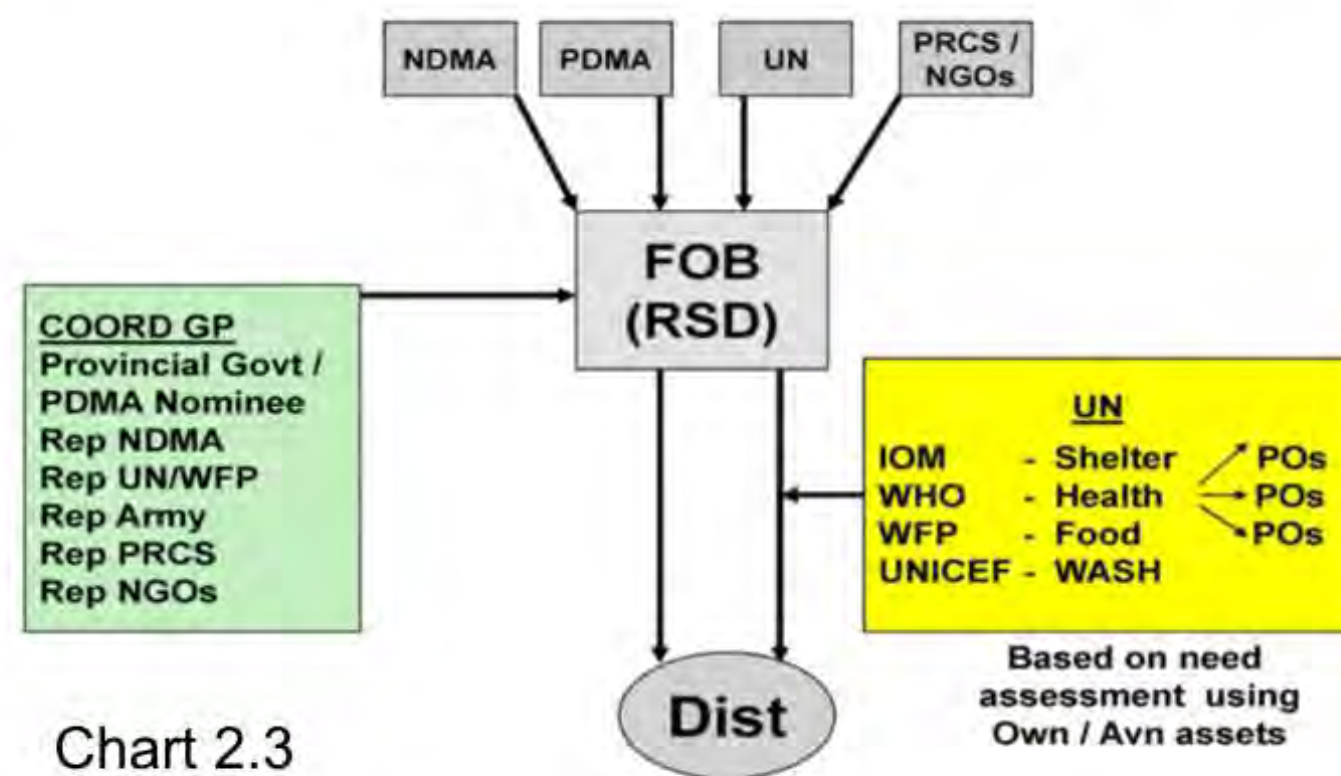
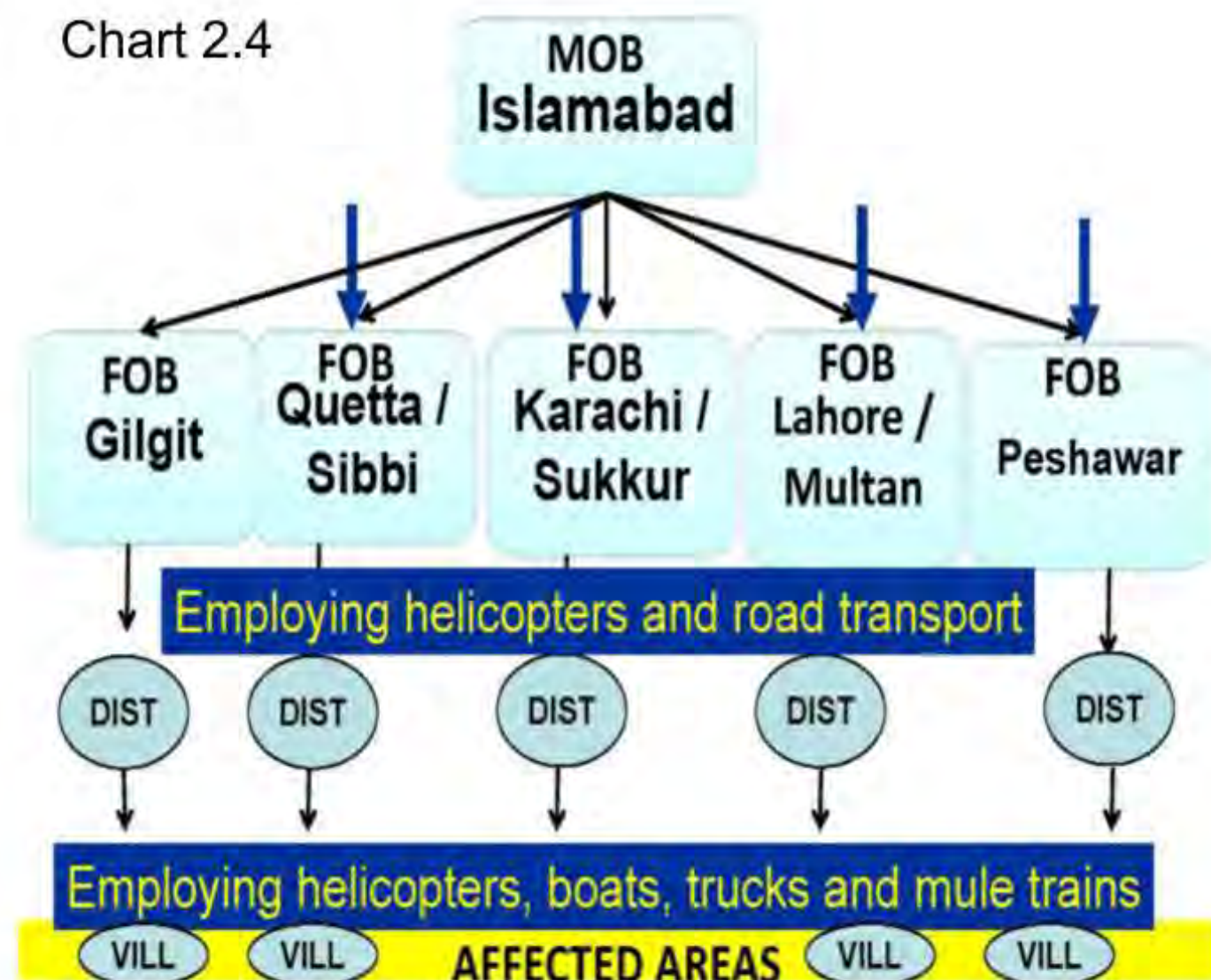


Chart 2.3

transported to the affected villages/ areas employing helicopters, boats, trucks and mule trains as per demand of the situation. Logistic Flow System for relief items dispatch and distribution is given below.



The Table 2.10 below illustrates province-wise detail of various relief items distributed in the affected regions/ provinces as of December 31, 2010.

Note: In addition, NDMA handed over 103 bridges donated by different friendly countries to Pakistan Army for replacement of damaged bridges. Infrastructural repairs are in progress.

2.1.9 Establishment of Air Bridge for GB

In view of damages to 4 bridges along Kara Karakoram Highway (KKH), the entire 1.5. Million population of GB was cut-off from rest of the country, creating serious problems with regard to sustenance of this huge population. Resultantly, an Air Bridge was established to airlift items of daily sustenance for the entire GB. It comprised daily operations of PAF C-130 aircrafts for Gilgit and US C-17 aircrafts for Skardu. The Air Bridge remained operational till the restoration of KKH by Pakistan Army.



Chairman NDMA taking over the Steel Bridges from Ambassador of USA in Pakistan

2.1.10 Warehouses

NDMA established 9 warehouses in association with Government, UN Agencies and Army. The NDMA warehouses are located and maintained

Table No 2.10: Province-wise Detail of Relief Items/Goods Provided

Items	Punjab	Sindh	KP	Balochistan	AJ&K	GB	Grand Total
Blankets	369,734	669,303	779,385	57,580	21,237	21,244	1,918,483
Dates (Tons)	217	210	172	70	58	50	777
Food Items (Tons)	117,693	127,793	127,744	18,927	8,550	7,972	408,678
Hygiene Kits	27,641	44,083	75,427	12,264	691	364	160,470
Jerry Cans	119,419	129,095	205,350	25,871	2,805	613	483,153
Kitchen Sets	98,642	136,081	165,286	8,920	2,611	861	412,401
Mosquito Nets	39,532	118,588	59,918	72,224	—	—	290,262
MREs	3,329,748	6,576,983	822,991	13,000	6,924	6,924	10,756,569
Tents	163,422	150,654	137,020	30,929	2,686	4,466	489,177
Tarpaulin	232,860	347,158	334,208	13,058	2,836	1,197	931,317
Torch Lights	1,500	1,600	1,739	—	—	—	4,839
Water Tanks	80	76	14	35	10	—	215
Water Purification Unit	19	1,791	2,067	19	—	—	3,896
Water Purification Kits	3,927	4,174	3,240	—	—	—	11,341
Water Bottles	24,744	89,196	11,292	17,310	4,667	288	147,497

Source: NDMA



Chairman NDMA during his Visit to NDMA Warehouse.

in different cities across the country as given in Table 2.11 below:

Table No 2.11: Details of NDMA's Warehouses

Station	Associated Organization	Number of Warehouses
Islamabad	Emergency Relief Cell & Capital Development Authority	2
Rawalpindi	Central Ordnance Depot and Central Mechanical, Transport & Store Depot (Army)	2
Nowshera (Pir Piai)	World Food Program	1
Lahore	Engineers Store Depot (Army)	1
Quetta	Ordnance Depot (Army)	1
Karachi	Central Ordnance Depo (Army) & Relief Goods Dispatched Organization (ERC) Karachi	2

Source: NDMA Log Cell

2.1.11 Satellite Imaging

NDMA also made adequate arrangement to monitor the inundated areas across the country through regular satellite imaging by SUPARCO. These imageries enabled NDMA to accurately assess the affected areas which helped in initiating requisite measures to make interventions including issuance of early warning for timely evacuation.

2.1.12 Coordination Mechanism

While managing floods of 2010, NDMA along with all stakeholders including Government, Armed Forces, and humanitarian communities

and donors agencies made concerted efforts to avoid duplication of efforts and ensuring effective geographical coverage by putting a strong coordination mechanism for efficient and timely response.

A consultative process through five forums at different levels was constituted across the country. NDMA started issuing policy instructions and guidelines during these meetings to all stakeholders and implementing partners to meet demands of ever changing situation. A brief description of the coordination forums is as under:

a. **Coordination Forum at Federal Level:**

Two groups were formed namely (a) Operation Group and (b) Strategic Group. The Strategic Coordination Group comprised all leading stakeholders. The strategic group meetings were held on weekly basis with following four core functions

- To make strategic decisions with regard to the ongoing relief initiatives.
- To discuss the general challenges including resource mobilization.
- To coordinate sustaining efforts for relief and recovery.
- To share information available with each organization for common operating picture.

b. **Coordination Forum at Provincial level:**

It was constituted with the objective to discuss and share latest updates of all stakeholders' contribution in relief and rescue activities. This initiative also aimed at gathering latest data for knowledge management, evaluation and analysis for future planning. The Coordination Group comprised officials from Provincial Governments, representative from respective PDMA, Representative from NDMA, UN Agencies, Army, PRCS, NGOs. Additionally representatives from four clusters of Shelter, Health, Food and WASH were member of the forum. The forum met twice-a-week during the floods.

- c. **Joint Aviation Coordination Cell:** A joint Aviation Coordination Cell comprising representatives of PAF, Pak Army Aviation, NDMA, US Aviation Representative along with United Nations Humanitarian Air Service (UNHAS) and WFP personnel was formed with the main objective of coordinating on daily basis the carriage of loads to different destinations using fixed wing and rotary assets.
- d. **Cluster Coordination System:** UN system and its partner NGOs operated through the cluster system. In total 10 clusters were formed to organize relief and response activities. The clusters existed at federal and local levels in the affected areas. The clusters included; agriculture, camp coordination and management, community infrastructure restoration, education, food, health, nutrition, protection, shelter and NFI, WASH, and logistics.

2.1.13 Launching of National Health Volunteers Programme under National Health Emergency Preparedness Response Network (NHEPRN)

Realizing the fact that every disaster is associated with health hazards, NDMA in collaboration with Ministry of Health established NHEPRN at PIMS Islamabad, in order to coordinate health response. During the floods, Prime Minister of Pakistan Syed Yousaf Raza Gillani initiated National Health Volunteers Programme in the month of August 2010. The



Ms. Iram Nadeem Inaugurating the Water Filter Plant in Khyber Pakhtunkhwa.

NHVP was a joint venture of Ministry of Health, World Health Organization and NDMA. Under the programme mobile teams, comprising volunteer medical and paramedical staff fully equipped were sent to affected areas across the country. Before launching of NHVP, trainings were also organized for the volunteer's doctors by Ministry of Health and WHO trainers at the NHEPRN training centre.

Realizing that medical interventions alone may not be able to keep the health situation stable, an integrated survival strategy was formulated by NDMA in close collaboration with WHO, WFP, UNICEF and local health authorities. This strategy encapsulated provision of clean drinking water & sanitation facilities, therapeutic food to address malnutrition, regular food assistance and primary health care in an integrated manner.

Medicines for 9.3 million populations were provided as on December 31, 2010 to provinces and other areas. Keeping in view the health situation in affected districts, NDMA requested the international community for helping the Health Cluster. Resultantly, a surge was observed in arrival of medicines and medical missions including filed hospital from Sri Lanka, Turkey, Australia, Saudi Arabia, Malaysia, Italy and other countries. The Table 2.12 given below illustrates the province wise population provided with medical assistance:

Table No 2.12: Province wise Number of Beneficiaries

S.No.	Province/Region	Beneficiaries of Health Care (Million)
1.	Balochistan	504,050
2.	Gilgit-Baltistan	139,000
3.	Khyber Pakhtunkhwa	3,661,419
4.	Punjab	2,003,650
5.	Sindh	1,925,200
6.	AJ&K	500
Grand Total		9,324,622

Source: NDMA

By the grace of Allah Almighty, the NDMA with help of Governmental organizations, in collaboration with various international and local NGOs, successfully prevented any kind of post flood epidemic as of December 31, 2010. By virtue of establishing an effective Disease Early Warning System (DEWS) all the alerts were

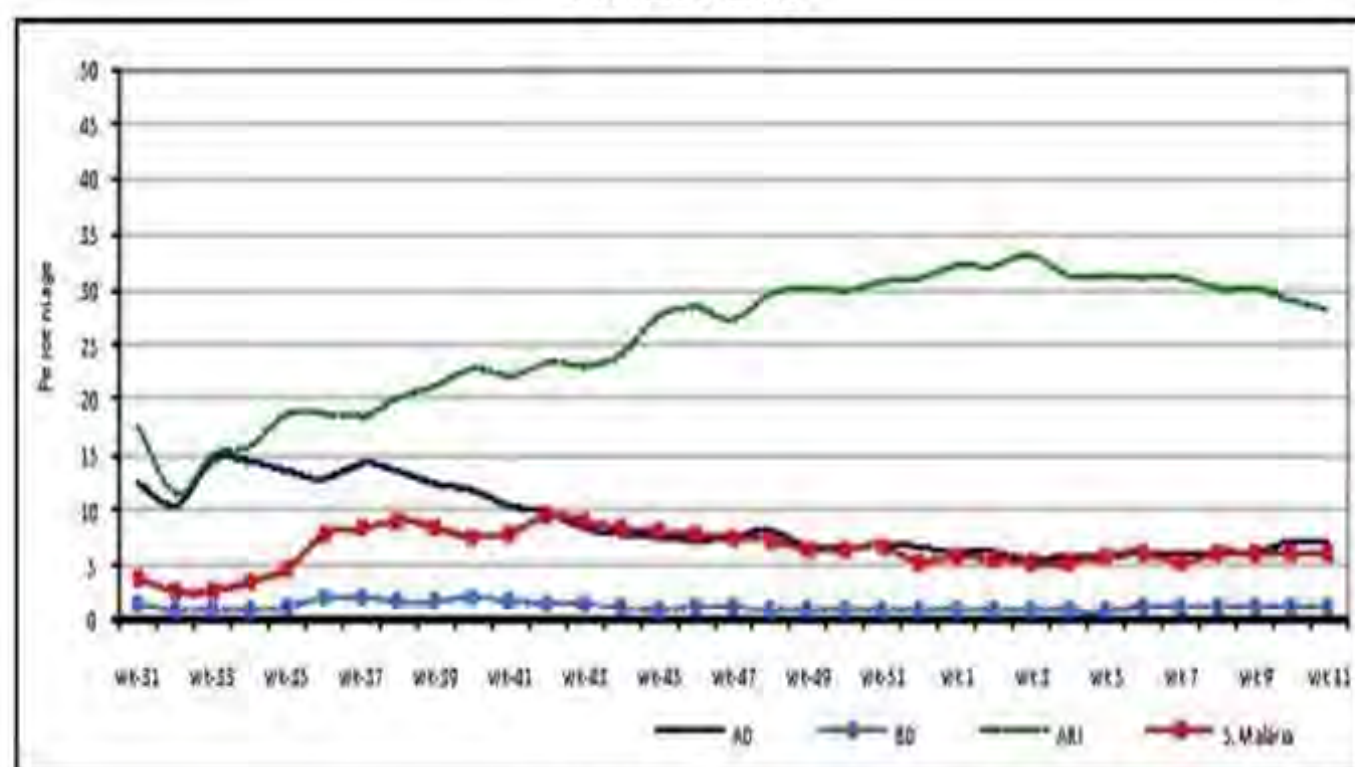


contained effectively by the health responders. The Table 2.13 gives details of health consultations.

Table 2.13: Health Consultations

Diseases	Total
Skin Diseases	2,274,292 (11%)
Acute Respiratory Infection	5,065,008 (25%)
Other Acute Diarrhea (Not Watery)	1,796,675 (9%)
Bloody Diarrhea	178,352 (1%)
Suspected Malaria	1,145,674 (6%)
Unexplained Fever	817,058 (4%)
Total Consultations	20,116,053

Chart 2.6



Source: Weekly Health Bulletins by WHO

2.1.14 Return of Affected Population

As a result of collaborative efforts undertaken by NDMA in coordination with humanitarian organizations a significant number (97%) of displaced population returned to their homes as of December 31, 2010. As against the 5928 relief camps all over the country during peak floods, the figure came down to 103 relief camps where 91,773 flood affected people are still living as of December 31, 2010. Details regarding the return of affectees to their respective areas are given as under in Table 2.14:

Table 2.14: Province wise Detail of Affectees Living in Relief Camps

S.No.	Province	Relief Camps		Persons in Camps		% Return
		Initial Strength	Present Strength	Initial Strength	Present Strength	
1.	Punjab	327	0	116,295	—	100 %
2.	Sindh	4,682	73	1,815,961	76,421	96 %
3.	KP	825	0	915,463	-	100%
4.	Balochistan	67	30	150,343	15,352	90 %
5.	AJ&K	2	0	900	—	100 %
6.	GB	25	0	25,470	—	100%
Grand Total		5,928	103	3,024,432	91,773	97%

2.1.15 Revival of Agriculture Sector

The flood waters severely destroyed Khareef crop in the affected areas damaging 2.1 million hectares of standing crops and killing 1.5 million livestock while millions of livestock faced acute food shortages. The stocks of stored grains and seeds, fodder and straw that was critical for livestock survival was also washed out. It was a major concern that the affected land will not be cultivated due to flood devastation during rabbi season, which will aggravate the already precarious food and livestock shortages in the next year.

Keeping in the view the aforesaid situation, the emergency assistance to support flood-affected vulnerable farmers was geared up by NDMA, I/NGOs, UN agencies and the donor community. NDMA coordinated the response at federal, provincial and district levels throughout the country. The immediate challenge was to help affected farmers for “In Time” wheat plantation. Agriculture partners under the guidance of NDMA responded immediately and provided speedy and timely distribution of agriculture inputs across the country to affected farmers. Certified wheat seeds, Urea, Di -Ammonium Phosphate (DAP) fertilizers and vegetable seeds were distributed to over 768 000 households in KP, Punjab, Sindh and Baluchistan provinces by cluster partners. Food and Agriculture Organization of the United Nation (FAO), due to its vast geographical outreach, played an important role in distribution of agricultural inputs to the most affected areas. Special emphasis was laid on the high quality of wheat seed and fertilizers to ensure the revival of food security. The vegetable seeds enabled families, especially women, to start growing vegetables immediately allowing them to be cropped within six to eight weeks. The wide spread distribution of highest quality of seeds is expected to result in bumper crop yield. Since the floodwaters already brought fulfilled the water need; further enrichment by phosphate fertilizers is expected to boost next year crops. Overall cultivation in the flood affected areas was more than 90% as compare to the last year with expected bumper crop.

With animal feed scarcity, the approaching winter coupled with weak body conditions was expected to increase further animal losses. In an effort for preservation of livestock assets, the animal compound feed ensured the survival of the livestock. These efforts have reached to the scores of more than 320 000 million households in KP, Punjab, Sindh and Baluchistan.

2.1.16 Financial Relief Package

In order to provide the financial relief to the flood affectees, Government of Pakistan initiated a financial relief package. This package included provision of PKR. 20,000 each to all flood affected households across the country; however up to Rs. 80,000 will be provided subsequently only to those households who's houses have been damaged. The financial support was provided through Watan Card. The modalities were finalised by NDMA and NADRA jointly and till date a total of 1.42 Million people have been issued with these cards through which a total of PKR. 26.6 billion have been disbursed. Overall details as of December 31, 2010 are given as under in Table 2.15

Table 2.15: Province-wise detail of Watan Card and Disbursement of Financial Relief

Province/Region	Distribution Centers	Total load planned	Card Processed	Amount Disbursed	%
Punjab	28	729,108	608,825	11,979,887,329	84%
Sindh	41	608,321	599,263	10,758,405,169	98%
KP	27	213,099	204,115	3,977,834,991	96%
Balochistan	9	120,521	107,785	1,986,182,904	89%
AJ&K	10	11,157	10,582	203,690,000	95%
GB	7	3,424	3,420	80,197,500	100%
Grand Total	124	1,679,630	1,535,218	28,986,116,893	91%

2.1.17 Organizational Strengthening and Institutional Development

Keeping in view the massive scale of destruction brought about by the Floods 2010, it was felt to strengthen organizational capacity of NDMA to respond to the needs of affected population and ensure timely access and provision of required relief and recovery operations throughout the country. Amidst this background, NDMA made concerted efforts at federal, provincial and local levels not only by enhancing capacity of the

existing organizational structures but also by establishing some new entities to ensure real time support and relief operations in affected areas. A brief account is given in the following Para.

a. Strategic Planning Unit (SPU)

NDMA started efforts for early recovery phase simultaneously along with rescue, relief activities. In this regard, SPU was established at NDMA in September 2010 to enhance sector specific technical capacity of NDMA and to provide programme related inputs for Early Recovery.

As a constituent unit of NDMA, SPU developed terms of reference, which assigned certain tasks to develop disaster management guidelines, monitoring and evaluation instruments, as well as sectoral strategies and frameworks to handle various aspects of disaster management/response process. Beside technical input, the SPU was responsible to liaise with multi-lateral institutions, donor engagement, intra-government coordination, engagement with the humanitarian community (NGO, INGO, UN) and development of information management as well as a communication strategy both within and outside the organizations at the provincial and district levels.

SPU team comprised of 6 advisers who were directly accountable to Chairman NDMA, and were responsible for multiple sectors within disaster response and management. The advisers were supported by a group of specialists and programme officers who in turn provided research, technical, and administrative support to the unit.

SPU remained instrumental in facilitating policy advocacy, supporting donors, humanitarian and intra-government engagements, providing technical inputs and support and institutional development. As of December 2010, SPU of NDMA developed several strategy papers, guidelines, and policy documents. All documents were prepared after undertaking a thorough consultation process that took into account the input of UN agencies, NGOs, INGOs, civil society



members, District government officials, provincial authorities, and finally federal level stakeholders. It scrutinized the PFEERP 2010 in line with 9 principles evolved by it to ensure aid effectiveness. The following documents were produced by the Unit:

- National Action Plan: NDMA Floods Strategy 2010-2014;
- National Strategy for Agriculture Restoration and Food Security in Flood Affected Areas;
- Winterization Strategy Early Recovery Shelter Strategy;
- Community Restoration Early Recovery Strategy;
- WASH Early Recovery Strategy;
- Information Management Strategy;
- Communication Strategy;
- Post-Disaster Communications Strategy;
- Health Early Recovery and Reconstruction Guidelines;
- Education Early Recovery and Reconstruction Guidelines; and
- Mainstreaming Gender, Environment, and DRR guidelines.

b. Gender and Child Cell (GCC)

The flood situation in the affected districts exacerbated living conditions of vulnerable segments of society including men, women, boys, girls and poorest of the poor. Additionally, due to cultural constraints, women and girls were sometimes unable to access basic services or humanitarian aid.

The incidence of acute diarrhea, other water-borne disease, skin problems, infections and increased stress levels coupled with neglect on health care, food shortage and increased economic hardship were the direct consequences of the disaster. The enormity of the crisis demanded special attention towards meeting the need of women and children .

In order to effectively address the above challenges, NDMA established a GCC in August 17, 2010 with technical assistance of UNICEF,

CIDA, UN Women and Save the Children. The cell is created mainly with the following objectives:

- Advise (policy and technical) for immediate action on minimum set of activities that require to be taken up to mainstream gender and child concerns;
- Guide and advise on rapid assessments of needs and impact for prioritizing interventions and enhancing response capacities;
- Facilitate adoption of international gender standards in humanitarian responses especially highlighting collection and dissemination of sex and age-disaggregated data to better inform policy and programming and develop monitoring and evaluation mechanisms;
- Coordinate support activities of the UN agencies on gender and child issues;
- Drafted a strategic gender equality framework;
- Ensure consistency and coherence of activities with the Government of Pakistan's policies on women's empowerment and National Plan of Action on Gender Equality and rights of child.

During short span of period the Gender and Child Cell initiated various steps to ensure fair distribution of relief items among the children and various gender groups. The following is progress achieved by the cell against Gender Mainstreaming and Child Rights and Protection Initiatives;

- Developed Guidelines on Gender Mainstreaming for Implementers in the Early Response Plan;
- Conducted Gender sensitization of 30 Disaster Risk Reduction coordinators placed in flood affected districts;
- Organised High Level Expert Meeting on livelihoods of Flood Affected Women – both On Farm and Off Farm. The recommendations will assist in planning for post flood development programmes);

- GC Cell is following up on the implementation of WATAN cards. Different aspects of the programme are assessed, such as keeping track of implementation issues and utilization of funds by women;
- Supported coordination mechanism with the Women's National machineries, i.e. Ministry of Women Development , National Commission for Status of Women ; GC Cell provided through input on women's issues emerging in the floods to women parliamentarians for their representation at international forums as well Supported coordination with the national women NGOs
- Joint assessment with Ministry of Women Development of Benazir Crisis Centres in Sindh – MOWD has facilitated 11 such centres in flood affected areas; SOPs are to be agreed upon for their use in emergencies response and planning as planned for 2011.
- Organized National Consultation on Separated, Unaccompanied and Missing Children (August 2010). it was identified that there is no coherent Referral Mechanism in place for identification and reunification of separated and missing children.
- A follow-up National Workshop on Development of Referral System (September 2010) was held with the technical assistance from UNICEF and child protection sub cluster. At his workshop definitions were agreed upon, stakeholders have been identified with defined roles and responsibilities
- Workshop on Child Focused Interventions in Emergencies (October 2010) – for development of Single Reporting Format on both qualitative and quantitative analysis
- Facilitation of development of Malnutrition Strategy

c. Call Center

In order to timely respond to the affected people,

NDMA set up a Call Center at its headquarters in the Prime Minister's Secretariat, Islamabad. The primary objective of the Center was to ensure registration of complaints and problems faced by affectees in the country. The Call Center was manned by a five member team of dedicated officers who discharged their duties in two shifts. It was established with the purpose of facilitating swift redressal of grievances of flood affectees. Call Center was mainly responsible to receive complaints and then communicate to the concerned government departments at federal, as well as provincial levels for appropriate action. As of December 31 2010, the Call Centre received a total of 10,244 complaints, which were referred to relevant authorities for immediate redressal against the grievances of the flood affectees. Call centre data shows the trends of public behavior and trust on NDMA delivery in the disaster and this data can be helpful in planning and policy making for any type of disaster.

d. Information Technology Section

Flood Web: For wider and quick dissemination of information to international and national communities, some special changes on the NDMA's website were made. The site was

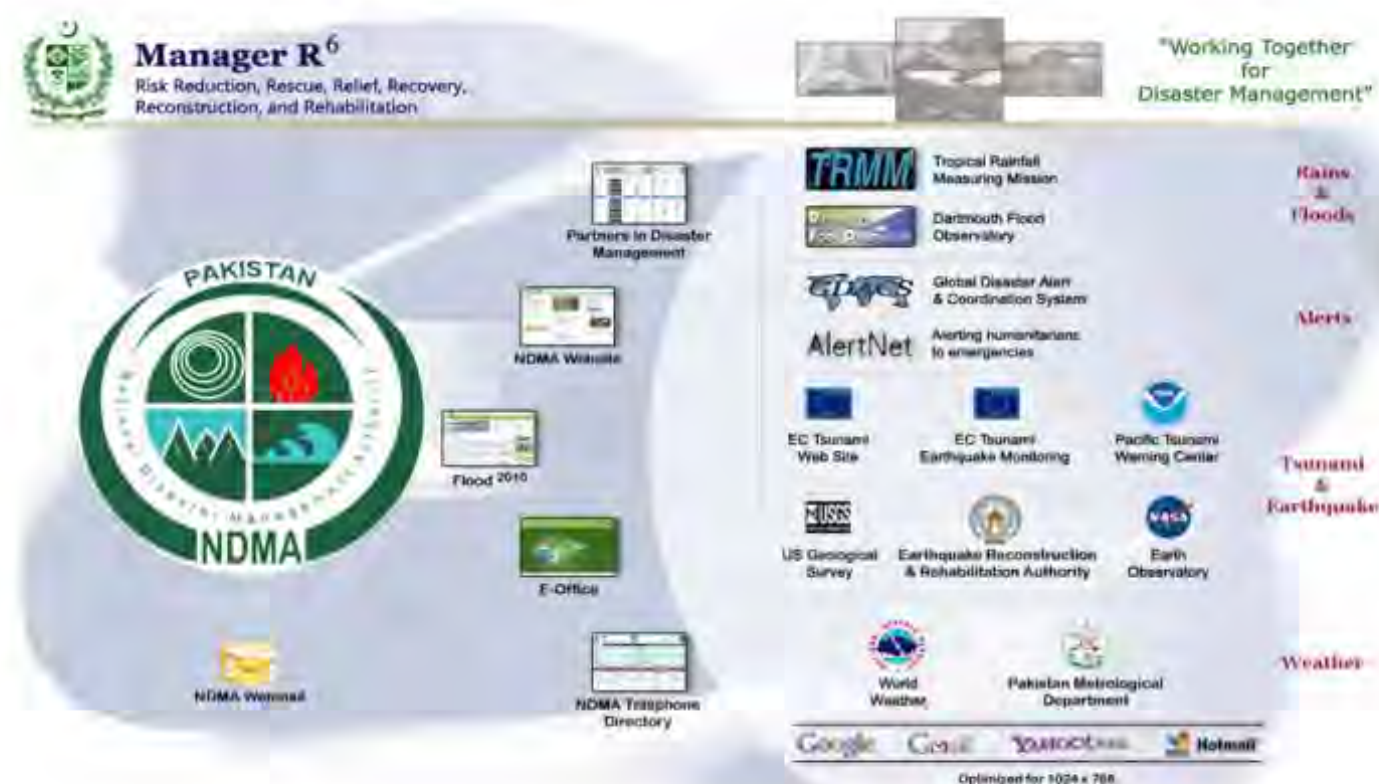


revamped and given a new outlook by IT section. A separate Relief Web and NDMA Flood Web



were established, which besides giving situation updates also highlighted the needs required at a particular time.

NDMA Home Page: This page is a launching pad for all the software of NDMA and is available to all NDMA personnel. The access to the software is granted as per the role defined for a particular user. Moreover online telephone directory was developed which contained all contacts of NDMA employees including residential addresses. A Portal for Partners in



Disaster Management has been developed for more than sixty (60) Disaster Management Organizations (National and International) working for Disaster Management in Pakistan. It is accessible internally (through Internal Home Page) and externally (through NDMA websites).

E-Office: In order to ensure business efficiency and lower transaction costs, NDMA established e-office. Under this arrangement, the users of the new system were equipped with tools to manage task lists, proactive notifications and alerts, monitoring tools, and automated business rules for effective control and informed decision-



Master Trainers for E-Office Project

making. This has resulted in quality improvement and faster decision making at tactical and strategic levels.

e. Media Cell

In order to dispel negative impression portrayed by some factions of media fraternity about functioning of relief and recovery operations spearheaded by NDMA, a Media Cell was established in June 2010. Media Cell is an integral component of NDMA with a multi-dimensional role to disseminate guidelines in pre and post disaster situations among the masses, and the people of disaster prone areas. The cell is mandated to develop, and periodically update, widely disseminate the related information to decision-makers, the general public and communities at risk through press and electronic media. The Cell also disseminates information on the ongoing events through newsletters on the website of the NDMA. Its responsibilities include promotion/facilitation and engagement of media in order to stimulate a culture of disaster resilience and strong community involvement in sustained public education campaigns and public consultations at all levels of society. Media Cell creates awareness about DRR initiatives among the masses and propagates its achievements through a multi faceted role.

During the year 2010, Media Cell coordinated a number of interviews of NDMA representatives with leading News Channels, International magazines, TV Channels and Radio besides proactively arranged events like 'Launching of the Appeal for Early Recovery Response Plan', 'Initiation of Early Recovery Response Plan' in the wake of 2010 floods. Media Cell effectively projected enormous efforts of NDMA in management of all the disasters throughout 2010.

f. Logistic Cell

In view of the large quantities of relief items being received through special relief flights from friendly countries and need to promptly distribute these amongst the flood affectees across various regions, a dedicated Logistic Cell was



Army Personnel Unloading Relief Items.

established during the floods in 2010 which was assisted by Capital Development Authority (CDA) Islamabad. Logistic Cell was made responsibility to receive and dispatch all humanitarian aid/goods through air, sea and land routes along with the proper documentation and inventory management. The Cell undertook activities of handling, segregating, stockpiling of relief items, as well coordination and liaison with concerned internal & external departments and agencies as well as maintaining and updating of NDMA's warehouses in the country. The cell executed all functions in a befitting manner and enabled NDMA to ensure timely provision of required relief assistance to the affected population.

g. Placing of DRM Coordinators in the most Affected Districts

In order to build capacities of the district authorities in the flood affected areas, NDMA provided DRM coordinators for efficient management of flood relief operations. They were tasked not only with the responsibilities of coordinating with all implementing partners in the districts but also hold regular meetings to establish the needs and provide timely feedback to NDMA for mid course policy correction. They were also exposed to gender sensitive trainings to ensure that women, children and most vulnerable are not missed out of the safety net.

h. Information Management System through iMMAP

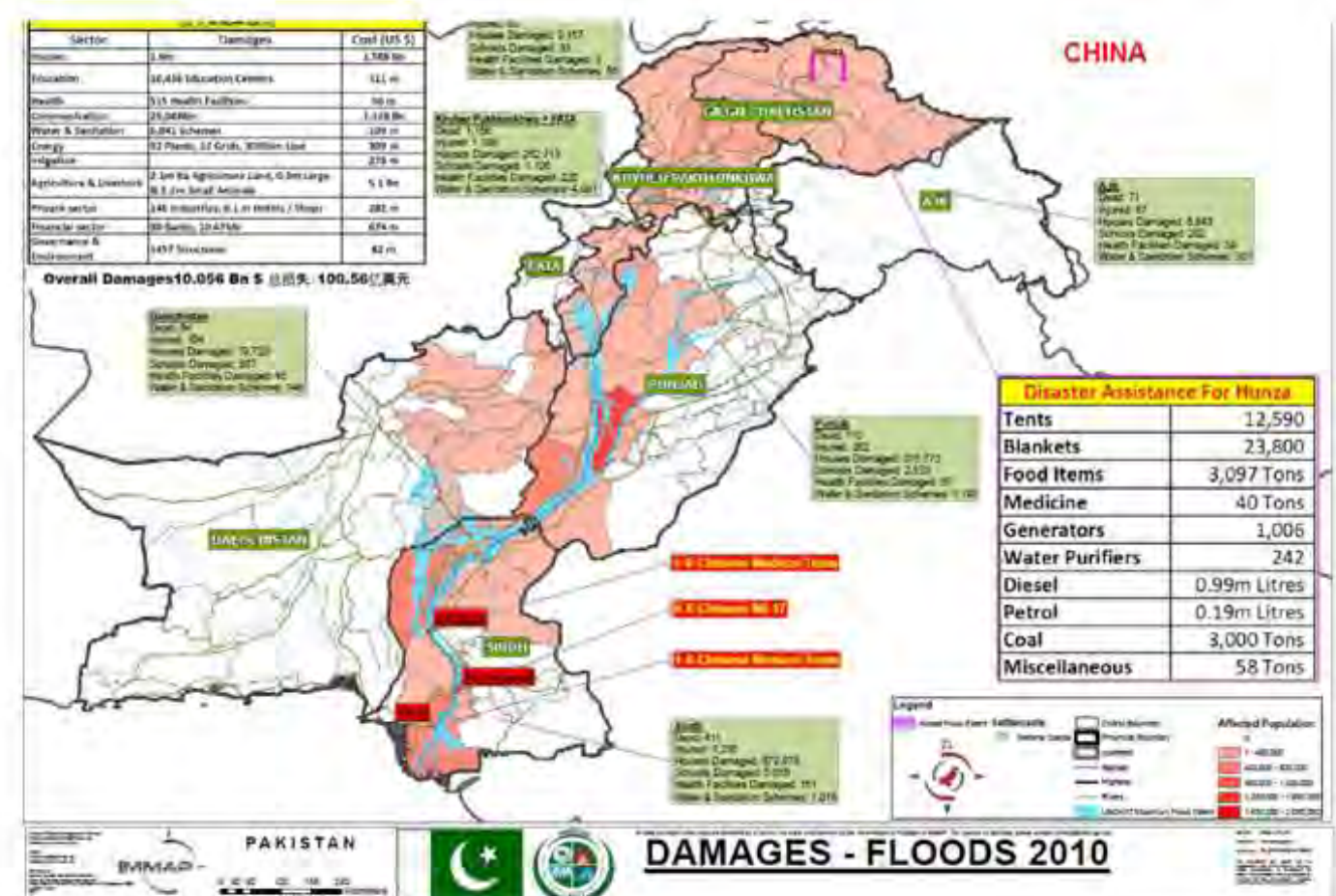
One of the key challenges identified in 2010 Pakistan Revised Floods Relief and Early Recovery Response Plan relates directly to

scaling up Information Management (IM) capacity. Lack of human resources and skilled staff to carry out coordination and information management functions have hampered the response especially from national to sub-national levels. Information Management capacity varies significantly across provinces and districts. Those areas that have been involved in previous coordinated humanitarian responses (such as KP), were relatively better in terms of capacity when compared to areas that have not previously experienced disasters at a large scale.

Keeping in view the current trend of disasters, coupled with growing insecurity throughout the country NDMA initiated a Programme of "Common Operating Picture for Disaster Response in Pakistan" in September 2010. The project aims to provide all humanitarian responders with effective methods for reliably capturing, reporting, sharing, and analyzing information concerning the humanitarian situation according to baseline indicators and population needs.

The programme is financed under the grant funding with total amount of US\$ 1.3 million provided by the Office of Foreign Disaster Assistance (OFDA) of the United States Agency for International Development (USAID).

As of December 2010, a full-fledged IM team has been deployed at NDMA office including international and national staff. International staff has also been deployed to the PDMAs in Karachi, Lahore and Peshawar whereas the position at PDMA Quetta will be filled shortly. Deployment of





National staff that includes Information Management Officer, Information Management Assistant and GIS Officer in the offices of all PDMAs is under process. In addition, key elements of support in terms of Information Management/ GIS are given as under:

- a. Mapping, reporting and information analysis support to the NDMA and PDMAs.
- b. Support to Population Census Organization of Pakistan (PCO) to digitize the Union Council (Admin Level 4) boundaries.
- c. Data collection from the field and portraying in into maps and reports into information management tools.
- d. Development of the Single Reporting Format (SRF) with UN OCHA for the NDMA and broader humanitarian community that serves as a common web platform for all Implementing Partners (IP's) to report on their humanitarian activities and enables better coordination of humanitarian assistance in Pakistan.

2.2 Attabad Landslide

Eastern part of Attabad village in district Hunza Nagar was declared as hazardous area by NDMA in September 2009 based upon studies undertaken by Geological Survey of Pakistan (GSP) on NDMA's request. Resultantly, 103 families living in Village Attabad were evacuated and shifted to safer places well before the incident by the local administration. On January 4, 2010, a massive landslide triggered and hit an



adjacent low lying Sarat village leaving 20 persons dead, 8 injured and destroyed 141 houses.

The landslide blocked Hunza River and Karakorum Highway leaving approximately 25,000 population of Upper Hunza stranded and cut-off from the rest of the country. NDMA immediately airlifted Search and Rescue Team equipped with sophisticated search cameras and a canine component by helicopters. The team conducted search & rescue operation from 5 to 8 January 2010 for searching the missing persons with the help of canine component.

NDMA, in coordination with all stakeholders, launched a comprehensive response operation in the area immediately. NDMA established a control room headed by Director Operations at Sajid Aviation Base, Gilgit with additional resources of 6 Aviation squadron and available MI-17 Helicopters from local military formation.

2.2.1 Evacuation

The process of immediate evacuation following the landslide was started and over 5376



Evacuation of Affectees from Hunza Valley

(including 252 students) people stranded across the lake were evacuated and transported to safe places with the help of helicopters and boats in the months of January and February 10. Besides NDMA remained actively involved in the provision of relief and assistance to the Hunza affectees. Details of relief assistance provided to GB Disaster Management Authority (GBDMA) are given as under:

Table 2.16: Relief Items provided to the affectees

S.No.	Items	Quantity
1.	Tents	1854
2.	Blankets	8884
3.	Warm Jacket	1700
4.	Shawls	6000
5.	Plastic Mats	4417
6.	Emergency Medical Modules	17 Pallets
7.	Food Items	36 Tons

Source: NDMA

2.2.2 Relief and Rescue Support

NDMA flew a total 576 sorties with approximately 983 flying hours, 18,792 persons were evacuated to safe places and 511.1 tones of relief goods were airlifted.

In addition, 15 motorized boats were provided by the Pakistan Army with effect from 15 February



Goods and Passengers being Transported on Boats across Attabad Lake.

2010 to facilitate the relief operation/movement of persons across the lake. Pakistan Army also operated Class 50 ferry over the lake for transportation of vehicles/trucks and heavy loads.



Chinese and Pakistani Officials at Handing Over Ceremony of the Relief Assistance.

In response to NDMA's request for provision of relief assistance for the stranded Upper Hunza population of approximately 25,000 persons, the following items were provided by China to cater for six month needs of the entire stranded population:

Table 2.17: Relief Items Provided by China

S.No.	Items	Monthly Requirement (Tons)	Total Required for Six Months (Tons)
Food Items			
1.	Wheat/Flour	285	1710
2.	Cooking Oil	15	90
3.	Pulses	30	180
4.	Rice	89	535
5.	Dry Milk	7.12	43
6.	Black Tea	7.12	43
7.	Salt	3.22	19.35
8.	Sugar	15	90
Fuel (Liter)			
9.	Diesel	150,000	0.9 Million
10.	Petrol	30,000	0.18 Million

On the request made by NDMA, World Food Programme provided 6,000 tons food assistance (Gilgit-4,000 & Skardu 2,000 tons).

Based on the Dam Break Study conducted by National Engineering Service Pakistan (NESPAK) and on the instructions of the NDMA, Evacuation Plans was prepared by the GB Disaster Management Authority to prevent loss of life and damage to property downstream in case of sudden outburst of water. Salient aspects of the plan included institution of an appropriate monitoring mechanism of the blockage site on 24 hours basis and devising an effective alarm system in case of a sudden outburst of water from the lake.

During the summer 2010, following measures were taken to meet any unforeseen situation:

- a. Early warning system was placed to minimize losses to properties and human lives
- b. Population at risk was evacuated against sudden outburst of water completed.
- c. Army troops were deployed in Hunza, Gilgit



- and Chillas to assist civil administration and local population as well.
- d. In order to respond to emergency situation, helicopters were placed at disposal of Gilgit- Biltistan administration and also for relief operation as well.
- e. Army Engineer Corps and Frontier Works Organization (FWO) were made responsible for maintenance of bridges and KKH respectively. Installation of Ropeways at Ganesh, Hini, Tishyot, Khanabad and Shayan Nagar was done.

2.2.3 Financial Relief Assistance

Prime Minister Syed Yousaf Raza Gillni accompanied by Minister for Information Qamar Zaman Kaira, Interior Minister Rehman Malik, Minister for Water and Power Raja Pervaiz Ashraf visited Hunza on May 26, 2010. Chairman NDMA Lt. Gen. (Retired) Nadeem Ahmed briefed the Prime Minister about the situation and measures taken to address any eventuality, soon after his arrival in Gilgit. The Prime Minister appreciated the efforts of the NDMA, FWO and other agencies and volunteers that made hectic efforts to provide relief to the affected people. During his speech in the areas, the Prime Minister announced a Special Relief Package for the affected population of the Hunza Valley. On account of "PM Special Relief Package" an amount of PKR 315 million were released to GB Government as per following details:

- a. PKR: 200,000 per household to all those



Prime Minister Syed Yousaf Raza Gillani with Children during Visit to Hunza.

- who have lost their land
- b. PKR: 400,000 for completely destroyed house and PKR 160,000 for partially damaged house.
- c. Livelihood cash grant of PKR 5,000 per family per month for six month for those who lost their houses.
- d. Arrangements were made to distribute this amount through the United Bank Limited (UBL) in a transparent manner.
- e. Additionally PKR 100,000 were allotted to 171 submerged house owners of Ainabad, Shishkat and Gulmit by Pakistan Baitul Maal
- f. Free food packages to most vulnerable affected population for next three months, especially those who were cut -off due to blockage of access roads.

2.2.4 Business Revitalisation Efforts

Since Business Revitalization was not included in the Prime Minister "Special Relief Package" National Disaster Management Authority specifically designed "Business Revitalizing a Program" for the small, medium and large businesses affected communities in villages of Attabad, Sarat, Shishkat, Gulmit, Gulkin, Ainabad and Hussaini. Financial grant of PKR 200,000, 150,000 and 100,000 each for large, medium and small business owners was given to 132 business owners from the affected areas on 9 October 2010. The total amount distributed among the affectees was approximately PKR 13 million, which is positively contributing to the revival and improvement of local economy. The programme was funded by the USAID, Pakistan on the request of NDMA. The Agha Khan Rural Support Program (AKRSP) and the Khushali Bank assisted in the verification and disbursement of funds, respectively.

In July 2010, in a high level meeting chaired by the Prime Minister of Pakistan, the NDMA was assigned to look after the Humanitarian aspects of the Atta Abad Crisis whereas the Planning Commission and Ministry of Communication were made responsible for lowering of lake water and restoration of KKH respectively.

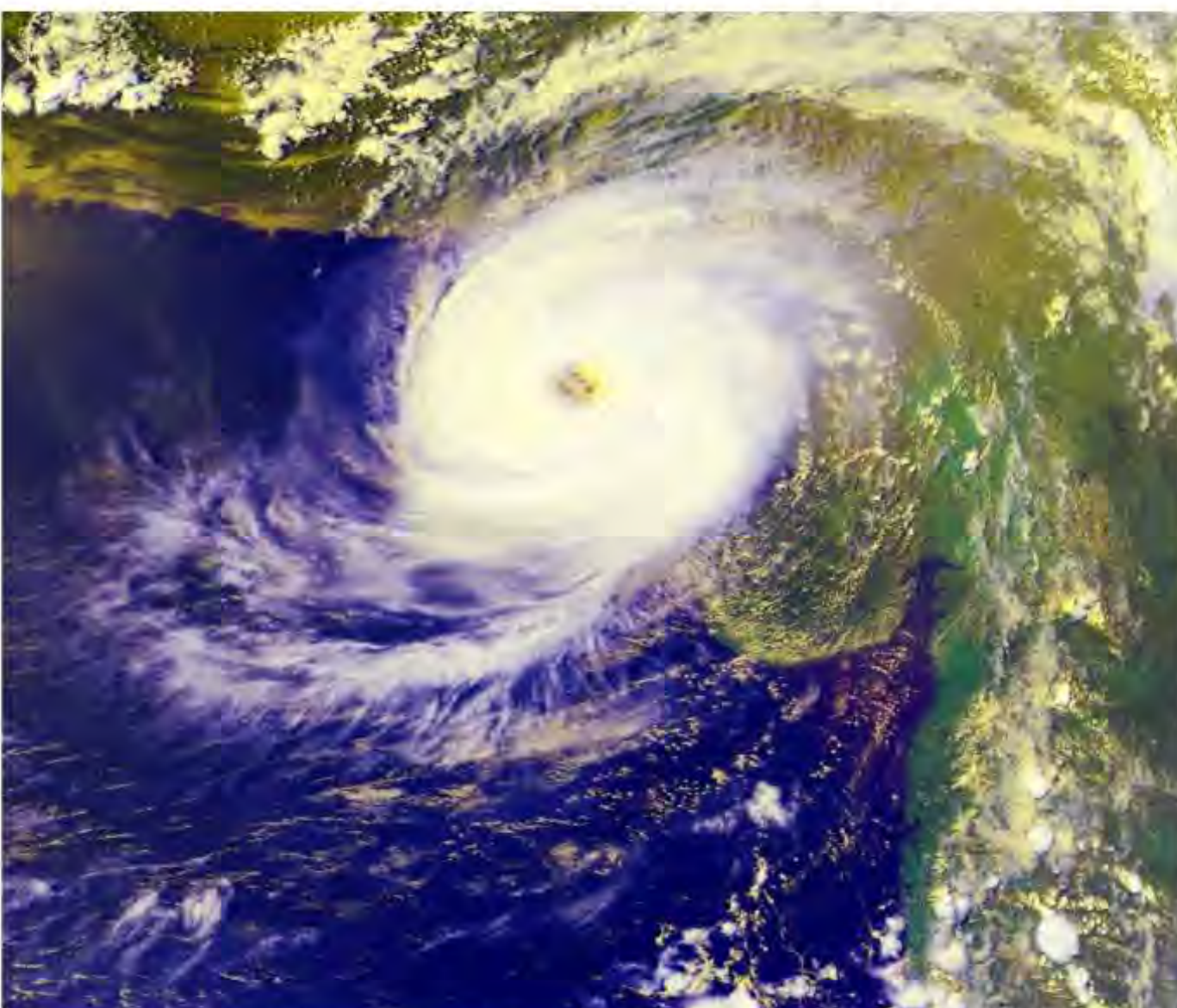


Army Officials are Briefing Chairman NDMA on Hunza Lake Situation

FWO is now working on two options of simultaneously going for a “lake tap” as well as physically lowering the spillway bed level using plant equipment, by another 30 meters so as to ensure re-emergence of the Shiskkat Bridge and a significant portion of the submerged KKH. This is likely to take two dry winter seasons of 2010/2011 and 2011/2012.

2.3 Tropical Cyclone “PHET”

On May 31, 2010, tropical depression in Central Arabian Sea resulted into formation of tropical cyclone “PHET”, which hit the coastal areas Badin and Thatta in Sindh and Gawadar in Balochistan. Under the influence of this system, heavy rainfall occurred in Balochistan and Sindh. From 4 to 6 June, the average rainfall recorded in the coastal regions of Sindh and Balochistan was Sindh: Karachi Masroor 133 mm, Faisal



Base 92 mm, Karachi Saddar 84 mm. Balochistan: Gawadar 370 mm, Jiwani 208 mm, Pasni 130 mm.

2.3.1 Response operations by NDMA

Based on the inputs received from the “Tropical Cyclone Warning Center” of the Pakistan Meteorology Department, NDMA fully supported and facilitated district authorities. District Emergency Operation Centre were activated and all relevant departments were directed to take requisite measures to avoid any loss of life and minimize damage to property. In order to minimize risk, the fishermen were stopped from venturing in open sea, those who were in the open sea were evacuated through Pakistan Navy (PN) and Maritime Security Agency (MSA). City



Affectees of Cyclone PHET Moving to Safer Places.

District Government Karachi was directed to take all precautionary measures (including removal of dangerous bill boards, loose wiring etc) to avoid loss of life and property. Pakistan Army, PN, PAF, Sindh Rangers, Pakistan Coast Guard (PCG), MSA and Frontier Corps (FC) Balochistan were put on standby for action in aid of civil power in case of any unforeseen situation. Moreover, Irrigation authorities were directed to reduce inflow in the irrigation system while international humanitarian / UN agencies were put on standby.

A total of 102,269 individuals comprising 94769 from Sindh, 7500 from Balochistan were evacuated and shifted to 214 camps, i.e. 205 in Sindh and 9 in Balochistan. Sixteen (16) casualties were reported in Sindh; 11 due to



electrocution and 5 due to collapse of walls. In Balochistan there were two casualties due to collapse of a wall. No substantial damage occurred to houses, as most of the damaged houses were made of straw or mud. Detail on provision of relief good is given as under in Table 2.18:

Table 2.18: Detail of relief items/ Goods in Sindh and Balochistan

S.No.	Description	Sindh	Balochistan
1.	Camps Established	205	9
2.	Fishermen Rescued		300
3.	Food / Medicines		600 Tones
4.	Tents		1000
5.	Salvage operation at Gawadar		30 Boats
Non Food Items			
6.	Cholera Kits for Thatta & Badin	2 kits	
7.	Net Mosquito for Gawadar by PRCS		5000
8.	De-flooding Pumps		23
9.	Filtration plants		2
Assets Deployed			
10.	Army / Navy / LEAs		7000 – 8000
11.	Helicopters		9
12.	Vehicles		250
13.	Ships for early warning to fisher men	6 (300 boats / vessels directed towards shores)	
14.	Relief & Evacuation	3 Ships, 2 hover craft & 2 x Assault Boats	
15.	Aviation Effort		115 sorties
16.	Mobile Medical Teams		24

Source: NDMA Situation Reports

2.4 Evacuation of Pakistani Students from Kyrgyzstan

In June 2010, the Kyrgyz-Uzbek ethnic violence erupted, which left one Pakistani student dead and 263 Pakistani students/ families stranded in the riot stricken city of Osh in Kyrgyzstan. Prime Minister Yousaf Raza Gillani issued special instructions to NDMA for ensuring early and safe return of the Pakistani students and families stranded in Osh and the body of deceased and also despatch relief supplies for the people of Kyrgyzstan. Following the instructions of Prime Minister, NDMA immediately arranged for special C130 sorties for the purpose.



Chairman NDMA at a Briefing at Chaklala Airbase

2.4.1 Rescue and Relief Operation

In this connection, first flight left Islamabad on June 14, 2010 and successfully evacuated 134 persons from Kyrgyzstan including two children and arrived in Pakistan on June 15, 2010. Similarly, second flight, which left Islamabad on June 15, 2010 and managed to evacuate 129 Pakistanis the same day.

The NDMA facilitated families (foreigner spouse) of 19 Pakistanis who had no legal documents for entering into Pakistan. They were issued temporary visa for 72 hours to complete legal formalities subsequently.

2.4.2 Provision of Relief Goods

Following relief items were also sent through these out bound flights and handed over to Kyrgyz authorities:

- Tents 125
- Blankets 1000
- Food Packets 190 (37 kgs each)
- Medicines 348 Carton
- Total Tonnage 16 tons

In addition, 300 food packets were sent in both the flights for stranded Pakistanis while Students were provided with food, phone facility, money exchange facility and transportation to Rawalpindi Railway Station / Bus Stops. For accommodation purposes, 35 Rooms were reserved to cater for those Pakistanis who had to

travel to far flung areas upon arrival. Students who had no money were provided with ticket / pocket money to travel to their home towns. The dead body of Mr. Ali Raza was brought back in the second flight (coffin box was sent from Pakistan in first flight), arrangements were made for the transportation of the body to his native town (Shorkot) where it was handed over to the relatives.

Harmonized efforts of NDMA lead to safe arrival of the students and families, who were very excited and relieved to return to their homeland. They admired the Government of Pakistan and NDMA for providing them with all the required facilities. Synchronized and coordinated efforts of



Pakistani Families after Evacuation from Kyrgyzstan, Arriving at Islamabad

NDMA for timely and safe return of the families and students were highly appreciated by federal government.

2.5 Air Blue Crash in Margalla Hills

On July 28, at about 0945 hrs Air Blue Flight ED-202 (Air Bus A-320) operating from Karachi to Islamabad with 152 persons onboard crashed into Margalla hills near Daman-e-Koh.

2.5.1 Search and Rescue Operations by NDMA

Soon after the Air Blue crashed, NDMA immediately initiated rescue and search operation by coordinating and mobilizing the



Search and Rescue Team Working on Margalla Air Crash – Air Blue.

Army, Navy, Rescue 1122, CDA Urban Search and Rescue Team, Capital Police and other government agencies. NDMA also coordinated with Ministry of Health for sending a health professional expert team (including 8 Surgeons & 4 Orthopedic Surgeons) to provide necessary medical cover. Soon after the incident, Chairman NDMA also had aerial reconnaissance of the crash site to look for the possibility of any survivors and for directing/guiding the ground search and rescue efforts. The possibility of any survivors was bleak in view of the force of impact which had resulted in total disintegration of fuselage of the aircraft, strewn across a steep Margalla slope.

Search and Rescue Teams worked for three days, to locate and evacuate any survivors. Simultaneously, NDMA also requested Army Authorities for availability of additional helicopters (1 x MI-17, Lama and Allouette each) for recovery of dead bodies as it was not possible to move dead bodies from ground due to difficult nature of terrain of Margalla Hills. After deliberate efforts and strong coordination of NDMA, arrangements were made for recovery of dead bodies from the crash site through sling operation by helicopters.

Finally, the Army Aviation Pilots worked professionally under challenging flying conditions due to heavy rains and they were able to recover 128 dead bodies, which were shifted to PIMS on July 28, 2010. The remaining dead bodies were found on the next day through joint ground search



Search and Rescue Efforts during Margalla Air Crash

operation, employing army as well as elements/ volunteers of Urban Search and Rescue Team of CDA.

All the dead bodies were shifted to PIMS, where these bodies were documented through a process of DNA and identification was made. All the dead bodies were handed over to the relatives subsequently.

2.6 Snow Avalanche at Village Seri And Gultoo, District Kohistan

The avalanche hit remote villages Seri and Gultoo in district Kohistan, about 200km (124 miles) north of Islamabad. The Villages of district Kohistan came under a snow Avalanche on February 18, 2010. Resultantly, the inhabitants suffered casualties coupled with dis-connection of road link with Dassu. Host of difficulties were experienced by the inhabitants as well as civil administration of the affected area e.g. efforts for



An Arial View of Snow Avalanche in District Kohistan.

Search and Rescue, retrieval of dead bodies and provision of immediate relief to affectees. The details of losses are as under in Table 2.19:

Table 2.19: Detail of Losses and Damages

S.No.	Details of Losses / Damages	Number	Remarks
1.	Deaths	29	Bodies recovered
2.	Injured	9	All recovered alive
3.	Missing	1	Search being undertaken
4.	Houses Collapsed	116	Approx figures

Source: NDMA

2.6.1 Rescue and Relief Operation

On receipt of incident information, NDMA initiated relief activities instantly. The NDMA deployed one helicopter of 6th Aviation Squadron on February 19, 2010 for undertaking relief activities for the local affected communities. Around 140 persons were evacuated including 4 injured. Following relief stores were immediately arranged by NDMA in coordination with civil administration and airlifted to the site. Details are as under in Table 2.20:

Table No 2.20: Detail of Relief Items/ Goods

S.No.	Items Details	Number	Remarks
1.	Blankets	594	13.9 Tons of Relief were delivered to the affectees
2.	Tents	34	
3.	Plastic Mats	150	
4.	Mixed Rations Bags	900 Kgs	
5.	Heaters	50	
6.	K-2 Oil	50 Lits	
7.	Medicines	100 Kgs	

Source: NDMA

2.7 Major Challenges

Keeping in view the scale of destruction, both human and physical, NDMA did its best to manage with the aftermaths of calamities faced during the reporting year. However, the organization faced following major challenges:

- a. Inadequate funding from the government as well as donors to undertake timely relief and early recovery activities.

- b. Seamless shift from costly relief operation to cost efficient early recovery activities aiming at self-recovery of the affected population and breaking the dependence syndrome.
 - c. Coordination between the federal and provincial governments, especially after the 18th Amendment remains a huge challenge to mount an effective response.
 - d. Whereas the work of implementing partners within the appeal was visible to NDMA , there was lack of information sharing by partners and districts governments working outside the appeal. This resulted in lack of clarity about the overall relief coverage and the resultant gaps, thereby negatively impacting the planning process.
 - e. Capacity short falls were experienced across the board amongst all responders including the government as well as the humanitarian community. Coupled with the fact that there was lack of experience in Punjab , Sindh and Balochistan, the initial response in these provinces remained much short of the expectations
- controlled through effective enforcement of evacuation.
 - b. An integrated survival strategy backed up by a functional and well established DEWS prevented outbreak of epidemic and resultant second wave of death.
 - c. Investment in preparedness and mitigation pays by reducing the losses to the human lives and properties. A case in point is comparatively lesser losses in Cyclone PHET in 2010 (20 deaths) as against Cyclone Yemyin in 2007 (420 deaths).
 - d. Monetization of Area through Watan Card helped substantially in economic recovery of the area.
 - e. Surge capacity needs to be planned and developed in the pre disaster plan to be able to respond effectively to large disasters.
 - f. Efficient information Management system to get wholesome picture who is doing what and where will help better planning in relief response.
 - g. Donors as well as humanitarian community need to be sensitized to fashion their responses in accordance with the policy directives issued by the government.
 - h. Development of local capacities and community preparedness will be a key to reduce the losses and effectively manage the relief at the grass root level.

2.8 Lessons Learnt

The following lessons were learnt during relief and rescue operations spearheaded by the NDMA:

- a. Timely issuance of advisories and warnings related to the floods resulted in keeping the death toll to minimum .This can be further





N D M A

Chapter

3

Disaster Risk Reduction

Chapter 3: Disaster Risk Reduction

Right from its inception, NDMA has been playing a pivotal role in carrying forward the risk mitigation agenda in a coordinated manner under the NDRMF 2007 through its nine priority areas and in consonance with the objectives of the HFA 2005-2015. NDMA designs policies and implement programmes & projects related to prevention, mitigation and preparedness based on the nine priorities provided in NDRMF.

The Chapter Three of Annual Progress Report of the NDMA takes stock of year 2010 and provides detailed progress and achievements under seven different programmes/ projects, implemented by the NDMA in collaboration with partner organizations and cost-sharing donors. The following sections present an account of the progress made in the main programmes and projects during 2010.

3.1 One UN DRM Programme

One UN DRM Programme is one of the five joint programmes under the One UN Joint Programme initiative of the United Nations in Pakistan. Initiated in March 2007, the One UN DRM programme is a joint venture of 13 UN Agencies which includes FAO, ILO, IOM, UNAIDS, UNDP, UNESCO, UNFPA, UN-HABITAT, UNHCR, UNICEF, UNIFEM, WFP and WHO and spans over a period from March 2009 till December 2012. The Programme was developed following collective deliberations within the UN System, NDMA, federal ministries, provincial governments, donor organizations, and NGOs. The Programme is being implemented in 50 high risk districts identified by NDMA. Gender participation has been ensured in all spheres of the programme. The main objectives of the programme include;

- Strengthen Disaster Management Authorities;
- DRM being Mainstreamed in to Planning and policy processes;
- Increase understanding of risk through baseline risk assessments;

- Enhance preparedness through planning and strengthened Early Warning Systems;
- Increase capacity of educational and training institutions on DRM; and
- Strengthen DRM at community level.

Total budget of One UNDRM Programme was estimated US\$ 3.7 million for 2010, out of which total utilization of US \$ 2.7 million has been incurred.

Chart No 1: Received Budget 2010

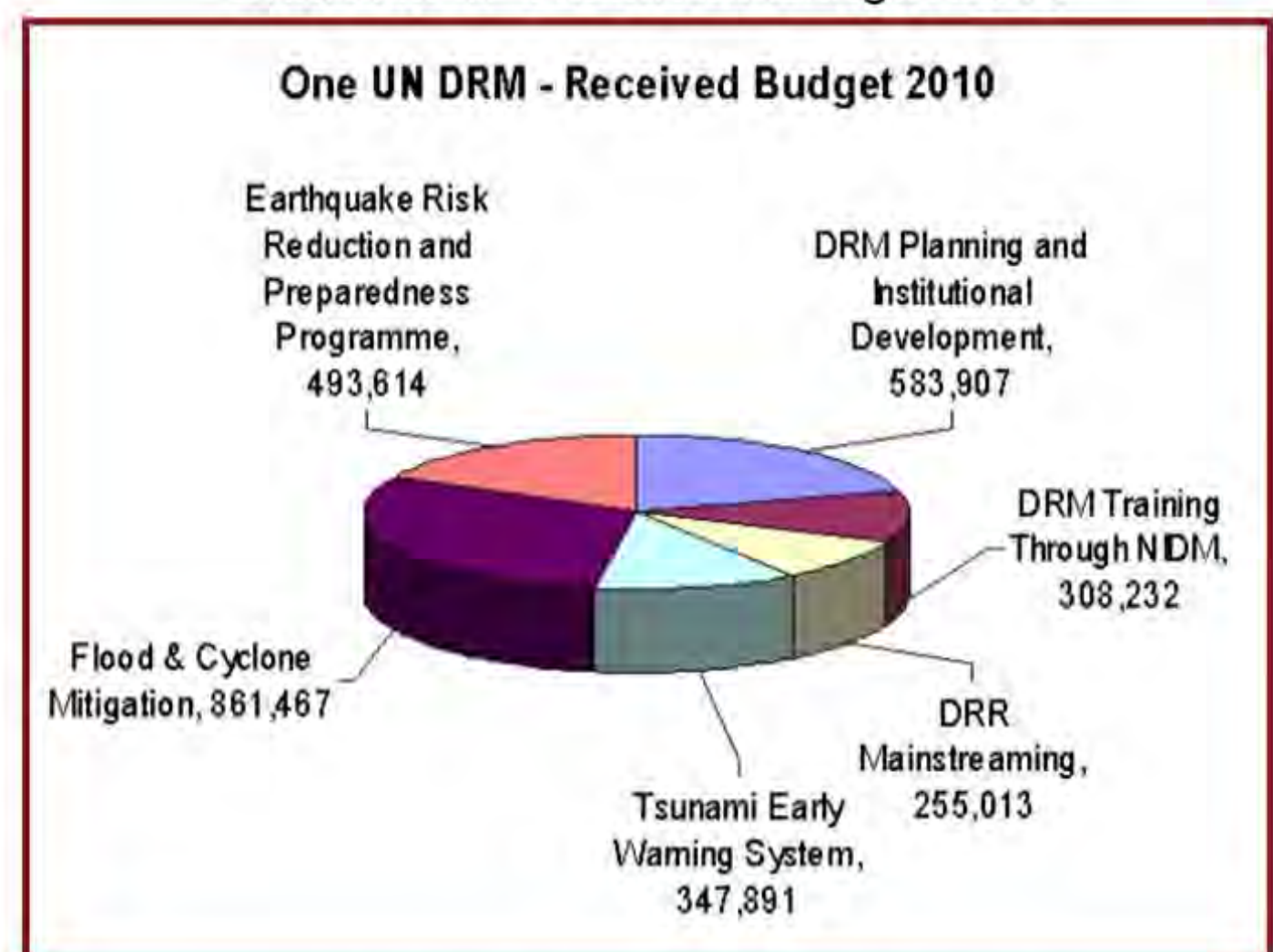
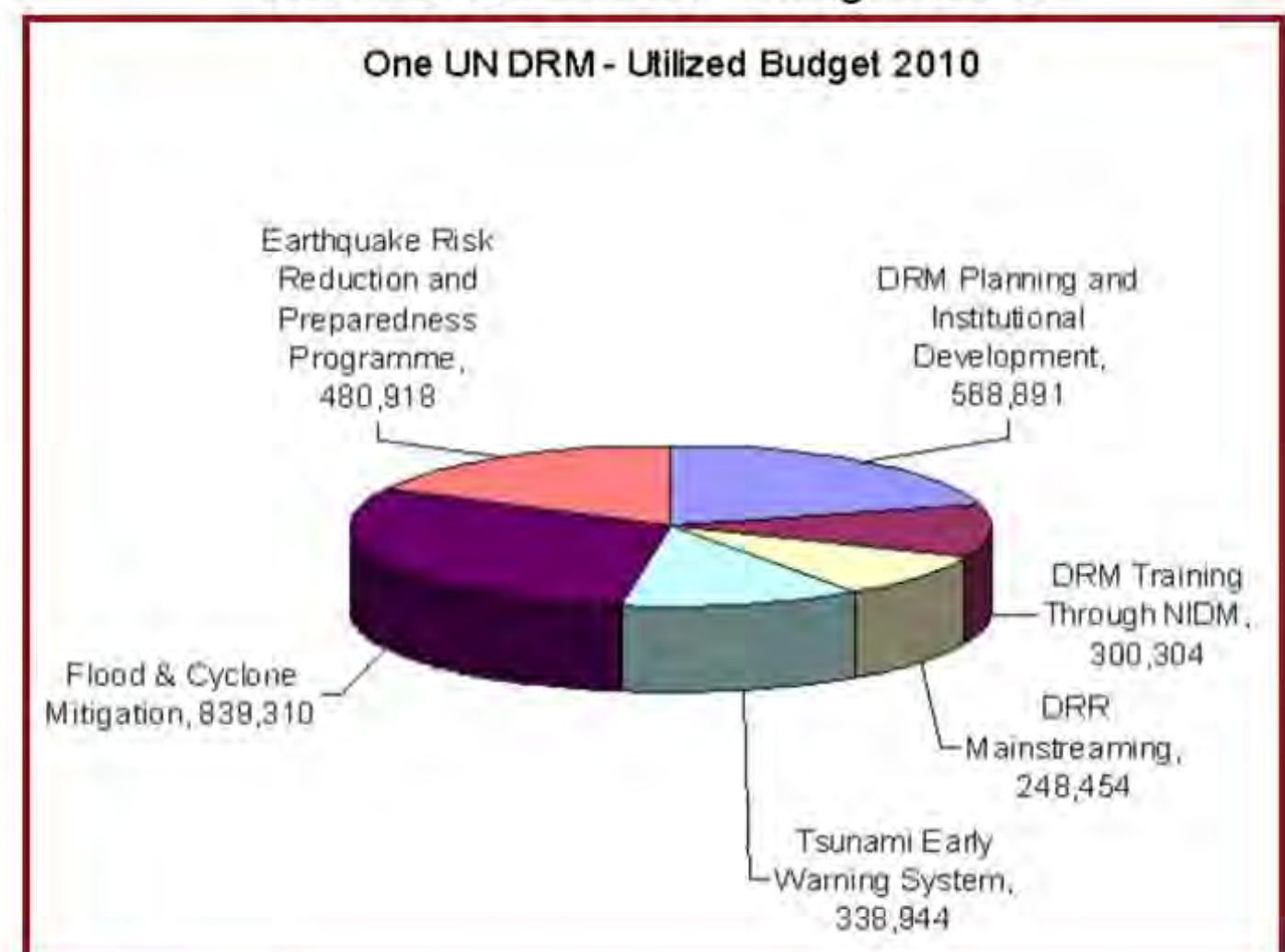


Chart No 2: Utilized Budget 2010



3.1.1 DRM Planning and Institutional Development

NDMA in coordination with UNDP is supporting GOP in establishing policy, legal and institutional



arrangements for disaster risk management. The objective of the component is to develop and strengthen the capacities of the government of Pakistan at federal, provincial and local levels to adopt strategies for reducing negative impact of disasters on communities. The NDMA, since its inception, embarked upon development of disaster risk management systems in the country which included establishment of disaster management authorities at provincial and district level. Under One UN DRM Programme, NDMA designed a disaster risk management planning activity that was carried out in twenty 20 priority districts during the year 2010.

The planning process involved the development of the district level plans by collecting data and holding consultations with relevant stakeholders. The plans were prepared by district government with technical assistance from the NDMA under One UN DRM Programme.

In order to facilitate district governments in developing DRM Plans, NDMA under One UN DRM Programme appointed District Focal Persons in fifteen (15) selected districts. The process for appointment of district focal persons was completed in two phases i.e. ten (10) districts from Balochistan, Sindh and Punjab provinces in the first phase and five more districts from Punjab, KP and FATA in second phase.

Orientation Training on District DRM Planning

In order to facilitate the district officials for developing DRM Plans, two workshops on District Level DRM Planning were organized by NDMA and One UNDRM programme. Districts Governments officials from Umerkot, Mirpur Khas from Sindh, Khuzdar, Kharan, Chaghi Chaghi, Pishin & Noshiki from Balochistan, Rahimyar Khan, Bhawalpur , Bhakkar, DG Khan and Mianwali from Punjab, Nowshera D.I.Khan from KP and Bajaur Agency from FATA participated in the orientation workshops.

The objectives of these training workshops were to develop understanding and capacity of the



Orientation Workshop on DDRM Planning, Lahore

officials about hazards, vulnerability and DRM concepts & terms. All nominated district officials were actively involved in the process of developing the first draft of respective DRM Plans. Overall 48 district officials were trained in DRM Planning. The Table 3.1 below illustrates the detail:

Table 3.1: Officials Trained in DRM Planning Processes

Training	Date	Male	Female	Total Participants
DRM Planning for District Officials	February 23-26, 2010	30	0	30
	June 08-11, 2010	17	1	18
Grand Total		47	1	48

In order to accelerate the process of developing the DRM Plans, follow up visits to district focal persons, government departments and NGOs were conducted by the DRM planning team. During the follow-up visits a consultative process was initiated to provide them guidance and technical assistance for developing DRM Plans.

As an aftermath of devastating floods in the country, most of the districts where DRM Planning process was going on, the district administrations were engaged in rescue response and relief activities. Therefore, in four districts of Sindh besides one district in Balochistan, the same activities are expected to be completed by end of March 2011. Hence, first DRM Plans could not be submitted as per agreed schedule. As soon as the first draft of DRM plans will be received, multi stockholder's workshops will be organized in each district to finalize the plans in the first quarter of 2011.

Coordination with the PDMAs and DDMA's

Regular coordination and communication was maintained with the officials of the Provincial as well as District Disaster Management Authorities for implementing the activities in the provinces as well as different districts. Moreover regular coordination was ensured throughout the reporting year with the provincial DRM Coordinators, district DRM Coordinators and district focal persons for organizing the district follow up consultations, as well as finalizing the District DRM Plans

Institutional Development and Advocacy

NDMA, in joint collaboration with UNDP undertook activities on institutional development and advocacy under the DRM Programme. For this purpose, rules and procedures were developed to facilitate effective working and coordination among NDMA, PDMAs and DDMA's. Activities were carried out at the national and provincial level in Punjab, KP, Sindh, Balochistan, AJ&K and GB. Efforts were made to establish and strengthen DDMA's in 10 high risk districts; however, later on due to the abnormal floods in KP, GB, AJ&K, Punjab, Sindh, & Balochistan, nineteen (19) more districts were added in the list. Qualified experts were attached with all PDMAs and DDMA's. During the year, overall 29 districts were provided with the support to strengthen local disaster management institutions. The Table 3.2 gives details as under:

Table 3.2: Target Districts for Institutional Development and Advocacy on DRM

S.No	Province/Region	Name of Districts	Total Districts
1.	Punjab	Sialkot, Jhang, Rajanpur, Bakkhar, Layyah, DG Khan, Muzaffargarh, Multan and Mianwali,	9
2.	Sindh	Badin, Dadu, Jacobabad, Hyderabad, Shahdadkot, Thatta, and Qambar ShadadKo	7
3.	KP	Charsada, Haripur, Nowshera and D.I. Khan	4
4.	Balochistan	Gwadar, Nasirabad, Jaffarabad and Sibi	4
5.	AJ&K	Neelum and Muzaffarabad	2
6.	GB	Gilgit, Hunza Nagar and Skardu,	3
Grand Total			29

Consultative workshops and trainings were arranged to apprise the existing relief commissioners at provincial level and DCOs at district level about the significance of disaster management systems. Accordingly, a series of workshops followed by one day study visits were conducted for PDMAs and DDMA's in order to introduce them to DRM practices and apprise them about the new system and the role of PDMAs and DDMA's in the new set up.



Stakeholders Consultation Meeting

In the above context, workshops on strengthening institutional mechanisms for PDMAs and DDMA's followed by a one day study visits were conducted in Balochistan, KP, GB and AJ&K. In addition, the following one day study visits were undertaken for PDMA staff:

- Study visit of PDMA Balochistan staff to Pakistan Meteorological Department at Quetta;
- Fire drill in coordination with PDMA Balochistan and District Government of Quetta;
- Study visit of GBDMA staff to Attaabad landslide area;
- Study visit of DDMA Gilgit staff to different flood affected areas of District Gilgit;
- Study visit of DDMA Gawadar staff to the Tsunami Path way Construction site and Ganz Village, which was affected by Cyclone PHET.

Policy Advocacy for Parliamentarians

To sensitize the parliamentarians and engage them in a policy dialogue on the issues related to



disaster management in Pakistan, two (2) Policy dialogues for the Parliamentarians of Punjab and KP were conducted. The parliamentarians and local civil society organizations participated in these policy dialogues. The policy dialogues helped in developing consensus among the legislators on the policy related to disaster management. Furthermore, parliamentarians were provided with continuous technical assistance and follow-up support for one month enabling them to draft and present adjournment

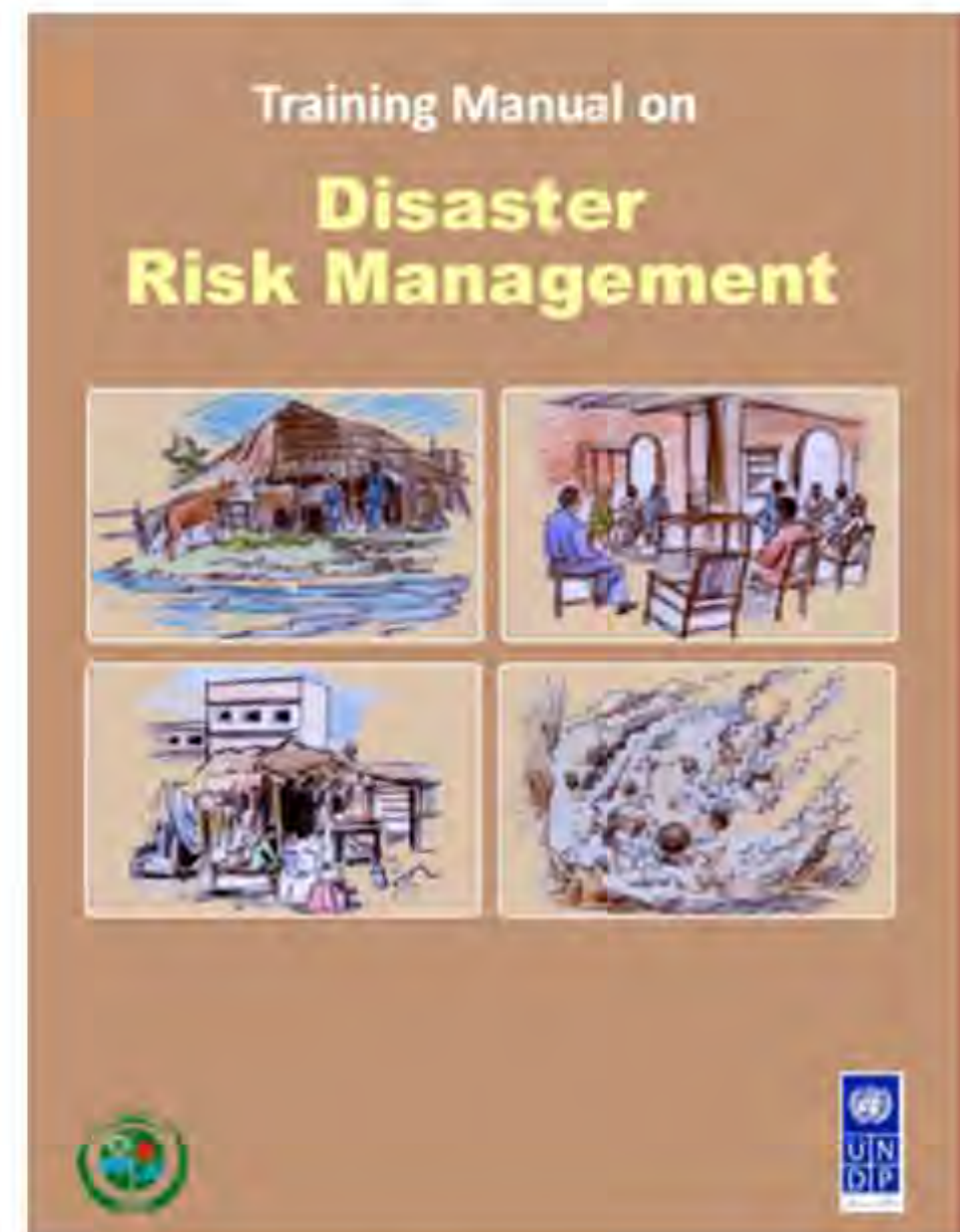


Presentation of Policy Dialogue

motions, attention notice, cut motions, etc. in the assembly.

3.1.2 Training, Research and Curriculum Development

As envisaged in the National Disaster Management Ordinance (now Act 2010), the curriculum development, training, scientific and academic research, and policy development components have been progressing under the overall vision of NIDM; In order to conduct DRM trainings, NIDM through One UN DRM programme developed training curriculum for initiating short and long-term trainings/education



programmes, and 05 training manuals were developed on the following subjects;

- Disaster Risk Management Training Manual in English;
- Cyclone Mitigation Training Manual in Urdu ;
- Flood Mitigation Training Manual in Urdu ;
- Disaster Reporting Handbook in English ;
- Disaster Reporting Handbook in Urdu.

During the reporting year, nine (9) training courses were organized in different Provinces and a total of 287 district officers, including 51 journalists and 34 female participants have been trained in different aspects of preparedness. The detail of courses organized by NDMA under the auspices of NIDM with the collaboration of concerned Provincial/State Disaster Management Authorities (P/SDMA is presented in the Table 3.3 below.

Table 3.3: Training Courses Conducted by NDMA through NIDM

S. No	Training Type	Target Districts	Total Participants
1.	Flood Mitigation	Government officers and I/NGOs from 20 flood affected districts	23
2.	Earthquake Mitigation	Government officers and I/NGOs from 19 earthquake affected districts	19
3.	Disaster Risk Management	Government officers and I/NGOs from 10 districts of Sindh Province	30
4.	Cyclone Mitigation	Government officers and I/NGOs from Sindh and Balochistan	34
5.	Disaster Reporting	Print & electronic Media	25
6.	Disaster Reporting	Print & Electronic Media	26
7.	Disaster Risk Management	Government officers and I/NGOs from nine (09) districts of KP and five (05) Agencies of FATA	41
8.	Disaster Risk Management	Government officers & I/NGOs from sixteen 16 districts of Balochistan	43
9.	Disaster Risk Management	Government officers & I/NGOs from fourteen (14) districts of Punjab	46
Grand Total			287

Research and Policy Development

In order to ascertain the facts about issues in DRM expenditure, a case study on public sector spending on DRM was carried out. The study showed government's expenditure on "preparedness" and "response" separately - the two broadly defined phases of DRM which represented the pre and post-disaster efforts, respectively. The main objective of the study was to explore ways in which public spending could be made more effective for making Pakistan safer from all kinds of disasters by investing in pre-disaster preparedness and mitigation measures.

The research study examined the pattern of public spending on Disaster Risk Management (DRM) in Pakistan, identified gaps and issues in budgetary priorities, and discussed their implications. Specifically, it analyzed the disaster-related expenditure of the federal government, all provincial governments and AJ&K over the past decade (i.e. 1998-99 to 2007-2008).

3.1.3 Mainstreaming DRR into Development Process

Mainstreaming DRR is one of the priorities of NDRMF, and is also an important component of One UN DRM Joint Programme. The aim of this

initiative is being implemented in 10 Ministries namely (1) Ministry of Planning and Development (Planning Commission), (2) Ministry of Industries and Production, (3) Ministry of Food and Agriculture, (4) Ministry of Housing and Works, (5) Ministry of Water and Power, (6) Ministry of Communication, (7) Ministry of Environment, (8) Ministry of Education, (9) Ministry of Defence (10) Ministry of Health. The component is now one of the successful ongoing initiatives of NDMA.

To achieve the objectives of the mainstreaming, National as well as Ministerial Working Groups on Disaster Risk Reduction were constituted under the auspices of NDMA and respective ministries. Initially Mainstreaming DRR mechanism was started in five ministries and later on was extended to additional five ministries. In order to pursue mainstreaming DRR into the development processes, two meetings of National Working Group were held on June 7, 2010 and November 27, 2010 to steer DRR Mainstreaming progress at national level. Moreover, 20 Ministerial Working Groups meetings of partner Ministries were held during the reporting year to review the progress on the mainstreaming DRR through respective partner Ministerial Working Groups. During 2010, Terms of Reference for Ministerial Working Groups were also revised and notified.



Group Photo of 7th Meeting of "National Working Group on DRR"

component is to ensure that future development programmes and projects of selected Ministries and donor agencies in disaster prone areas must incorporate elements of disaster risk assessment and risk reduction in planning, design and implementation stages so that risk conscious and sustainable development could be achieved. The

Capacity Building Activities for the Partner Ministries

General and Ministry-specific training courses and workshops were conducted by involving over 438 staff members mainly from the partner ministries and public & private sector



Table 3.4 : DRR Mainstreaming Training for Federal Ministries

S.No.	Type of Training	Male	Female	Total Participants
1.	Training Course for Ministry of Industries & Production on Mainstreaming DRR into Development Process, January 28-29, 2010, Islamabad	39	02	41
2.	Seminar on DRR Sensitive Housing Policy & National Planning Standards February 23, 2010, Islamabad	26	04	30
3.	Workshop on Minimizing Industrial Hazards and Encashing Opportunities through Mainstreaming DRR Initiatives in Marble Sector, March 2, 2010, Islamabad	28	00	28
4.	International Seminar Implementation and enforcement of Building Code of Pakistan, Seismic Provisions 2007, Ministry of Housing and Works, April 6, 2010, Islamabad	180	20	200
5.	Consultative workshop on integration of DRR into Development process, August 11, 2010, Islamabad	37	3	40
6.	Workshop on Multi-hazard Risk Assessment and Mitigation Plan for Marble City Risalpur through Mainstreaming DRR into Development Initiatives, on December 1, 2010, Islamabad	35	01	36
7.	Workshop on Role of Development Instruments In Disaster Resilience Development, December 28-29 2010, Islamabad	32	00	32
8.	Training Course on Mainstreaming Disaster Risk Reduction into Development Process of Ministry of Defense December , 30-31 2010, Rawalpindi	30	01	31
Grand Total		407	31	438

organizations. These details of these training courses in given in the Table 3.4 above:

National DRR Mainstreaming Expert participated in the first Regional Training Course Programme on Mainstreaming DRR into National Development Processes held at Asian Disaster Preparedness (ADPC- Thailand) from June 21-25, 2010. Almost 23 participants from National Disaster Management Organizations (NDMOs), Planning Commissions and Funding Agencies attended the training. The course mainly focused on Government's exposure to DRR Mainstreaming activities and techniques being used in the region and acquired useful networking

Ministry of Housing & Works on April 6 2010 organized a One day "International Seminar on Implementation and Enforcement of Building Code of Pakistan (Seismic Provisions – 2007)" in



Chairman NDMA Presiding over a Meeting of Mainstreaming DRR

Islamabad. NDMA staff attended the workshop and made a comprehensive presentation on Mainstreaming DRR initiatives. In addition, technical assistance was provided to 10 partner ministries to strengthen their capacities for integrating DRR aspects. Some highlights of the progress made are given as under:

- Planning Commission of Pakistan approved three (03) Disaster Risk Reduction Check list and guidelines providing the way for changes in PC-I and PC-IV formats thus ensuring full inclusion of DRR aspects in projects planning, designing, implementation and monitoring & evaluation stages;
- Chapter on Disaster Risk Management approved for inclusion in the 10th Five Years Development Plan;
- DRR consultants and equipment provided to partner ministries for ensuring continued technical assistance for formulation of respective ministerial strategies on DRR;
- Need assessment for technical capacity building finalized for Planning Commission, Ministry of Defence (MOD), Ministry of Industries and Production (MOIP) and Ministry of Housing and Works (MOHW);
- Improvement in the Regulatory Framework of MOIP under Mainstreaming DRR Initiative (under DRR Mainstreaming

initiative, Static and Mobile Pressure Vessels (unfired) Rules 2010 developed. Mineral Gas Safety Rules updated and both were merged into one as Mineral and Industrial Gas Safety Rule 2010, (official gazette: October 13, 2010).

- f. Gap Analysis with respect to DRR for following 05 Priority Industrial Sectors (MOIP) conducted: (a) Chemicals (Caustic soda, Soda ash etc) (b) Compressed Gases, (c) Electroplating, (d) Fertilizers and (e) Paints & Varnishes

Besides, NDMA also provided technical assistance to concerned departments for incorporating DRR aspects into the development projects, following are DRR Pilot demonstration projects initiated by NDMA:

- a. **DRR Pilot Demo Project for MOIP:** Technical Assistance for the Development of Marble City, Risalpur into Model DRR Demo Project; the project has been successfully completed;
- b. **DRR Pilot Demo Project for MOIP:** Technical Assistance for incorporation of DRR Elements into Tannery Zone at Sialkot; the project is under progress;
- c. **DRR Pilot Demo Project for MOHW:** Technical Assistance for Incorporation of DRR Elements into the Existing School Building situated in rural area of Islamabad; the project is under-progress;
- d. **DRR Pilot Project for Planning Commission:** An activity Risk Assessment and Mitigation Planning of three projects under process PC-1 in three (03) different sectors to check the efficacy of 3 DRR Check-lists is under-progress

In addition NDMA in collaboration with United Nation Educational, Scientific and Cultural Organization UNESCO Pakistan is also working on integration of DRR considerations in to the curriculum. In this connection DRR aspects have been incorporated to the following:

- **Seismic Resistant Design and Construction Components:** The seismic

Box 1

Initiative to Minimize CNG Cylinder Explosions through DRR Mainstreaming Unveiled

The development of Mineral and Industrial Gases Safety Rules-2010 would prove a milestone in curbing the LPG / CNG Cylinder explosions under the Disaster Risk Reduction (DRR) Mainstreaming initiative of NDMA, remarked Malik Javed Iqbal Awan, Additional Secretary / Chairman Ministerial Working Group on DRR of Ministry of Industries and Production. Under the programme, 3rd Party LPG / CNG cylinder periodic testers would be licensed to undertake periodic testing according to international standards, thus will discourage the manufacturing and installation of sub-standard of gas cylinders in vehicles and at other industrial installations.

Resistant Design and Construction Component have been incorporated into the curriculum of Diploma in Associate Engineering (DAE) Civil. The final draft of the course was submitted to National Vocational and Technical Education Commission (NAVTEC) for approval and adoption.

- **Development of Competency Standards in Masonry and Carpentry Trades with built-in Seismically Safe Skills:** The Competency Standards and Curricula in Masonry and Building Carpentry developed and submitted to NAVTEC for review and notification of the standards. The standards and curricula have seismically safe construction element.
- **Development of Competency Assessment Tools:** Work for newly developed Competency Standards for Masonry and Building Carpentry. In addition



Box 2

Planners set to Introduce Mainstreaming DRR into Development Programmes and Projects:

In order to ensure that Disaster Risk Reduction (DRR) is incorporated in all future development programmes and projects at national, provincial and local levels, Planning Commission through NDMA, has developed DRR Checklists which have been circulated to all Federal Ministries and Provincial Governments directing them that all the future development projects should be framed keeping in view the relevant DRR Checklists. The capacity building initiative of NDMA was highly appreciated by the participants from all federal entities who attended two days training course at Islamabad.

work on strengthening the federal policy and coordination work related to Disaster Risk Reduction in Education is under process and will be completed in 2011.

3.1.4 Earthquake Risk Reduction and Preparedness

Earthquake Risk Reduction and Preparedness (ERRP) component was initiated by NDMA in the municipalities of districts Mansehra, Muzaffarabad, Quetta, Murree and Chitral. The component is contributing to larger goal for creating urban resilience in communities of the target municipalities. Under the component, Community Based Disaster Risk Management (CBDRM) activities have been undertaken in these areas mainly with the objective of integrating earthquake vulnerability reduction into development programming for safer communities and develop technical knowledge and human resources to facilitate promotion of

safer construction practices in existing and new constructions.

ERRP recognizes the multifaceted problems of the urban areas in Pakistan and makes both structural and nonstructural interventions necessary for successful risk reduction in these areas. With communities at the center, the project ensures that local government institution owns the project and has a central role in the project activities.

Municipal Disaster Management Cell

Keeping in view the fact that local governments are the first to respond in case of any disaster. NDMA under One UN DRM Programme established Municipal Disaster Management Cells (MDMCs) in the municipalities of Murree and Chitral during the year 2010. The MDMCs have been equipped with the latest office equipment and furniture and are fully functional under the leadership of respective Administrator's of Tehsil Municipal Administrations (TMAs). All project activities are being implemented under the umbrella of respective MDMCs.

Earthquake Risk Assessment, Earthquake Risk Scenario and Action Plan

Earthquake Risk Assessment (ERA) of Quetta, Murree and Chitral were conducted using RADIUS methodology following which an Earthquake Risk Scenario was developed and Action Plans were finalized for the respective cities.

Publications

During the reporting year, NDMA under its One UN DRM Programme has produced the following publications;

- School Safety and Preparedness Booklet
- Trainers' Manual for School Safety and Preparedness
- Cartoon Animation on School Safety



Cartoon Animation on School Safety

Training and Capacity Building

A comprehensive capacity building training programme was launched in all target municipalities through which a total of 988 participants were trained and sensitized in 2010,



Govt. Officials at a Briefing Seminar in District Chitral out of which 209 were female. The details are given in the Table 3.5 below.

Demonstrational Projects on Earthquake Mitigation

NDMA through ERRP has introduced the novel concept of retrofitting of unsafe buildings in the target municipalities. Following are the demonstrational projects on earthquake mitigation that were completed in 2010.

- a. Retrofitting of Jinnah Dental Hospital in District Muzaffarabad of AJ&K;



Retrofitting of Jinnah Dental Hospital Building Muzaffarabad

- b. Retrofitting of DCO Office in District Mansehra of KP (including overhead tank);
- c. Retrofitting of Women Welfare Community Center District Muzaffarabad of AJ&K;
- d. Retrofitting of Culvert at Jabri, Kashmir Road Mansehra in KP;
- e. Landslide Stabilization and Debris Control on Gulshan Nullah in District Muzaffarabad;

Table 3.5: Training and Capacity Building of Human Resources

S.No.	Districts	Types of Training	Male	Female	Total
1.	Muzafarabad, & Mansehra	Training on Earthquake Preparedness in Five (05) Schools each of Muzaffarabad and Mansehra	237	163	400
2.	Murree, Quetta and Chitral	Two (02) Day Sensitization Workshop on Earthquake Risk Reduction and Preparedness.	124	9	133
3.	Chitral and Murree	Three (03) Day Training Workshop on Disaster Response.	92	9	101
4.	Murree, Quetta and Chitral	Four (04) Day Training Workshop for Masons on Earthquake Safer Construction.	153	0	153
5.	Murree, Chitral and Quetta	One Day Orientation Workshops on Earthquake safer Land Use Planning.	81	14	95
6.	Muzafarabad, Mansehra, Chitral and Murree	Three (03) Days Training Workshop for Engineers, Architects & Town Planners on Structural & Non-Structural Vulnerability Assessment of critical Buildings & Infrastructure.	33	2	35
7.	Chitral and Murree	Earthquake Scenario and Action Planning Workshop.	59	12	71
Grand Total			779	209	988



- f. Re-construction of Civil Dispensary in District Mansehra in KP;
- g. Re-construction of Women Welfare Community Center in District Muzaffarabad;

- h. Widening of bridge at Pano Deri Road, in District Mansehra of KP.

The Government of Pakistan declared October 8 as the National "Disaster Awareness Day".

Box 3

Gulshan Nullah, Muzaffarabad

The 2005 Earthquake not only devastated the infrastructure of the affected areas but also caused irreparable damages to the environment and triggered massive debris flows at a number of locations throughout AJ&K. Debris flow is a common geological disaster following an Earthquake. When a debris flow happens, the mixture of water, soil and rocks with a high speed causes damages to buildings, lifelines, and disrupts traffic.

Gulshan Nullah located at the heart of the City is one such example. During the monsoon season thousands of tons of debris from Gulshan Nullah flows down to the Gulshan Colony paralyzing the lives of around two thousand inhabitants.

During the monsoon season huge amounts of government funds and human resources were being spent on the clearance of debris deposits from the houses and streets which in some cases was more than 8 feet in depth.

ERRP on the recommendation of Project Coordination Committee undertook the challenge of controlling the flow of debris from the Gulshan Nullah as a demonstrational project. For this purpose, consultations with leading environmental experts were held to devise an approach to reduce the momentum of flow and hold back the debris. Gabion Check Dams were considered the best approach towards tackling the situation at the Gulshan Nullah. Five (05) Check Dams were constructed on the course of Gulshan Nullah at critical location to minimize the velocity of debris flow. The

number of steps is from four to five at each Check Dam depending on the location.

During 2010 monsoon season, the debris flow from the Gulshan Nullah has been substantially minimized with the construction of Check Dams and only traces of debris could be seen on the streets as compared to several feet depth of debris during the previous monsoons season.

Mr. Zahid Amin who is heading the Muzaffarabad Development Authority also known as DAM said that debris flow is one of the major problems faced by urban population of Muzaffarabad; the clearing of debris is a huge and expensive task. He said that the vital developmental funds have to be diverted for the clearance of debris and restoration of services in the affected areas. Mr. Zahid said that around 60-70% of the debris was controlled at the slopes owing to the check dams; He was of the opinion that had it not been the check dams the damage would have been manifold. He strongly recommended that such interventions also need to be made at other locations of the cities affected by debris flow.

This demonstrational project at Gulshan Nullah will not only protect lives and homes, but will also save municipal government's hundreds of thousands of rupees in cleanup costs. "We used to engage crew and equipment to clean up the debris every time we got an inch or so of rain," explains Mr. Shakeel Gillani, Secretary of Municipal Corporation Muzaffarabad. With this project completed, that cleanup expense will be dramatically diminished.

BEFORE



AFTER



NDMA observed memory day to commemorate the devastating Earthquake of Oct 2005. During the year, many activities were organized by different stakeholders in educational institutions as well as government departments for raising awareness on earthquake conscious development.

One of the remarkable achievements during the year was the institutionalisation of knowledge on earthquake risk reduction by initiating training for universities teachers. NDMA in collaboration with UNESCO in partnership with the National Institute of Science and Technical Education organized five (5) one-day training events in June and July 2010, and trained sixty (62) civil technology teachers from Punjab, Sindh, KP, Balochistan and the AJ&K to prepare them to deliver seismic course contents being introduced by NAVTEC with UNESCO assistance. The trainees were also provided with training in the use of Scala Penetrometer, Rebound Hammer and RESIST Software. On completion, the participants of the training were provided with a book titled "Seismic Design for Architects - Andrew Charleson" as a resource material for the library of their respective institutes. Besides training, equipment and software e.g. (a) Rebound Test Hammer (b) Scala Penetrometer and (c) RESIST Computer Programme were also distributed to 60 institutions offering DAE-Civil course all over Pakistan and AJ&K.

3.1.5 Flood & Cyclone Mitigation

This component focused on the flood and cyclone prone 29 districts of Pakistan identified by the NDMA. The objectives of the components are (a) to activate and establish appropriate institutional structures at District Level through District Disaster Management Authorities (DDMAs) as envisaged in NDMA Act 2010, (b) to enable the DDMAs to cope with any disaster in the districts by utilizing their own available resources and putting together their act, (c) to reduce vulnerabilities of high risk communities through mitigation and preparedness intervention.

During the reporting year 2010, District DRM

Coordinators were appointed in 29 districts in two phases across the country. The first phase included district Haripur (KP), Jhang, Sialkot, Rajanpur (Punjab), Thatta, Badin, Dadu (Sindh), Gilgit in GB and Gawadar in Balochistan while the second phase included Bhakkar and Nowshera. In October 2010, 18 additional districts were provided with the similar support included district Neelum, Muzaffarabad (AJ&K), Charsada, and D.I.Khan (KP), D.G Khan, Muzaffargarh, Layyah, Multan, Mianwali (Punjab), Sukkur, Hyderabad, Jacobabad, Shadadkot (Sindh), Sibi, Jafferabad, Nasirabad (Balochistan), Skardu and Hunza Nagar in GB.

NDMA through One UNDRM programme also initiated Union Council Level Preparedness and Mitigation planning process. This was done at community level by involving community's volunteers to ensure that they are better prepared to respond to their local emergencies. For this purpose, local volunteers were identified in selected Union Councils. NDMA organized three (3) days training workshop in districts of Haripur, Sialkot, Badin and Thatta. During these training, 90 community volunteers including women were trained in 2010. Local volunteers were trained in carrying out Hazard, Vulnerability and Capacity Assessment (HVCA) through participatory tools including focus group discussion; transact walk, hazard mapping, ranking and diagramming.

Trained community volunteers developed detailed action plans for their respective UCs by utilizing their skills acquired during the training. They collected and verified primary information from their respective communities. The collected information was compiled as UC level mitigation and preparedness plans on approved Outlines provided by NDMA. These plans have also been shared with district governments as well.

Formation of Volunteers Groups and UC Forums: During the reporting year 2010, various types of training were imparted in the flood prone districts of Jhang and Rajanpur of Punjab province. In district Jhang community volunteers were identified in three most vulnerable UCs, i.e. Athara Hazari, Rasheed Pur and Pir Kot. The community volunteers were trained on CBDRM.



Table 3.6: Trainings to Enhance Coping Capacities of Local Communities

S.No	Types of Training	Male	Female	Total Participants
1.	DRM Sessions on DRR	20	7	27
2.	DRM Awareness Session	80	0	80
3.	Sessions on Role of Women in DRM	0	124	124
4.	DDMA Meeting with UN Mission	22	6	28
5.	Grand Session Regarding Pre Flood Arrangements	33	0	33
6.	DDMA Members Meeting Including EDOs Orientation on Flood Mitigation	25	1	26
7.	DDMA Meeting for Flood Contingency Plans	18	0	18
8.	Seminar on Hazard of Noise Pollution	16	14	30
9.	Formation of DRM Forum in Community UC Rasheedpur	50	30	80
10.	DRM Orientation of Government High School Teachers	27	0	27
11.	Formation of DRM Forum in Community	34	21	55
12.	Formation of DRM Forum in Community	30	16	46
13.	Hazard Vulnerability & Capacity Assessment (HVCA)	17	15	32
14.	4 Trainings on the use of communication equipment	60	0	60
Grand Total		432	234	666

Total eight (8) trainings were organized and as a result 135 community women and men volunteers were trained on Disaster Risk Reduction, Search & Rescue and First Aid. The main objective of these training was to increase the coping capacities of all segment of communities particularly women, children and elderly at village level to alleviate their suffering arising from various types of disasters.

Besides training, tools of disaster response equipment in three (03) union councils i.e. Athara Hazari, Rasheed Pur and Pir Kot of district Jhang were procured and handed over to Union Council Secretaries in coordination with DDMA and DCO Office. This equipment comprised of general response kits, medical response kit and flood response kits including boats, life jackets, life buoys etc.

A detail of trainings to enhance the coping capacities of local communities is depicted in the Table 3.6 given above.

Box 4

First Step towards Allocation of Budget:

In the history of Pakistan two districts, Haripur in Khyber Pakhtunkhwa and Muzaffargarh in Punjab have allocated 1% of their respective ADP for strengthening of their respective DDMA. District Government of Haripur established DDMA Secretariat under the chairmanship of DCO. Three member staff was hired by DCO for running the official business within the meager 1% budget of district ADP allocated for the DDMA. Additional 1% budget of district ADP approved in NDMO for DDMA will be allocated in new financial year after getting approval from Provincial Finance Department.

Community Awareness Raising

Docu Drama: For educating and raising awareness among the masses during the floods of 2010, a documentary drama under One UN DRM programme was produced and shown on different TV channels and PTV Home 5-6 times a day. Furthermore, APNA channels also aired it on daily basis while PTV aired it with the logos of NDMA and UNDP. The basic information shared in the drama was quite useful for the people, particularly during the emergency situation.

Radio Spots: During the floods, radio spots were broadcasted to disseminate information to help people of far flung areas for taking precautionary measures. These radio spots were relayed in Punjab, KP, Sindh provinces and AJ&K. Its coverage was heard in most of the parts of these

provinces.

Posters: Flood and Cyclone Mitigation component developed and printed 5000 posters for distribution in its working districts in all the four provinces, GB and AJ&K. Such information dissemination was envisaged as an integral part of the Flood and Cyclone Mitigation component prior to the floods. Therefore, it was deemed necessary to get printed IEC material and disseminate information related to the floods and precautions to the masses by using these posters.

Pre Monsoon Contingency Planning at District: During year 2010, District DRM Coordinators extended technical backstopping to their respective districts in preparing pre monsoon contingency planning. The planning process helped district governments to invest in collective efforts for saving the lives and property of the communities at the risk of floods. Moreover, it also facilitated in developing strong coordination mechanism, assigned roles and responsibilities to different district departments for effective and prompt response in case of any potential disaster.

Joint Workshop on Operationalisation of DDMA: In the 3rd week of June 2010, NDMA in coordination with UNDP and WFP organized a workshop to sensitize and orientate the DCOs of project intervention districts on strengthening of the DDMA. Besides workshop, district governments were facilitated to develop their short-term and long term plan of action to establish and strengthen DRM institutions and mechanisms at local level.

Support to Coastal Districts during PHET Cyclone: The programme supported and facilitated district governments of Thatta and Badin during Cyclone PHET. NDMA facilitated district governments for disseminating timely information about the weather situation in collaboration with Pakistan Meteorological Department (PMD), which enabled them to plan timely evacuation of the population from areas at risk. Moreover, community rapid response teams were established for helping the district

governments to evacuate people from potential cyclone prone areas.

Supporting District Governments in Compensation Process to Flood Affectees: District DRM Coordinators facilitated and coordinated data collection, verification, and compensation pertaining to the flood affectees. DDRMCs of One UN DRM Programme were involved in the assessment of damaged houses and facilitated various humanitarian agencies on accessing flood hit areas and gathering data and information for service delivery.

Trained Volunteers Assisted Local Government Jhang in Evacuation & Rescue: In District Jhang, three teams of community volunteers were trained by the DDMA which were sub divided into 4 teams and in 4 floods affected UCs. These teams evacuated 1800 people with their animals and belongings and coordinated with Rescue 1122 and Civil Defence Department. Moreover from the platform of DDMA the coordinators facilitated team of volunteer doctors from Lahore by identifying affected areas, placing them there and provided them life jackets and rubber boats. The volunteer doctors attended 2400 patients.

Flood Early Warning to Vulnerable Communities: In district Rajanpur, trained volunteers informed local communities through early warning system to evacuate flood prone areas and shift to safe places. From the platform of DDMA, 12,000 people were evacuated and out of those 7,000 people were shifted to 4 tent villages. Similarly, in district Jhang, SMS based flood early warning system was established in collaboration with DCO office. In three most vulnerable union councils (Rasheed pur, Attara Hazari and PirKot) 50-60 volunteers were trained and sensitized on receiving and timely dissemination of early warning information. They were linked to DCO office. CBDRM teams in the target UC's of Jhang also utilized the response equipment provided for the community's benefit. According to team leaders of community level institutions, each team saved the lives of some 10-15 flood victims and evacuated approximately 100-150 stranded flood affectees



mainly comprising elderly, women and children besides sick people.

Rapid Damage and Need Assessment Punjab and AJ&K: A Rapid Damage and Need Assessment was carried out soon after the floods in districts of AJ&K and Punjab devastated by floods. The objective of the assessment was to find out the losses and damages (human and infrastructure) caused by the current flood in four districts. The data was collected through successive meetings with the respective DCOs, Focus Group Discussions (FGDs) with the rural communities and NGO personnel active in the area.

3.1.6 Tsunami and Coastal Hazard Mitigation

Coastal belt of Pakistan has long been declared as natural disaster-prone zone including cyclones, earthquakes and tsunami. Considering the vulnerability of Makran coast against natural disasters like Earthquake, Tsunami and Cyclone, NDMA in collaboration with UNDP, initiated a pilot component on Strengthening Tsunami Early Warning System in Pakistan in November 2008. With the successful completion of work plan initiatives in Gawadar during 2009, the same initiative was planned to extend in Thatta for the year 2010 and to all five coastal districts in 2011 and beyond. During 2010, the component focused on Tsunami and Coastal Hazard Mitigation awareness along the coastal belt of District Gawadar and Thatta. The component aims at non-structural mitigations like reducing damages along the coastal areas by raising awareness among local community especially youth (students) as well structural measures to mitigate such disasters like conservation of bio shields (mangroves), civil works e.g. construction of evacuation routes and shelters.

Non-structural Interventions

Tsunami Awareness Raising among University students: This was undertaken through two day awareness raising workshops for students of Universities. Tsunami and coastal hazard mitigation workshops were organized in

Balochistan University, Quetta on March 16-17 2010. More than 100 students participated in the event out of which 54 students belong to district Gawadar. The workshop at Balochistan University was organized with the collaboration of NED University, Karachi.

School Safety Initiative: Tsunami awareness campaigns in twenty (20) schools each in district



Tsunami Awareness Campaign in District Gawadar

Gawadar and Thatta were organized. Around 4,000 students in each district were trained in Tsunami and coastal hazard mitigation. Tsunami awareness outreach materials were developed, printed and distributed among High School children. During awareness campaigns a cartoon pictorial booklet for Tsunami Awareness Message was also distributed among 30,000 primary school students in district Gawadar and 10,000 primary school students in District Thatta respectively.

Community Preparedness through Drills: Evacuation Drills to prepare communities for



Community Participation in Evacuation Drill at Gunz, District Gawadar

potential tsunami threat at Makran Coast in Balochistan were successfully conducted in Churbandar (Tehsil Pasni) and Ganz (Tehsil Jewni) during the month of December, 2010. A large number of local communities (almost 2000) participated in evacuation drills including the Deputy Commissioner Gawadar and Tehsildar's of respective tehsils. Participation of local administration and communities shows the ownership of local population in Preparedness.

Community Capacity Development in Search and Rescue: For capacity building of communities of district Gawadar in Search and Rescue, 10 day training was organized from November 29 to December 9, 2010. DDMA Gawadar nominated 17 participants to attend this course. Participants took keen interest in class work as well as in the practical training of search & rescue, first aid, rappelling, casualty handling and fire fighting. At the end of the course, the skills



Group Photo of SAR Training in Gawadar

of the participants were evaluated, besides a simulation drill.

Structural Intervention

Master plan of DRM Park and Construction of Evacuation Route: Structural interventions for community resilience were initiated and master planning of DRM Park (100 acres), to be used as evacuation place during disaster, was developed and shared with DDMA Gawadar. Two Pedestrian evacuation routes to access the planned and identified safe evacuation were designed. The civil works were started on one pathway in July 2010 and so far 40% of the work has been completed despite of the volatile security

situation in the city.

Mangrove Conservation: Post plantation maintenance of mangroves continued for the plantation over 100 hectares done in September 2009 at Jewni. In addition, posters on mangroves



Awareness Session for Student of Mangrove Conservation

conservation were developed in Urdu and 500 copies were distributed in High Schools of district Gawadar, NGOs/ CBOs, Government offices, DDMA Gawadar, PDMA Balochistan and Sindh. School students were trained in plantation and conservation of mangroves by organizing awareness sessions as well as exposure visit to plantation site.

Satellite Early Warning System: As a pilot project, satellite early warning communication equipment was provided at PMD Karachi Tsunami center and linked with satellite activated siren at Gawadar. The installation has been completed.

In district Gawadar, for effective communication and dissemination of early warning messages, 80 wireless phones, 90 mega phones and search lights, 15 pole mounted sirens and life jackets were distributed among various government institutions, NGOs/ CBOs, community volunteers etc, forming networking groups. Training sessions were conducted in effective communication as well as on the maintenance of the equipment. Similarly, 60 PTCL wireless sets, 60 mega phones, 3 pole sirens and 15 life jackets were also distributed in selected communities of district Thatta of Sindh in consultation with the respective DDMA.



Box 4

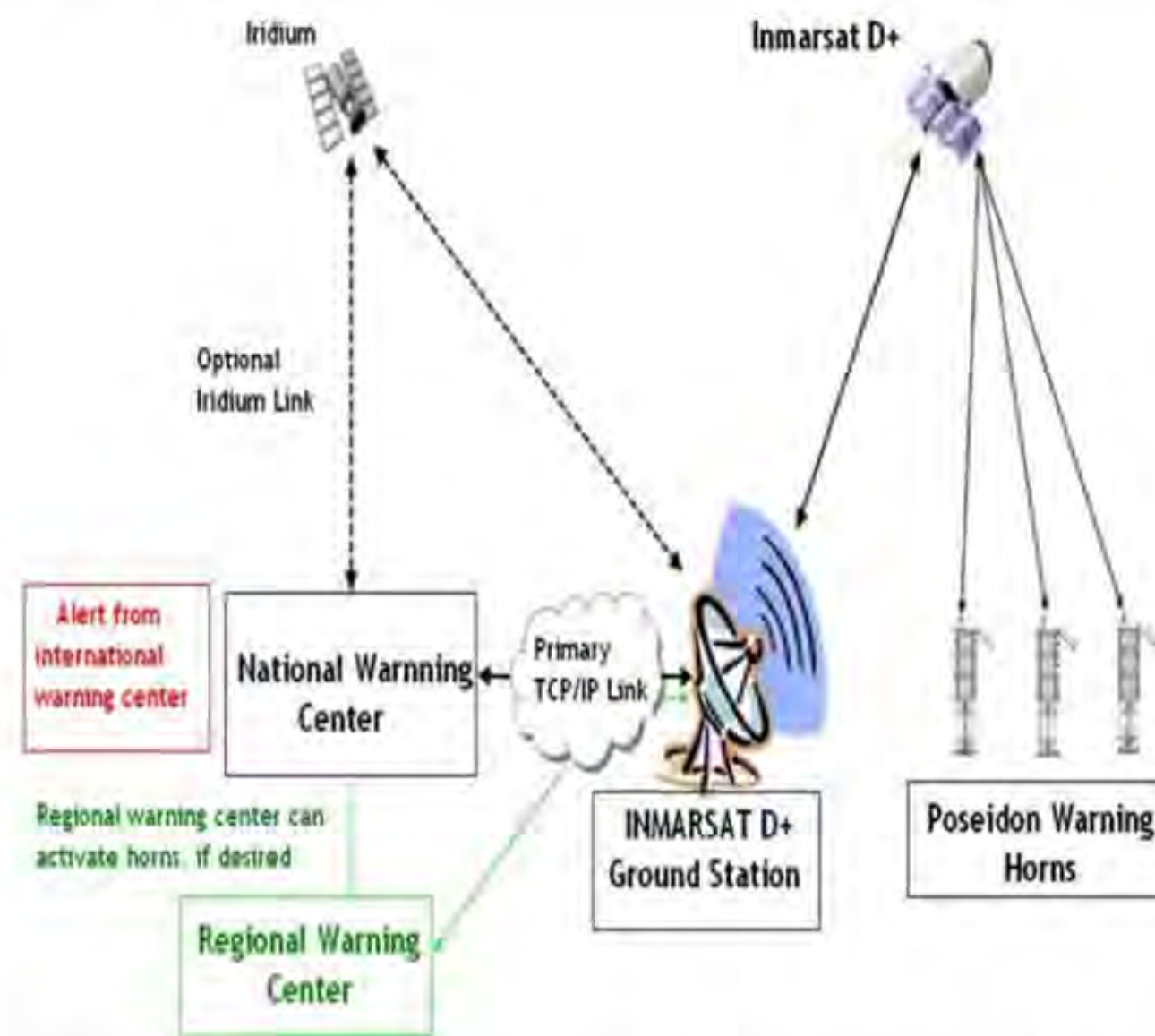
Remarkable Step towards TEWS

Pakistan's First Tsunami Early Warning System (TEWS) has been successfully installed, tested and activated, in coordination with Pakistan Meteorological Department (PMD, Karachi), at Gawadar.

Tsunami and cyclone are identified as two key hazards among many in the National Disaster Risk Management Framework of the Government of Pakistan. Earlier this year (January 2010), NDMA and UNDP Pakistan launched a pilot project and conducted a survey for the most vulnerable tsunami prone communities of District Gawadar in collaboration with PMD Karachi, Coast Guards, District Police, District Government and RCDC Gawadar (NGO working in Gawadar since 1970). Among various possibilities, procurement and installation of high quality TEWS has been jointly approved as a pilot project, which also included necessary trainings of concerned PMD officials and community volunteers on the use of the system. The objective of the pilot project is timely evacuation of potentially vulnerable population along coastal areas, once notification of Tsunami generation is confirmed at National Warning Center, through an automated communication (warning) system.

The System: The Poseidon TEWS, as shown in the figure, is turnkey solution with low life cycle cost. It has three basic components; 1) Inmarsat D+ Communication System, 2) LIEX 710 Sound signal and 3) user friendly control center software. Warning, once confirmed at National Warning Center (PMD) is communicated through Inmarsat D+ Communications, which provides a reliable and cost effective communication link. The Poseidon warning horn (LIEX Sound Signal), installed in coastal area, can be activated in few seconds from the computer installed at PMD Karachi. The system is capable of controlling unlimited warning horns and sending unlimited email and SMS notifications.

Testing & Activation: The Tsunami Early Warning



System has been successfully installed, tested and activated. To avoid panic on test operation day, communities were informed in advance through print & electronic media and verbal messages on loudspeaker. The completion/activation ceremony was attended by the dignitaries of districts including district officials, civil society and community representatives. The horn was activated by a command sent from the computer at PMD Karachi through a satellite at 1200 hrs and in presence of approx. 40 participants. The participants and media were then briefed about the system, its features and functions.

The efforts from NDMA & UNDP were highly appreciated by district officials, local community and by print & electronic media. They believed that through TEWS is in place, the most populated vulnerable community is directly linked with national & international warning centers via fast & reliable satellite communication system. A need for the installation of similar high technology communication system in rest of the coastal areas was also highlighted by multi stakeholders.

3.2 Project for National Disaster Management Plan

In order to strengthen DRM System in Pakistan, Government of Japan through Japan International Corporation Agency (JICA) dispatched a number of missions between 2008 to August 2009. JICA experts studied the whole

legal and administrative system of DRM in Pakistan to identify the need and requirements to enhance the capacity of DRM institutions including PMD in the country and designed a project called NDMP.

The objective of this project is to support the Government of Pakistan in the preparation of

mitigating measures against possible damages arising from the occurrence of natural disasters by enhancing the capacity of disaster management administrative agencies in Pakistan, through the formulation of plans and mode of supporting the implementation.

The scope of the project include following components;

- a. Formulation of National Disaster Management Plan;
- b. Formulation of Human Resource Development Plan for Disaster Management Planning (NIDM);
- c. Formulation of Multi-hazards Early Warning Plan responding to major disasters. The Plan will identify high-priority activities to be undertaken during the course of the project;
- d. Implementation of Community Based Disaster Risk Management Pilot Projects in cooperation with the community and the local government; &
- e. Development of the cooperative system/skill of relevant organizations, and enhancement of the capacity of the staff members based on the above process.

The implementation period of the project is 27 months starting January, 2010 to March 2012. Total cost of the project was estimated US \$ 4.4 Million which will be provided by the JICA. For the year 2010 a total 1.6 US \$ Million was estimated out of which total expenditure of US \$ 1.5 Million has been incurred.

During the reporting year, training in Japan was conducted for sixteen (16) government officials from NDMA, PDMA, PMD and FFC to understand disaster management system of Japan and to ensure feedback for formulation of plan. In the year 2010, the project achieved planned significant progress, which is briefly described as under:

3.2.1 Formulation of National Disaster Management Plan

Soon after the mobilization of project staff,

Inception Report was prepared and submitted to NDMA, during 1st Steering Committee Meeting held on April 27, 2010. After approval of Inception Report, JICA expert team carried out data collection through field surveys, collecting past disaster damage data and interviewing disaster management agencies. Hazard and risk analysis was conducted by developing GIS database to understand disaster situation of the entire country.

The progress report covers mostly the work done by the JICA team in all components of the project; and whole picture of the present DRM system in Pakistan has been portrayed. The basis of information collected is mostly the local sources and to some extent help was sought from international sources as well. The detailed progress report highlights the legal and institutional framework of DRM in Pakistan. In this context, the present as well as past laws and regulations that governed the overall disaster related issues in the country, have been discussed and fairly analyzed.

3.2.2 Formulation of Human Resource Development Plan for Disaster Management Planning NIDM

The existing DRM related institutions have been figured out in the report along with their general description and roles and responsibilities. The JICA expert's team mostly agrees with the arrangement and presence of the relevant stakeholders responsible to address the disasters in one capacity or the other. The Government policy on disaster management has also been reviewed. In the draft Plan, roles and responsibilities of NDMA as the focal point of DRM in the country have been applauded. However, as per the plan, the horizontal linkages between the complementary organizations need improvement.

The expert's team reviewed the pattern and countermeasure for major disasters by type such as floods, flash floods, landslides, droughts, earthquakes, storms, typhoons, and windstorms for the whole of Pakistan. They have employed a Geographic Information System (GIS) and



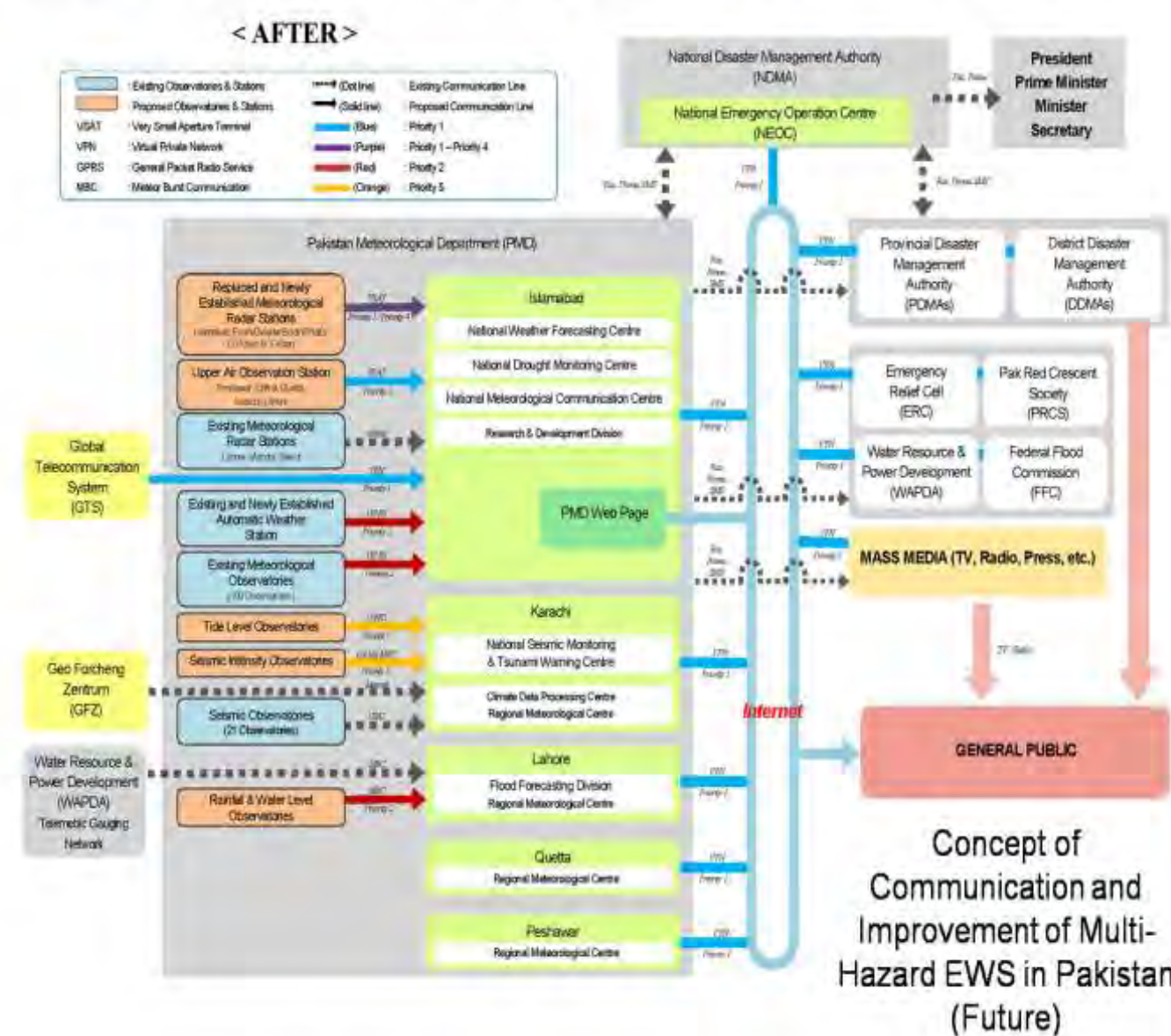
satellite data, which is widely available in Pakistan.

The recent devastating floods of 2010 in Pakistan got a special place in the report. Its linkages with the global climate change phenomenon and the peculiar geo-physical conditions of Pakistan have been established. The flood causing factors, its magnitude, after-effects and damages in various spheres of national life have also been discussed.

3.2.3 Formulation of Multi-hazards Early Warning Plan Responding to Major Disasters

The Early Warning System (EWS) is composed of the observation system (weather radars, automatic weather observation system, rain gauges, water-level gauges, wind profiler etc.), observation data communication system, observation data processing system, communication system between disaster-relevant agencies, and warning delivery system. Federal government, local government organizations, and community organizations involved with early warning system for major disasters in Pakistan including floods, flash floods, landslides, cyclones, tsunamis, and storms were sorted through the distribution of questionnaires on the division of role, system, personnel, and budget. Based on the results of the survey, the expert's team identified the existing warning system, relevant organizations,

and their roles. The existing issues and suggestion for improvement of the draft Multi-hazards Early Warning Plan was clarified and



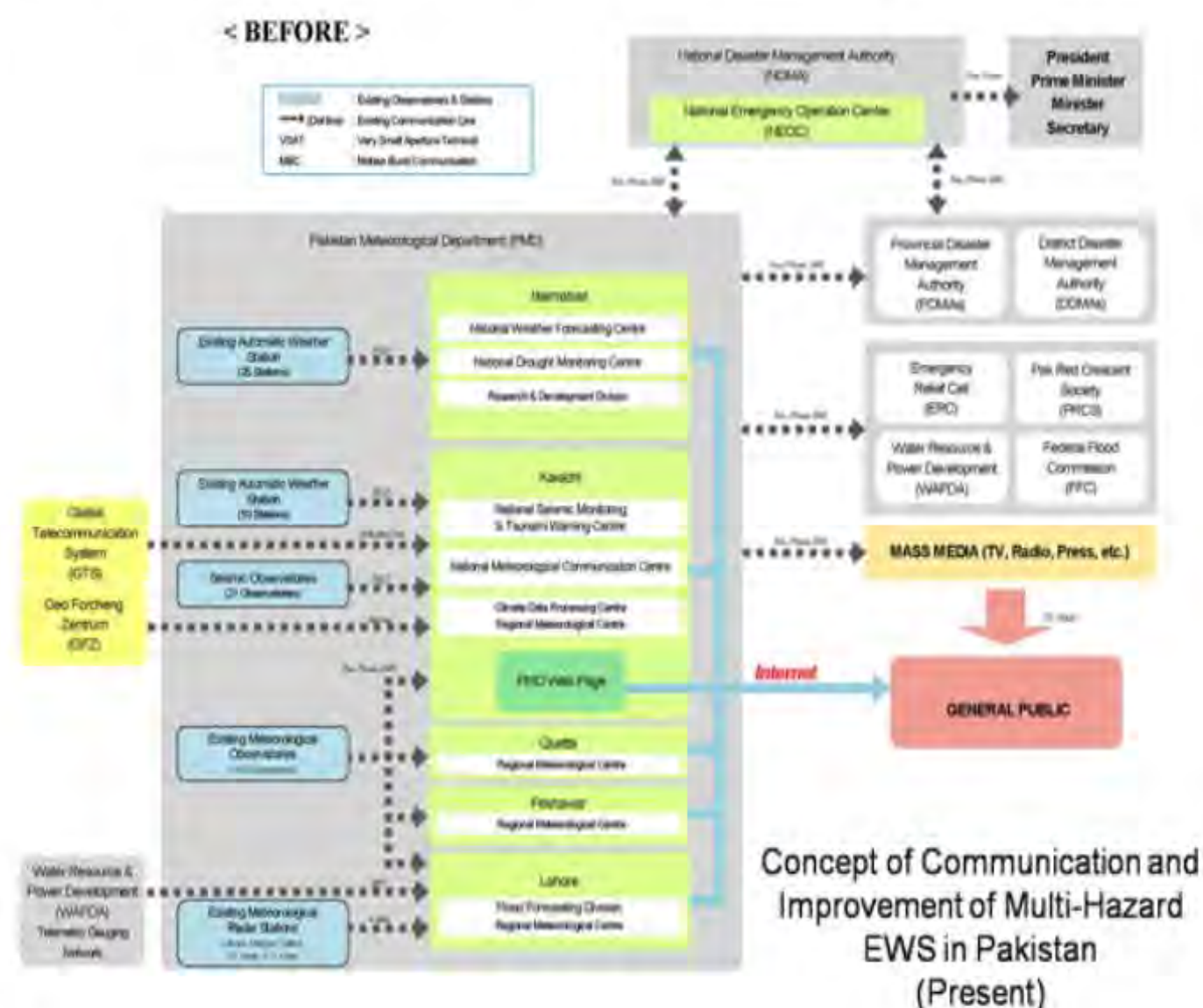
included in the plan as appropriate. The plan is now under review by relevant governmental organizations.

3.2.4 Human Resource Development Plan is under preparation

Human Resource Development Plan will be first step towards construction of NIDM, for which during 2010 NDMA has been able to get 50 Kanal land from the Government of Pakistan.

3.2.5 Community Based Disaster Risk Management

Five target pilot communities have been selected



JICA Team Conducting CBDRM Training

with the support of concerned PDMAs and framework of activities will be implemented during 2011. Base line survey was conducted by JICA expert team through Agha Khan Rural Support Programme (AKRSP) a local NGO to assess the capacity of local residents to determine the contents of community activities.

3.3 National Risk Assessment Project

National Risk Assessment and Establishment of Emergency Operations Centre Project addresses two important priorities identified in the NDRMF i.e. multi-hazard risk mapping and effective response system in Pakistan.

The project has been funded by the WB with total amount of US \$ 4 million through a MOU between ERRA and NDMA. The project was officially launched on March 11, 2008. After signing of MOU, ERRA has made available to NDMA US\$ 4 million out of World Bank Earthquake Emergency Credit No. 4134-PAK for the Project.

Overall objectives of the National Risk Assessment and Establishment of National Emergency Operation Centre are as follows:

- Enhance capability of Government of Pakistan at the federal, provincial and local levels in dealing with disaster risks/vulnerabilities in a systematic manner by established systems and structures;
- Assist Government of Pakistan in implementing the priorities identified in the NDRMF.

The project was broadly divided into four major components initially but based on lessons learnt from the major disasters during 2010; a component of Community Based Disaster Risk Management (CBDRM) has been added in the project towards the end of 2010. The funding has specifically been provided to support NDMA for developing national systems and capacity for disaster risk management. The following are five main components of the project;

- National Risk Assessment;
- Establishment of National Emergency

Operation Centre (NEOC);

- The Standard Operating Procedures (SOPs);
- National Disaster Response Plan (NDRP); &
- Community Based Disaster Risk Management (CBDRM).

During the year 2010, detailed activities under the project include mapping of hazard risks in Pakistan, equip national and provincial Emergency Operation Centers with essential IT equipment, prepare National Disaster Response Plan, and develop departmental SOPs for disaster response. The following is component-wise detail of the progress achieved during the reporting year:

3.3.1 National Risk Assessment

The component is fully formalized after fulfilling necessary compliances and meeting formalities. Request for extension is being made to the Bank for successful implementation of this critical component as it is going to take one year whereas project closing date is May 31, 2011. Alongside, matters related to data security are also being addressed to take the relevant agencies on board, as the project involves a lot procurement of data and maps for the above deliverables. Recommendations of the relevant agencies in this regard will determine proceeding with the project implementation under the current arrangements

3.3.2 Establishment of National Emergency Operation Centre (NEOC)

Procurement of equipment has been divided into 13 procurement packages, based on sequence of implementation and dependability of one activity over other. Activities of the NEOC include implementation of fire suppression system; renovation of server room, cabling/networking of dedicated rooms has been signed by the selected vendor. All is set to begin execution of the package-1.

Bid evaluation and selection of vendors for Package-2, which include Networking and IP



Telephony Systems, has been completed. The Authority has accorded its approval to the bid evaluation and selection of vendors. Process of Notification of awards and signing of contracts has been completed. The vendors shall complete delivery, installation of equipment and training of NDMA IT staff within 45 days from the date of signing of the contract, however, subject to security clearance of vendor's implementation team.

The Package-3 of NEOC includes procurement of servers, storage systems, tape systems, network management, network switches and allied devices. However, in view of the recent procurement of IT equipment/gadgets by the NDMA, BOQ (Bill of Quantity) and specifications have been revised. Bidding documents for the activity have been prepared and will be issued after necessary approval. This package will be processed through National Competitive Bidding (NCB) in accordance with the World Bank guidelines.

3.3.3 The Standard Operating Procedures (SOPs)

The Standard Operating Procedures (SOPs) document contain procedures to be implemented in the wake of a disaster from activation to deactivation of emergency response, clearly delineating roles and responsibilities of different concerned response agencies and departments at the federal, provincial, regional and district levels.

The SOPs have been finalized based on feedback given in the consultation processes with key stakeholders. In view of its complimentarily, it has been merged in the National Disaster Response Plan. With the approval of NDMA, SOPs stand completed.

3.3.4 National Disaster Response Plan (NDRP)

The National Disaster Response Plan is envisaged to clearly lay down roles and responsibilities of federal agencies, ministries, divisions, and departments for dealing with

emergencies of a national scale including coordination and resource mobilization.

The Plan was shared with key stakeholders for their views and comments. An in-depth consultation process was undertaken and therefore the Plan was finalized and approved by the NDMA. Being the living document, however, during the meetings with WB Review Mission, it was decided that the NDRP and the SOPs would be revisited and revised in the context of recent disasters that hit the country, particularly devastating floods of 2010. Accordingly, the subject documents would be revised.

3.3.5 Community Based Disaster Risk Management (CBDRM)

NDMA has been engaging risk-prone communities in the identification, analysis, treatment, monitoring and evaluation of disaster risks reducing their vulnerabilities and enhancing their capacities, which is one of the priority areas of NDRMF. Devastating floods of 2010 necessitated the initiative for building capacity at the community level. NDMA has initiated CBDRM Programme in 141 districts throughout the country. The programme will be implemented in five years and will be scaled-up across the country in five phases. Considering its importance, NDMA is implementing it on urgent basis out of the existing project budget, till funds are available for larger implementation. In order to foster the ownership and sustainability, respective PDMA's would be taken on board at all stages of project implementation. The WB has provided No Objection Letter (NOL) for initiating the CBDRM activities through selection of local Partner Organizations in the entire country.



Chairman NDMA Presiding CBDRM Presentation

Table 3.7: Summary of Expenditure in 2010 (US\$)

S.No.	Descriptions	Budget Allocated	Actual Expenditure of 2010	Actual Expenditure Accumulated ***
1.	Mapping of Disaster Risk Assessment	2,280,000	-	-
2.	National Technical Oversight Committee (NTOC)	63,000	-	-
3.	Project Management Unit (PMU)*	592,708	112,715	400,710
4.	Others**	90,000	1,655	18,995
5.	Equipment for Emergency Operation Centers (NEOC)	974,292	-	-
Grand Total		4,000,000	114,370	419,705

*Monthly remuneration of project staff

**Stationary, Seminars, Meetings, Advertisements, etc

***Actual expenditure (March 2008-Dec 2010)

3.4 Programme for Enhancement of Emergency Response (PEER)

NDMA has introduced Programme for Enhancement of Emergency Response (PEER) in Pakistan with the financial support of USAID. The programme was launched during 2008 initially for two years and aims at strengthening disaster response capacities of relevant institutions and establishing a coordinated network for emergency and medical response.

The objective of PEER is to reduce mortality in mass casualty incidents and to increase the survival rate of disaster victims. The program has two main components:

Table 3.8: Details of Trainings under PEER

S.No	Type of Training	Graduate/ Instructor	Courses	Progress Achieved
1.	Medical First Responder	Graduate	6	130
2.	Collapsed Structure Search and Rescue	Graduate	4	95
3.	Training For Instructors	Instructor	3	45
4.	Medical First Responder-Instructor Workshop	Instructor	3	42
5.	Collapsed Structure Search and Rescue-Instructor Workshop	Instructor	3	39
6.	Hospital Preparedness in Emergencies (HOPE)	Graduate	5	119
7.	HOPE- Training For Instructors	Instructor	1	23
Grand Total			25	493

- Build the capacities of emergency response of first responders;
- Strengthen capacities of hospitals in handling mass causality events.

During Phase- II, total 25 training courses for Medical First Responder, Collapsed Structure Search and Rescue and Hospital Preparedness for emergencies were organized by NDMA. Under these training courses 493 personnel have been trained, as detailed in the Table 3.8 given above;

Phase-III of the Programme for Enhancement of Emergency Response (PEER) was launched on July 7, 2010. It is an Asia-wide regional programme implemented in nine (09) countries and funded by USAID with supplemented support from American Red Cross (ARC). The duration of the programme is July 2010 to 2014 and during this period, in addition to three (03) ongoing courses, a new training course will be included. The new course will cover Community Action Disaster Response (CADRE), which will consolidate and enhance community level response capabilities, so that communities are enabled to support themselves and increase survival rates in the event of any disaster or hazard.

3.5 Earthquake Model of the Middle East (EMME)

The National Disaster Management Authority (NDMA), in collaboration with research institutions of Switzerland, Turkey, Iran and other countries of the Middle Eastern Region, is implementing a scientific research study project "Earthquake Model of the Middle East (EMME).

The EMME is a four (04) years project started in April 2009 and will be completed in 2013 with a budget allocation of Euro 2 million for the risk assessment. The project aims at developing an earthquake model based upon the historic and geological data of the faults, earthquakes and losses in the Middle Eastern Region starting from Turkey and ending at Pakistan. The project is a component of Global Earthquake Model (GEM), which is implemented at global level.



NDMA is coordinating the project implementation from Pakistan side. The funding for the research project is being provided by the Japan Tobacco International (JTI). In Pakistan four (04) Research Institutes i.e. NED University of Karachi, University of Peshawar, International Islamic University, Islamabad and Quaid-e-Azam University, Islamabad have been participating in this research project.

During the reporting year, two events were held i.e. Briefings for the representatives of CDA and Rawalpindi District Administration on the project “Earthquake Model of the Middle East Region (EMME)” and meeting of the Working Group on “Socio Economic Impact” were held at NDMA on January 30, 2010 and at NED University Karachi on December 21, 2010 respectively.

The following Working Groups as given in Table 3.9 have been constituted in six priority areas under EMME Project.

Table 3.9: Working Groups

S.No	Working Group	Expert with Field
1.	Earthquake Catalogue	Seismologist
2.	Source Zones	Geologist/Seismologist
3.	GMPE	Geo physicist/Geo technical Engineer
4.	Risk Assessment	Structural Engineer
5.	City Scenarios	Land use planners/soil expert
6.	Socio Economic Impact	Economist – experience in economic loss calculations

Pakistan is leading the group on Social and Economic Losses Estimation while it is an active partner of the group related to Risk Assessment Structure.

3.6 Hazard, Livelihood and Vulnerability (HLV) Baseline Project

Hazard, Livelihood and Vulnerability Baseline: Pre-disaster information is a vital source for effective post disaster response which includes post-disaster assessment of the risk and measures for preparedness. This requires knowledge of the demographic breakdown of the population and likely vulnerabilities of people to the disaster. NDMA with the assistance of Food

and Agriculture Organization (FAO) has initiated HLV baseline and contingency plans project. In the pilot phase five districts were selected from Sindh, Punjab provinces, AJ&K and GB. The districts where baseline and contingency planning has been done were Badin and Tharparkar, Rajanpur, Bagh and Astore.

During the reporting year, HLV baseline and contingency plans have been completed more five districts of Dadu from Sindh, Jhang of Punjab, Gilgit of GB, Gawadar of Balochistan and Haripur of KP. In Pakistan HLV baseline and contingency planning have been completed in ten (10) districts from Sindh, Punjab and KP provinces as well as GB and AJ&K.

HLV and contingency plan is a tool for strengthening DDMA's. HLV were use and proved successful in 2008 floods in Rajanpur district of Punjab and 2010 in the flood affected districts in which HLV were conducted. It had proved as an effective tool for planning and response mechanism.

3.7 Urban Search and Rescue (USAR) Teams

NDMA with the financial support of Swedish, British and Swiss Agencies initiated training under Urban Search & Rescue Project. Under the Project, NDMA formed and trained USAR teams. NDMA raised these teams as a result of lessons learnt from October, 2005 earthquake. Soon after its establishment in early 2007, the NDMA decided to enable Pakistan in the field of



Urban Search and Rescue Team Demonstrating First Aid Exercise

Urban Search and Rescue. In a short span of time USAR teams are now in place to play their critical role in life saving activities as a consequence of collapsed structures.

Two heavy specialized USAR teams consisting of 86 persons each for Capital Development Authority (CDA) and City District Government Karachi (CDGK) with state of the art equipment were established. During the year, 10 week training was organized from March 22 to May 27, 2010 at Rawalpindi Cantonment for medium Army Search and Rescue Team. As a result 54 member Army USAR team has also been trained in accordance with international standards. This team is now capable of responding to disasters which require urban search and rescue capacity. At the end of the training, a 36 - hour mock

exercise was also held to assess the:

- Compliance of standard operating procedures (SOPs) for search and rescue operation
- Capabilities and effectiveness of the Army medium team to deal with natural or human-induced disasters.

With the raising of this team, Pakistan's total capacity in USAR has been enhanced to two heavy and one medium team with total 226 trained persons. NDMA is planning to further improve the capacity by raising two more teams in addition to the existing ones for Chitral Scouts and FCNA Gilgit.





N D M A

Chapter

4

Important Events

Chapter 4: Important Events

During the reporting year, NDMA organized a series of important meetings, workshops, conferences. In addition, Foreign Training for NDMA's staff as well relevant government officials at federal, provincial and districts level were arranged without involving government of Pakistan funding. More, so during floods President and Prime Minister of Pakistan, Member from Parliament visited NDMA and also affected areas. Pakistan received a number of head of States Ambassadors, and Delegates from different countries visited various affected areas and expressed solidarity with the People of Pakistan. The Chapter highlights these events. The following sections present brief account of the same.

4.1 Meetings

4.1.1 Third Meeting of National Disaster Management Commission (NDMC)

The Prime Minister chaired the 3rd Meeting of the NDMC held in the Prime Minister Secretariat on August 19, 2010 to review the flood situation and fine tune the ongoing response efforts.

The Honorable Prime Minister of Pakistan gave a brief overview of the floods devastation caused by the country and expressed commitment and resolve of the Government to put all its energies and resources in managing the worst ever disaster to have struck Pakistan. Chairman NDMA, Lt. Gen. (Retired) Nadeem Ahmad, in a detailed presentation to the Commission highlighted ongoing and planned relief and resource operations. The Minister for Finance apprised the Commission about the financial constraints being faced by the Government. Thereafter, the Secretary Finance also gave a detailed presentation regarding the financial constraints and the actions required under the Economic Reforms Programme of the Government.

Chief Ministers of Punjab, Sindh, Balochistan and KP and the Prime Minister of AJ&K highlighted

the adversities caused by the floods in their respective areas and the measures to manage this disaster. During the meeting various issues were raised and discussed threadbare by the Commission and the decisions made as under:

(a) National Oversight Disaster Management Council (NODMC)

The Prime Minister of Pakistan announced constitution of National Oversight Disaster Management Council (NODMC) with immediate effect. NODMC shall consist of Members to be nominated by the Federal and Provincial Governments and other stakeholders. Exact number of Members of the NODMC and its detailed Terms of Reference (TOR)/ mandate will be determined in consultation with all concerned quarters. Each Province may propose names of two eminent personalities in this regard. Chief Ministers Sindh, KP and Balochistan along with the Prime Minister of AJ&K were not in favor of centralizing Rehabilitation and Reconstruction activities in any manner.

(b) Registration

The issue of registration of the affected people was discussed in detail and it was decided that registration of the affected people should be undertaken jointly by the UNHCR and NADRA. It was also decided that Social Welfare Departments (SWDs) of the Provinces will take lead in the process of registration. The Registration should be comprehensive and all inclusive to include loss of life, damage to houses, crops and livestock. This data can then be used by all relief providers for targeted relief in order to avoid wastage of resources and time.

(c) Compensation

The Commission was of unanimous opinion that compensations for the housing loss should be paid to the affected population immediately to incentives their return and enable them to sustain themselves. Approximately 2.00 million families are reported to have been affected, which at the



rate of PKR.20, 000/- per family would cost approximately PKR.40.00 billion. It was also decided that Finance Ministry in close coordination with the Chief Secretaries of the respective provinces will evolve a transparent system to ensure timely disbursement of funds to the affected people and a uniform policy of compensation should be adopted across the country to avoid discrimination. Modalities and details of sources of compensation were also discussed.

(d) Damage and Need Assessment (DNA)

The Chairman NDMA informed that a detailed DNA is being carried out jointly by the sectoral experts of the WB and the ADB in close consultation with the federal and provincial stakeholders. The Commission emphasized upon the need for authentic and accurate estimates of the losses and urged all concerned to exercise extreme care as all other ensuring endeavors towards Reconstruction and Rehabilitation would primarily depend upon the accuracy of estimates of the damages and losses. For assessment of damaged housing Chief Minister KP suggested that assessment teams should consist of a representative each of Revenue Department (Patwari), Education Department (a teacher), Pakistan Army and a non-political notable of the area.

(e) Relief Operations

Chairman NDMA informed the Commission that NDMA plans to accomplish the relief operations in the next three months keeping in view that the UN Appeal of US\$ 460.00 Million was meant for three months. However, the Chairman, NDMA also informed that the situation of the devastation caused by the flood is suggestive of the fact that we continue Relief activities for six months. The Chairman solicited approval of the NDMC on the time span of the Relief activities. It was decided that relief shall continue for six months (from August 19, 2010 – till January 31, 2011).

(f) Miscellaneous

- **Resource Mobilization:** It was agreed

during the NDMC meeting that after the completion of the DNA by the World Bank and the ADB, the donor community may be approached at the federal level to mobilize resources for the reconstruction and rehabilitation. Implementation, will however, remain with the provinces.

- **Media Coverage:** Minister for information and Broadcasting and the Minister for Interior brought to the notice of the meeting that some segments of the media are disseminating negative information, impacting the confidence of international donor community in a negative manner which is detrimental to national image and interest. It was decided that briefing to media on the flood situation should be done by the Ministry of Information & Broadcasting along with the representatives of the concerned departments at a single point.
- **Health Response Plan:** MOH in close collaboration with NDMA to chalk out a comprehensive Health Response Plan with due emphasis on prevention of outbreak of epidemics. Chief of Air Staff may look at the serviceability of the aircraft belonging to Plant Protection Department of Ministry of Food, Agriculture and Livestock (MINFAL) and evolve a modus operandi in conjunction with MOH to undertake aerial spray where necessary.
- **Economic Reform Programme:** In view of the financial situation, as explained by the Finance Minister and the Secretary Finance, the Prime Minister emphasized on the provincial Chief Ministers to scale back the non-development (non salary) expenditure to the level of last financial year as being done by the Federal Government so that the Economic Reform Programme of the Government stays on track in line the commitments made to the International Monetary Fund (IMF).

4.1.2 Inter Ministerial Committee Meeting

In order to resolve various institutional issues, the Prime Minister of Pakistan, in February 2009, constituted a two member Ministerial Committee

comprising of Mr. Zaheer Uddin Babar Awan, Minister of Law and Parliamentary Affairs and Senator A. Rehman Malik, Minister for Interior. Considering the importance of future disaster management system, the 3rd meeting of Ministerial Committee was held on October 8, 2010. The meeting was attended by Mr. Abdul Rauf Chaudhry, Secretary Cabinet, Lt. Gen. (Retired) Nadeem Ahmed, Chairman NDMA, Mr. Shahid Ullah Baig, Additional Secretary, Cabinet Division, Mr. Baqar Ali Rana Senior joint Secretary, Law and Justice Division. The recommendations of the Inter Ministerial Committee Meetings are as under:

- Administrative control of NDMA to remain with Prime Minister Secretariat of Pakistan
- The ERC of the Cabinet Division and the 6th Aviation Squadron may be transferred to NDMA along with staff and assets and liabilities.
- Relief function currently assigned to the Cabinet Division shall be added to the business of Prime Minister's Secretariat and Rules of Business, 1973 may be amended accordingly.
- A sub-committee under the chairmanship of Cabinet Secretary comprising of representative from Ministry of Law, Interior and NDMA will draft National Disaster Management Rules for the approval of the Committee.

4.1.3 Launching of Pakistan Flood Relief and Early Recovery Response Plan (PFRERRP)

On November 6, 2010, the government of Pakistan in collaboration with UN launched a joint appeal titled "Pakistan's Flood Relief and Early Recovery Response Plan 2010" seeking \$1.9 billion in addressing the residual relief needs and early recovery needs of the flood-stricken families for the next 12 months under the auspices of NDMA. The ceremony was attended by Minister of State for Economic Affairs Hina Rabbani Khar, Special Envoy of the United Nation's Secretary General for Assistance to Pakistan Mr. Rauf Engin Soysal, Ambassadors



Chairman NDMA Addressing at Launching Ceremony of PFRERRP

and High Commissioners, dignitaries, representatives of NGOs and INGOs along with high level Government Officials.

4.1.4 Meeting "Friends of Democratic Pakistan" (FODP)

The Third Ministerial Meeting of the FODP was held in Brussels on October 15, 2010. It was preceded by a Senior Officials' Meeting. The Chairman, NDMA also participated in the subject meeting and briefed the participants on the latest situation about the floods and the resultant needs. There was an overwhelming expression of solidarity and support for Pakistan at the time of need. It was hosted by the European Union High Representative for Foreign Affairs & Security Policy, Catherine Ashton, the Ministerial Meeting was co-chaired by Pakistan Foreign Minister, Makhdoom Shah Mahmood Qureshi and attended by Foreign Ministers and senior representatives of 20 countries and four multilateral institutions.

4.1.5 Ministerial Level Pakistan – US Strategic Dialogue

The Ministerial level Pakistan-US Strategic Dialogue was held in Washington from October 20-22, 2010. The meeting was attended by Foreign Minister Shah Mahmood Qureshi and Lt. Gen (Retired) Nadeem Ahmed, Chairman NDMA amongst a high level members of delegation. Ms. Hilary Clinton, US Secretary of State for Foreign Affairs headed the dialogue. An update on the Floods Relief, Response and Early Recovery



activities was shared with the participants who were appreciative of the efforts made by UN/ Humanitarian partners, NDMA/GOP.

4.1.6 Regional High-Level Expert Group Meeting to Reduce Flood Disaster Risks in Pakistan by NDMA and United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)

NDMA in coordination with UNESCAP organized a Regional High-Level Expert Group Meeting from November 9-10, 2010, Islamabad, Pakistan. The objective of the meeting included sharing of information on the findings of assessments conducted by various organizations, exchange of information on region's experiences with major flood disasters, exchange information and experiences in formulation and implementation of viable, inclusive, and disaster-resilient livelihood opportunities and to foster regional cooperation in the integration of effective disaster risk reduction strategies to recovery and reconstruction plans.

Around hundred (100) participants including senior representatives from the line Ministries and the flood affected-provinces, 40 experts from about 20 international and regional organizations, donor agencies and civil society organizations joined the discussions. The meeting, agreed upon, integrated approaches for flood risk management, multi-hazard early warning system equipped with observational and forecasting tools, practices and capacities to public awareness, regional cooperation for effective flood management as well as capacity building for flood management.

4.2 Workshops and Conferences

4.2.1 Workshop on HFA Progress Reporting”

In Pakistan NDMA is the National Focal Point for HFA progress reporting. In order to report progress on HFA, the NDMA in coordination with One UN System, organized a two day Inception Workshop from October 26 to 27, 2010 at Bhurban. The objective of the workshop was to



Participants of Workshop on HFA Progress Reporting

generate national inputs on HFA progress through multi stakeholder engagement process and to report consolidated inputs to UNISDR through the HFA Monitor. The report will be ultimately analyzed for inclusion in Global Report on Disaster Risk Reduction next year.

4.2.2 High-Level Ministerial Conference on Pakistan Floods

On September 19, 2010, High-Level Ministerial Conference on Pakistan Floods was held by United Nations in New York US. Secretary-General Ban Ki-moon and Makhdoom Shah Mehmood Qureshi, Minister for Foreign Affairs of Pakistan, co-chair the High-level Ministerial Meeting on Floods in Pakistan. Abdullah Hussain Haroon, Permanent Representative of Pakistan



Chairman NDMA Briefing the Participants regarding the Flood Situation in Pakistan

to the UN; Lt. Gen. (Retired), Nadeem Ahmed Chairman NDMA, Pakistan; and Valerie Amos, Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator. Chairman NDMA updated the house with the flood situation highlighting the remaining needs which was responded positively by the participants.

4.2.3 Workshop on “Creating Partnership for the New Disaster Management System”

NDMA in collaboration with the UNDP Islamabad organized one day consultative workshop titled



Chairman NDMA Addressing the Participants of the Workshop

“Creating Partnership for the New Disaster Management System” on November 29, 2010. The main objective of the workshop was to review the Disaster Management System in Pakistan and develop strategic partnerships for an effective, participatory and resilient disaster management system at different levels of the government. The representatives from all federal, provincial and district levels, relevant ministries, departments, donor agencies, INGOs/NGOs civil society organization attended in the workshop. Participants of the workshop firmly agreed upon strengthening of newly established Disaster Management System in the country. It was decided during the workshop that all agencies including UN agencies, donors agencies, INGOs/NGOs and civil society organizations will continue to work to support the system newly launched system by the GOP.

4.3 Visitors Gallery

During the floods 2010 international community paid immediate attention to Pakistan and provided financial, technical and infrastructure support to facilitate relief operations in affected areas. Head of states, dignitaries and missions visited Pakistan and travelled into flood affected areas to express solidarity with people of Pakistan in difficult time. The President and Prime Minister of Pakistan accompanied foreign delegations and also undertook separate visits to far flung areas to meet with affected population. A brief account of these visits and support is given in the following section.

4.3.1 Visit of President of Pakistan to NDMA

President Asif Ali Zardari visited NDMA's headquarters on August 23, 2010. Lt. Gen. (Retired) Nadeem Ahmed, Chairman NDMA briefed the President about the flood situation in the country in the context of ongoing relief efforts being undertaken in the flood affected areas. Federal Minister for Foreign Affairs Shah Mehmood Qureshi, Federal Minister for Economic Affairs Dr. Hafeez Sheikh and Federal Minister for Food Nazar Muhammad Gondal and Pakistan's Ambassador to the United States



Chairman NDMA Briefing President Asif Ali Zardari on Flood Situation

Hussain Haqqani were also present during the briefing.

4.3.2 Visits of President of Pakistan

President of Islamic Republic of Pakistan Asif Ali Zardari paid visits to the flood affected areas of all provinces to share the plights of the affected population and assuring them that all their needs



President Asif Ali Zardari handing over Food Items to Affectees of Nowshera



President Asif Ali Zardari and US Senator Jon Kerry Visiting the Flood Hit Areas

will be met. In two of his visits, he was accompanied by Mr. Ban ki Moon UN Secretary General and Mr. John F Kerry , the US Senator.

4.3.4 Visits of Prime Minister of Pakistan

Syed Yousaf Raza Gilani, the Prime Minister of Pakistan visited the flood affected areas



PM Syed Yousaf Raza Gillani and Turkish PM Recap Tayyip Erdogan Visiting Flood Affected Areas

frequently. During his visit to flood affected areas, he expressed his grief and promised all kind of support till full rehabilitation of the affected population. He reaffirmed that all the promises of



PM Gillani and Saudi Prince Alwaleed Listening to the Grievances of Affectees

the government would be fulfilled. The Prime Minister during his visits reviewed the arrangements made for providing relief to the affectees and issued on spot instructions to improve different relief aspects. The Premier also appealed to the international community to help Pakistan in this hour of need.

In some of the visits the Prime Minister of Pakistan was also accompanied by head of states and a number of dignitaries including Prime Minister of People's Republic of China, Turkish Prime Minister, Deputy Prime Minister of United Kingdom and Prince of Kingdom of Saudi Arabia.

4.3.5 Visit of Chinese Prime Minister to NDMA

Mr. Wen Jiabao, Premier of the State Council of the People's Republic of China, along with his delegation, visited the NDMA On December 18, 2010. The dignitary was received by Syed Yusuf Raza Gilani, the Prime Minister of the Islamic



Chairman NDMA Briefing the Visiting Chinese Premier Wen Jiabao.

Republic of Pakistan and Chairman NDMA Lt. General Nadeem Ahmad (Retired) on his arrival at the NDMA. The two Prime Ministers were briefed by the Chairman, National Disaster Management Authority on the flood situation. The Chinese brothers reiterated their resolve to take full part in the post-flood reconstruction and fulfill its existing promises.

4.3.6 Chief of Army Staff visited flood affected areas

Chief of the Army Staff, General Ashfaq Parvez Kayani visited the flood affected areas of Balochistan, Sindh and southern parts of Punjab. The COAS flew over the affected areas to assess



COAS During his visit to Flood Affected Areas

the current flood situation. He was briefed by the local field formation commanders about the progress of rescue and relief efforts by the Army. The COAS greatly appreciated the tireless efforts of the field formations and Army Aviation in providing timely relief to the people in distress.

4.3.7 Chairman NDMA visits Sukkur on Eid-ul-Fitr

Chairman NDMA, Lt Gen. (Retired) Nadeem Ahmed visited the flood affected areas of Sukkur on September 12, 2010, the very next day of Eid-ul-Fitr. He mingled with the affectees and gathered firsthand knowledge about the problems being faced by them and issued instructions to the relevant authorities for their resolution on the spot. He assured the affectees of government's commitment to mobilize all its resources to mitigate their hardships and take all possible steps to help them return to their normal lives.



Chairman NDMA Listening to Flood Affectees in Sukkur

4.3.8 Visit of US Special Envoy to NDMA

Mr. Richard Holbrooke, US Special Envoy to Pakistan/Afghanistan called on Chairman, NDMA, Lt. Gen. (Retired) Nadeem Ahmed on September 17, 2010. Chairman NDMA briefed Mr. Holbrooke about the current flood situation and the ongoing rescue and relief operations in the affected areas. Commending the incessant efforts of the NDMA for providing timely relief to the flood affectees, Mr. Holbrooke assured Lt. Gen. (Retired) Nadeem Ahmed that the US will continue its support for the flood affected people. He said that the present situation is a challenge



US Special Envoy Richard Halbrooke Visiting NDMA

for the country and that the US will stand by Pakistan in this hour of need.

4.3.9 Visit of parliamentary delegation to NDMA

A delegation of women Parliamentarians led by the Speaker National Assembly, Ms Fehmida Mirza paid a visit to NDMA on September 28, 2010, Chairman NDMA Lt. Gen. (Retired) Nadeem Ahmed gave a detailed briefing to the delegation on the current flood situation and the ongoing relief activities in the flood affected areas. While speaking on the occasion, the Speaker National Assembly showed her confidence in state institutions to deal with the situation in an efficient and effective manner and expressed government's resolve to mobilize all of



Chairman NDMA Briefing Women Parliamentarians on Relief Activities

its resources to alleviate the sufferings of the flood affectees.

4.4 Industrial Mock Exercise

The National Contingency Plan to Combat Industrial Disasters was formulated after due consultation with all stakeholders by the NDMA to ensure timely, measured and effective response to industrial disasters all over Pakistan, with a view to prevent, mitigate and restore damages caused by such incidents. As identified in the plan, all Ministries / Divisions / Departments, Provincial Governments and corporate sector have a key role and responsibility in its implementation, by building requisite capacity to combat such disasters.



Water Hydrants being Deployed to Contain Tier II Emergency

In order to carry out a ground test of the mechanism at three tiers of response a mock exercise was planned at Engro Fertilizers. NDMA in collaboration with PDMA Sindh and DDMA Ghotki and other agencies conducted and controlled the mock exercise on chemical disaster management at the site of Engro Fertilizer Ltd at Dharki on February 25, 2010.

The objective of the Mock exercise was to practice National Contingency Plan to combat industrial disasters at all three emergency tiers in order to test and coordinate response at various levels.

Technical planning for Tier 1&2 emergencies was done by Engro fertilizers and DCO Ghotki respectively whereas planning for third tier



USAR Team in Action to Rescue Ammonia Victims

emergency response was done by PDMA Sindh with backup support from NDMA. The plans were presented during an exercise coordination meeting on February 15, 2010.

The exercise was attended by the personnel from Engro Fertilizers, DDMA Ghotki, local administration and neighbouring industrial clusters. Elements from PDMA, NDMA and USAR teams from Karachi and Islamabad also attended the exercise.

The exercise was evaluated by a joint team of experts from Technical Cell NDMA, Ministry of Industries, DESTO and Engro Fertilizers.



N D M A

Chapter

5

Human Resource, Finance & Accounts and Audit

Chapter 5: Human Resource, Finance & Accounts and Audit

NDMA is efficiently managing its existing Human and Financial resources to achieve the organizational goals and objectives of the Authority, by employing information technology tools, effective coordination with the government agencies and media interaction. The sections below provide details of progress made during the reporting year.

5.1 Finance

The Finance Section mandated to ensure smooth transactions of yearly financial business of the Authority, including management of development & non-development funds as well as NDMF placed at the disposal of the NDMA has done well to keep the expenditures within the budgetary allocation. It is also mandated to present budgetary proposals in coordination with other wings of NDMA and to help all kinds of procurement including emergency procurements.

NDMA is part of those Ministries/Divisions/ departments which are allocated annual budget (Non-development) according to the newly adopted budgetary framework; Medium Term Budgetary Framework (MTBF). Budget allocation of the NDMA for the year 2010 was PKR.102.8 million. The NDMA incurs its expenditure under a single-line budgetary provision. However, block sub-allocations along with utilization is as under:

Table No 5.1: Detail of Expenditure Incurred During 2010

Expenditure Head	Budget Allocated (PKR)	Budget Utilized (PKR)
Employees Related	65,680,666	65,680,666
Operating/Physical Asset	37,208,837	37,208,837
Total Allocation	102,889,503	102,889,503

5.2 Internal Audit and External Audit

Transparency and accountability of the limited financial resources available with NDMA remained prime consideration of the Authority. NDMA has always aspired to be transparent in

terms of performance and efficiency in utilization of resources. The same was endorsed by the financial audited statements of the internal and external auditors. NDMA is mindful of the importance of auditing and therefore covers a wide range of activities from maintenance of accounting records in assessing the compliance with the procedures to ensure efficacy and effectiveness. NDMA being a progressive and unique organization realizes that an independent audit with the objective assurance and consulting activity would improve its operations. Conduct of external and internal audit adds value to ensure financial discipline and serves the management by providing independent, management oriented advice on an organization's operations and performance.

The first ever Internal Audit of NDMA was conducted in 2010 for the period from 2006 to 2010 in accordance with auditing standards of the Federal Government of Pakistan. In line with those established standards and practices the audit was planned and performed to obtain reasonable assurance as to whether the financial statements are free of material misstatement. The subject audit included examining evidence to support the amounts, physical verification and disclosures in the financial transactions, assessing the accounting principles used and evaluating the overall functioning of financial system.

Internal Audit by the NDMA had prepared the organization itself for the external Audit as well. During 2010 The National Disaster Management Authority requested the Auditor General of Pakistan to conduct external audit of NDMA since it had never been performed before.

The business of National Disaster Management Authority was conducted in accordance with the accepted financial and accounting procedures of the Federal Government of Pakistan. On the basis of the findings of External and Internal Audit, a proper record of Accounts including books of accounts has been prepared by NDMA. Suggestions regarding the maintenance of the



books of accounts were also made by the Audit authorities which have been complied with. All records of Inventories and Physical Assets and physical verification of inventories as compared to books of Accounts was found satisfactory.

A few queries/observations were noted by the external audit owing to the fact that NDMA and the disaster management system are relatively new with unique roles to be carried out in a time sensitive environment. NDMA replies to such audit objections were discussed and the Organization is committed to address these issues. Upon the recommendations and observations of internal and external audit the remedial measures are being ensured in day to day functioning and operations of NDMA.

Now the internal and external audit has become a regular feature for the smooth functioning and operations of NDMA in line with the rules and regulations. Additionally a follow up mechanism has been established and internal control has further been strengthened to ensure transparent financial transactions and generation of financial reports as per the statutory requirements.

5.3 Human Resource Management

Procurement of human resources and enhancement of professional capacities of officials dealing with the disasters at National, Provincial and Local level is the responsibility of Human Resource Section, which by exploring the opportunities inside and outside the country ensures optimal utilization of such opportunities. NDMA also ensures a high degree of transparency in recruitment of all staff by strictly following standard procedures in selection of individuals with relevant knowledge, qualification and skills through a competitive process. Total human resource strength of NDMA comprises of 111 personnel as given in Table No 5.2 below.

Table No 5.2: Detail of Sanctioned & Acquired Posts

Posts	Total	Filled	Vacant
BS-17 to BS-22	26	22	4
BS-01 to BS-16	85	78	7
Grand Total	111	100	11

5.4 Creation of Additional Posts

Being mindful of the hazard profile of the country, NDMA realized that its existing strength was not sufficient to cope with any mega disaster. A dire need was felt for amplification of NDMA human resources and creation of 27 additional posts was deemed essential. The proposal was considered by NDMC in its Second Meeting held on January 3, 2009, The table No 5.3 below gives detail of the proposed additional posts:-

Table No.5.3: Detail of Proposed Additional Posts

S.No.	Posts	BPS	No of posts
1.	Deputy Directors	18	03
2.	Assistant Directors	17	08
3.	Steno typists	12	06
4.	Assistants	14	04
5.	Naib Qasid	02	06
Total			27

NDMC approved, in principle, the proposal for creation of 27 additional posts subject to the fulfillment of necessary codal formalities. A case was accordingly submitted to Establishment Division for endorsement of the posts in 2009. Establishment Division has however agreed for creation of 19 designated posts in 2010. Finance Division will now be approached for formal sanctioning of 19 posts.

Augmentation of Human Resource Proficiency: Capacity building of officials associated with DRM at National, Provincial and Local level is necessary to enable them to deliver at the time of need. In 2010, officials involved in disaster management at all tiers in the country were provided with the opportunities to train themselves to deal with disasters. These foreign capacity building facilities were obtained without involving the funding from Federal Government. Details of trainings along with number of individuals trained are given in table 5.4 on next page:

Table No 5.4: Details of Training

S.No	Type of Training	Organizations	Venue	Officials
1.	Radiological Emergency	NDMA	Austria	1
2.	Minimum Initial Services Packages	NHEPRN	Thailand	1
3.	Managing the Dead in Armed Conflicts and Catastrophes	Capital Hospital, Islamabad	Switzerland	1
4.	Geo-Informatics and Spatial Information for Disaster Management	UET, Peshawar & SUPARCO, Karachi	India	2
5.	Earthquake Risk Mitigation For SAARC	University of Peshawar & UET Peshawar	India	2
6.	International Urban Search And Rescue	Punjab Emergency Services, CDA & District Karachi	Singapore	4
7.	National disaster Management in Pakistan	PDMA, Balochistan	Japan	2
8.	Crisis Management	NDMA	Germany	1
9.	Integrated Approach to Flash Floods and Flood Risk Management in the Himalayas	NDMA	Nepal	1
10.	Disaster Assistance Seminar – Information Exchange	NDMA, PDMA (KP), SDMA, AJ&K & ERRA	USA	6
11.	Counterpart Seminar on National Disaster Management Plan	NDMA, PDMA (KP) & PDMA (Punjab)	Japan	4
12.	Developing Framework for Post-Disaster Needs Assessment, Recovery	NDMA & PDMA, Sindh	Thailand	2
13.	Course on Civil Defence Force	NDMA	Singapore	1
14.	Landslide Risk Management	NESPAK, Lahore	Bhutan	1
15.	Pakistan-US Bio Engagement	NDMA	Egypt	1
16.	Comprehensive Crisis Management (CCM) Course	NDMA	USA	1
17.	Making Cities Resilient” and “South Asia Regional Workshop	NDMA, DC, Muzaffarabad & DC, Haripur	India	2
18.	Marshall Centre Central Asia And South Regional Health Security Conference	NDMA	Uzbekistan	2
19.	International Disaster Management	NDMA	Singapore	1
20.	Mainstreaming DRR into Development Policy, Planning and Implementation	NDMA	Thailand	2
21.	Climate Risk Management Training	PDMA, KP	Thailand	1
22.	National disaster Management in Pakistan.	PDMA, Sindh	Japan	2
23.	Disaster Risk Reduction	PDMA, Punjab	Kazakhstan	1
24.	Landslide Risk Management	GSP, Islamabad	Bhutan	1
25.	Comprehensive Strategy for Recovery	NDMA	Japan	1
26.	Disaster Risk Management Technology on Volcanic, Debris Flow and Landslides	SDMA, AJ&K	Japan	1
27.	Comprehensive Disasters Risk Management	NDMA & PDMA, KP	Japan	2
28.	Military Assistance to Disaster Relief Operations	NDMA	Bangkok	1
29.	National Disaster Management Plan	NDMA	Japan	1
30.	Global Campaign on Making Cities Resilient	District Govt. Karachi	India	1
31.	Mainstreaming Disaster Risk Reduction into Development process	P&D & NDMA	Thailand	2
32.	National disaster Management in Pakistan	GB& SDMA, AJ&K	Japan	2
33.	Climate Risk Management	PDMA, Balochistan	Thailand	1
34.	Response and Recovery Training	NDMA	Malaysia	1
35.	Disaster Response Capacity Building Of National Red Cross & Red Crescent	NDMA	China	1
Total Trained Officials				55





N D M A

Chapter

6

Achievements, Challenges & Recommendations

Chapter 6: Achievements, Challenges & Recommendations

6.1 Achievements

6.1.1 Passage of National Disaster Management Act

The NDMO 2007, was re-promulgated as NDMO, 2010. The Supreme Court of Pakistan in its landmark judgment in Petition No 9/2009 and No. 8/2009 on July 31, 2009 held that all ordinances promulgated by the President before November 3, 2007 which were given permanence through the Provisional Constitutional Order No 2007, stand shorn of their purported permanence. The Supreme Court further decided that these Ordinances be placed before the Parliament, and allowed 120 days in terms of Article-89 of the Constitution. The NDMO was one such Ordinance required to be placed before the Parliament. In pursuance of the decision, the Government placed the Ordinance in the National Assembly in the shape of a Bill, called the National Disaster Management Bill. The Standing Committee of the National Assembly on Cabinet Secretariat considered the Bill in its meeting held on May 11, 2010, and recommended the Bill for enactment by the Parliament. Upon presentation the Bill was passed unanimously by the National Assembly and the Senate on October 4 and November 11, 2010 respectively. The President of Islamic Republic of Pakistan assented to the Bill on December 8, 2010. With the passage of Act, longstanding legal impasse has been overcome, enabling the newly conceived National Disaster Management System to play lead role in reducing the risks and developing effective response systems in the country.

6.1.2 Operationalisation of National Disaster Management Fund (NDMF)

Section 29 of the NDM Act, 2010 envisages the establishment of a Fund to be called the NDMF. According to Sub section (2) of Section 29 of the NDM Act, 2010, the NDMF shall be financed from the following sources: (a) grants made by the federal government; (b) loans, aid and donations

from the national or international agencies; and (c) donations received from any other source. In pursuance of this statutory provision of the Act, the Finance Division notified the establishment of the NDMF vide its Notification on July 2, 2007. To achieve the purpose of the provisions of the Law, the NDMC in its Second meeting held on January 3, 2009, approved an allocation of PKR 300 million as grant from the federal government (as seed money) for the NDMF. The Finance Division allocated the amount of seed money in December, 2010. The amount has accordingly been credited to the NDMF and the Fund now stands fully operationalised.

6.1.3 Establishment of National Institute of Disaster Management NIDM

Section 26 of NDM Act, 2010 envisages the establishment of the NIDM. The NIDM will be charged with the responsibility for planning, promoting training and research, developing core competencies in the area of disaster management. As a first step for establishment of the NIDM, the PC-1 for acquisition of land measuring 50 kanals was formulated by the NDMA which was approved by the Central Development Working Party (CDWP) in its meeting held on September 18, 2008. Total cost of the project is PKR.158 million. Allocation for the PC-1 was made in the Public Sector Development Programme (PSDP) during financial year 2009 -10.

Out of the total allocation, an amount of PKR.136 million was released by the Finance Division in December, 2010 which has subsequently been paid to CDA as cost of land. Consequent upon payment of PKR. 136 million, the CDA allotted the plot for NIDM in Sector G-5, Islamabad, the possession of which has now been taken by NDMA after concerted efforts. The preliminary ground leveling work has also been done. Request of the Government of Pakistan/NDMA for construction of the NIDM building through provision of technical and financial assistance is



presently under consideration of the Government of Japan. Formulation of PC-1 for the construction of NIDM building is presently under process and after the approval of CDWP/Executive Committee on National Economic Council (ECNEC); and subsequent allocation of development funds in the PSDP, besides Japanese grant, construction shall commence. In the mean time, realizing the urgent needs NDMA has established NIDM in a rented building and commenced its training activities.

6.1.4 Mainstreaming Disaster Risk Reduction (DRR)

While fully recognizing the significance of mainstreaming DRR aspect, NDMA initiated a component on Mainstreaming DRR into development planning and policy initiatives. Currently ten federal ministries are part of the initiative. The primary objective of the initiative is to ensure that future development programmes and projects of selected ministries incorporate the elements of disaster risk assessment and risk reduction in all stages of project life cycle. A very significant achievement of the initiative has been the acceptance of a chapter on DRR by the Planning Commission of Pakistan. Also, guidelines on DRR for preparation of development of project proposals have been prepared and circulated besides mainstreaming seismic concerns into the curricula of civil engineering diploma courses.

6.1.5 Development of Medium Term Plan for Strengthening DRM System (2011-2015)

Although, NDMA has made significant progress towards laying the foundations for the new system of disaster risk management, still a lot more needs to be done over the next few years to strengthen DRM institutions at federal, provincial/regional and district levels. In order to achieve this long term objective, NDMA has formulated a draft multi-hazards disaster management plan to provide basis for future course of action on DRM. A phased approach leading to achieve the overall objective of making Pakistan a disaster resilient country has been adopted. Therefore, NDMA has

developed a medium term DRM plan to be implemented over a period of five years (2011-2015). Salient features of the plan include (a) focus on district capacity enhancement (b) multi-hazards risk assessment of major human settlement and economic centers (c) technical studies on climate change associated hazards, (d) a more robust NIDM to continue DRM capacity building activities (e) updating of district and provincial disaster management plans besides preparation of new plans (f) Training resilient communities through extensive CBDRM activities, (g) assisting technical agencies in developing comprehensive multi-hazards early warning systems, (h) mainstreaming DRR in provincial P&D department and line agencies, (i) gap analysis and re-vamping local response capacities and (j) safer schools and hospital initiatives

6.2 Challenges

During the reporting period, NDMA faced a series of disasters including the worst disaster in the history of Pakistan; Floods 2010, during which all disaster risk reduction activities were almost suspended and that of flood response specific activities were assigned to all staff including One UNDRM Programme. Prior to the floods, NDMA performed its normal DRR activities of preparedness. While discharging its activities the authority faced some major challenges which are as under:

6.2.1 Lack of Political Ownership

At the Federal level the system enjoys political support but at the provincial level the situation is not encouraging. The fact that the meetings of PDMCs in Punjab, Sindh and Balochistan have not been convened, reflects lack of political support to disaster management system leading to adhoc policies to deal with disaster situations with a “fire – fighting” approach which undermines the evolutionary process of the newly established system. The bypassing of NDMA/PDMAs in formulation and execution of policies with respect to the reconstruction and rehabilitation of the affected areas in the aftermath of Floods 2007, Balochistan

Earthquake 2008, IDPs crisis and Floods of 2010 are a few glaring examples of adhocism in dealing with different disasters. Such policies do not adhere to the basic principle of DRR sensitive reconstruction and rehabilitation to be ensured by dedicated DM institutions created for the purpose, which further exacerbate the vulnerabilities of the communities at risks. In order to ensure a swift transition from relief and early recovery to reconstruction and rehabilitation, ideally the organizations engaged in relief activities should carry forward reconstruction and rehabilitation work as per their legal mandates.

6.2.2 Lack of Capacity and Financial Resources

Disaster management is yet to be treated as a national priority both at the federal as well as provincial levels. The development policies do not take account of disaster risk reduction as an element of sustainable socio economic development, which ultimately leads to non-allocation of requisite resources and the resultant incapacities of the institutions.

It is pertinent to mention that existing organizational capacity of NDMA was hardly enough to carry out its pre disaster activities effectively. During the period of floods, there was an increasing demand and pressure on NDMA to deliver on real time basis. However, limited capacity both in terms of professional and technical staff and required financial resources proved to be a major challenge, limiting NDMA's capacity to respond efficiently to exceptionally large level of the natural disaster.

6.2.3 Lack of Understanding about the role of NDMA

Contrary to the fact that NDMA is an apex body mandated to implement, coordinate and monitor disaster management activities in the country, there was a common perception not only in general public but also within the media fraternity, and even Provincial Governments that NDMA should spearhead relief and recovery operations everywhere in the country and provide all the

resources. Though a number of federal, provincial and local level institutions, solely responsible to manage the catastrophe, were already in place, yet NDMA was expected to deliver on every count. This misconception and lack of understanding of the role of NDMA was a major challenge for NDMA in a capacity and resource constrained environment.

6.2.4 Lack of Cooperation amongst Federal Government Ministries/ Departments

In 2010, NDMA found it all by itself in managing the worst ever disaster of the recent history. Unlike Earthquake of 2005 where all the Ministries provided best human resources and services to erstwhile FRC to manage the disaster, this time the response was at best, luke warm. Despite repeated requests neither any funds were placed at the disposal of NDMA, nor the human resources requested from different Ministries were made available. This seriously undermined the capacity of NDMA to deliver effectively during the Flood 2010 crisis.

6.2.5 Strategic Shift due to Recent Constitutional Developments

Under the 18th Constitutional Amendment, most functions of the Federal Ministries are in the process of devolution to provinces and relationship between provinces viz-a-viz federation is going to be redefined, which will impact NDMA's relationship with Provincial Departments.

Moreover, under the National Finance Commission (NFC) awards, resources have already been distributed among provinces based on the agreed distribution formula. The federal Government therefore, expressed its inability to provide additional funding to the provinces for managing the disasters which further influences the response capacity of provincial governments. Importantly, District/Municipal governments are also hesitant to accept advice from NDMA because they function under the overall policy direction of the provincial governments and cannot interact with NDMA directly, ultimately



undermining the DRM agenda and impacting the affected population negatively.

6.2.6 Integration of Disaster Management in National Policies

Existence of parallel laws and duality of institutional roles and responsibilities create confusion and some time do not allow the newly established institutions to assume the lead roles at the respective levels e.g. at the federal level, the function of disaster relief is assigned to Cabinet Division under Rules of Business, at the Provincial level, the PDMAs have to function in the shadow of Relief Commissionerates established under Calamities` Act 1958 etc. Moreover, status quo syndrome remains one of the major stumbling blocks in the performance of the new system. The Federal Ministries/ Departments as well as Provincial Governments tend to deal with disasters in the traditional knee jerk emergency oriented approach. Moreover, there is negligible investment in DRM institutions, both by the Government as well as the donors, resulting in poor/absence of DRM planning

6.2.7 Delays in Peace Time DRR Activities

In response to the historical disaster caused by floods in the country, all the routine activities were immediately stopped and all NDMA and other programmes/ projects staff based in headquarters as well as the field were assigned duties of supporting flood response activities which included rescue and relief distribution activities at federal, provincial/ regional, district and community level in the affected areas. Similarly, unexpected emergencies and disasters (Atta Abad Lake, Cyclone PHET and Floods) frequently taxed the little human resources NDMA had, to a limit.

6.2.8 Other Issues

Security situation across the country, especially in KP, Balochistan and Sindh remained volatile and caused delay in implementation of DRR related programmes/ projects. Moreover, absence of adequate response capacities, such

as Ware Housing, USAR etc, inadequate community preparedness and awareness, coordination issues besides lack of a proper Information Management/Decision Support System backed by a robust communication strategy are some of the systemic challenges faced by NDMA during 2010.

6.3 Recommendations

NDMA is mandated to address all disaster management operations including pre, during and post disaster phases, which essentially revolve around preparedness, mitigation, prevention, response, recovery and rehabilitation and reconstruction. In order to deliver on its mandated role, the organization needs to have professional expertise with required financial, logistics and human resources with specialized skills and procedural flexibility to respond to the emerging disaster management needs. NDMA, however, is seriously constrained in terms of availability of the requisite resources which warrants urgent attention of the decision makers to address these systemic challenges limiting the capacity of NDMA to deliver optimally in a time constraint environment. The following recommendations are proffered for consideration:

6.3.1 Implementation of Ministerial Committee Recommendations

In February 2009, the Prime Minister of Pakistan constituted a Ministerial Committee to resolve various institutional issues pertaining to NDMA. On October 8, 2010 meeting of the Committee was co-chaired by Dr. Zaheer Uddin Babar Awan, Minister of Law and Parliamentary Affairs and Senator A. Rehman Malik, Minister of Interior was held which was attended by Mr. Abdul Rauf Chaudhry, Secretary Cabinet, Lt. Gen. (Retired) Nadeem Ahmed, Chairman NDMA. The Committee made following recommendations:

- Administrative control of NDMA to remain with Prime Minister's Secretariat of Pakistan;
- The Emergency Relief Cell (ERC) of the Cabinet Division and the 6th Aviation Squadron may be transferred to the NDMA

along with staff and assets and liabilities;

- Relief function currently assigned to the Cabinet Division shall be added to the business of Prime Minister's Secretariat and Rules of Business, 1973 may be amended accordingly;
- A sub-committee is constituted under the chairmanship of the Cabinet Secretary to draft National Disaster Management Rules for the approval of the Committee within a fortnight.

It is recommended that the aforesaid recommendations of the Inter-Ministerial Committee Meeting should be implemented on priority-basis to ensure organizational strengthening and functional autonomy of NDMA.

6.3.2 Strategic Guidance on Reconstruction be Shifted back to NDMC from CCI

After the flood disaster of 2010, the responsibility of providing strategic guidance to Reconstruction and Rehabilitation efforts was assigned to the Council of Common Interest (CCI), since the NDM Act had not been passed at that time. With the passage of the Act now, it is therefore proposed that the said responsibility should be re-assigned to NDMC, which is the right forum to undertake the responsibility.

6.3.3 Sanction of Additional Posts

In order to strengthen the institutional capacities of NDMA, a proposal for creation of 27 additional posts was developed and submitted to NDMC in its Second Meeting held on January 3, 2009. The NDMC had approved in principle the creation of 27 additional posts. The NDMA has been continuously pursuing the implementation of the decision of the NDMC; however, Establishment Division has only endorsed 19 posts. It is therefore, recommended that Finance Division should now authorize/ sanction these positions to overcome the human resource constraint and ensure smooth functioning of NDMA.

6.3.4 Merger of Relief Funds into NDMF

As per NDM Act 2010, NDMF has now been operationalised. The said Act enshrines that all unspent amounts from the previously announced Relief Funds must be deposited in the NDMF. A decision to this effect was also given by the Prime Minister in the second NDMC meeting held on January 3, 2009. It is therefore recommended that the Cabinet Division may be asked to deposit all unspent amount in the NDMF to enable NDMA to undertake meaningful DRM activities in a befitting manner.

6.3.5 Allocation of Funds from the World Bank for DRM Activities

The World Bank carried out an assessment of NDMA activities in early 2011 and identified some savings/ gains out of Emergency Credit extended to Government of Pakistan for the earthquake activities. The Bank is willing to allocate these savings of US\$ 10-15 million to NDMA to strengthen the existing disaster risk management system and programmes to mitigate the negative impacts of disasters in Pakistan. It is recommended that the Bank may be asked to re-allocate this amount to NDMA to undertake disaster risk management activities in the country, which GOP cannot fund due to resource constraints.

6.3.6 Pakistan Humanitarian Response Plan (PHRP) be Coordinated by NDMA at Federal Level

To meet the humanitarian needs in FATA and parts of KP, Government of Pakistan in February 2010 launched PHRP in collaboration with United Nations. To deal with peculiar nature of the conflict and ongoing operations against miscreants in FATA, Government of Pakistan established a Special Support Group (SSG) under the leadership of Pakistan Army to formulate and coordinate PHRP in FATA and KP. Recently, the General Headquarters (GHQ) has rolled back the SSG, thus creating coordination void at the federal level with the UN Agencies.

As NDMA is legally mandated to coordinate



response, relief and early recovery in disaster situations, it is recommended that the responsibility of coordination of PHRP with the Armed Forces and UN at federal level be assigned to NDMA to ensure efficient and equitable utilization of foreign assistance as well as effective coordination amongst various stakeholders.

6.3.7 Refugee Affected and Hosting Areas Programme (RAHA) be brought under the Ambit of NDMA

DRM is one of the five Joint Programmes of “One UN” in Pakistan with two components: Joint Programme Component (JPC)-1 Disaster Risk Management and JPC-II regarding Refugee Affected and Hosting Areas Programme (RAHA) addressing rehabilitation needs of refugees hosting areas of KP and Balochistan in Pakistan. Both joint programme components have one Steering Committee co-chaired by NDMA along with UNDP and WFP for approving the Annual Work Plan (AWP), Budget as well as programme activities.

During the last two years of implementation of this Programme, NDMA organized three Steering Committee meetings for JPC -1, however, JPC-II remained outside of the purview of the Steering Committee for some reasons. Despite NDMA's

rigorous efforts to bring RAHA under the ambit of the Steering Committee to ensure effective coordination and delivery of results, RAHA is still executed under a separate implementation arrangement, which is a serious anomaly. It is therefore, suggested to bring RAHA under the ambit of Joint Programme Steering Committee as per the mutually agreed terms. This will ensure better visibility at the federal level resulting in better institutional control and management of the programme.

6.3.8 Institutional Anomaly between NDMA and ERRA be addressed

Recently promulgated ERRA Act has created an institutional anomaly between NDMA and ERRA wherein same responsibilities have been mandated to both the institutions with regard to one specific disaster; Earthquake. It may be recalled that ERRA was created as a time bound organization for reconstruction in the nine affected districts of 2005 Earthquake thereafter it had to be dissolved. Continuation of ERRA beyond its original mandate does not make sense as the government can ill afford a huge organization in the waiting for a disaster which may or may not happen. In any case after the 18th amendment acceptability of such organization by the provinces is highly circumspect. This anomaly needs to be corrected.



National Disaster Management Authority (NDMA)
Prime Minister's Secretariat, Islamabad
www.ndma.gov.pk

