



Pakistan Floods_2010



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



Learning from Experience

Pakistan Floods 2010

Pakistan Floods 2010

Learning From Experience

National Disaster Management Authority
Prime Minister's Secretariat, Islamabad
<http://www.ndma.gov.pk/>
<http://www.pakistanfloods.pk/>

Published: September 2011

For official use only


Copyright © National Disaster Management Authority (NDMA)

This report has been produced under the overall guidance of Chairman, National Disaster Management Authority, Dr. Zafar Qadir. The NDMA Lessons Learned Team was led by Jennifer McKay, and the report was co-authored by Ammar Rashid and Zeeshan Noel. Major Kashif Naeem Khan assisted with research, stakeholder consultations and development of the report.

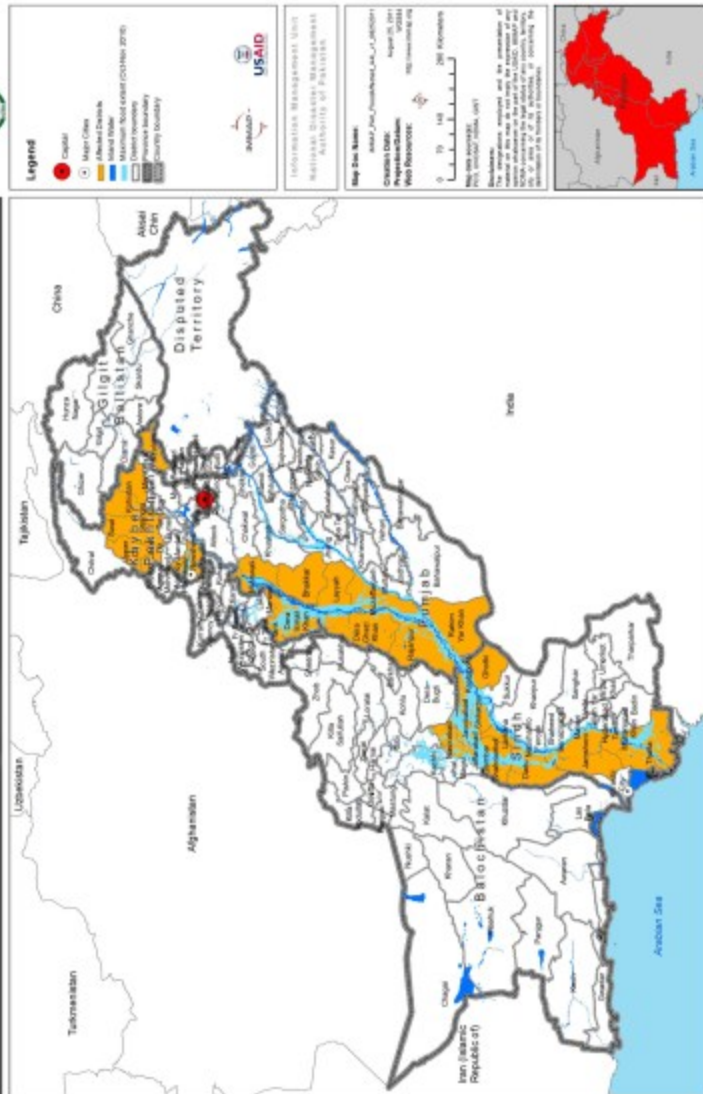
Design/Layout: Wajid Ali, Media Cell, NDMA

Cover Picture © REUTERS/Stringer

Printed by: _____



Learning from Experience



Contents

Acronyms	iii
Executive Summary	1
National Disaster Management Authority (NDMA)	1
Introduction	2
National Disaster Management Act, 2010	3
National Disaster Management Commission	4
Background to Emergency	6
Nature and Impact of the Disaster	7
Summary of Damages	8
Early Warnings	9
Government Response	10
National Disaster Management Authority (NDMA)	11
Provincial Disaster Management Authorities (PDMAs)	12
District Disaster Management Authorities (DDMAs)	13
Ministries and Departments	14
Government Oversight	15
Recommendations	16
Armed Forces	17
Pakistan Army	18
Pakistan Air Force	19
Pakistan Navy	20
Armed Forces Charitable Contributions	21
Relationship with Humanitarian Community and UN Agencies	22
Recommendations	23
Recommendations on technical issues	24
Foreign Armed Forces	25
Case Study	26

Contents...

Donors	27
Multilateral Institutions	28
Philanthropy	29
Recommendations	30
Humanitarian Community	31
The Humanitarian Response	32
Recommendations	33
Clusters	34
Food Cluster	35
Health Cluster	36
Shelter Cluster	37
Logistics Cluster	38
Nutrition Cluster	39
Water, Sanitation Hygiene (WASH) Cluster	40
Agriculture Cluster	41
Observations	42
Recommendations	43
Watan Cards	44
Recommendations	45
The Role of the Media	46
Recommendations	47
Civil-military Cooperation and Complementarity	48
Recommendations	49
Learning From Experience - Observations and Opportunities	50

Acronyms

ADB	Asian Development Bank
AJK	Azad Jammu and Kashmir
AMC	Army Medical Corps
ATM	Automated Transaction Machine
AUSAID	Australian Agency for International Development
BRSP	Balochistan Rural Support Network
CBO	Community Based Organization
CCB	Citizens Community Board
CCC	Crisis Control Center
CCI	Council of Common Interests
CMH	Combined Military Hospital
DCO	District Coordination Officer
DDMA	District Disaster Management Authority
DEWS	Disease Early Warning System
DFID	Department for International Development
DNA	Damage and Need Assessment
DRM	Disaster Risk Mitigation
DRR	Disaster Risk Reduction
EAD	Economic Affairs Division
ERC	Emergency Relief Cell
ERCC	Emergency Response and Coordination Center
FAO	Food and Agriculture Organization
FATA	Federally Administered Tribal Areas
FFC	Federal Flood Commission
FFD	Flood Forecasting Division
FIA	Federal Investigation Agency
FOBs	Forward Operating Bases
GB	Gilgit Baltistan
GHQ	General Headquarters
GoP	Government of Pakistan
GPS	Global Position System
HC	Humanitarian Coordinator
HeRAMS	Health Resource Availability Mapping System
ICRC	International Committee of the Red Cross
IDP	Internally Displaced People
ICM	International Organization for Migration
IRC	International Rescue Committee
IVA	Initial Vulnerability Assessment
JACC	Joint Aviation Coordination Cell
KPK	Khyber Pukhtunkhawa
MINFAL	Ministry of Food Agriculture and Livestock
MO Dte	Military Operations Directorate
MoE	Ministry of Education
MoFA	Ministry of Foreign Affairs
MoH	Ministry of Health
Mol	Ministry of Interior
MSF	Médecins Sans Frontières

Acronyms...

NADRA	National Database and Registration Authority
NATO	North Atlantic Treaty Organization
NDMA	National Disaster Management Authority
NDMC	National Disaster Management Commission
NEOC	National Emergency Operations Center
NFC	National Finance Commission
NFPP	National Flood Protection Plan
NGO	Non-Governmental Organization
NHEPRN	National Health Emergency Preparedness and Response Network
NHN	National Humanitarian Network
NIC	National Identity Card
NIDM	National Institute of Disaster Management
NOC	No Objection Certificate
NODMC	National Oversight Disaster Management Council
PAF	Pakistan Air Force
PDMA	Provincial Disaster Management Authority
PDMC	Provincial Disaster Management Commission
PFRRERP	Pakistan Flood Relief and Early Recovery Response Plan
PHF	Pakistan Humanitarian Forum
PIA	Pakistan International Airlines
PID	Press and Information Department
PIDA	Provincial Irrigation and Drainage Authority
PIFERP	Pakistan Initial Flood Emergency Response Plan
PMD	Pakistan Meteorological Department
PPAF	Pakistan Poverty Alleviation Fund
PRCS	Pakistan Red Crescent Society
PWD	Public Works Department
RC	Resident Coordinator
RSPN	Rural Support Programme Network
SDF	Sungi Development Foundation
SPO	Strengthening Participatory Organization
SPU	Strategic Planning Unit
SSG	Special Support Group
UAE	United Arab Emirates
UC	Union Council
UN	United Nations
UN/OCHA	United Nations Office for Coordination of Humanitarian Affairs
UNDP	United Nations Development Programme
UNHAS	United Nations Humanitarian Air Service
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children Fund
US	United States
USAF	United States Air Force
USAID	United States Agency for International Development
USODRP	United States Office of the Defense Representative
WAPDA	Water And Power Development Authority
WASH	Water, Sanitation and Hygiene
WB	World Bank
WFP	World Food Programme

Executive Summary



1 Executive Summary

The Lessons Learned report provides a strategic level overview of lessons learned from rescue and relief activities in the immediate aftermath of the catastrophic 2010 floods. The report focuses on the complexity of responding to a disaster of the magnitude that Pakistan experienced, and what NDMA has learned from the achievements and challenges from an organizational perspective, and institutional relationships. It comprises input from the experiences of some of the many government agencies, donors, military, UN, and individuals who came to the assistance of the affected communities. Most importantly, it makes key recommendations on critical areas to be addressed to improve disaster management and response. The report does not directly address the issues of flood management, which is the responsibility of the Federal Flood Commission (FFC) and which has issued its own report in this regard. A briefing paper "Pakistan 2010 Flood Relief – Learning From Experience, Observations and Opportunities" containing the key findings and recommendations of this report was released by NDMA on 12 April 2011 and shared with stakeholders.

The generous contribution of all partners to the relief effort and to this review, epitomizes the best of humanitarian response to assist the people of Pakistan in times of great need. Many stakeholders have also prepared reports on the floods focusing on their organization's role or their sector. The combined experiences are a valuable resource to enhance preparation, response and management of future disasters. NDMA, the Government of Pakistan, and the people of Pakistan, are deeply grateful to all who have assisted.

The information has been gathered through a series of consultations with stakeholders, written contributions by various thematic clusters (supported by the UN) in consultation with their members, internal consultations within NDMA, and a desk review of available documents. The key issues that emerged from the process can be grouped around three main themes – coordination, understanding of the roles and responsibilities of different stakeholders, and capacity.

The disaster management capacity of the state emerged as an element requiring immediate focus as it was found to be limited at multiple levels of government. At the federal level, NDMA suffered from a significant paucity of resources in comparison to the monumental caseload. It has no legislated authority to control the activities of any other agency such as a PDMA or a DDMA yet public perception deemed it to be responsible for everything from planning to implementation. At the provincial level, there was a

distinct lack of capacity for provision of relief, with the exception of Khyber Pakhtunkhwa (KPK) that had recent experience with humanitarian catastrophes. In the other three badly hit provinces, Punjab, Balochistan and Sindh, there were few people in the government or PDMA with enough experience in disaster operations, management or organization. Although capacity was strengthened over the course of time following the disaster, the crisis had by then largely passed.

Capacity was an issue not only for NDMA but also for most stakeholders including UN agencies, INGOs and national NGOs. The short-term deployment, sometimes for as little as two or three weeks, of UN and INGO personnel to Pakistan from other emergencies was identified by stakeholders as a problem area, as they had little time to understand the ground realities before leaving again. Creating sufficient surge capacity both nationally and internationally is an area to be addressed for future emergencies.

Management and capacity issues presented a serious challenge in Punjab and Sindh. In Khyber Pakhtunkhwa, people were trained over a period of time in best practices of camp management, food distribution and development of systems, the capacities that rarely existed in the south and this led to shortfalls and delay in response. This capacity was built up later but critical time was lost in the process. The delay had a profound impact on providing rapid assistance to the affected people and increased their suffering.

Pre-disaster organisation structures will always be lean and small but they must have a properly trained surge capacity. The NDMA team at the time of the floods consisted of only 21 officers to manage the entire disaster. The meager non-developmental organizational budget of PKR 65 million (approx. USD .74 million) per annum did not allow for any additional personnel or equipment. NDMA was very appreciative of USAID/OFDA's support in providing much needed resources to fill some critical gaps. To create a much-needed surge capacity, a number of government ministries and departments were requested that at least one person be seconded to NDMA to assist with issues particularly relevant to their home agency's role in the flood response. Regrettably, except for the Armed Forces and the Ministry of Science & Technology, they were unable to assist in most cases. Although playing their own important roles in facilitating many aspects of the disaster response, an effective coordination could not be achieved. It was noted by a number of stakeholders that secondees from such ministries and departments would have been valuable to NDMA's relief operations and that people should be identified and trained in the various ministries and departments now for fixed-term secondment to NDMA in future disasters.

Coordination was one of the most challenging and complex aspects of the relief phase, whether between centre-province, government-UN, inter-agency or within the overall humanitarian community in general. Many stakeholders interviewed highlighted the coordination challenges between NDMA and the PDMA's. While there were significant successes in the coordination mechanisms utilized, such as the various clusters at the federal and regional hub levels, and the Strategic Leaders Forum, there were also

examples of coordination shortcomings that need to be addressed. For example, a lack of effective coordination was also identified by some stakeholders in relation to the UN's internal strategic decision-making processes, because of differences amongst the top-tier UN leadership in the country and among these agencies.

On a positive note, the Strategic Leaders Forum comprising key stakeholders proved an effective coordination mechanism during the floods. Most stakeholders identified the need for this to be continued and strengthened in the form of a strategic planning network on disaster management, led by NDMA and including PDMA's, DDMA's, government agencies, UN agencies, military, humanitarian community, donors, philanthropists and media. The group should meet regularly to prepare plans for all contingencies for any disaster or complex emergency, define roles and responsibilities, and identify the gaps, for the same.

Coordination issues between the GoP and the UN were highlighted by many stakeholders. There were several key areas of contention between the GoP and the UN that led to tensions and delays that could have been avoided.

The first was the issue of the NATO air bridge. The Government invited NATO to assist in the transport of relief goods to Pakistan but the UN intervened against the knowledge of the Government and advised NATO that they were not required. Many stakeholders identified this as an area where UN had overstepped their mandate in not respecting the wishes of the Government. The GoP accepted the NATO flights and they were rapidly deployed.

The second was the launch of the Pakistan Floods Relief and Early Recovery Response Plan (PFRERRP). The appeal was initially launched in New York without the sign-off of the GoP. Further, the UN resisted the wishes of the GoP regarding the usage of terminology standard to GoP documentation and efforts by NDMA and the GoP for greater scrutiny of the projects in the appeal. These issues led to significant delays in the eventual launch of the appeal and the flow of much-needed funds.

Thirdly, there was resistance from the UN to the GoP's direction that the relief phase should close on 31 January and move to the Early Recovery phase. This was the cause of further friction between the GoP and the UN, and created confusion at provincial and district level.

There are varying kinds of government-UN arrangements around the world. Countries such as China and India have less involvement of the UN in humanitarian response whereas in countries with an absence of proper governance structures, the UN plays a more significant role. Pakistan is a fully functional state with strong institutions but still requires support from the UN on humanitarian interventions when the scale of an emergency overwhelms the capacity of the country. However, the government must take the lead in setting the priorities and policy guidelines. The argument about UN activities being governed by IASC guidelines is misplaced as the same guidelines time

and again mention that these are "guidelines" and must adapt to government priorities and policies.

Affecting a **strategic shift** of relief efforts to Punjab and Sindh as the floods moved southward through the country proved a challenge. The IDP crisis in 2009 had seen a mushrooming of INGOs and national NGOs and an alignment of donor support in Khyber Pakhtunkhwa. Warehouses, systems and networks were well established and when the 2010 floods struck, there was a comfort level in operating there for many organizations. Conversely, Punjab and Sindh had not suffered such major emergencies in the recent past and systems were almost non-existent. Local NGOs in these two provinces had little knowledge on how to prepare documentation for donor funding, making it difficult if not impossible for them to receive support. INGOs were slow to move to the area and it was difficult for NDMA to encourage them to make the strategic shift to move or expand their operations from Khyber Pakhtunkhwa into southern parts of Punjab and Sindh.

Implications arising from the recently enacted **18th constitutional amendment** and the latest NFC Award posed significant challenges between the centre and the provinces. The former resulted in the devolution of many federal or concurrent federal and provincial legislative subjects - including disaster management - to the provinces. This posed considerable difficulties in mounting a centrally organized and cohesive national response to the disaster and led to the exacerbation of centre-province tensions. The NFC was the primary reason because of confusion over the fiscal arrangements for inter-provincial resource distribution for relief. Donors and other stakeholders also noted that they found it confusing as to which agency, both at the federal and provincial levels, they should be dealing with. This frequently delayed decision-making on allocation of resources.

Parallel decision-making bodies created confusion about mandates. This area warrants immediate attention. According to the National Disaster Management Act, the NDMC is the apex body for disaster-related policy formulation in Pakistan with representation from centre, all federating units and areas of the country, military and civil society. The shifting of responsibility from NDMC to the Council of Common Interests (CCI) and the formation of the National Oversight Disaster Management Council (NODMC), added a further layer of confusion for stakeholders as to which was the key oversight body for relief efforts. While robust Government oversight of relief, recovery and reconstruction activities is of utmost importance, this created a perceived duplication of authority and one that on occasions may have slowed the decision-making process for stakeholders. It may be timely for the Government of Pakistan to review the role for parallel committees and, at the same time, review the National Disaster Management Act, and if necessary, to strengthen it to ensure a clear definition of mandates, roles and responsibilities. Genuine and sustained efforts by both the Federal and Provincial Governments in consultation with key parties, to find consensus to resolve the structural issues that impede effective coordination and national response should be encouraged. Consensus will lead to a more comprehensive disaster

response at both the federal and provincial levels and encourage more confidence in resource mobilization by donors and other stakeholders.

The **Cluster approach** was applied to coordinate and organize the humanitarian community, with this disaster marking the first time 11 clusters were rolled out in an emergency in Pakistan. The number of clusters to be deployed was a point of contention between the GoP and the UN leadership. This is an issue for which consensus is required between these two stakeholders in advance of any future disaster. The clusters achieved varying degrees of success in the coordination of the humanitarian community and setting the strategic direction of their respective sectorial response. Information management, as well as monitoring and reporting of planned activities, were some of the areas of concern for all clusters. For instance, different UN agencies came up with caseload numbers that not only contradicted the multi-cluster engagement approach, but also the official caseload numbers. Agreement on baseline data is imperative to avoid confusion for all stakeholders. The UN and the cluster system must also ensure compliance with the agenda of aid effectiveness by proper prioritization of needs and resources, establishing transparent procedures and accountability mechanisms.

Despite best efforts, receiving the right kind of information for timely decision-making remained a problem for the planners at NDMA. While much of this was a responsibility of UN agencies, they were constrained by internal procedures that frequently delayed release of available information. Conflicting numbers and small sampling made needs analysis difficult. Encouraging UN leadership in New York to allow greater flexibility for the in-country teams to release information, make on-the-ground decisions in a timely manner, and better engage with NDMA to align with the requirements of the Government, will enhance their capacity to respond more effectively in future.

The cooperation, collaboration or complementarities of **civil and military stakeholders** in an emergency is integral to a successful response. In the Pakistan floods, the relationship between the civil and military sectors was mostly effective and harmonious. However, there was a lack of clarity on some issues with regard to sharing of information between the military and humanitarian community that needs to be improved in future disasters to avoid overlapping and duplication in distribution of relief goods. Other issues that arose related to the 'last resort' guideline for use of military assets, and the use of armed escorts for INGOs.

Among the prominent features of the response, the **cash transfer mechanism** for compensation through the Watan card, was one of the significant components of revitalizing communities. Though it was difficult to monitor the actual usage of the funds by the affected populations, the Watan card was instrumental in providing short-term financial support at a crucial time. Challenges in the implementation of the Watan card initiative included a lengthy grievance system, difficulties in targeting vulnerable communities and insufficient ATMs in more remote areas.

In the early days of the emergency, the media was focused on criticizing the government and raising allegations of corruption. This detracted from the impetus to contribute to the relief efforts by the public and donors. While such undue politicization of the relief efforts was considerably damaging in the short run, the situation improved with more efforts to sensitize the media on the needs of the people, and significant efforts by media groups to launch their own appeals to support relief efforts.

Despite many challenges and limited resources, NDMA was able to deliver effectively in many ways. There was no epidemic, agriculture started to recover well, the return of the displaced was facilitated, and WATAN cards were launched successfully. The policies and strategies NDMA implemented made a huge contribution to this response.

The scale and complexity of this disaster would have challenged any country but, along with the many partner organizations that worked tirelessly throughout the emergency, the situation was stabilized and has moved into the Early Recovery phase. NDMA has learned much from the experiences of the 2010 floods to enhance future response to disasters. When the Dalbandin earthquake struck in January 2011, the response was immediate, coordination procedures had been strengthened, roles were clear, and stakeholders acted accordingly. This quickly brought the situation under control.

Many stakeholders are also conducting reviews and Lessons Learned exercises from their own perspective. These too will be a valuable contribution to the future of disaster response in Pakistan. Constructive dialogue is critical to build resilient working relationships. NDMA will continue to encourage stakeholders to contribute to the process through future planning sessions, information sharing and other relevant activities.

Effective Disaster Management and preparedness is critical to the safety and well being of the people of Pakistan. This requires the support of Federal and Provincial Governments and all stakeholders. Disaster response itself must be a 'one-window' operation. To achieve this, it is imperative that roles and responsibilities are clearly mandated and the designated key agency is empowered to lead the process of ensuring more cohesive coordination. In addition, the capacity of key organizations needs to be strengthened urgently.

The report contains many recommendations for specific areas. However, there are a series of key recommendations that require the most critical attention from NDMA the Government of Pakistan, and stakeholders. These are identified in Chapter 12.

NDMA has matured and has built enduring relationships to work together for preparedness and response in future disasters. The organisation has established its place as the key agency for disaster management in Pakistan. It must now be fully empowered and resourced to properly carry out its designated lead role and responsibility to prepare for and manage all disasters in Pakistan, working in harmony with all stakeholders. The implementation of the recommendations in the report will be a significant step forward for disaster management in Pakistan.

National Disaster Management Authority (NDMA)



2 National Disaster Management Authority

Introduction

The National Disaster Management Commission (NDMC) and the National Disaster Management Authority (NDMA) were established on 18th January 2007 under Sections 3 and 8 of National Disaster Management Ordinance (now National Disaster Management Act 2010), which was promulgated on 26th December, 2006. Provincial Disaster Management Commissions (PDMCs) and Provincial Disaster Management Authorities (PDMA), as well as District Disaster Management Authorities (DDMAs) were also established under the same statute. NDMA as lead agency at the Federal Level, is responsible for coordinating, facilitating and mobilizing resources at the federal level, with Federal Ministries/Organizations, Armed Forces, UN, Bilateral Donors, multilateral donors and the network of National and International NGOs.

Under the prevailing law, disaster management is a devolved subject where the responsibility of conducting it falls within the domain of provinces and districts. NDMA however does help provincial and district authorities in capacity and institutional building, planning and conducting disaster risk reduction and disaster risk management activities. In the event of a disaster, all stakeholders, including Government Ministries/Departments/ Organizations, Armed Forces, INGOs, NGOs, UN Agencies work through the NDMA to conduct a 'one window' operation.

National Disaster Management Act, 2010

The National Disaster Management Act provides for the legal and institutional arrangements for disaster management at federal, provincial and district levels, encompassing the whole spectrum of disaster management. To enable the Federal Government to put in place a comprehensive system of disaster management in the

country, the provincial assemblies of Balochistan, Khyber Pakhtunkhwa, Punjab and Sindh, passed resolutions under Article 144 of the Constitution, authorizing the Federal Government to legislate on the subject.

National Disaster Management Commission

The National Disaster Management Commission is the apex body for disaster-related policy formulation in Pakistan. The NDMC lays down policies on disaster management and approves plans prepared by Ministries/Divisions of the Federal Government in accordance with the National Plan. Further, it lays down guidelines to be followed by federal and provincial authorities. The Commission comprises:

- (a) Prime Minister of Pakistan, Chairperson, ex-officio;
- (b) Leader of Opposition in the Senate;
- (c) Leader of Opposition in the National Assembly;
- (d) Minister for Defence;
- (e) Minister for Health;
- (f) Minister for Foreign Affairs;
- (g) Minister for Social Welfare and Special Education;
- (h) Minister for Communications;
- (i) Minister for Finance;
- (j) Minister for Interior;
- (k) Governor Khyber Pakhtunkhwa (for Federally Administered Tribal Areas);
- (l) Chief Ministers of all the Provinces;
- (m) Prime Minister, A.J & K;
- (n) Chief Minister, Gilgit-Baltistan;
- (o) Chairman JCSC or his nominee; and
- (p) Representatives of civil society or any other person appointed by the Prime Minister

The NDMC is complemented at the provincial level by the Provincial Disaster Management Commissions (PDMCs), which are the apex bodies at the provincial level for disaster-related policy formulation. The PDMCs are headed by the provincial Chief Ministers and include the leaders of opposition, other members nominated by the respective Chief Minister, as well as one member nominated by the respective Leader of the Opposition.

National Disaster Management Authority

The National Disaster Management Authority was established under sub-section (1) of section 3 of the National Disaster Management Act 2010. Its powers and functions are to:

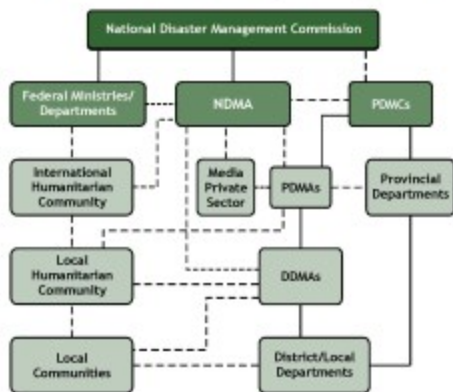
- (a) Act as the implementing, co-ordinating and monitoring body for disaster management;
- (b) Prepare the National Plan to be approved by the National Commission;
- (c) Implement, co-ordinate and monitor the implementation of the national policy;
- (d) Lay down guidelines for preparing disaster management 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 Governments 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 any 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 National Commission may require.

In line with the abovementioned functions, the NDMA has been playing a pivotal role in leading and coordinating the national response to mega disasters including the Pakistan Floods 2010. It operationalized the National Emergency Operations Center to be manned by all the key stakeholders during the response. It facilitates international, national and provincial stakeholders through a 'one window' operation on behalf of the Government of Pakistan, rendering technical assistance and mobilizing resources to fill the gap.

Provincial/Regional/FATA Disaster Management Authorities

Established under sub-section (1) of section 3 by each province/region/ FATA, the powers and functions of the Provincial/Regional/FATA Disaster Management Authorities are also laid down in the National Disaster Management Act 2010.

National Disaster Management System



Background to Emergency



3 Background to Emergency

Nature and Impact of the Disaster

The 2010 monsoon season brought with it massive destruction on a scale not previously recorded in Pakistan. The emergency started when the easterly monsoon system collided with the developing western system over North-Western Khyber Pakhtunkhwa in July 2010. The resultant high intensity downpour in Khyber Pakhtunkhwa generated floods of unprecedented scale in the Swat and Kabul rivers. The magnitude of the calamity can be gauged from data compiled by the Federal Flood Commission, which states that the flow of rivers Swat and Kabul combined to touch a new historical height of 400,000 cusecs as against the previous figure of 250,000 cusecs recorded in 1929. From Khyber Pakhtunkhwa, the flood waters traveled downstream through the barrages in Punjab and Sindh until they reached the Arabian Sea, downstream of Kotri Barrage. The trail of devastation ran almost the entire length of Pakistan and covered one fifth of the country.

The floods affected 78 districts covering an area of over 100,000 square km, impacted a population of more than 20 million people and caused over 1,980 reported deaths and 2,946 injuries. The floods also destroyed 1.6 million houses and 2,085,400 hectares of cropped lands. The damage sustained by public infrastructure was also enormous. A total of 23,831 km of roads, 10,192 education centers and 485 health facilities were damaged. According to the Damage and Needs Assessment (DNA) conducted by World Bank (WB) and Asian Development Bank (ADB), the country sustained an estimated loss of more than USD 10 billion of direct and indirect damages to social and physical infrastructure, economic sector, governance and the environment. In terms of area and population affected, the scale of devastation caused by the floods was more than the Pakistan Earthquake, 2005, Cyclone Katrina, Indian Ocean Tsunami, Cyclone Nargis and Haiti Earthquake combined.

The impact of the floods differed across regions because of the changing nature of the disaster, the different levels of preparedness, and the access to individual and common resources. For instance, Khyber Pakhtunkhwa (KPK) was affected by flash floods while other provinces were exposed to both flash and riverine floods. The initial surveys and DNA show that Sindh was the worst affected province as the Indus River could not find

an outlet due to the flat topography of this area. The floods not only washed out the many achievements of development efforts but also aggravated the chronic poverty and inequality among the vulnerable segments of society. The disaster and its aftermath are a direct threat to Pakistan's prospects of achieving the Millennium Development Goals. It is likely that many years of consistent effort will be required to get back on track.

Summary of Damages

Table 1

Total Number of Affected Districts	78 (24 KPK, 11 Punjab, 17 Sindh, 12 Balochistan, 7 AJK, 7 GB)
Most Affected Districts	29
Population Affected	20 Million
Area Affected	100,000(+) Sq Km
Deaths	1,985
Injured	2,946

Table 2

Sector	Damage	Cost (US\$)
Houses	1.6 m	1.588 Bn
Education	10,192 education centres	311 m
Health	485 health facilities	50 m
Communication	23,831 Km	1.328 Bn
Water & Sanitation	6673 schemes	109 m
Energy	92 plants, 32 grids, 3000 km lines	309 m
Irrigation		278 m
Agriculture & Live Stock	2.1 m ha agriculture land, 0.3 m large & 1.2 m small animals	5.1 Bn
Private Sector	146 industries, 0.1 m hotels/shops	109 m
Financial Sector	90 banks, 10 ATMs	674 m
Government & Environment	1457 structures	82 m
Overall Damages		10.056 Bn\$

Early Warnings

On 20 July 2010, Pakistan Meteorological Department (PMD) issued the first warning regarding flash floods for the upper parts of the Indus River Basin. Based on the information from PMD, NDMA held a meeting to warn of the occurrence of flash floods at certain rivers/nallahs in these areas during the subsequent 2 to 3 days. At the beginning of the floods, a high water discharge was observed in the upstream reach of the Chenab River. At the same time, PMD predicted and warned that high flooding was expected in the River Chenab at Khanki. In this regard, a warning for inundation of low-lying areas of Gujranwala, Sialkot, Gujrat, Hafizabad and Mandi Bahaudin districts around the riverbed was issued immediately. Subsequently, PMD also issued a high flood level warning for Marala on 27 July 2010, one day prior to the actual arrival of flood at that location. Around the same time, the Flood Forecasting Division (FFD) of PMD issued a warning of moderate flooding likely in hill torrents of DG Khan and Rajanpur Districts. Similarly, another warning was issued for heavy flooding of hill torrents of Kalat, Naseerabad, Sibbi and Zhob division of Balochistan. On 28 July 2010, another "significant flood forecast" for the possibility of inundation and flash flooding in the Kabul River and its tributaries during the next 24-36 hours due to the expected heavy rainfall, was issued.

After a temporary lull in the heavy rain upstream of Chenab, the heavy rain zone shifted and was expanded towards the western areas, such as KPK and some western parts of Punjab and the upstream of the Jhelum River. There was continuous rainfall in Indus River Basin due to the prolonged composite weather. As a result, it was expected that the downstream stretch of the Indus River would suffer quite heavy flood inundation. In this regard, FFD-PMD issued the dates of arrival of flood water at designated points on 01 August 2010. The issuances included those for attainment of high flood level on 03 August, exceptionally high flood level on 05 August at Guddu, high flood level on 04 August, and exceptionally high flood level on 07 August at Sukkur.

It should be noted that the current Early Warning Systems in place are of a limited nature, with a forecast range of only 3-4 days. Coverage is almost completely absent in the north-west and coast belt of Balochistan. The need for enhanced Early Warning Systems with sufficient technical capacity cannot be stressed enough. The enhancement should include expansion of the country's radar capacity as well as further coordination and information sharing with the World Meteorology Organization (WMO).

NDMA and all relevant departments should ensure that all means of communication, including radio, television, newspapers, mosques, community centers and social media, should be utilized for the purpose of conveying early warnings to populations at risk.

Government Response



4 Government Response

The response to the floods was led by the Government of the Islamic Republic of Pakistan, spearheaded by the President, Asif Ali Zardari, and head of the elected government, Prime Minister Yousaf Raza Gilani. Together with the various concerned ministers, they played a leading role in mobilizing official, humanitarian and bilateral resources in aid of the flood victims, and providing strategic direction for the response efforts. The President and Prime Minister maintained keen oversight over the response efforts and made personal visits to various flood affected areas to review the situation.

Key to the leadership role performed by the government was the constitutional empowerment of the NDMA as the focal agency for disaster management through the enactment of the National Disaster Management Act 2010.

The National Disaster Management Authority

NDMA, as the lead disaster management agency at the federal level, led the flood response. NDMA's efforts to manage the disaster included both preparatory measures and initiatives taken after the flooding began.

Pre-Monsoon Conference: Prior to the floods, the NDMA conducted a pre-monsoon conference on 28th June, 2010, involving all stakeholders. The purpose of the conference was to review the preparatory measures taken by the provinces and other federal and provincial stakeholders, and to urge them to take further necessary precautions for the upcoming weather. The first flood advisory was issued by NDMA on 20th July to the PDMA's in KPK, Punjab and AJK. This was followed by two other advisories issued on 26th and 29th July, 2010.

Provision of Relief Stores: Following the advisory, necessary relief stores including tents, medicines and food, were issued by NDMA to all provinces (on the basis of requirement), through internal resources, the Emergency Relief Cell (ERC) of the Cabinet Division, UN agencies, the Pakistan Red Crescent Society (PRCS), Pakistan Poverty Alleviation Fund (PPAF) and NGOs, a process which continued once the

disaster struck. In the wake of the floods, all PDMA and DDMAs were requested to ensure prompt distribution of assistance to the affectees and ensure judicious utilization of equipment (including outboard motors (OBMs), water filtration plants, and de-watering pumps).

Creation of Logistic and Distribution Mechanism: To efficiently manage provision of relief goods, NDMA created a coordination and logistic system involving all relevant stakeholders both at federal and provincial levels, with the main operating base in Chaklala and Forward Operating Bases (FOBs) in Peshawar, Gilgit, Skardu, Lahore, Multan, Sukkur, Hyderabad, Karachi, Sibi and Quetta.



The process of supplying relief goods to the FOBs was initiated, including over a period of time 103 bridges (66 bridges from DFID, 28 bridges from the Canadian Government, 8ACROW Panel bridges and a Universal Bridge from NATO) through C-130 aircraft and road transport. In some cases, international relief flights were directed to the forward locations themselves. From the FOBs, NDMA oversaw the transport of the relief stores to the affected areas through the use of helicopters, fixed wing aircraft and road transport, (see Chapter 5, Table 5) under the guidance of the civil-military coordination committee. This included 316 flights carrying relief goods that were unloaded at various bases (depending on the operation capacity of the receiving airports) and relief items then dispatched promptly to areas in need. Jacobabad handled some 200 internal relief flights to provide an air-bridge for the area isolated for almost 40-60 days. An indication of the relief flights and items provided through the NDMA-led logistics operations are listed in Tables 3, 4 and 5 below.

Table 3 Foreign Relief Flights

Location	No. of Flights	Total
Islamabad (Chaklala)	151	234
Multan	23	
Peshawar	19	
Quetta	6	
Karachi	32	
Lahore	3	
NATO		24
Commercial Airlines		58
TOTAL		316

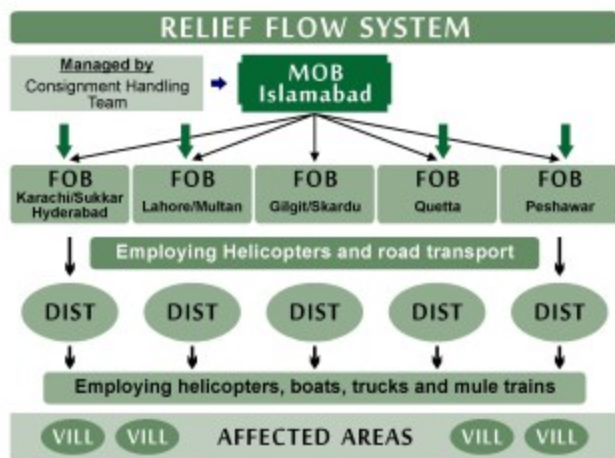
Table 4 Detail of Trains & Shipments by Sea

Specifications	No. of Trains	No. of Shipments by Sea
NDMA Specific	6	5
TOTAL	6	5

Table 5 Relief Items Provided

Item	Total	Item	Total
De-watering pumps	45	Food items (in tons)	408,678 tons
Tents	489,177	Medicines (in tons)	428
Tarpaulin sheets	931,293	Hygiene kits	160,470
Plastic mats	126,731	Water plants	4,864
Blankets	1,899,175	Water purification kits	10,841
Mosquito nets	290,262	Water purification tablets	250 million
Shelter kits	9,696	Jerry Cans	483,153
Kitchen sets	412,384	Water tanks	215
Kerosene stoves	9,868	Water bottles	147,497
Meal Ready to Eat (MREs)	10,756,569		

Even though these numbers indicate the scale of the logistical mechanism coordinated by NDMA, its relative insufficiency for the affected population and slowness of international response can be gauged by comparing this situation to the 2005 earthquake, when 1,621 international relief flights were received in aid of the earthquake victims.



Chapter 1 Figure 1: Relief Flow System

Creation of Coordination Mechanism: In order to ensure seamless coordination between all federal stakeholders, NDMA initiated Strategic Leaders and operational Groups to carry out operational reviews, identify and overcome shortfalls, and strategize for future challenges. The strategic Group with the heads of all relevant Ministries, Departments, military, UN agencies, humanitarian community and donors would meet weekly, whereas operational coordination meetings were being held daily, attended by all operational managers. Further, NDMA officers were deployed at the Forward Operating Bases to provide feedback on the progress of relief efforts. This was supplemented with the development of a comprehensive reporting system, which was coordinated and streamlined with all stakeholders involved in the relief effort.

Donor Outreach and Awareness: NDMA undertook extensive efforts to sensitize the international donor community by presenting the flood scenario in full detail to all

STAKE HOLDERS

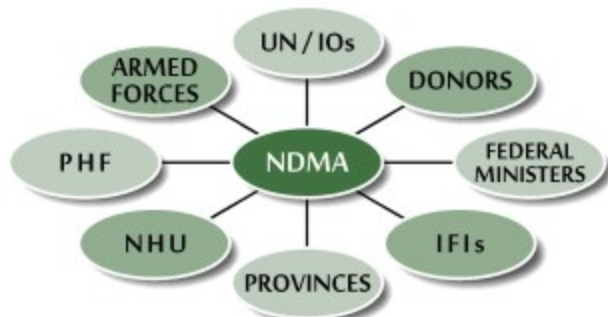


Figure 2: NDMA Stakeholders

ambassadors and UN agency country heads, to urge them to assist Pakistan. Assessment missions from various countries were briefed through the presentation and analysis of facts and through first-hand visits to the flood affected areas, in order to provide an extensive and clear understanding of the situation. Substantial relief assistance in terms of funding, relief goods and other forms of support was ensured in this manner, including, importantly, helicopters and aircraft from US, Japan, Afghanistan, UAE, China, Egypt, NATO and Turkey.

Health prioritization: In recognition of the critical importance of health issues in a disaster, NDMA, in collaboration with the Ministry of Health, established the National Health Emergency Preparedness and Response Network (NHEPRN) at the Pakistan Institute for Medical Sciences to coordinate the health response in the event of a disaster. This was fully activated in the floods and was vital in coordinating the provision of health care and medicine to the flood affectees. NDMA also requested and received a surge in the supply of medicinal relief and medical missions, including field hospitals and/or medical teams from Sri Lanka, Turkey, Australia, Saudi Arabia, Italy, Spain, Bangladesh, Jordan, Indonesia, UAE, Iran, Germany, and other countries. Over 9 million people were provided with medicine in the relief phase. No epidemic broke out following the floods, with the Disease Early Warning System (DEWS) being effective in helping to contain all health alerts.

Facilitation of and Assistance to International Partners: Given the magnitude of the relief effort, extensive facilitation and coordination was required on part of the government. This included facilitation of assessment missions, flight clearances,

ground handling, issuance of visas, security arrangements, customs clearance, aircraft unloading, warehousing, refuelling of aircraft and ground transport. These tasks were coordinated by NDMA officers with the substantial assistance of the Armed Forces and relevant government departments. It was noted by some stakeholders, however, that secondment of officials from other ministries and government departments to NDMA would have been immensely helpful to this process.

Advocacy for Local Procurement: Through a consultative process, NDMA successfully convinced many international donors to purchase their relief goods from within Pakistan. Countries such as US, Oman, KSA, Kuwait, Libya, and Japan and others, agreed to do so where possible and this saved logistical costs of transport, strengthened the local economy and expedited the delivery of relief goods to the affected population.

Strategic Response Formulation: In order to develop a comprehensive long-term response to the disaster, NDMA established a Strategic Planning Unit (SPU) within the organization, with the support of the Office of Foreign Disaster Assistance of USAID. The SPU was given the responsibility of coordinating and co-chairing the federal-level UN clusters dealing with the flood response, to ensure coherent strategic direction of the flood response as well as ensure complementarity of policy and action between the Government and the humanitarian community. NDMA, in collaboration with the UN Humanitarian Country Team, prepared the Pakistan Flood Relief and Early Recovery Response Plan (PFRERRP), presented at the UN General Assembly, which estimated the relief and early recovery cost of the flood at \$1.9 billion.

Initiation of Phased Response Sequence: In order to manage the disaster comprehensively and systematically from rescue and relief to reconstruction and rehabilitation, the NDMA developed an initial response approved by the National Disaster Management Commission in August. This was followed vigorously. In order to move into the early recovery phase, the relief phase came to an end on January 31, 2011, except for residual relief that was continued in five districts of Sindh and Balochistan until 15 April 2011. The deadline was then set for the initiation of the Early Recovery phase, to assist the affected population in their efforts towards achieving normalcy of their lifestyles while applying principles of sustainable development and hazard reduction. The phased response sequence initiation was premised on the fact that prolonged relief creates a dependency syndrome amongst disaster affected communities. For this purpose, an Early Recovery Working Group was formed, co-chaired by NDMA, UNDP and provincial authorities. Management of the Early Recovery is a decentralised process where the provincial and district governments are in the forefront of planning and implementation of recovery initiatives, while the federal government mostly performs the functions of facilitation for resource mobilisation, oversight of guidelines, and filling the capacity gaps where requested from the lower tiers of government.

The NDMA faced severe resource constraints during the floods. It had no dedicated budget for the disaster response. At the time, it was operating with an initial staff of 21

officers and a non-developmental organizational budget of a meagre Rs. 65 million (approx. US 0.74 million). Further, it faced a daunting legal challenge at the onset of the floods, with the ordinance that established NDMA having expired earlier in the year; this was ultimately rectified by the passage in the National Assembly of the National Disaster Management Act in November 2010.

NDMA's request for dedicated personnel to be seconded at the Authority from various ministries whose sectors were affected was also not successful. Though many of these ministries were intricately involved in the disaster response themselves, closer coordination between them and NDMA could potentially have resulted in much higher dividends in the relief phase. NDMA also faced some difficulties in collaboration with some of the PDMA's, particularly those that were newly established and uncertain about the respective roles and responsibilities of federal and provincial authorities with regards to disaster management. Due to lack of institutional clarity between federal and provincial roles, there were occasional misunderstandings between the authorities.

Provincial Disaster Management Authorities (PDMAs)

At the provincial level, the PDMAs were the primary government institution with the responsibility of coordinating the disaster response. However, there were significant variations in the resources and capacity of the respective provincial PDMAs. While all PDMAs were, like NDMA, relatively new institutions, the KPK PDMA was the only one with extensive experience in managing large scale emergency situations, with the 2009 IDP crisis in the province still fresh in recent memory. Therefore, it had well-established and defined linkages and relationships with government departments, district authorities, the military and the humanitarian community. Therefore, the floods hit, PDMA-KPK was able to operationalize relief quickly, as, unlike other PDMAs, they already had significant warehousing capacity. Understanding the required procedures and priorities for provision of immediate relief, the PDMA immediately began the transport of relief items to the affected areas, with the district authorities providing the delivery assistance. The provincial government was, importantly, quick to provide financial assistance to the PDMA in the immediate aftermath through a smooth processing channel, which helped expedite the initial response.

From early in the relief phase, the KPK-PDMA also managed to achieve close coordination with the humanitarian community, sharing responsibility for coordination with UNOCHA. Further, it involved line departments in the cluster system which, in KPK, adapted well with the governance structures in place. In addition, they developed and issued multi-sectoral policy guidelines at various stages of the relief efforts and exercised considerable oversight over their implementation through the district administrations. Perhaps most valuably, the PDMA initiated a household survey as soon as the water had receded, which was finished by September. The WATAN card distribution in KPK was executed according to the results of that survey, which pre-empted any undue politicization of this vital component of the relief phase.

The PDMA of Punjab, Sindh and Balochistan were much more constrained in terms of financial, logistical and human resources, especially given the unprecedented scale of the disaster.

In Punjab in particular, the PDMA ostensibly only became operational after the disaster itself, and thus faced massive challenges in coordinating with the humanitarian community and government departments. Being physically situated in Lahore (Central Punjab), the PDMA was also geographically ill-placed to coordinate a disaster which had struck primarily in the Southern part of the province, with Multan serving as the hub of humanitarian activity.

PDMA Sindh faced similar issues of capacity with only 4-5 permanent officers in the entire authority. It remained financially crippled in the relief phase even though the provincial government had, for three years, allocated significant funds for disaster management. According to officials, virtually no money from this fund was provided to the authority itself in the first two months of the disaster. For PDMA Sindh, the erratic nature of government funding, even when it arrived, left very little room for planning interventions and responding effectively to humanitarian emergencies.

PDMA Sindh was also marginalized due to the financially strengthened Relief Department in the province, a reminder of the dangers of multiple institutional channels for disaster relief. It was therefore difficult for the PDMA to develop stronger coordination with the district authorities as they preferred to deal with the more resource-rich Relief Department. This led to difficulties in achieving effective PDMA oversight of district level relief activities, as per its mandated responsibilities.

PDMA Balochistan, also a new institution, was disadvantaged by a lack of established authority within the province, as well as the previously noted human and financial resources. Despite this, like the other PDMA, Balochistan was able to achieve much considering the scale of the challenges with which they were faced.

Communication with the districts as well as the federation was a problem for PDMA across the board, with the possible exception of PDMA-KPK. According to some PDMA officials, particularly those in Balochistan, irregularities in the flow of information from various institutions at the federal level led to a great deal of confusion amongst provincial authorities about their respective roles and responsibilities.

The need for capacity building and resourcing of PDMA, especially those in Sindh, Balochistan and Punjab cannot be stressed enough. The PDMA must be strengthened to ensure that they can coordinate, monitor and guide all humanitarian activities in the province. Provincial governments must act to ensure efficient channels for release of resources to the PDMA to ensure that they can plan as well as act in times of disaster. Further, provincial governments have to work towards the creation of an institutional channel for routing technical staff into the PDMA on a permanent basis. The humanitarian community must ensure that coordination channels are not structured to bypass the provincial authorities, both institutional and geographically.

District Disaster Management Authorities (DDMA)

The role of the DDMA at district level was performed by the existing district authorities, including the District Coordination Office and Revenue officials. Operational coordination in the relief phase took place mainly at district level, with the District Coordination Officer (DCO) chairing the coordination meetings, assisted by OCHA. DDMA were instrumental in the delivery of relief goods at the district level, assessments of damages on part of the government for multiple sectors, implementing interventions such as WATAN cards at the local level and coordinating the humanitarian community locally. Given the magnitude of the task and the reality of their other administrative responsibilities, most DDMA were seen to have performed significantly well in response to the disaster, despite considerable capacity constraints.

All stakeholders, especially those at the district level, agree that the DDMA must be empowered, as they are the main governmental point of contact with the affected population and are instrumental in ensuring effective delivery of humanitarian service. Apart from additional financial resources, the DDMA require reorganization in terms of making available provisions for the induction of competent personnel through the private sector, as well as linking them with the Revenue Department to ensure their visibility at the village level.

Ministries and Departments

Many government ministries and line departments, both at federal and provincial level, also played significant roles in the response efforts in their respective areas. Most are in the process of preparing their own reports on their response to the floods but the following provides a brief background on areas of responsibility.

At the national level, the **Ministry of Health** was involved in the establishment of the National Health Emergency Preparedness and Response Network (NHEPRN), to mobilize national humanitarian and human resources for the health response. MoH worked in close collaboration with provincial health counterparts, the World Health Organisation (WHO), and the health cluster. The Ministry also coordinated volunteers from the medical community and conducted trainings for provincial health professionals in communicable disease control. Their work was instrumental to the prevention of the outbreak of epidemics, a frequent feature of large scale disasters, saving many lives.

The **Ministry of Foreign Affairs** was another vital component in the relief efforts. Its responsibilities included resource mobilization through presentation of the flood scenario to the international community, coordinating with the UN, working closely with Foreign Missions in Pakistan, and also the Pakistan Overseas Missions to facilitate the flow of aid to Pakistan. Along with EAD, they helped to develop and organize the UN Appeal, arranged VIP visits from the leadership of donor countries, and liaised with various donor countries providing assistance.

The **Economic Affairs Division (EAD)** was responsible for assessment of requirements, programming and negotiations of external economic assistance related to the Government of Pakistan and its constituent units from foreign Governments and multilateral agencies. It played a key role in coordinating with donors to facilitate the flow of funds into Pakistan for flood relief projects. Apart from bilateral funding, EAD was key to the preparation, negotiation and launch of the various appeals for funds for flood relief, recovery and reconstruction.

Ministry of Interior provided very significant support to the relief efforts in many key areas. MOI is responsible for the control and administration of Federal Investigation Agency (FIA), Civil Armed Forces i.e. Frontier Corp, Frontier Constabulary, Pakistan Rangers and Coast Guards, all of which contributed greatly to the relief efforts. They also provided MOI and Anti Narcotics Force helicopters. In addition MOI relaxed their normal rules of country access to facilitate rapid entry for foreign humanitarian workers by providing visas on arrival. Another main area of responsibility for MOI was the national registration and issuance of identity cards through the **National Database and Registration Authority (NADRA)**. They were also responsible for granting of NOCs for foreign aid organisations, and the provision of security.

The **Ministry of Food and Agriculture** led the food and agriculture disaster response, providing valuable technical leadership to the respective clusters in the conducting of vulnerability assessments, design of assistance programs and planning the delivery of assistance packages to the affected population.

Ministry of Information and Broadcasting provided information updates and media releases to keep the world informed about the emerging crisis, liaised with the local and international media, and also facilitated the arrangements for media representatives to visit affected areas.

Ministry of Water and Power played the most significant role in forecasting and managing the floods through its different attached departments and subsidiary organizations mainly the FFD and WAPDA.

The **Water and Power Development Authority (WAPDA)** is the designated focal agency for dealing with water-related matters in the country. The agency was created with the purpose of ensuring effective coordination and management of floods, flood protection works and formulating a National Flood Protection Plan for implementation through the provinces. Provincial Irrigation and Drainage Authorities (PIDA/PID) also played a key role in flood management and implementation of flood mitigation interventions. During the floods 2010, WAPDA assisted Federal Flood Division (FFD) with rainfall data from its telemetric gauge stations and flood data from various locations of the Indus River System. It played a significant role in flood management through ensuring the update and protection of water reservoirs which were feared to be in danger of overflowing which would exacerbate the disaster. For instance, if Tarbela dam was damaged as a result of flood, it would have created another disaster of greater magnitude. WAPDA also announced relief and ration packages for affected people.

The **Federal Flood Commission (FFC)** was created in January 1977, with the purpose of ensuring effective coordination and management of floods, flood protection works and formulating a National Flood Protection Plan (NFPP) for implementation through the provinces. The Provincial Governments undertake the implementation of the National Flood Protection Plans. The Federal Government, however, provides the resources for meeting the capital costs of projects under NFPPs. Establishment of the Federal Flood Commission greatly helped in integrating the planning measures at the national level and furnishing financial resources for the flood projects.

Emergency Relief Cell is a federal government agency housed in Cabinet division. It maintains the stock of relief goods for immediate distribution and administratively controls 6th Aviation Squadron of aviation assets. These assets, which also include helicopters, are usually deployed in relief efforts. During the floods, a huge amount of relief goods and helicopters were provided by ERC. ERC also helped to arrange the VIP movement in flood hit areas.

The **Ministry of Ports and Shipping** helped to facilitate the speedy release of foreign cargo and waived the port and demurrage charges on foreign relief goods donated by the humanitarian community or imported by the GoP throughout the relief phase.

The **Ministry of Railways** provided free train services to evacuate people from flood hit areas and transported tons of relief goods. Ministry of Railways, on the request of NDMA, also issued NOCs for the international consignments of relief goods imported by Turkish Red Crescent, NATPOW, Khubaib Foundation, Lahore Chamber of Commerce from Iran and Turkey.

Federal Board of Revenue is a body constituted under the Finance Division and which is responsible to control all aspects of revenue generation and collection. FBR, after clearance and certification from NDMA and respective PDMA, exempted taxes on the import of foreign goods by humanitarian community and donor countries.

The **Pakistan Baitul Maal** launched a number of initiatives in the relief phase, including the establishment of a 'Free Meal' programme, distributed child-friendly relief packages, and established a 24 hour hotline to assist in the facilitation of vulnerable flood affectees.

The **National Highway Authority**, under the **Ministry of Communications**, is responsible for the planning, construction and maintenance of Pakistan's highways, many of which were damaged or destroyed during the floods. Their role in assessing damage to roads and bridges, repairing the damages where possible, and providing constant updates on the situation was of immense value during the emergency.

SUPARCO provides satellite imagery and GIS data for identifying, examining and assessing natural / anthropogenic disasters. The images provided by SUPARCO enabled NDMA to accurately assess the affected areas to issue early warnings for evacuation of communities at risk and other critical interventions.

The **Pakistan Meteorological Department (PMD)** is a scientific and service department, and functions under the Ministry of Defence. It is responsible for providing meteorological service throughout Pakistan.

Pakistan International Airlines (PIA) played an important role in contributing to the transportation of relief goods from abroad and within Pakistan. Following the outbreak of the floods, PIA immediately announced free transportation of relief goods from any place in the world to airports in Pakistan. PIA formed a Flood Relief Project and activated PIA's Emergency Report Centre at Karachi to facilitate overall coordination and collection of relief goods, set up a web page to guide donors and the community and Help Desks throughout the PIA network. In addition, the national carrier mobilised the international community through an aggressive media campaign of videos, television and print media. PIA also facilitated free handling of charter flights and storage of their relief goods at PIA warehouses in Pakistan and abroad. More than 4,177 tons of relief goods were transported by PIA. The organization worked with the Pakistan Army, NDMA, PDMAs, Pakistan Red Crescent Society, World Food Program (WFP), Al-Shifa Trust and others to distribute the goods.

The challenges and recommendations noted by PIA are worth noting as they mirror many of the issues, including the high costs to the country related to unsolicited bilateral donations, identified by others including the Joint Aviation Coordination Cell, Armed Forces, and the Logistics Cluster and reinforce the need for a strict set of Standard Operations Procedures to be implemented for future disasters to accept only goods which meet priorities established by the GoP and NDMA. This will reduce the costs associated with transportation - funds which could be better deployed to assist affected communities - and to ensure more effective ground coordination and handling/warehousing capacity. Some of the challenges highlighted by PIA were:

- Shortage of space to store the huge quantum of cargo delivered across the international network and at Karachi, Islamabad, Peshawar, Quetta and Lahore.
- Shortage of staff to handle NOCs, documentation, off-loading from trucks, loading on pallets and aircraft.
- Acute shortage of fork lifts, tractors and trolleys.
- Containers and pallets for sat for prolonged periods of time due to shortage of manpower and equipment and also because many of the consignees did not make an effort to quickly take delivery of the consignments.
- Many of the consignee NGOs did not have the required competencies and resources to get NOCs. This created significant delays in logistic support and distribution mechanisms.
- Credibility of many NGOs was difficult to establish.
- Inappropriate donated goods such as used clothing and bedding put an unnecessary burden on the airline's relief operations, and also, the logistics operation.
- Documentation, expenses and efforts on very small relief consignments are not cost effective.

Government Oversight

The National Disaster Management Commission (NDMC), which has representation from several national stakeholders, is constitutionally the apex body for disaster oversight in the country. However, a new body, the National Oversight Disaster Management Council (NODMOC), was constituted by the Prime Minister, on the advice of the Council of Common Interests (CCI), following the floods. The NODMOC contained 4 members from the federation, 2 each from the provinces and 1 each from Gilgit-Baltistan and AJK, nominated by the government of each federating unit respectively. The purpose of the formation of the NODMOC was to ensure transparency in the distribution of aid to the flood affected people. The NODMOC was tasked with:

- a) Monitoring inflow of funds for various phases of the post-flood recovery and reconstruction.
- b) Reviewing plans for post-flood reconstruction.
- c) Monitoring progress of implementation of reconstruction.
- d) Interacting with authorities relevant to reconstruction (Economic Affairs Division, Planning Commission, National Disaster Management Authority (NDMA) and Provincial Governments).
- e) Ensuring effective targeting and transparent disbursement of support to genuine affectees.
- f) Preparing quarterly reports for Council of Common Interests (CCI).
- g) Commissioning and supervising audits on utilization of funds.

The composition of the NODMOC was as follows:

Federal	Punjab	Sindh	Khyber Pakhtunkhwa	Balochistan
- Mr. U.A.G. Isani - Mr. Ejaz Rahim - Ms. Fauzia Naqvi - Ms. Ameena Syed - Mr. Farid Rehman	- Mr. Justice (Retd.) Mian Allah Nawaz - Mr. A.Z.K. Sherdill	- Mr. Fazal-ur-Rehman - Mr. Fazlullah Qureshi	- Mr. Justice (Retd.) Sardar Muhammad Raza - Mr. Muhammad Azam Khan	- Mr. Justice (Retd.) Amir-ul-Muk Mengal - Mr. Munawwar Khan Mandokhel
Gilgit-Baltistan			Azad Jammu & Kashmir (AJK)	
- Mr. G. M. Sikandar			- Mr. Tariq Masood	
- Mr. U.A.G. Isani, former Vice Chancellor of Quaid-e-Azam University, is the head of the NODMOC.				

Though based on inter-provincial consensus via the CCI and composed of credible individuals, the body was seen by many stakeholders as lacking the authority to achieve credible oversight and intervention. Provinces in particular were uncertain about the body's ability to ensure fairness in the provincial distribution of aid, despite equal provincial representation within the body. Many of the doubts can be traced back to the lack of an institutional history for the NCDMC, incomplete legal sanction and insufficient coercive capacity for it to ensure its effectiveness as an oversight body. Stakeholders noted confusion about the roles of the parallel oversight bodies and their uncertainty about which authority they should deal with.

Recommendations

1. The disaster management capacity of the state needs building at federal, provincial and district levels. This requires both significant budgetary resource allocation at the federal and provincial level, and donor support.
2. Institutional clarity, based on sound legal foundations, is required for an effective disaster management framework in the country. Overlap of responsibilities and purviews between different, parallel federal institutions, as well as between the centre and provinces, was a massive hindrance in the flood response. For this purpose, the NDMA Act 2010 needs to be reviewed to clarify powers, roles and responsibilities, for all state actors involved in disaster planning and response.
3. Closer coordination is required between NDMA and line departments/ministries, with a provision for the secondment of temporarily dedicated personnel from relevant ministries to NDMA during times of crisis.
4. All tiers of government need to develop contingency plans with requisite 'surge capacity' for disaster situations.
5. At the provincial level, focus needs to be shifted towards the PDMA's of Sindh, Punjab and Balochistan in terms of resource allocation, personnel training, warehousing and functioning as focal points for humanitarian coordination.
6. At the district level, dedicated personnel and equipment are required for DDMA's, which are to serve as the focal point for response implementation. The DDMA's further need to be aligned with the Revenue Department to ensure visibility down to the village level.
7. A policy to dispose of relief goods not taken over by consignees should be established in consultation with NDMA and Customs authorities.
8. A strategic planning network, comprising all key stakeholders including Government Ministries/Departments/agencies, PDMA's, DDMA's, military, civil response agencies, donors, UN, humanitarian community and the media, should be established to meet periodically to prepare for a cohesive response for all disasters.
9. An incident command system, as envisaged in the NDM Act 2010, requires operationalization for future disasters. This should comprise federal, provincial

and district emergency operation centres, as well as representation from key government departments.

10. Permanent threat-specific warehousing of likely required relief stores needs to be established in different regions.
11. A Joint Aviation Coordination Cell requires immediate establishment in future disasters.

ARMED FORCES



Relief efforts were directed by General Headquarters (GHQ) and the relevant Commands and Corps Headquarters (HQ) throughout the affected areas. These included Army Aviation Command, Peshawar, Multan, Rawalpindi, Mangla and Karachi Corps, Southern Command in Quetta, and Special Support Group.

Army Aviation Command operated out of HQ and bases in Khyber Pakhtunkhwa, Punjab, Sindh and Balochistan, spearheading helicopter rescue and relief operations and working closely with and coordinating the helicopter aviation assistance from civil administration and foreign militaries. Aviation helicopter assets from five countries and UNHAS were deployed to support the work of the Pakistan Armed Forces in relief efforts. The US deployed 24 helicopters, 3 were from the United Arab Emirates, 5 from Japan, 4 from China, 4 from Afghanistan, while the UNHAS/World Food Program (WFP) provided 8 helicopters.



Army Aviation also played a lead role in the Joint Aviation Coordination Cell (JACC). The Joint Aviation Coordination Cell was established in coordination between the military and NDMA, and assigned to Army Aviation Command to prioritise fixed wing and rotary wing flying in support of relief operations. Daily joint coordination meetings, chaired by the General Officer Commanding Army Aviation, were held for 45 days. Representatives from NDMA, UN, World Food Program (WFP), UNHAS, USAF, US Marines, USAID, US Office of the Defence Representative (ODRP), PAF, Military Operations Directorate (MO Dte), GHQ, and other foreign militaries participated. The need for a JACC was a Lesson Learned from the 2005 Earthquake relief operations and again proved to be very effective in optimizing smooth coordination and utilisation of available aviation assets to provide timely rescue and relief to the affected communities.

In Peshawar the Army was already deployed in the areas first affected by the flood, facilitating an early response and had its own aviation fleet available. In the first days of the floods, 13,000 people spent their first night of the disaster in military compounds.

The Corps also had its own Crisis Management Cell which they identified as a good addition which worked well and will be important for future emergencies. The Corps had existing relationships with the various agencies such as the PDMA, UN OCHA, WFP and humanitarian organizations that were already working on the IDP crisis and this was an important feature in the good cooperation in KPK.

In Multan, the Army established Composite Mobile Relief Teams to provide quick rescue and relief, deployed 9,000 troops, 300 boats and 10 - 12 helicopters. They evacuated 200,000, provided cooked food for approximately 3 million people, distributed family ration packs weighing approximately 25,000 tons, delivered 1,000 tonnes of food and relief goods to the stranded population by helicopter drops and by boat. They also established 16 relief camps, and 14 medical camps which provided medical assistance to 65,000 patients. In conjunction with the civil administration, Multan Corps vaccinated over 90,000 livestock. They also restored breaches in the bunds, communication infrastructure, roads, and, with the help of the Railway authorities, repaired 60 - 65 breaches within a week. They have also been restoring 700 areas /structures of public usage.

Karachi Corps established 20 relief camps, rescued 437,990 persons, distributed 7,201 tons of dry rations, 6,558,983 MREs and 194,768 family ration packs among the flood affectees. Sadly, the lives of two soldiers were lost while attempting to save the lives of their fellow countrymen. The Army reconstructed and maintained approximately 1,700 km (900 km first line, 700 km second line and 120 km third line) of protection bunds in Sindh. Army was assisted by two of its veterans both PHDs in hydraulics, in managing the issues at Sukkur Barrage.

In Balochistan, where approximately 1 million people were displaced, including .3 million from Sindh, the first and main response was provided by the military often taking on roles that would normally be the responsibility of other organisations, partly due to the lack of INGOs, and NGOS - with the exception of the Balochistan Rural Support Group and the Pakistan Red Crescent - working in the province. The Army established 25 relief camps and 25 medical camps. The Frontier Corps also established 3 relief camps and another was established by the Pakistan Air Force to complement those established by the Government of Balochistan and the PDMA. Aviation flew a total of 547 sorties to evacuate 3,179 people, and delivered 1,473 tons of relief goods. Southern Command also delivered 2,698 tons of rations, 6,132 tents, distributed blankets, water and other relief items by road and boat. \$19,439 patients were treated and more than PKR 4 million of medicines were distributed. In addition, Army Engineers worked to restore infrastructure and re-open roads and railway lines. In Balochistan the army faced two waves of floods and did extremely well to handle the situation on both occasions.

The Army Corps in Mangla plays a leading role with the Special Support Group (SSG) which was originally established to supplement the national and provincial efforts to assist the IDPs during the complex emergency in 2009, especially those of Malakand Division. During the floods, the SSG established additional field components at Chaklala Base, Rawalpindi, Ghazi Base near Tarbela and at Abbottabad to assist in

relief efforts. They were involved in collection, management and distribution of food and relief goods and 25,000 tents in areas including Swat, Charsadda, DI Khan and Nowshera assisting over 45,000 affected households. Field Component Ghazi assisted the air logistics operations in Upper Swat and Kohistan. They also provided medicines to the Field Medical Battalions and CMHs in Khyber Pakhtunkhwa for distribution. Many of the goods supplied by SSG were from the stores kept for the IPDs. These stores now need to be replenished.

Rawalpindi Corps, was also very actively involved in the flood relief activities in AJ & K and Gilgit-Baltistan. The army relief operation in these areas was brief though intense. Army along with the local disaster management authorities worked day and night to help the flood victims in these areas.



The Army Medical Corps (AMC) was one of the main healthcare responders in the flood emergency. Its role focused on the provision of life-saving services and essential medicines, control of communicable diseases, and advice on environmental health issues. Over 100 medical teams were deployed, 7 field hospitals and 36 medical camps were established treating 847,998 people. Mobile teams were dispatched to various areas and others dispatched by helicopter to areas inaccessible by other transport. The AMC coordinated closely with international medical teams and also with the Health Cluster in addition to its very good coordination with the federal and provincial health departments.

Learning from the experiences of the floods and other recent disasters, the AMC has implemented an Action Plan. Disaster Management Plans at local, regional and national levels have been prepared. A Disaster Management Cell at Medical

Directorate, with regional Cells at Corps level, has been established to control, coordinate and monitor the medical response. A Disease Early Warning System (DEWS) has been implemented, reserve field hospitals and reserve medical stores are inventoried for emergencies, and doctors, nurses and paramedics are being trained in disaster management.

Pakistan Air Force

The Pakistan Air Force conducted rescue and relief operations from Skardu and Gilgit in the north, and in Hyderabad, Nawabshah and Thatta in the south. They flew over 1,296 sorties of fixed wing aircraft (C-130, CN-235 and IL-78), and 550 helicopter sorties. In addition, 20 air sorties were flown for reconnaissance of the affected areas. PAF rescued 22,742 stranded people and delivered or dropped 8,888 tons of relief supplies. Rescued people gathered close to the PAF bases and were fed, given shelter, clean water, and medicines. Tents were also provided. Volunteer doctors were transported to remote locations on PAF aircraft. However, they noted that it would have been valuable to have had a seconded from Health in NDMA to facilitate better deployment to areas of greatest priority. While humanitarian agencies used PAF assets to transport relief items to areas that were cut off by road, it was noted that utilization has to be selective and wherever possible, and as soon as the roads are open, transporting by trucks is a more cost-effective option.

PAF also established a Crisis Control Centre (CCC) with personnel deputised for the duration of the emergency and which will be activated in any future crisis. Regional



CCC's also operated at Peshawar, Risalpur, Lahore and Karachi, responding to any requests for assistance.

PAF played a key role in the Joint Aviation Coordination Cell and coordinated all related flying activities of foreign fixed wing aircraft in to, and within the country, and provided full technical, administrative and logistics support. USAF was the biggest in providing aviation assistance and, in addition to the provision of aircraft, deployed a contingent to assist with loading and unloading. The Turkish and Egyptian Air Forces were among others who provided valuable assistance with fixed wing aircraft. Overall, the cooperation with the foreign militaries was considered to be excellent.

Pakistan Navy

The Pakistan Navy established Emergency Response and Coordination Centres (ERCC) at HQ Commander North and Naval Headquarters to deal with the emergency. Teams were deployed in KPK and then in Sindh where they conducted operations in the flood-affected areas of Nawabshah, Jacobabad, Ghospur, Kandhkot, Kashmore, Shikarpur, Larkana, Shahdadkot and Sukkur.

Using more than 200 boats, three hovercraft and six helicopters, and specialized equipment, the Navy flew 28 fixed wing sorties, 160 helicopter sorties, evacuated 228,980 people, distributed 1007 tons of rations and its medical teams provided treatment to more than 60,000 people. Additionally, they established relief camps at Thatta, Khairpur, Sukkur and Petaro and through its medical teams provided treatment to 56,152 individuals.

The use of hovercraft proved to be extremely useful in the flood rescue efforts for their maneuverability, carrying capacity, and ability to operate in most areas. To enhance



future flood operations it was noted that if simple ramps are installed at the barrages to allow the hovercraft to be hauled around the obstacle, Navy hovercraft will be able to move along the entire length of the Indus River without impediment. Navy helicopters also proved effective for rescue efforts as they are fitted with winches. The Pakistan Navy also provided boats and manpower to support initial flood operations in KPK, responding immediately to the requests of NDMA and PDMA (KPK) for assistance.

Armed Forces Charitable Contributions

The enormous value of the Armed Forces contribution to the floods response goes beyond the assets, expertise and personnel. More than 1 billion rupees (approx. US\$11.56 million) was donated to the Army Flood Relief Fund with a further 1.5 billion of in-kind donations from the people of Pakistan and from abroad. The funds were distributed to flood relief projects across Pakistan, and Armed Forces personnel across the country participated in many projects to revive communities. More than 1,000 schools have been rebuilt by the Army, as well as many health units, and places of worship. The Pakistan Air Force received huge contributions of relief goods and food delivered by local people to PAF bases in the major cities. PAF Relief Cell volunteers also brought in packages of non-perishable food and PAF purchased food in the markets for packing and dispatch to communities in the affected areas. The Pakistan Navy also received large contributions and have been involved in projects to restore communities including the construction of a village in Sujawal in Sindh.

Relationship with Humanitarian Community and UN Agencies

The relationship between the military and the humanitarian community was generally described as good and productive. Many humanitarian organisations have little contact with the military in line with the principles of their organisations. However, in some areas, such as KPK where military, UN Agencies, humanitarian agencies, PDMA and district authorities, have worked together in the IDP crisis, the contact and coordination was more frequent. Similarly, there was effective coordination with UN Agencies such as WFP to effect the delivery of food to millions of people.

There was some concern about duplication of efforts with too many NGOs working in areas most accessible rather than moving into areas further from roads where the need was greater and warranted the need for NDMA and the PDMA to monitor this. Information sharing between the military and the humanitarian organisations in relation to areas of operations to avoid duplication was also noted as needing attention in future disasters.

A number of issues were identified by the Armed Forces - reflected in the following recommendations - for suggested review by NDMA and the relevant ministries/departments. These included coordination between the various agencies,

capacity, roles and responsibilities of humanitarian and military in the field, use of military assets, early warnings, mapping, engineering and technical issues, depletion of relief items for IDPs, restoration and reconstruction of infrastructure, and future preparedness.

Recommendations

1. NDMA should be fully empowered and resourced to coordinate and monitor rescue and relief efforts at national level.
2. Clear definition of roles and responsibilities of all parties including NDMA, PDMA, DDMA, military, UN, humanitarian agencies and civil sector need to be defined and communicated from the start.
3. Relevant Ministries and Departments should be encouraged to second officers to NDMA to act as Liaison Officers in emergencies
4. A dedicated team within NDMA, with assistance from Foreign Office and Health Ministry, to assist with incoming relief flights should be established
5. Mapping capabilities must be improved
6. Mock exercises for all types of emergencies, involving all stakeholders, must be conducted by NDMA on a regular basis
7. Contingency plans for all types of emergencies, with participation by all the key stakeholders, must be developed and regularly updated
8. A Joint Aviation Coordination Cell should be immediately formed in any future disaster
9. Foreign militaries should be advised of the need to also engage with NDMA as well as Pakistan Armed Forces prior to deployment to ensure adequate equipment is included in the deployment, and to acquaint themselves with the national priorities
10. All arms of the military, and including engineers, should be included in a multi-stakeholder Strategic Disaster Planning Group organized by NDMA
11. Need / threat based warehouses for emergency equipment must be established and a national inventory be prepared and kept current
12. Relief supplies for IDPs, depleted to assist flood relief efforts, should be replenished by NDMA
13. Armed Forces should be provided training on interaction with UN agencies and the national and international humanitarian community, organized by NDMA and its relevant partners.
14. NDMA should assist Aviation Command to raise a mobile fuel platoon for emergencies
15. NDMA should have a dedicated air rescue team on its disposal
16. Disaster management facilities should be established in areas where there is no army presence, and equipped to provide immediate response
17. There is an immediate need to de-conflict the role and responsibilities NDMA and PDMA
18. NDMA should develop and maintain a database/ inventory of all the relief stores available through all the stakeholders including government departments
19. Legislative issues related to bunds, illegal embankments, and encroachments into flood plains need be strengthened

Recommendations on technical, equipment, and reconstruction issues:

1. Enhanced flood forecasting and warning capability is needed urgently
2. Raising and strengthening of bunds is a matter of urgency
3. Construction of dams and improved storage capacity should be a priority
4. Improving hydraulic structures and preparing escape channels to safeguard these is a priority
5. Road realignments and alternative routes in flood-prone regions should be considered
6. Inter-Provincial coordination for maintenance of structures needs to be enhanced
7. Acquisition of more effective flood relief equipment included (40 HP and above) outboard motors, hovercraft, and other marine equipment
8. Ramps should be built for hovercraft to be moved around barrages
9. Engineering equipment, including sheet piling, could be purchased for location in areas regularly threatened by floods
10. Immediate restoration of breached bunds as per laid down standards.
11. The redesign and construction of permanent bridges to flood-resistant standards, particularly in KPK, is a matter of priority.
12. Permanent, threat-specific warehousing containing likely required relief stores must be established in vulnerable regions. Warehouses should be constructed in a safer place (keeping the present flood levels as bench mark), and spacious enough to accommodate larger consignments of relief items

Foreign Armed Forces

The Government of Pakistan was offered and accepted the assistance of Armed Forces contingents of a number of foreign countries. Militaries from Japan, UAE, Egypt, Turkey, China, Afghanistan, and the United States, deployed air assets, supporting and working in harmony with the Pakistan Armed Forces with a combined air asset fleet of at least 96 helicopters and 23 fixed wing aircraft (see Table 6).

Other military forces deployed civil-military support such as the Australian Medical Task Force (AMTF), a combination of 180 Australian Defence Force, AusAID, Emergency Management Australia, and civilian medical personnel, who established a 40 bed field hospital at Kot Addu in central Punjab. Turkey contributed two field hospitals, equipped with two ambulances and two SUVs, along with medical teams. Saudi Arabia contributed a 100 bed field hospital, Italy sent 6 x 42 bed field hospitals, and the European Union provided 3 x 24 bed hospitals. Foreign militaries, along with their humanitarian community counterparts, also sent medical teams. In all, 21 medical teams from 18 countries assisted the flood affected communities (see Annexes A & B). The excellent work of the foreign military teams saved many lives and provided desperately needed relief.

Table 6: Combined Aviation Support

Name of Country	Helicopters	Aircraft
Pakistan	48	16
USA	24	2 x C17 & 3 x C130
Afghanistan	4	
UAE	3	
Japan	5	
China	4	
WFP	8	
Turkey		1 x C130
Egypt		1 x C130
TOTAL	96	23

The contribution of all foreign militaries to the relief efforts was of immense value and there have been many lessons learned for all of them that will be valuable in future response. However, the lessons for foreign militaries deploying to Pakistan in response to disasters are perhaps most clearly identified in the experiences of the largest foreign military responder to the floods emergency, the US Military and their contribution to relief operations in KPK. The request to the US from Pakistan for assistance was received on 2 August and by 4 August, fixed wing aircraft arrived with relief supplies and the first 8

helicopters were deployed from US operations in Afghanistan and were flying rescue and relief missions to Kalam in Khyber Pakhtunkhwa (KPK). Three different contingents of US helicopters, 28 in total, were deployed to Pakistan for relief efforts from August to November, operating not only in KPK (the subject of this case study), but also in Sindh and southern Punjab.



Operating out of the well-established, mature Ghazi Airbase was emphasised as being a critical component in the success of operations. The six very large hangers were converted into a warehouse for relief supplies, storage and shelter space for helis, and living space for the crews. At the height of operations, over 300 US Military people were based at Ghazi.

Working closely with, and guided by the Pakistan military, they flew sorties in KPK, Punjab and Sindh. The Pakistan Military provided safety pilots and Special Services Group troops to fly in all helicopters to provide guidance on flying conditions, terrain, language, security and other issues encountered by foreign crews operating in an unknown and difficult environment. Without these, foreign militaries would not have the confidence to operate.

Constant and elaborate daily coordination between GHQ, Peshawar Corps, and subordinate units, Pakistan military leadership at Ghazi, and the US Military leadership, was both complex and effective. Ensuring enough fuel, new landing zones, prioritizing where and how to fly, and security, was an intricate choreography between all these major HQ. The introduction of forward fuel logistics was also an important component and noted as critical to maximizing the resources by flying more relief sorties and cutting down on the need to fly all the way back to base for refueling. The provision of fuel for such a large and complex operation in a disaster environment is a challenge. However,

despite the complexity of the task, US Military noted that there was never a time when there was not enough fuel for these operations due to the impressive fuel logistics provided by the Pakistan Military.

The US Military came prepared with all their support systems. Additional fueling kits were contributed from US operations elsewhere to ensure there was no additional burden on the local operations. These kits were left behind after the assets were withdrawn. Arriving prepared and operation-ready was identified by both sides as critical, so as not to deplete local capacities, particularly when coinciding with other ongoing operations within the country during the disaster.

The US Military leadership credits the success of the cooperation to the professionalism of the Pakistan Military, the facilities and support they made available to the foreign militaries, taking advice from Pakistan Military on all issues and activities, and the existing good relationships between the leaderships of all parties from previous interactions. The relationship started well and stayed healthy throughout.

In addition to air operations and participation in the Joint Aviation Coordination Cell, a US Military Liaison Officer was appointed to engage with the National Disaster Management Authority and participate in the Strategic Leaders Group to ensure an alignment with operations and aid priorities identified and implemented by NDMA. This was identified as a key element for successful and informed cooperation to be initiated immediately in any future response to ensure a clear understanding of the national priorities. It was also highlighted that this should be a permanent role to build understanding of what is required to enhance capacity and prepare for response in the event of any future disaster.

Recommendations

1. In consultation with the Armed Forces, NDMA should prepare Guidelines for Foreign Military Assistance including:
 - a. Procedures, expectations, and coordination points
 - b. Clear definition of the roles and responsibilities of all parties to manage expectations and handover
 - c. The need for foreign militaries to come prepared with own equipment
 - d. Safety pilots on all foreign aircraft are imperative
 - e. That advice on all aspects of operations from the local military is imperative.
2. Foreign Armed Forces should ensure participation in the Joint Aviation Coordination Cell.
3. It is beneficial to appoint a designated Liaison Officer to work with NDMA to ensure the activities align with broader national disaster priorities and requests for specific assistance.

DONORS



6 Donors

International donors were critically important partners in the floods emergency, contributing much through financial contributions and various funding mechanisms, in-kind, and sharing of knowledge. Funding and in-kind support was received from 79 countries and multi-lateral organisations such as World Bank and ADB (see Annex-C, Foreign Assistance for Flood Affectees (by country)). The participation in coordination meetings, Strategic Leaders Forum, conferences and other activities also helped form a better understanding on all sides of the needs and priorities identified. In addition to participation in the various fora, some provided a designated liaison officer to communicate regularly with NDMA to ensure full awareness of NDMA's priorities for the flood affected areas and to report their own updates to assist in planning. This was identified as particularly valuable. The generous support, advice, and willingness to engage in the many discussions on prioritising assistance, was deeply appreciated by NDMA and the Government of Pakistan.

Donors provided positive feedback on their relationships with NDMA and other stakeholders. One commented that "NDMA officials and Pakistan military personnel remained responsive and accessible despite the high workloads and stresses". Others commented that in hindsight, they should have interacted earlier with NDMA as it has proved to be valuable in setting funding priorities based on real-time information.

However, they also identified a number of issues. Mixed messages from the various government agencies such as NDMA, PDMA's, EAD and Planning, created confusion about the appropriate lead authority, and the parameters. This was time-consuming and delayed informed decisions on funding. There was also criticism by some donors and other stakeholders, in relation to the Government of Pakistan Flood Relief Fund not disbursing monies received for relief when the need was so immediate. The reasons for this were not made clear creating a sense of mistrust and inhibited many from contributing via this channel.

There were also concerns raised by some donors in relation to UN agencies and their ability to respond in a timely way on information and decision-making, as many decisions had to be referred to New York for approval. There were also concerns about

the time-consuming disconnect between the UN and the Government of Pakistan and NDMA in launching of the Pakistan Flood Relief and Early Recovery Response Plan (PFRERP). While this appeal also focused on funding for Early Recovery, the involvement of key relief stakeholders in the protracted negotiations proved to be a distraction and widened schisms in relationships between the various actors.

Donors mostly preferred to contribute through the UN plan or existing channels including funding of INGOs, rather than the Government of Pakistan Fund. However, local NGOs felt that were not able to access direct funding from international donors because of donor perceptions that their capacity and governance procedures were not adequate to meet their criteria. Some donors have indicated a willingness to look at providing more funding to local NGOs in future, particularly those that have proven effective in the floods emergency and who have improved their governance procedures and capacity. Discussions initiated by NDMA with some donors have been held to investigate ways to encourage more local NGOs to seek certification through the Pakistan Centre for Philanthropy which reviews audited documentation of applicant local NGOs and approves those for certification that meet their strict criteria.



Multilateral Institutions

The World Bank and ADB both play valuable roles in funding relief, recovery and construction projects in Pakistan, and contributing knowledge and guidance to the Government and other key stakeholders. Together, they led the Damage and Needs Assessment (DNA) at the request of the Government of Pakistan, working in close coordination with the Federal and Provincial Governments, UN and other development

partners. The multi-sectoral DNA estimated the overall relief, recovery and reconstruction cost associated with the floods at approximately US\$ 8.74 billion to 10.85 billion. The DNA also provided three costed options for the reconstruction process ranging from US\$6.79 billion to US\$8.91 million.

While the DNA was highly beneficial to assist the planning process, some stakeholders criticized the non-participatory nature of the methodology as superficial as many affected communities were not consulted.

Philanthropy

Pakistanis are renowned for their generosity. Philanthropists from Pakistan and the Pakistani diaspora, and charity organizations like Edhi Foundation, Imran Khan Foundation, Khidmat-e-Khalq Foundation, Al-Khidmat Foundation, Zindagi Trust, and Sahara Trust, contributed hugely to the relief efforts through provision of funds, relief goods, equipment and volunteer efforts. Similarly, businesses across Pakistan – large and small, national and multi-national – made huge contributions to affected communities.

While this was of immense value and highly appreciated by all stakeholders, the overall value of these contributions is unknown as there was less visibility of philanthropic activities as many preferred to remain outside the formal response and reporting networks. Also there was no system in place at national, provincial or district level to capture such information. The ad hoc but extremely generous nature of the philanthropic contributions often led to duplication of efforts with some areas being inundated with aid while other communities further from easily accessible areas, received nothing. In many instances, the aid could have been more effectively disbursed if there had been a coordination point where they could have checked for appropriateness of items and to define areas in greatest need. While this information was available on the NDMA Floods website, many were unaware or disregarded the information, preferring to remain outside the formal process.

For relief items arriving in Pakistan from abroad by ship or air, there is a significant cost to Pakistan in terms of time and money to clear, store and distribute the goods which frequently far outweighs the value of the relief items sent. This was highlighted in the Government Response chapter of this report in relation to PIA's experiences. In many cases, it is preferable for philanthropists and others to send funds to an appropriate charitable organisation rather than send unsolicited goods, as many relief goods are either unsuitable or alternatively, are readily available within Pakistan. Cash can be used to purchase local goods, thereby stimulating local economies and ensuring that the most needed items are acquired and distributed to the affected communities. Providing SOPs on emergency relief requirements and procedures for overseas Pakistan diplomatic missions would further assist in ensuring the suitability of relief

shipments. Some examples of unsolicited unsuitable donations of relief goods received included:

- Date expired foodstuffs and long life milk
- Date expired medicines
- Used and dirty clothing and bedding
- Unsuitable clothing such as mini-skirts, stiletto heeled shoes, and other apparel not appropriate to local cultural norms or the needs of displaced persons
- Books in languages unfamiliar to most Pakistanis

Recommendations

1. NDMA should be the first point of contact for donors/philanthropists in a disaster situation to facilitate contact and dialogue with all appropriate authorities including PDMA and DDMA to ensure equitable distributions of goods to areas most in need, provide guidance and encourage communication.
2. SOPs for emergencies should be developed for overseas Pakistan Embassies and High Commissions to provide clear guidelines on points of contact, appropriateness of relief items, cost to Pakistan of transporting and handling relief goods and other relevant issues to be addressed when responding to offers of assistance
3. UN Agencies must consider and respect the wishes and imperatives of the Government of Pakistan in preparing and launching appeals for future disasters.
4. NDMA, in consultation with donors, should assist local NGOs to build their governance capacity and develop appropriate standards to facilitate more direct funding from donors.
5. Donors should encourage more participatory methods and inclusiveness in their approach
6. Donors should be further encouraged to prioritize funding in consultation with NDMA to maximize aid effectiveness.
7. Donors should be encouraged to contact NDMA prior to shipment of relief goods to ensure appropriateness of the cargo and to facilitate smooth entry and distribution.
8. Efforts should be made to more effectively engage with philanthropists and the business community to encourage more even distribution of relief and to assess the scale of contributions to relief efforts through non-formal channels.

Humanitarian Community



7 Humanitarian Community

The rapid national response to the disaster was not possible without the generous support and collaboration of the humanitarian community including UN agencies, local and international NGOs and organizations like ICRC, the Red Crescent and Red Cross. Due to the effective humanitarian response many human lives were saved, epidemics were controlled, millions of survivors were provided with food, shelter and other compensation packages.

The Humanitarian Response

The UN agencies took a lead role in the humanitarian community in assisting the government to plan and coordinate the overall humanitarian response. On the request of GoP, the UN launched the Pakistan Initial Floods Emergency Response Plan (PIFERP) in early August, requesting USD 459 million to respond to the immediate relief needs for an initial three month period. This appeal resulted in swift mobilization of funds and pledges from donors reaching 67% by the end of August. Apart from planning and coordination, UN agencies conducted assessment surveys to identify damages and needs of the affected population. It was stressed both by the GoP and the UN, that joint assessments should be conducted in order to make the response more effective and efficient. The Multi-Cluster Rapid Assessment Mechanism (MACRAM) was used to collect the baseline information to assess the impact of disaster, identify immediate needs, and other humanitarian issues. This initiative was supported by UNICEF, coordinated by OCHA, and undertaken by a range of UN organizations including WFP and WHO and their implementing partners.

UN agencies, directly, and through their implementing partners, also played a major role in delivering assistance to flood affected population. The UN agencies formed partnerships with many NGOs and INGOs for relief programmes that ensured the timely assistance to the people engulfed in the flood waters. The WFP provided food to millions of people, and in the peak of the emergency, reached a total of more than 7 million flood-affected people in one month. UNICEF, UNHCR, IOM, WHO and other UN agencies actively participated in relief operations and provided food, shelter, health care and potable water to the displaced population in the camps. The UN agencies also played a

key role in raising awareness about the critical issues arising in the aftermath of this disaster. This awareness raising campaign helped to prevent the spread of fatal epidemics and enhanced the safety and access of the affected population.

Partnering with local community based organizations, timely response and delivery of assistance and multi-cluster assessment of needs and damages were among the strengths of UN operation. However, there were gaps that affected the overall humanitarian response. Although the GoP asked the UN to focus on four key clusters only – Shelter, Food, Health and WASH – the UN ultimately rolled out 11 clusters. Many stakeholders were of the view that the UN-led 'cluster system' for the coordination of humanitarian sectors remained weak in synergizing the inter-cluster and multi cluster initiatives which led to gaps, duplication and delays in humanitarian response. For instance, instead of emphasizing multi-cluster assessment, various single agency surveys and assessments were conducted to cater the operational needs and programming of specific agencies and clusters, creating duplication of effort and confusion for the affected population and other stakeholders. Information management was also a weakness, particularly at the cluster level. Although, some clusters performed well in consolidating and disseminating the information, overall information management was weak.

Strategic decision making by the UN was another issue that stakeholders felt needed to be addressed. Although OCHA was the focal point for the overall coordination of the humanitarian response, result-oriented decision making remained a centralized subject throughout the relief phase. The UN was represented in the country by three high level appointments – the Resident Co-ordinator (RC), the Humanitarian Co-ordinator (HC), and the Special Envoy. Their specific roles and responsibilities were not properly understood by all the stakeholders, which created confusion and led to unnecessary delays. Also, local NGOs observed that administrative procedures used by UN cluster lead agencies to disburse funds to frontline relief organizations were slow, taxing and unsuited to the demands of a rapidly growing emergency.



International NGOs were the second largest humanitarian group. International organizations partnered with UN and/or GOP to rescue survivors and provide life saving assistance to millions of flood affected people. This was achieved despite logistical obstacles, a patchy donor response, and cumbersome fund disbursement mechanism. Such hindrances partly explain the uneven geographic coverage of assistance by many aid agencies in the first few months, which is observed as a weakness of INGOs by many government agencies and flood affected communities. Some NGOs were working in multiple locations in Khyber Pakhtunkhwa, Sindh and Punjab from the early stages. However, others initially focused their efforts in Khyber Pakhtunkhwa where many NGOs had been assisting communities affected by the law enforcement operation, and were unwilling or unable to extend their operations to address enormous gaps in aid coverage in the south of the country until 2-3 months later. Local level political interference with the distribution and targeting of aid was also noted by some stakeholders as contributing to the uneven coverage. Pakistan Humanitarian Forum (PHF), a coalition of INGOs, formed to coordinate and strengthen the efforts of international NGOs working in disaster management, collectively represented their member INGOs at various strategic fora held by NDMA, other government agencies and the wider humanitarian community.

Local NGOs and Community Based Organisations (CBOs) were also major players in flood response. Their presence on the ground, local wisdom, linkages with the affected population and long term commitment made them significant stakeholders for the relief phase. Directly, and as Implementing Partners (IPs) of INGOs and UN agencies, NGOs contributed extensively to the relief response. They assisted international agencies in local coordination, assessments and providing relief and compensation packages to the affected communities. Some national NGOs, such as Strengthening Participatory Organization (SPO) and Sungi Development (SDF) immediately launched their own relief projects and were successful in mobilizing resources to sustain their efforts. Many people were rescued and communities supported through the provision of food, water, shelter and hygiene kits, provided by CBOs, with the support of local philanthropists and national and international humanitarian agencies. Local NGOs also identified and continued to advocate on humanitarian issues of vulnerable groups which helped focus relief operations on the poor.

Rural Support Programme (RSPs) and Pakistan Poverty Alleviation Fund (PPAF) also contributed hugely in the relief operation through their community restoration and food interventions. National Humanitarian Network (NHN), a forum of Pakistani NGOs and humanitarian actors, represented the Pakistani civil society in the Strategic Leaders' Forum. In that capacity, they helped government agencies in planning and coordination of relief operation, identifying neglected humanitarian needs, and avoiding the duplication of efforts.

Issues regarding the capacity of local NGOs were also flagged by the donors, UN and government agencies. Their lack of capacity in sectors in which they had not previously worked, coupled with their limited knowledge and understanding about the



humanitarian standards and principles made it difficult for donors to fund them directly. Also, the local NGOs found it hard to comply with the reporting and funding proposal formats developed by the donors or INGOs and UN agencies. As a result, most of the humanitarian aid funding was limited to UN and INGOs.

Recommendations

1. GoP should emphasize timely strategic decision-making in disasters and ensure compliance with decision-making timelines from all humanitarian actors particularly the UN.
2. UN cluster system should improve its capacity in information management to efficiently plan the response through information sharing. In clusters, duplication of effort should be avoided and an integrated plan should be developed for all stages of relief work, i.e. from assessments to the delivery of services.
3. It should be ensured that all humanitarian actors are working in the sectors and geographic areas identified and prioritized by the GoP through NDMA.
4. The improvement in capacities of local NGOs and their liaison with local government authorities is another area that needs to be supported. This would not only help in institutionalizing the efforts of local partners but also lay a foundation for a self-reliant and sustainable humanitarian response in future.

CLUSTERS



8 Clusters

In the weeks following the floods, the Government of Pakistan, after seeking assistance from the international community, asked the UN to roll out four clusters to provide assistance in the critical areas of Food, WASH, Health and Shelter. However, as the scope of the relief work expanded, the UN began to set up further sectoral clusters, ultimately having 11 operational clusters by the end of the relief phase. The purpose of the cluster approach was to strengthen the effectiveness of the humanitarian response through coordination, partnerships, gap identification and division of roles and responsibilities. These clusters were established at federal, provincial, humanitarian 'hub' and district levels, with varying degrees of participation from organizations, depending on the sector, governance tier and region.

Some of the sector-specific lessons learned for key clusters in the relief phase are discussed below, based on feedback from a number of stakeholders involved in the cluster system. Some of the information, specifically for the Health and Logistics Clusters, is compiled from the Lessons Learned Reviews conducted by the respective clusters themselves.

Food Cluster

Led by the WFP, the Food Cluster, was one of the most vital areas of relief. It was extremely quick to respond to the disaster, beginning food distribution in KPK on the 1st of August. This was followed by a quick scale-up of operations, reaching 3 million food recipients by end of August and more than 7 million by end of October. Until December, 350,000 mt of food had been distributed through the cluster partners. The cluster also completed an Initial Vulnerability Assessment (IVA) by the end of August, covering 4 provinces and involving 1,100 enumerators from more than 50 NGOs. Food assistance provided by WFP and the Food Cluster helped to avoid starvation and enabled returning families to focus on rebuilding homes and planting the rabi crop.

The Food Cluster maintained an exceptionally good rapport with the NDMA and PDMAs and was also one of the largest recipients of funds, being able to avail an advance financing facility of WFP and in-country stock borrowing. This was an important feature



of WFP's impressive ability to reach such large numbers of beneficiaries.

Nonetheless, the cluster faced a number of challenges in effective service delivery. Initially, physical access to the affected areas was limited due to the heavy damage to roads and bridges. Capacity gaps were evident among NGO partners in Sindh, Punjab and Balochistan, provinces where non-governmental organizations had never dealt with a catastrophe of such proportions. Further, the cluster also experienced problems in certain areas with political interference and attempts to divert food assistance. Some in the cluster also felt that the government and donors had unrealistic expectations of them, given the massive constraints they faced.

Among the strategic lessons learned by the cluster was the need for establishing comprehensive warehousing facilities further down the supply chain, which is essential for effective food relief. Training for local NGOs in humanitarian assessment, assistance and reporting was also identified as necessary for future response. The strengthening of DDMA's was also considered to be essential for ensuring efficient disaster preparedness and response. Lastly, it was stressed by many that enhancing local food production capacity is an essential long-term goal for the mitigation of food-insecurity in disasters.

Health Cluster

The potential for a public health catastrophe in the wake of the floods was massive. Led by WHO and the government health authorities (Ministry/Departments), the Health Cluster was the mainstay of the humanitarian community's efforts to address the health needs of the flood affectees. In late July 2010, the cluster established a central

coordinating mechanism in Islamabad and opened hubs in Multan, Sukkur, Hyderabad and Quetta (with a hub already open in Peshawar due to the 2009 IDP crisis). Throughout the relief phase, the Health Cluster was instrumental in coordinating the public health response through its network of departments, health organizations and implementing partners.

Among the important lessons for the Health Cluster was the need for a fully comprehensive sectoral needs assessment. All partners in the cluster agreed that there was a need for a timely health needs assessment targeted towards the humanitarian response, which focused on vital information on health needs, including reproductive health, as well as the needs of vulnerable groups. To achieve this, it was stressed by cluster members that a standard system should be developed and the capacity of health partners should be increased to ensure the presence of qualified health representatives in the process of conducting assessments in the event of a disaster. HeRAMS (Health Resource Availability Mapping System) was marked as an important start in this regard, with its ability to provide a comprehensive picture of all available health resources in Pakistan.

The Health Cluster also faced serious issues with regards to security, physical and logistical access and human and financial resources. There was a considerable degree of confusion observed amongst district and provinces about their respectively assigned roles and responsibilities. This led to conflicting messages being transmitted at different tiers of the relief efforts, lack of knowledge by health partners about whom to contact and subsequently, weaker responses in some areas. One of the recommendations of the cluster members is to develop and agree upon clearly formulated roles and responsibilities at various levels of government and to ensure that all partners are informed and committed to engaging fully within the established structure forthwith.



One of the successes of the Health Cluster response was the Disease Early Warning System (DEWS) for communicable diseases, which was very effective in identifying alerts and outbreaks to allow for immediate interventions. The logistic monitoring and replenishment system for medical supplies was also effective. A weakness, however, was observed in the absence of a standard monitoring and evaluation framework for the cluster, with different agencies operating in varying areas of focus and applying different formats. Slowness in sharing of evaluations with the cluster by individual agencies was also seen as a hindrance in comparing and identifying gaps. The need to develop a standard monitoring and evaluation system and ensuring adequate numbers of trained personnel to implement it, was stressed by all cluster members. The cluster has already initiated the development of such a framework in the form of an NGO assessment form.

Capacity building was raised as a vital area for attention, among the other challenges faced by the cluster. Although training in some technical areas was conducted by the cluster, it was largely at the federal level and with minimal follow-up and post-training supervision. Therefore, the need was stressed for a standardized capacity building plan for federal, provincial and district levels, with provisions for ensuring maximum participation and reaching the appropriate staff and stakeholders.

Shelter Cluster

The Shelter Cluster was led by IOM and co-chaired by NDMA and was amongst the primary clusters in the relief phase due to the unprecedented damage to housing in the disaster. By January 2011, the Shelter Cluster, through its network of partners, had provided 864,000 households with temporary shelter, delivered 369,000 tents, 990,000 tarpaulins and 2 million blankets. The scale of the damage to housing can be assessed from the fact that this represented only 50% of emergency shelter needs.

The cluster benefitted from the leadership of experienced practitioners, both from IOM and NDMA; IOM as well as certain contemporary NDMA personnel, had led the Emergency Shelter Cluster following the devastating 2005 earthquake which had also had seen extensive damage to housing. The cluster was also at an advantage due to a low turnover of staff in pivotal roles, a high level of involvement from the national staff (which provided understanding of the national context) as well as the availability of internationally recognized technical expertise as and when required.

The cluster also developed extensive information management services, including a comprehensive website providing maps, analysis of needs and clear reporting formats, all of which was highly effective in helping to calibrate the response.

However, the sheer scale and breadth of the disaster made bridging the shelter needs an enormous challenge, given that single districts alone suffered housing damage greater than many other major national disasters. Distances and damages to infrastructure in and between affected areas meant that it took hours or whole days to



travel from one end of a district to another, making it functionally difficult for agencies to coordinate between themselves. Local government also found it difficult to be aware of which agencies were operating in their area in the relief phase, and hence, ascertaining whether or not gaps were being addressed while minimizing overlap was a major challenge.

Another challenge faced by the cluster was the lack of capacity of many NGOs in the field to process resources. Therefore, even where needs were clear, many international agencies were pushed to their limit trying to allocate available donor resources.

Cluster members felt that contractual arrangements for the appointment of focal agencies at the district level require strengthening, with single agency candidates being identified and undertaking district responsibility, agreed upon by the cluster chair. Contracts should ostensibly include a clear summary of tasks to be undertaken by parties and clarity on the coverage of expenses.

Targeting of assistance was also a concern raised by the cluster, given the limited availability of funds and scarce local capacity for utilizing them. While the Shelter Cluster worked together with the Protection Cluster to reach the most vulnerable, it was felt that targeting could be further improved by a) focusing on the proportion of housing damage within the community rather than total damage numbers; and b) gauging rates of self-recovery and factors behind self-recovery through detailed assessments.

As was the case with many other clusters, language barriers were also seen as a challenge. Cluster members emphasized the importance of bilingual focal persons at the provincial and district level and the importance of the development of translation systems for all material produced by the cluster.

Logistics Cluster

The Logistics Cluster, chaired by the World Food Programme (WFP), was responsible in the relief phase for logistical coordination, information management and mapping, air operations, temporary storage and handling unsolicited bilateral donations. The cluster operated out of coordination cells in Islamabad, Peshawar in KPK, Sukkur, Hyderabad, Dadu and Karachi in Sindh, Multan in Punjab and Gilgit-Baltistan.

Apart from the cluster's coordination and information management responsibilities, it also helped establish, and participated in the Joint Aviation Coordination Cell,¹ which was tasked with planning delivery of relief items across the country (See Chapter 5). The cell was instrumental in maximizing the usage and efficiency of military air assets in the relief phase, which included 60 helicopter and fixed wing aircraft. Overall, the cluster helped coordinate the delivery of 11,900 mt of relief cargo across the country.

The cluster also provided information to humanitarian organizations through maps, situation reports, snapshots and news updates, and trained more than 150 personnel of



humanitarian organizations and government departments on the usage of GPS for logistical mapping. Vitally, it helped establish 23,000 square meters of temporary storage capacity for trans-shipment of relief supplies in Sukkur, Multan, Ghazi, Khwaza Khela, Pattan, Chaklala, Peshawar, Besham, Hyderabad, Karachi, Dadu and Nawabshah. At all of these hubs, participants were provided with storage, handling, consolidation and tracking services by the cluster free of cost, based on the priorities set by the NDMA and the Humanitarian Country Team.

¹ The Joint Aviation Coordination Cell was a lesson learned from the experience of the 2005 Earthquake

Despite its considerable achievements the cluster faced significant challenges during the relief phase. Among these was the difficulty in obtaining pipeline information from participants on expected cargo arrivals, which made it difficult to plan the services, including storage and delivery that the cluster was offering. Cluster members felt that communication channels could be improved through the creation of online information sharing forums, as well as the utilization of additional means of information and communication, such as Skype.

Language was also felt to be a significant barrier towards more effective service delivery. A majority of the cluster participants felt that meetings should be conducted in Urdu or other local languages to help overcome verbal communication challenges.

Other challenges for the cluster included the sensitivity surrounding the usage of military air assets (especially those of foreign militaries) and the security issues faced by participants in certain remote areas of the country.

Nutrition Cluster

The Nutrition Cluster had an expansive network of emergency nutrition programmes established through the local government health system (413 Outpatient Therapeutic Programs and 402 Supplementary Feeding Programs). The cluster had an especially strong information management system, with a Flood Affected Nutrition Survey undertaken to provide nutrition planning figures and help establish a Nutrition Information System, for profiling the emergency response implementation and expansion. This was especially important as the previous baseline for nutrition-related data was based on the 2002 national acute malnutrition rates prevalence survey, hence the need for updating data was urgent. The cluster also championed and implemented the Survival Strategy concept, an international best practice for emergency programme results.

However, the cluster was faced with limited in-country capacity to deliver services, lacking an inbuilt mechanism of integration with the health system. Cluster members felt that immediate action was required to develop that capacity and build general awareness on nutrition across all disaster response teams and line departments/ministries. Areas for particular focus in capacity building could include emergency nutrition and curriculum development for medical and nutrition institutions, preferably decentralized at the provincial level.

Cluster members iterated that for a quick nutrition response, stand-by partnership agreements were required, which would allow easy access into the country in terms of visas and other travel conditionalities. They also felt that it was vital that resource allocation by the government required an increase for a sustained nutrition response, starting with the recognition of nutrition as an independent policy sector, rather than a sub-sector of health.

Water, Sanitation Hygiene (WASH) Cluster

During the relief phase, WASH Clusters were jointly established by the UN agencies and NDMA at national, provincial, hub and district levels in order to provide a mechanism for joint planning, implementing and coordination for WASH interventions. The immediate priorities were to ensure the provision of safe drinking water (5 litres per person per day initially) and the distribution of soap amongst the affected population. By January, with over a hundred agencies reporting from the field, the cluster had supplied 3.63 million people with potable water, distributed hygiene kits amongst 1.4 million people, provided latrine coverage to 428,000 people and bathroom coverage to 236,000. The cluster also undertook the dissemination of hygiene promotion messages, reaching around 409,000 people by the end of the relief phase.

The cluster achieved significant cooperation and participation between agencies, government departments and implementing partners at short notice. Unlike many other clusters, it had government leadership at the provincial level, which was significant in helping to synthesize the humanitarian response with existing governmental systems in place.

The WASH Cluster was largely efficient in developing the capacity to set up and deliver WASH services at short notice. There was also considerable cooperation between WASH agencies as well as other clusters such as shelter to achieve maximum integration of WASH concerns in the overall response.

Among the challenges for the cluster, information collection and reporting was identified as an important concern. With no independent monitoring capacity, the cluster faced difficulties in getting government departments and non-cluster partners to report



activities to the cluster, which impeded the clusters' ability to identify and address gaps. This was compounded by the lack of capacity of local implementing agencies to assess, plan, prioritize and implement projects and utilize the resources at their disposal. The reliability of survey information and assessments was also seen as a significant shortcoming in the response.

Cluster members suggested that greater cluster input in donor prioritization is required as priorities change rapidly with regards to WASH in disasters and there needs to be less rigidity in conditionalities of funding. An enforcement system for reporting to the cluster was also emphasized, which is essential for WASH needs and gap assessments to be relevant in the rapidly changing scenario.

Agriculture Cluster

Though agriculture is usually more of a recovery rather than relief concern, given the importance of agriculture in the economy of the country, the Agriculture Cluster, led by the FAO and the Ministry of Food and Agriculture, was crucial to the relief efforts following the floods.

The immense financial support received by the agriculture cluster demonstrates its importance as a priority area in the overall humanitarian response. This funding enabled the cluster to assist in kick-starting farming activities in the immediate aftermath of the floods and in accordance with the cropping season. The cluster partners performed well in the distribution of agricultural relief packages for sowing activities in the rabi season, providing around 600,000 households with crop/vegetable packages by mid-December, 2010. As a result, the agriculture sector has recovered considerably in a relatively short period of time in terms of cropped land and cropping patterns.

Another strength of the Agriculture Cluster was its development and implementation of technical guidelines that were followed by a high number of implementing partners, thus achieving a good level of harmonization of activities. The cluster also achieved a great deal of cooperation and coordination between the GoP (particularly NDMA/PDMA) and the humanitarian community. The cluster and NDMA coordinated especially closely in the area of resource mobilization with the NDMA assisting the cluster in acquiring additional donor funding.

The challenges for the cluster included the relative newness of the cluster itself in all provinces apart from in KPK. Coordination in those provinces in the initial days of the relief phase was therefore a challenge. One possible corrective measure for the future could be the development of contingency plans regarding the deployment of a coordination mechanism to be in place in the event of future disasters.

Information management was also identified by cluster partners as a challenge, notwithstanding the massive information flow that did occur in the relief efforts. The



concerns articulated were regarding availability and accuracy of information made available by the government and the international humanitarian community. Some crucial data (regarding affected rural population, Union Council level boundaries, flood cultivated area, land tenure system, among other types) was only made available 3-4 months after the floods.

Agriculture Cluster members stressed that coordination structures needed refinement in order to maximize the speed and quality of the information flow. The size of the coordination structure and the number of meetings that should serve it, was observed to require redesigning according to the availability of human resources and efficient usage of the time of cluster members, in order to avoid cutting into the time required for operational management. Further, coordination mechanisms require mainstreaming in the programming of DRR/DRM activities and contingency planning, particularly in disaster-prone areas. This would also help in making decision-making more inclusive and participatory.

It was also felt by cluster members that increased emphasis was required on technical and practical issues rather than coordination processes, with smaller, technical stakeholders taking sectoral strategic decisions and subsequently consulting/informing broader forums/implementing partners.

Other Clusters

In addition to the abovementioned clusters, four other clusters, namely Education, Camp Coordination, Protection and Community Restoration were also rolled out as the need arose in an evolving post-disaster situation. Though the mandate of these clusters in the relief phase was somewhat limited when compared with the other clusters, they

performed a valuable role in mobilizing resources, providing strategic direction and raising donor and government awareness on these oft-neglected areas in disaster response. With the exception of Camp Coordination, these clusters are now continued during the early recovery phase as working and thematic groups.

Cross-cutting Thematic Clusters

The sectoral clusters were supplemented by thematic clusters covering cross-cutting issues such as Gender, Child-Protection and Environment. This was seen by most stakeholders as a progressive step towards making vulnerability concerns a part of the agenda in the disaster response. Cross-cutting issues were also reflected in the Multi Cluster Rapid Assessment (MCRAM) conducted after the floods, which specifically targeted the gathering of information related to vulnerability. While the cross-cutting thematic groups achieved significant breakthroughs in terms of mainstreaming vulnerability issues into the response strategies of all the major clusters, the lack of comprehensive monitoring and capacity issues at the local level meant that vulnerable groups continued to lose out on assistance and relief. The political will and ownership on gender is demonstrated by the willingness of NDMA to address gender equality issues by establishing a Gender and Child Cell. This provided an entry point to further draw attention to these differences in the design, planning, implementation, monitoring and evaluation of disaster related policies, programmes and projects.

However, some stakeholders felt that the gender function also has to be institutionalized by being reflected in the organogram/organizational chart of NDMA and allocation of adequate resources to sustain gender specific impacts of future.

Gender Task Force

The Gender Task Force (GTF) co-convened by UNIFEM (now UN Women) and UNFPA, has acted as an overarching mechanism for guiding gender coordination since 2009 in Pakistan. It served as a learning and networking resource in the floods emergency to foster vertical and horizontal linkages as well as to identify responses to address specific issues such as access to WATAN cards and ensuring sensitivity in sanitary kits.

The coordination mechanisms functioned in Islamabad, Peshawar in KPK, Sukkur in Sindh, and Multan in Punjab. Apart from coordination and networking responsibilities, the task force also promoted the use of tools such as the IASC gender guidelines and gender markers tool kit providing guidance for gender responsive assessments, implementation and monitoring in humanitarian action. Gender sessions were organized for humanitarian actors and also a roster of female professionals was compiled to ensure that no assessment or monitoring mission went out to the field without a female participant.

The learning and sharing platform was instrumental in underscoring that in crisis situations, while the need for providing social services and economic assistance is vital, there is also a need to acknowledge differentiated needs, concerns, priorities, and capacities as well as the contributions of women, girls, men and boys in the process of disaster response.

The inputs in multi cluster rapid assessment (McRAM) and rapid gender needs assessment by the GTF were steps to better inform policy and programming and develop mechanisms for performance measurement of gender equality results. From the platform of GTF, over 480 projects submitted in the Pakistan Flood Emergency Response Plan were vetted and a gender score was applied to each of these projects based on mutually agreed criteria by the GTF members.

Despite considerable achievements of the gender mechanism, there were significant challenges during the relief phase. Among these was ensuring gender analysis became an integral part of the working methods and mechanisms of humanitarian organizations, and that accountability mechanisms were in place to ensure implementation. Many organizations were not accustomed to gender disaggregation in reporting which hampered a coherent understanding of the gender aspects of the response. Further, few government departments and authorities involved in the response had personnel dedicated to addressing the needs of vulnerable women, even though most were cognizant of the need for a special focus on such vulnerable groups.

Given the varied capacities and awareness of stakeholders, cluster leads and members, the experience during the floods reiterates the importance of capacity development and increased measures for accountability of clusters around integration of gender equality in the humanitarian response.



The importance of the formulation and popularization of standards of vulnerability mainstreaming in disaster response was also stressed by most stakeholders.

Observations

Overall, the clusters have been deemed to be instrumental in the coordination of relief activities and humanitarian service delivery, contributing crucially to the avoidance of duplication and the enhancement of information sharing. To varying degrees, clusters served as a platform to coordinate sector-wise, between the government and the humanitarian community (especially true for the food, health and logistics clusters). In some instances, there was valuable cross-cluster strategic cooperation as well, as in the case of the formulation of the Survival Strategy (a joint product of the Health, WASH, Food and Nutrition Clusters). It was felt by many cluster members, however, that the cluster meetings consumed inordinate amounts of time and information sharing took place beyond the optimal level required for effective coordination. There was also considerable debate amongst the government and UN agencies regarding the wisdom of rolling out 11 clusters rather than only those involving life-saving activities. The Government of Pakistan leaned largely towards the latter option, due to the contention that more clusters divert attention from critical areas. Feedback from certain donors seems to confirm that view as prioritization becomes more difficult with multiple sectors.

Monitoring was also a major challenge for the clusters, with different reporting formats being utilized by organizations in the relief phase. Various stakeholders stressed the need for a standard monitoring and evaluation system that could be rolled out immediately in the event of a disaster as well as adequate training for local personnel in reporting.² Some stakeholders also pointed out the lack of clarity in the leadership of the clusters, as well as the difficulties stemming from their lack of authority, which made it difficult to ensure compliance with guidelines, reporting and monitoring.

The following are some of the recommendations from a general review of the cluster performance overall.

Recommendations

1. Clusters should be reorganized to function in line with NDMA and PDMA organizational structures at the federal and provincial levels in order to achieve greater coherence between the humanitarian community and government.
2. Special efforts must be undertaken by cluster chairs to reach out towards local organizations with roots in disaster prone areas to bring them under the cluster umbrella.

² The situation is being rectified in the Early Recovery phase with the introduction of the Single Reporting Format

3. The number of clusters to be deployed in the event of a disaster should be reviewed to better prioritize resources towards priority sectors.
4. Cluster coordination needs to be accessible, location-wise, to government functionaries at the provincial and district level.
5. A standard monitoring system needs to be applied across clusters and training in reporting needs to take place at federal, provincial and district levels for NGOs and government staff. A system for ensuring compliance also requires development, with requisite legal provisions inbuilt into the cluster system.
6. Clusters, in coordination with donors, need to help develop the capacity of local NGOs to utilize resources effectively in disaster situations.
7. In order to overcome language barriers, bilingualism should be encouraged in cluster communication, especially at the provincial and hub level.
8. All Clusters and stakeholders should ensure adherence to principles of gender equality through mainstreaming gender and acknowledging the differentiated needs, concerns, priorities and capacities, as well as the contributions of women, girls, men and boys in the process of disaster preparedness and response.
9. Reporting of disaggregated data along gender and child/adult lines must be mandated for all organisations working in humanitarian response.

WATAN CARDS



9 Watan Cards

Based on the successful experience of cash transfers for compensation in previous emergencies, the GoP launched the Watan Card, a household-level initiative first introduced in the IDP crisis, as the main strategy for providing financial support for flood affected people. The financial support through Watan Cards was to be provided in two installments - an initial disbursement of Rs20,000 and a second and final disbursement of Rs80,000. The eligibility criteria was very simple - any head of household with an ID card stating residence in a flood affected area was considered eligible for registration and subsequent issuance of a Watan Card.

In the first National Disaster Management Commission (NDMC) meeting chaired by the Prime Minister of Pakistan and attended by the Chief Ministers of the provinces and relevant federal ministries, it was decided that with the support of NDMA, Ministry of Social Welfare, UNHCR and the provincial authorities, NADRA would be in charge of the registration process. UNHCR and other humanitarian stakeholders were asked to gather data on flood-affected populations, to plan ongoing and future protection responses. This also provided UNHCR and other humanitarian actors with an opportunity to ensure that protection issues related to the Watan Cards, ranging from registration to acquiring the money, were properly addressed.

Since the National ID Card was the entry point for registration, NADRA also facilitated the issuance of National ID Cards (NIC) under a fast track procedure to those flood-affected Pakistanis who did not possess ID cards or had lost them. According to NADRA, 221,384 new National ID cards were issued. The following statistics give an update on the processing and issuance of Watan Cards³:

³ Statistics updated as of 15 June 2011

Table 7: Watan Cards Statistics

Province/Territory	Total cards processed so far	Total cash disbursed so far (PKR)
AJK	11,133	216,680,000
Gilgit-Baltistan	9,382	172,095,500
Khyber Pakhtunkhwa	258,909	4,711,060,000
Balochistan	123,658	2,229,860,538
Punjab	608,825	12,145,067,677
Sindh	658,650	12,270,021,543
Overall	1,670,557	31,744,785,258

The Watan Card was generally considered to be very successful by all stakeholders. The humanitarian community and many government agencies viewed its simple criteria as very helpful as it reduced political interference and procedural obstacles for the issuance of the cards. NADRA's outreach, experience and efficient systems to handle such initiatives were also a strength for the success of Watan Cards. NADRA commenced the task immediately it was decided by NDMC. Almost 1.6 million Watan Cards were issued in a relatively brief time considering the complexities of the task. Community consultations also suggest that the registration process of Watan Cards was quick and transparent. Affected people were also facilitated for the issuance of National ID cards to enable them to acquire Watan Cards as soon as possible.

According to a survey conducted by UNHCR and community consultations, the majority of the flood-affected people consider ATM machine the best place to receive such assistance from the government. The use of ATM machines not only made the transaction process transparent but also helped the affected people to withdraw the money according to their needs. The public awareness campaign about Watan Card was also a strength as mass media continued to inform and mobilize people.

While the model of Watan Cards was largely praised, there were some weaknesses observed by major stakeholders. It was highlighted in stakeholder consultations that there was very limited support available to NADRA from NDMA or any other government agency to follow up with provincial authorities and mobilize financial resources. NADRA was also often tasked to take on roles beyond its technical mandate, which required it to move resources from other projects. The grievance redressal system was another issue that arose in consultations with affected communities and humanitarian community. Although a comprehensive grievance redressal system was in place, it was considered lengthy, bureaucratic and time consuming.

Targeting of vulnerable groups for Watan Cards was also a concern raised by humanitarian community. Initially, NADRA faced challenges to target households

headed by women, people with disabilities (PWDs) and minorities. This was a major threat to the social protection of these communities. Although this issue was later addressed, it created a negative impression on the outreach of the Watan Cards in relation to vulnerable groups. Women's and PWD's access to ATM machines was another issue. They faced severe problems in accessing ATM machines to acquire cash because of their limited mobility and 'know-how'.

Recommendations

The experience of floods 2010 again confirmed that cash transfer for compensation to disaster-hit communities is a successful approach and that the Watan Cards model should be replicated in future emergencies. In any future disaster the following recommendations should be followed:

1. The registration process of such schemes must include the targeting of vulnerable groups to ensure the social protection of these groups and transparency of the process.
2. NDMA and other relevant government authorities must ensure clear contractual arrangements with NADRA to ensure proper delineation of roles and responsibilities for all parties, and the mobilization of financial resources, to enable NADRA to properly implement its technical role.
3. A sufficient number of ATM machines are made accessible particularly for vulnerable groups. Mobile ATM and swap machines should also be used to provide the service on the doorstep.
4. The grievance redressal system should be quick and decentralized so that people can easily acquire the compensation package in time.

ROLE OF THE MEDIA



10 Role of the Media

The Pakistani media, both print and electronic contributed hugely in disseminating early warnings, mobilizing resources and identifying capacity and resource gaps in the emergency. The international media brought the crisis to world attention and was instrumental in bringing to light the nature of the challenge faced by the people and the state for the international community.

Media in Pakistan can be categorized under the following types:

- English print media

- Urdu print media

- Print media in Sindhi and other local languages

- Urdu Television

- Urdu Radio

- Television in local languages

- Radio in local languages

The role of each of these different categories had a distinct quality, at times contradictory to each other in terms of interpretation of information and impact. This warrants a separate analysis for each of these types of media in order to arrive at an understanding of the lessons to be gauged in this important area.

In emergencies, the immediacy of the situation warrants extreme swiftness in flagging of humanitarian issues by the media. This increases the significance of electronic media, both radio and television, over print media. During the floods, it was observed by all stakeholders that radio through both state and private channels, played the key role in

informing communities about the coming danger to their lives and properties, sensitizing policy makers through mindful reporting on the tragedy and galvanizing the listeners who provided substantial material support to the affectees during the initial rescue and relief phase.

A similar effort was made by private television channels, which have gained popularity in metropolitan areas of Pakistan and secondary towns over recent years. These channels provided information about the arriving floodwaters to the lower regions of the country more effectively but could understandably only report on the floods after they had hit the northern regions. They constantly highlighted the plight of the affected people, sometimes exaggerating the tragedy to gain sensational value for their programming. On a positive note, many also mobilized resources by setting up their own funding accounts and holding fund raisers, telethons and televised special shows. In their talk shows and analytical programmes, they explored the issues of governance and resource allocation by the government in order to effectively respond to natural disasters.

A similar role of identifying gaps in the current capacity of the state and its institutions, systemic and institutional changes required and the need for earmarking sufficient funds to preempt and mitigate disasters was highlighted in the print media. The English language newspapers were more insightful, analytical and precise both in their criticism of both the endemic issues faced by Pakistan, and the increase in gravity of the situation. Urdu newspapers and magazines did offer some good analysis but largely remained anecdotal in their reporting with few substantive recommendations for the government. Sindhi is perhaps the only local language that has a vibrant press. Other languages have radio and television channels with a significant audience but they lack any substantive print media. Sindhi newspapers and magazines were swift in bringing to light the local village and district level issue in the mainstream because of their elaborate network of the correspondents at the sub-district level of the Sindh province. Understandably, while these newspapers made references to the overall situation of affected lands and people across Pakistan, their primary focus remained on the destruction in Sindh.

Weaknesses in media reporting and analysis were also observed by some media pundits, foreign donors and government agencies. In some instances, sensational reporting created a negative impression of the work of the relevant government institutions trying to arrest the grave problems caused by the floods. Some of the media displayed a lack of full understanding of the roles and responsibilities of various arms of government at federal and provincial level, the various government agencies and oversight bodies and armed forces. This led to a section of media depicting the role played by the armed forces in helping the affectees as 'stand alone' and detached from the functioning of the civilian arm of the government. However, the GoP through NDMA, was coordinating all civilian and military efforts during the relief and rescue phase.

It was also observed by many stakeholders that the media was largely devoid of any

knowledge about the terms of engagement between the GoP and international donors. There was also some imprecision and over-generalization when numbers were quoted or discussed. Insufficient knowledge about the aid architecture, and no proper follow up on news once reported, created confusion in the minds of people whose primary source of information is these channels.

The media management of NDMA was also considered weak by the major stakeholders including media itself. Although, Ministry of Information and Broadcasting and NDMA held regular briefings initially, a permanent NDMA liaison with the media was missing. This created gaps in the flow of accurate information.

Recommendations

1. The GoP through NDMA, and provincial governments through their respective PDMA's, should create a permanent liaison with media for disaster reporting. Briefings made to the press and information provided to them must contain both knowledge of the relevant subject and field data.
2. Social media such as sms, facebook and Twitter should also be used for spreading information and mobilizing support in emergencies.
3. The National Institute of Disaster Management(NIDM) must run orientation workshops on disaster reporting for media representatives, particularly the local media.
4. The media should be encouraged through workshops and briefings, both at the local and national levels, to gain a fuller understanding of the challenges of humanitarian response and reporting more sensitively and systematically, and refrain from sensationalizing incidents of human suffering. This does not mean that such incidents should not be highlighted but that they should be understood in the larger perspective of poverty and underdevelopment in Pakistan.
5. It is important to understand that when a disaster strikes, the most vulnerable segments of population are the worst hit, which confirms an inherent link between endemic problems faced by the marginalized and impact of the natural disaster.

Civil-Military Cooperation and Complementarity



11 Civil-Military Cooperation and Complementarity

Civil-military interaction between the civil sector, humanitarian agencies and the military was considered to be very effective. Some humanitarian agencies cooperated with the military, taking advantage of the availability of military assets – aircraft, boats and trucks – to deliver relief goods, while others preferred to co-exist, working in the same space but with little contact. Others describe their relationship with military as being one of complementarity.

Stakeholders identified a number of issues as important to review for future emergencies to improve civil-military interaction, and interaction with the police who played a significant role in security of humanitarian actors in the field. These mostly related to adherence to international civil-military guidelines, and the need for more specific guidelines for Pakistan to bring clarity, define the parameters of interaction, and ensure humanitarian principles are respected in disaster response.

Concerns were raised by some stakeholders in relation to a perception that UN agencies and some INGOs were treating the flood response as a complex emergency rather than a natural disaster, and that this impacted on the way certain issues were treated. Complex emergencies and natural disaster relief efforts are treated differently under international civil-military guidelines. While there were some concerns about security issues in certain areas, the flood affected areas were not part of any law enforcement operation.

International civil-military guidelines are well established⁴ and most INGOs operate under principles that strongly reflect these. However, in some circumstances, these

⁴ There are currently at least six guidelines developed by various international agencies.

principles are challenged by the realities of the local situation. Stakeholders raised two issues as being the source of the most concern during the flood emergency. The first related to the use of military assets as a 'last resort' (as set out in the Oslo Guidelines),⁵ for distribution of aid. The second was the use of armed escorts. The 'last resort' guideline became a focal point of a dispute between UNOCHA and NATO when the Government of Pakistan requested assistance from NATO to airlift relief goods to Pakistan. UNOCHA protested on the basis of not meeting the 'last resort' criteria and informed NATO, without the approval of the Government of Pakistan, that their flights would not be required. The Government of Pakistan held the view that 'last resort' guideline was not applicable in this instance. Some stakeholders, including donors, took issue with the UNOCHA stance and made their views clear to UNOCHA, supporting the position of the Government of Pakistan. It was their view that it is up to the NDMA and the Government of Pakistan to make decisions on what international relief flights to accept, not UNOCHA. It is then for the humanitarian community to make their own decisions on whether they wish to use the facility offered. The NATO flights proceeded promptly as planned and delivered relief goods at Chakiala Airbase. They did not operate within the country. UNOCHA asked humanitarian agencies not to use the NATO flights though some, including two UN agencies chose to do so. In all, NATO dispatched 24 flights of relief goods including field hospitals, tents, blankets, food, mosquito nets, medical supplies, generators, and power units. In addition, NATO donated a Mabey bridge and a water system. During the relief efforts, many UN agencies, INGOs and NGOs took advantage of military assets operating within the country – both Pakistani and foreign - to transport relief goods to affected communities cut off by the flood waters.

The other main issue that surfaced was a more a civil-police one, related to the use of armed escorts. Some district authorities instructed foreign humanitarian agencies to use armed Police escorts in certain areas to ensure their safety and prevent any unfortunate incident. The use of armed escorts is in violation of the principles of a number of international and humanitarian organisations such as ICRC, MSF, Oxfam, IRC and others. These organisations felt strongly that this impacted on their ability to conduct aid operations in line with their own guidelines. This led to the Pakistan Humanitarian Forum (PHF), on behalf of various members, to request NDMA to review the situation to seek assistance in obtaining withdrawal of mandatory armed escorts. NDMA held discussions on their behalf with relevant agencies to review their operations with humanitarian agencies to find an acceptable compromise. To further assist in resolving the issue, NDMA also requested the PHF to draft guidelines and recommendations that would be acceptable to the members, to be put forward to NDMA for negotiation with the relevant authorities. To date, this has not been prepared and various PHF member organisations have advised they continued to conduct direct negotiations with district authorities on security issues. It should be noted that while some NGOs did not want armed escorts, some agencies requested assistance from the Police and the Army for security, particularly in relation to guarding distribution of relief

goods where large crowds sometimes became over-anxious. It has been highlighted that there were no untoward incidents throughout the relief operation.

Stakeholders mostly praised the co-operation, co-existence, or complementarity between the many civil and military actors in the field. Some humanitarian agencies would have liked to have had access to more information from the military on activities they were undertaking to avoid duplication. Similarly, the military would have liked more information from some of the humanitarian actors for the same reason. While the Strategic Leaders Forum provided an excellent platform to disseminate information between military and humanitarian agencies, there were some gaps, particularly at field level. Bridging any gaps in information-sharing between the humanitarian and military actors was identified by some key stakeholders as an important coordination role for NDMA to be continued and expanded in future disasters. The PDMA and DDMA could also further facilitate such exchanges of information on behalf of military and humanitarian actors.

Recommendations

1. NDMA, in conjunction with relevant partners (such as UN OCHA, international Civil-Military Centres of Excellence and others), should regularly conduct civil-military/multi-agency training courses for military, humanitarian, police, and relevant Government agencies. This should also include training on SPHERE standards for humanitarian response, which some stakeholders felt were compromised at some stages of the response.
2. A guide to roles and responsibilities, including SOPs, should be prepared by NDMA as a 'road-map' to inform all stakeholders of the expectations and operational parameters operating in relief efforts.
3. Discussion on civil-military issues should be a permanent agenda item of a Stakeholder Strategic Leaders Group.
4. NDMA must enhance its role in coordinating the flow of information between civil and military responders. PDMA and DDMA should play a similar role at provincial and district level to ensure prompt resolution of any civil-military communication issues that arise in the field.

⁵ Guidelines on The Use of Foreign Military and Civil Defence Assets in Disaster Relief – 'Oslo Guidelines', Updated 2006, (Revision 1.1 November 2007)

Learning from Experience – Observations and Opportunities

12 Learning from Experience – Observations and Opportunities

The Lessons Learned report contains many recommendations for specific areas. However, there are a series of key recommendations that require the most critical attention from NDMA the Government of Pakistan, and stakeholders.

1. A comprehensive review of the National Disaster Management Act is needed to further strengthen it and provide complete clarity on mandates, and roles and responsibilities of NDMA, PDMA and DDMA and all relevant State actors. In addition, accordant Rules of Business must be developed.
2. Efforts should be made to achieve consensus between the Federal and Provincial Governments on the NDMA's lead coordination role in major disasters to avoid incoherence in disaster response.
3. A set of guidelines and SOPs must be developed providing clear definition of roles and responsibilities of all stakeholders including Government Ministries/Departments, military, donors, UN agencies, humanitarian organizations, philanthropists and civil defence, in disaster response.
4. Proper resourcing of NDMA is required through sufficient funding and staffing.
5. Government Ministries and agencies should identify officers for training for future secondment to NDMA during disasters.
6. A strategic planning network on disaster management comprising all key stakeholders including Government Ministries/Departments/agencies, PDMA, DDMA, military, civil response agencies (such as 1122), donors, UN, humanitarian communities (PHF, NHN, PRCS and others), and the media, should be established immediately to meet periodically (preferably quarterly in 'peace' time) to prepare for a cohesive response for all disasters. This will also

help address shortfalls and also create a sense of 'ownership' among stakeholders.

7. At the provincial level a shift in focus is required towards the capacity development of the PDMA's of Punjab, Sindh and Balochistan in terms of increased resource allocation, personnel training, warehousing and focal-point functionality.
8. The reporting line of PDMA's should be uniform and clearly defined in order to avoid divergent practices in different provinces. Ideally, the PDMA should report to either the Chief Minister or the Chief Secretary of the province, to better facilitate their engagement with multiple departments and authorities.
9. At the district level, DDMA's require strengthening through the allocation of dedicated personnel and equipment as well as aligning them with the Revenue Department that has visibility down to the village level.
10. In all future major disasters, a Joint Aviation Coordination Cell must be established immediately. The importance and effectiveness of the JACC was a lesson learned from both the 2005 earthquake and the 2010 floods.
11. An incident command system, as envisaged in the NDM Act 2010, needs to be operationalized for future disasters, comprising the national emergency operation center (NEOC), provincial emergency operation centres (PEOC), district emergency operation centres (DEOC), as well as representation from all key departments of government at federal, provincial and district level, armed forces, and the humanitarian community.
12. NDMA should ultimately have a dedicated air rescue team at its disposal to facilitate immediate response and rescue in the event of any disaster, but until then the military may earmark resources to be deployed at short notice when needed.
13. Standard Operating Procedures must be developed by NDMA in relation to the acceptance of unsolicited relief goods shipped by air or sea from abroad to ensure that:

only goods that are considered as priority and not available in Pakistan are sent,

that the receiving organisation is credible and able to immediately arrange distribution; and

that the cost of shipment to Pakistan does not outweigh the value of the shipment.

These SOPs should be available on the NDMA website and circulated to all relevant agencies including overseas Pakistan Diplomatic Missions to be immediately implemented in the onset of a disaster.

14. There are significant infrastructure issues that must be immediately addressed by the relevant government departments. Those that should be given top priority included the immediate redesign and reconstruction of bridges in KPK, and maintenance and improvement of flood protection structures. For infrastructure restoration and reconstruction the 2010 floods must be used as the benchmark.
15. There should be permanent threat specific warehousing of likely required relief stores established in different regions.
16. Donors and major humanitarian actors need to assist the development of the capacity of local organizations for effective resource management, compliance with humanitarian standards, and result-oriented reporting to improve their eligibility for direct funding from donors.
17. The Cluster System coordinated by UN must be reviewed for cost-effectiveness, efficiency of effort and aid effectiveness. This review should include:
 - reorganization in order to achieve greater congruity with relevant tiers of government as well as local organizations with greater knowledge of national context;
 - consultation with NDMA to decide the scale of deployment of clusters in order to ensure the flow of resources to priority sectors;
 - the application of a standard system of monitoring and reporting across clusters with a process of ensuring compliance and requisite training of personnel.
18. A single reporting system is critical to properly monitor aid effectiveness and assist planning. The Single Reporting Format, now being implemented by NDMA for Early Recovery must become a feature of all future disaster response. It must be supported by all stakeholders, and the compliance be made compulsory.
19. The UN system in Pakistan should follow the strategic guidelines and policies set down by the GoP at all levels of UN operations in the country.
20. There should be unity of command between the UN's humanitarian and development arms to achieve coherence in disaster response.
21. There should be sufficient autonomy of decision-making capacity at the UN country level rather than decisions taking place at UN Headquarters in New York.
22. Contingency plans for all disasters – flood, earthquake, cyclones, landslides, industrial and nuclear – must be prepared by NDMA in consultation with key stakeholders, and regularly reviewed and updated. Contingency plans must include an inbuilt provision for surge capacity at federal, provincial and district levels.

23. Mock exercises on a regular basis for all types of disasters must be conducted by NDMA with the participation of stakeholders.
24. Watan Cards is a successful model and should be replicated in future emergencies ensuring the inclusion of vulnerable groups, proper resourcing of the registration authority like NADRA, speedy grievance redressal system and accessible ATM machines.
25. GoP through NDMA, and provincial governments through their respective PDMA's, should create a permanent liaison with media, and institute training on disaster reporting for media.
26. Disaster risk reduction is an investment in a safer future. Donors must be encouraged to fund programmes that focus on reducing the risk to communities as identified in the Medium Term Plan developed and launched by NDMA. These programmes include:

District Capacity Enhancement

Multi-Hazard Risk Assessment of major human settlements and economic centres

Technical studies on climate change associated hazards

A more robust NIDM to continue DRM capacity building activities

Preparation/Updating of district and provincial disaster management plans

Training resilient communities through and extensive CBDRM activities

Assisting technical agencies in developing comprehensive multi-hazard early warning systems

Mainstreaming DRR efforts in provincial P&D departments and line departments

GAP analysis and revamping local response capacities

Safer school and hospital initiatives as part of the Safer Cities Project

Annex-A

Foreign Field Hospitals

Country Name	No. of Team Members	Deployed
PUNJAB		
Italian Field Hospital	42 Bedded	Muzaffargarh (Jatol)
Italian Field Hospital	42 Bedded	Muzaffargarh (Gujrat)
Italian Field Hospital	42 Bedded	Layyah
Australian Field Hospital	40 Bedded/70 members	Kot Addu
Saudi Field Hospital	100 Bedded/71 Members	Rajanpur (to be deployed)
SINDH		
Turkish Field Hospital	30 Bedded / 21 Members	Khairpur
Saudi Field Hospital	100 Bedded/ 71 Members	Thatta
Chinese Field Hospital	6 Bedded detention facility/65 Members	Thatta
EU Field Hospital	24 Bedded/ 16 Members	Jacobabad
EU Field Hospital	24 Bedded/ 16 Members	Larkana
EU Field Hospital	24 Bedded/ 16 Members	Dadu
KPK		
Italian Field Hospital	42 Bedded	Dasu-Kohistan, Madyan-Swat
BALUCHISTAN		
Turkish Field Hospital	30 Bedded / 21 Members	Dera Murad Jamali
Italian Field Hospital	42 Bedded	Dera Allah Yar
GILGIT-BALTISTAN		
Italian Field Hospital	42 Bedded	

Annex-B

Foreign Medical Teams

Country Name	No. of Team Members	Deployment
PUNJAB		
France		Muzaffargarh
Australia (First)	65	Kot Addu
Australia (Second Team)	59	Kot Addu
Australia (Third Team)	27	Kot Addu
Belgium	4	Jampur (to be deployed)
Jordan	23	Muzaffargarh
Japan	23	Sinawan
SINDH		
Spain	10	Sukkur
Iran	12	Thatta
Bangladesh	35	Jamshoro
UAE	10	Sukkur
Canadian Pakistani Doctors	20	Shikarpur
China		Thatta
KPK		
Sudan	4	Nowshera
Qatar	13	Risalpur
Indonesia (Second)	22	Charsaddah
Indonesia (First)	14	Charsadda
Sri Lanka	17	Nowshera
Palestine	8	D. I. Khan
BALOCHISTAN		
Germany	6	Dera Murad Jamali
Spain		Dera Murad Jamali

Annex-C

Foreign Assistance for Flood Affectees (by country), in Cash, Soft Loans, and In-Kind, as at 8 January 2011

No.	Country / Agency	Total Commitments (USD millions)
1	ADB	3.22
2	Afghanistan	2.00
3	Algeria	1.00
4	Australia	67.50
5	Austria	7.00
6	Azerbaijan	2.80
7	Bahrain	5.00
8	Bangladesh	2.00
9	Belgium	8.84
10	Bhutan	0.10
11	Brazil	1.20
12	Brunei	0.73
13	Cambodia	0.05
14	Canada	92.00
15	China	220.00
16	Personnel of Turkish Foreign Ministry	0.06
17	Czech Rep	1.36
18	Denmark	33.00
19	Egypt	1.45
20	Estonia	0.08
21	EU	187.50
22	European Org. for Nuclear Research	0.03
23	Finland	5.67
24	France	2.63
25	Germany	43.75
26	Greece	0.12
27	Hungary	0.10
28	IDB	11.12
29	India	25.00
30	Indonesia	2.73
31	Indonesia private sector	0.06
32	Iran	100.00

Annex-C

33	Ireland	3.30
34	Italy	108.00
35	Japan	519.80
36	Korea	2.10
37	Korean Private Sector Companies	2.40
38	Kuwait	10.00
39	Kuwait Joint Relief Committee	0.35
40	Kuwait private sector	15.50
41	Luxemburg	0.64
42	Malaysia	1.00
43	Malaysian Palm Oil Council	0.14
44	Maldives	0.04
45	Maldivian Philanthropists	0.27
46	Mauritius	0.30
47	Morocco	2.00
48	Nepal	0.13
49	Netherlands	54.00
50	New Zealand	2.80
51	Norway	73.00
52	Oman	5.00
53	OPEC Fund	0.50
54	Poland	0.06
55	Qatar	0.96
56	Qatar Private sector	5.04
57	Russia	1.00
58	Saudi Arabia	100.00
59	Saudi Fund for Development	23.33
60	Saudi Public Fund Relief	242.00
61	SCDM Malaysia	0.62
62	Singapore	1.03
63	Slovakia	0.04
64	Spain	7.46
65	Sri Lanka	0.17
66	Sweden	23.01
67	Switzerland	7.28
68	Thai Public donation	0.33
69	Thai red cross	0.05
70	Thailand	0.24

Annex-C

71	Turkey	53.00
72	Turkey private / public fundraising	142.00
73	UAE Govt.	5.15
74	UAE NGOs	2.38
75	UAE private sector	19.80
76	UK / DFID	216.00
77	UN	29.00
78	US / USAID	571.00
79	WB	1.30
	TOTAL	3,042.02

Source: Economic Affairs Division, Ministry of Economic Affairs & Statistics
www.ead.gov.pk