



**National Disaster Management Authority**  
Ministry of Climate Change  
Government of Pakistan



# ANNUAL REPORT 2016

Prime Minister's Office Premises, 2nd Floor,  
Constitution Avenue Sector G-5/1, Islamabad, Pakistan

[www.ndma.gov.pk](http://www.ndma.gov.pk)





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# NDMA Annual Report 2016

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**Rescue & Relief**



**Recovery**



**Rehabilitation & Reconstruction**



**National Disaster Management Authority**

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# Table of Contents

▶ **Foreword by**  
Chairman NDMA

08

▶ **Acronyms**

09

▶ **Section – I**  
General

12

**Section – V**  
Progress on  
National Disaster  
Management Plan  
(NDMP)

36

**Section – III**  
Disaster  
Preparedness

30

**Section – II**  
Response to  
Disasters

16

**Section – IV**  
Disaster Risk  
Reduction

24



▶  **Section – VI**  
Regional & Bilateral Cooperation

40

42

 **Section – VII**  
Capacity Building

46

 **Section – VIII**  
Conferences & Seminars

50

 **Section – IX**  
Financial Overview

52

▶ **Annexes**  
A to I



## Foreword by Chairman NDMA



**Major General Asghar Nawaz, HI (M)**  
**Chairman NDMA**

*NDMA is privileged to share Annual Report for the Year 2016 with Stakeholders and followers. In retrospect, a number of significant events outline the Year ranging from Floods, Ship Fire and an Air Crash at its terminal stage.*

Pakistan's extreme vulnerability to natural and man-made disasters is a well-known fact. Flash Floods in Chitral, Gadani Ship Fire incident and PIA, ATR Crash are only a few manifestations of this fact where NDMA has played leading role for the coordination of rescue, relief and recovery efforts with all stakeholders. NDMA not only oversees all phases of disaster management but also constantly endeavors to create awareness about the Disaster Risk Reduction. Pakistan is also member of relevant international forums on DRR which affords us an opportunity to learn from global best practices in the realm of DRM enabling us in improving our protocols and SOPs.

During the proceeding one year, NDMA has successfully persuaded the formulation of National Fire Safety Provisions in the Existing Building Code. Pakistan School Safety Framework, National Risk Insurance Framework and National Disaster Risk Management Fund, First National Guidelines and Execution Methodology for MHVRA and completion of MHVRA in 5 districts were the major initiatives which NDMA spearheaded. Besides this notwithstanding resource constraints and challenges, a concerted and well-coordinated proactive response is much warranted to thwart the effects of disasters. I commend all stakeholders and partners for their support to NDMA towards realization of our shared vision of "Tayyar Pakistan".





## Acronyms

ADB	Asian Development Bank		
ADPC	Asian Disaster Preparedness Centre	C&W	Campaign for Pakistan
A&F	Administration and Finance	DC	Communication & Works
AFAD	Asian Federation against Involuntary Disappearances	DDMA	Deputy Commissioner
AJ&K	Azad Jammu & Kashmir	DEOC	District Disaster Management Authority
AKDN	Agha Khan Disaster Network	DFID	District Emergency Operation Centre
AMCDRR	Asian Ministerial Conference on Disaster Risk Reduction	DM	Department for International Development
ANDMA	Afghan National Disaster Management Authority	DO	Disaster Management
ANF	Anti Narcotic Force	DRM	Direct Observation
ATR	Avions de Transport Regional	DRR	Disaster Risk Management
AWS	Automated Weather Stations	DSS	Disaster Risk Reduction
BDRP	Building Disaster Resilient Programme	EAD	Decision Support System
BHU	Basic Health Unit	ECMWF	Economic Affairs Division
BSS	Beacon House School System	ECNEC	European Centre for the Medium Range Forecasting
CAA	Civil Aviation Authority	ECO	Executive Committee of National Economic Council
CAF	Charities Aid Foundation	ERC	Economic Cooperation Organisation
CADD	Capital Administration & Development Division	ERT	Emergency Relief Cell
CADRE	Community Action for Disaster Response	ERRA	Emergency Response Team
CBDRM	Community Based Disaster Risk Management	EWS	Earthquake Reconstruction and Rehabilitation Authority
CBM	College of Business Management	FAB	Early Warning System
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosive	FAO	Frequency Allocation Board
CBS	Capacity Building Specialist	FAO	Food and Agricultural Organization
CBT	Community Base Training / Capacity Building Training	FATA	Federally Administered Tribal Areas
CDA	Capital Development Authority	FC	Frontier Corps
CDKN	Climate and Development Knowledge Network	FEWS	Flood Early Warning System
CESDRR	Centre for Epidemiologic Studies Depression Scale Revised	FFC	Federal Flood Commission
CHASHNUPP	Chashma Nuclear Power Plant	FGD	Focused Group Discussion
COAS	Chief of Army Staff	FWO	Frontier Works Organisation
COD	Central Ordinance Depot	GB	Gilgit Baltistan
COP	Conference of the Parties	GBV	Gender Based Violence
CM	Chief Minister	GCC	Gender & Child Cell
CMT&SD	Central Mechanical Transport and Store Depot	GCISC	Global Change Impact Studies Centre
CPM	Country Planning Meeting	GDP	Gross Domestic Product
CSSR	Collapsed Structure Search & Rescue	GIS	Geographic Information System
CTHMRCP	Custodian of Two Holy Mosques Relief	GHTF	Gender Humanitarian Task Force
		GLOF	Glacial Lake Outburst Flood
		GOERE	Government Officers Emergency Response Exercise
		GOP	Government of Pakistan
		GSP	Geological Survey of Pakistan
		GBDMA	Gilgit Baltistan Disaster Management Authority
		HEC	Higher Education Commission
		HFA	Hyogo Framework for Action



## Acronyms

HoA	Heart of Asia	NDMA	National Disaster Management Authority
HFI	Housing Foundation of Iran	NDMC	National Disaster Management Commission
HR	Human Resource	NDMF	National Disaster Management Fund
HRF	Humanitarian Response Facility	NDMP	National Disaster Management Plan
HOPE	Hospital Preparedness for Emergencies	NDRIS	National Disaster Risk Information System
ICT	Islamabad Capital Territory / Information & Communication Technology	NDSDI	National Disaster Spatial Data Infrastructure
IDI	In-depth Interview	NEMA	National Emergency Management Agency
IEC	Information, Education and Communication	NEOC	National Emergency Operations Centre
IFAS	Integrated Flood Alert System	NESPAK	National Engineering Services Pakistan
Imp	Implementation	NFI	Non Food Item
INGO	International Non-Governmental Organisation	NFPP	National Flood Protection Plan
INSARAG	International Search and Rescue Advisory Group	NHA	National Highway Authority
IOWave	Indian Ocean Wave	NHEPRN	National Health Emergency Preparedness & Response Network
JICA	Japan International Cooperation Agency	NHN	National Humanitarian Network
KANUPP	Karachi Nuclear Power Project	NIDM	National Institute of Disaster Management
KARCPP	King Abdullah Relief Campaign for Pakistani People	NIDMIS	National Integrated Disaster Management Information System
KI	Key Informant	NFPP	National Flood Protection Plan
KKH	Karakoram Highway	NGO	Non-Governmental Organisation
KP	Khyber Pakhtunkhwa	NOC	No Objection Certificate
KRL	Khan Research Laboratory	NoK	Next of Kin
LED	Light Emitting Diode	NSET	National Society of Earthquake Technology
LEAD	Leadership for Environment and Development	NSMC	National Seismic Monitoring & Early Warning Centre
LoA	Letter of Agreement	OBMs	Out Board Motors
LoC	Line of Control	PAEC	Pakistan Atomic Energy Commission
MCII	Munich Climate Insurance Initiative	PAF	Pakistan Air Force
MERLIN	Medical Emergency Relief International	PC	Project Cost
MFR	Medical First Responder	PDMA	Provincial Disaster Management Authority
MHVRA	Multi Hazard Vulnerability and Risk Assessment	PEC	Pakistan Engineering Council
MIRA	Multi Sectoral Initial Rapid Assessment	PEOC	Provincial Emergency Operations Centre
Mol	Ministry of Interior	PEER	Programme for Enhancement of Emergency Response
MoU	Memorandum of Understanding	PHF	Pakistan Humanitarian Forum
MoFA	Ministry of Foreign Affairs	P&IC	Policy and International Cooperation
MSF	Medicine Sans Frontier	PID	Pakistan Irrigation Department / Press Information Department
MOVERE	Mobilization of Volunteers Emergency Response Exercise	PIMS	Pakistan Institute of Medical Sciences
NADRA	National Database Registration Authority	PM	Prime Minister
		PMD	Pakistan Meteorological Department

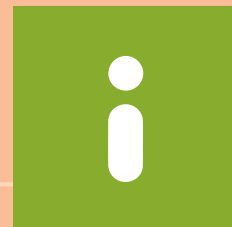


## Acronyms

PPE	Personal Protection Equipment	UNISDR	United Nations International Strategy for Disaster Reduction
PRCS	Pakistan Red Crescent Society	UNICEF	United Nations International Children's Emergency Fund
PSC	Provincial Steering Committee	UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
PSDP	Public Sector Development Programme	USAR	Urban Search and Rescue
PSSF	Pakistan School Safety Framework	VCC	Virtual Call Centre
PTA	Pakistan Telecommunication Authority	VG	Vulnerable Group
PTV	Pakistan Television	WAPDA	Water and Power Development Authority
PWDs	Persons with Disabilities	WHS	World Humanitarian Summit
RCC	Regional Consultative Committee	WFP	World Food Programme
RGDO	Relief Goods Dispatch Organisation		
RNA	Recovery Needs Assessment		
R&R	Recovery and Rehabilitation		
RRI	River Flow Inundation Model		
RTG	Regional Technical Group		
SAARC	South Asian Association for Regional Cooperation		
SAADMX	South Asian Annual Disaster Management Exercise		
SCO	Shanghai Cooperation Organisation		
SDC	Swiss Development Cooperation Agency		
SDMA	State Disaster Management Authority		
SDMC	SAARC Disaster Management Centre		
SEEC	SAARC Environment & Energy Centre		
SFDRR	Sendai Framework for Disaster Risk Reduction		
SHO	Station House Officer		
SIMEX	Simulation Exercise		
SITREP	Situation Report		
SMRFC	Specialised Medium Range Weather Forecasting Centre		
SMS	Short Message Service		
SOPs	Standard Operating Procedures		
STI	Secretariat Training Institute		
SUPARCO	Space and Upper Atmosphere Research Commission		
TOTs	Training of Trainers		
TVCs	Television Commercials		
UN	United Nations		
UNDP	United Nations Development Programme		
UNESCO	United Nations Education, Scientific and Cultural Organisation		
UNFCCC	United Nations Framework Convention on Climate Change		

# Section - I

**General**



# Section – I

## General

### 1. Outlook of National Disaster Management System

- a. **NDMA's Mandate as per NDM Act 2010.** National Disaster Management Authority (NDMA), the executive arm of National Disaster Management Commission (NDMC) is assigned following roles and responsibilities as per Article 9 of NDM Act 2010:-
- (1) Act as the implementing, coordinating and monitoring body for disaster management.
  - (2) Prepare the National Plan to be approved by the National Commission.
  - (3) Implement, co-ordinate and monitor the implementation of the National Policy.
  - (4) Lay down guidelines for preparing disaster management plans by different Ministries or Departments and the Provincial Authorities.
  - (5) 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.
  - (6) Co-ordinate response in the event of any threatening disaster situation or disaster.
  - (7) 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.
  - (8) For any specific purpose or for general assistance requisition the services of any person and such person shall be a co-opted member and exercise such power as conferred upon him by the Authority in writing.
  - (9) Promote general education and awareness in relation to disaster management.
  - (10) Perform such other functions as the National Commission may require to perform.

**2. NDMA's Organisation.** NDMA was established in 2007 as a lead Agency at Federal level to implement, coordinate and monitor the whole spectrum of disaster management including prevention, preparedness, mitigation, response, reconstruction and rehabilitation programmes. As per the NDM Act 2010, the Authority is headed by Chairman while it has three members heading different Wings. The Chairman also acts as an ex-officio Secretary of the National Disaster Management Commission (NDMC) which is chaired by Prime Minister of Pakistan and NDMA serves as a Secretariat of NDMC. NDMA's Organisation is given at **Annex A**.

- a. **Functions of Various Wings.** In order to carry out the assigned tasks / functions, NDMA is divided into three wings with following tasks:-
- (1) **Operations (Ops) Wing**
    - (a) Contingency and response planning for both natural and manmade hazards.
    - (b) Development of National Policies / Guidelines on rescue, relief, early recovery and rehabilitation.



- (c) Operations of National Emergency Operations Centre (NEOC).
  - (d) Rescue, Relief, Recovery, Rehabilitation and Reconstruction operations for all disasters (inland and foreign).
  - (e) Coordination of humanitarian assistance and rescue, relief, recovery and rehabilitation efforts with Federal / Provincial authorities & Organisations as well as all stakeholders including UN agencies, INGOs & NGOs.
  - (f) All issues related to training and deployment of Urban Search and Rescue Teams, Country wide.
  - (g) Briefs / presentations for PM and other dignitaries.
  - (h) Conduct of Emergency Simulation exercises for natural and man-made disasters.
- (2) **Disaster Risk Reduction (DRR) Wing**
- (a) Handles all matters related to DRR Policies concerning all types of disasters, Risk Insurance and disaster awareness.
  - (b) National Disaster Management Plan (NDMP) including implementation and progress.
  - (c) Planning, coordination, execution, management and monitoring of all projects executed by NDMA with donor (s) / development partner'(s) assistance.
  - (d) Monitoring and evaluation of plans, strategies at National, Provincial, District level as well as civil sector.
  - (e) Mainstreaming of DRR especially into development sector as well as all other sectors.
  - (f) Management of international cooperation, global frameworks, regional Organisations and all conferences / meetings in this regard.
  - (g) Coordination with UN Agencies, Bilateral / Multilateral Organisations and INGOs / NGOs with respect to all matters in given domain.
  - (h) Preparation of all PC-II related to NDMA, concerning any Wing.
  - (i) Coordination with all stakeholders in given domain.
- (3) **Administration and Finance (A&F) Wing**
- (a) Provides all admin and logistics support for NDMA Operations.
  - (b) Deals with procurement, transportation and record keeping of relief goods.
  - (c) Management of Admin, Transport and HR matters of NDMA.
  - (d) All finance and audit matters.
  - (e) All matters related to NDMC.
  - (f) All legal matters.





National Disaster Management Authority

# Section - II

## Response to Disasters





## Section – II

# Response to Disasters

### 3. Policies, Plans & SOPs Formulated During the Year

Serial	Title	Type	Wing
a.	National Monsoon Contingency Response Directive 2016.	Plan	Operations
b.	NDMA Guidelines on Stocking / Maintenance for Supply of Relief & Rescue Items.	Guidelines	
c.	NDMA Guidelines on Ex-Gratia Assistance to the Persons Affected by Natural and Man-made Disaster-2016.	Policy	
d.	Annual Report 2014.	Report	
e.	Annual Report 2015.	Report	
f.	NDMA's Guidelines on Minimum Cash Compensation to Disaster Victims.	Policy	
g.	Stocking policy of NDMA – March 2016.	Policy	
h.	Policy Guidelines and Implementation Matrix – July 2016	Policy	
i.	SOPs for Separated, Unaccompanied & Missing Children in Disasters – July 2016.	Training Manual	
j.	Pakistan School Safety Framework 2016 (Development of National, Provincial and District Guidelines on Comprehensive School Safety).	Guidelines	
k.	Development of Pakistan School Safety Framework (PSSF) Brochure.	GCC	
l.	GBV Guidelines and SOPs to Prevent, Mitigate and Response in Humanitarian Settings.	Guidelines	
m.	PSSF Trainer's Guide with Exercise Book, Teacher's Guide, Evaluator's Guide, Evaluator's Handbook.	Training Material	
n.	Needs and Concerns of Vulnerable Groups.	-	
o.	Gender Mapping	-	
p.	Atlas on VG - (Gender and age disaggregated data consolidated and prepared in the form of an Atlas titled "District Level Population's Baseline Disaggregated Data and Analysis Project").	Atlas	
q.	Preparation of NDMA Brochures.	Brochures	
r.	Preparation of Institutional Assessment of Integration of DRR into Agriculture Section.	Report	
s.	Preparation of Country DRM Status Report.	Report	

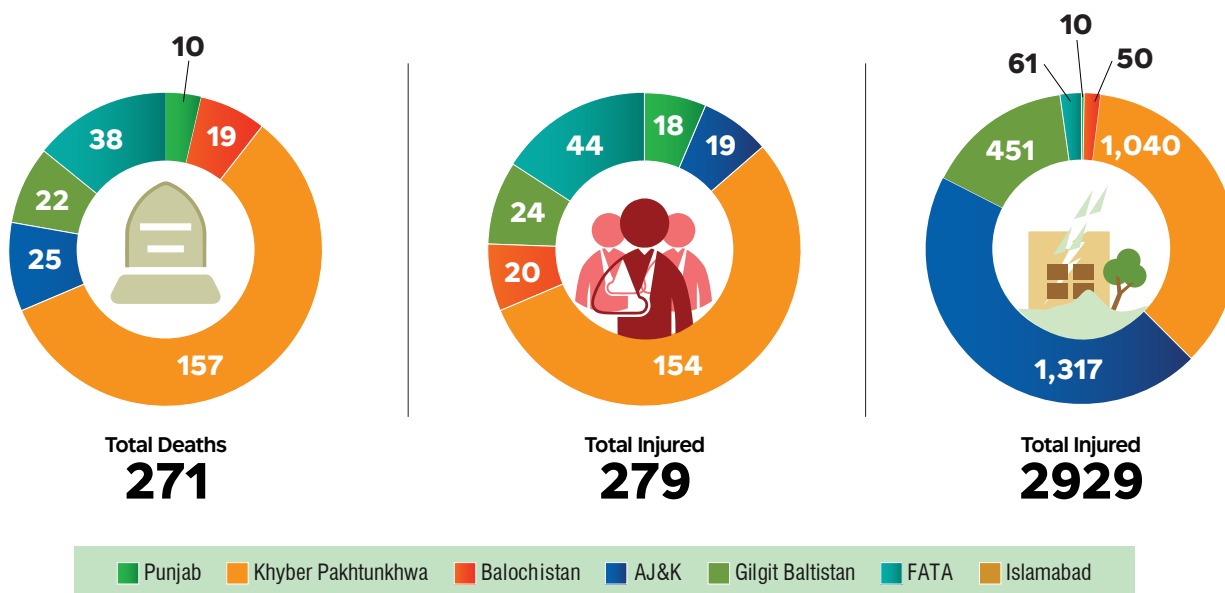
**4. Disasters Managed.** NDMA managed following disasters during the Year 2016:-

Serial	Month	Type of Disaster	Provinces Affected
a.	March – May 2016	Winter Heavy Rains/Pre-Monsoon Rains and Blockade of KKH	Punjab, KP, GB and AJ&K
b.	June – September 2016	Monsoon 2016	KP, Balochistan and AJ&K
c.	7 December 2016	PIA Air Crash (ATR - 661)	KP

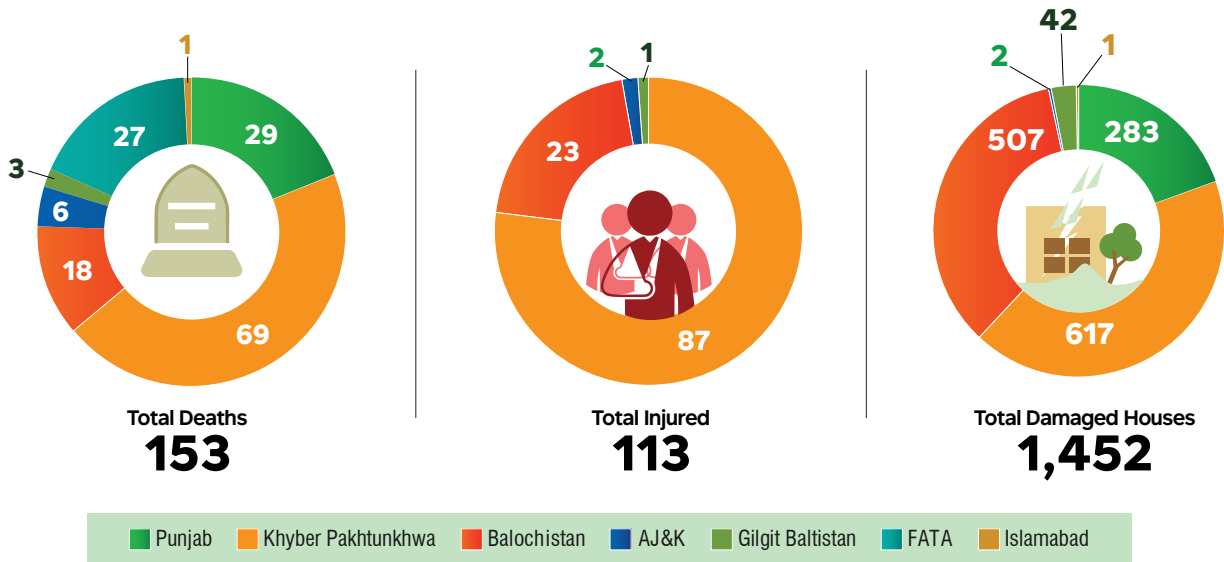
**5. National Losses / Damages Due to Disasters.** Summary of major losses/damages is as under:-

Serial	Disasters	Damages / Losses										
		Disasters				Injured				Houses Damaged		
		M	F	C	T	M	F	C	T	P	F	T
a.	Pre-Monsoon Rains	127	56	88	271	137	65	77	279	1,927	1,002	2,929
b.	Monsoon 2016	55	33	65	153	43	38	32	113	1,021	431	1,452
c.	PIA Air Crash	34	11	2	47	-	-	-	-	-	-	-

**Losses / Damages – Pre-Monsoon Season (March-May 2016)**



## Losses / Damages – Monsoon Season (July-September 2016)



### 6. National Relief Efforts for All Disasters. Details at Annex B.

### 7. Disaster Response Activities

- a. **Blockade of Karakorum Highway (KKH).** Due to heavy Monsoon rains, KKH was blocked from 3 – 15 April 2016. NDMA not only coordinated timely clearance of about 159 x Landslides and opening of the road with assistance of NHA, FWO, Pakistan Army, KP and GB Governments but also coordinated following:-
  - (1) 23 x Sorties of C-130 with PAF from Islamabad to Gilgit.
  - (2) Transportation of 102 x Tons of relief items and 16 x Tons of Wheat to GB.
  - (3) Provision of 1 x MI-17 to PAF from Pakistan Army for supply of relief to Naltar Valley and evacuation of ailing women from the remote valley to Gilgit which only had air link to access.
  - (4) Chairman NDMA visited GB and provided relief goods on 13 April 2016.
- b. **Search and Rescue Operation in Karimabad.** 10 x students of Karimabad village (District Chitral) came under an avalanche on 20 March 2016. On request of PDMA KP, NDMA transported USAR Team through helicopter to the site for early recovery of dead bodies. Dead bodies of seven students were recovered as a result of this search and rescue operation while remaining three bodies were recovered on melting of snow.
- c. **Monitoring of Monsoon Season 2016**
  - (1) **Activation of National Emergency Operation Centre (NEOC).** To monitor flood situation and configure correct / timely response at required place, NDMA activated NEOC from 15 June to 15 September 2016.



- (2) **Timely Evacuation during Flash Floods**. Owing to awareness drive through a series of preparedness activities before start of Monsoon Season 2016, considerable population of district was evacuated by local administration before devastation by flash floods without any human losses:-
- (a) Harmosh Valley, GB on 15 July 2016.
  - (b) Village Gamba, District Skardu, GB on 2 September 2016.
- (3) **Timely Clearance of Landslides**. Due to continuous monitoring, timely coordination and a well-integrated response by NDMA, NHA, Pakistan Army, FWO and concerned Provincial / District Administration, frequent landslides along following important National arteries were timely cleared:-
- (a) Gilgit – Skardu (S-1) Road.
  - (b) Karakoram Highway (KKH).
  - (c) Nowshera – Chitral (N-45) Road.
  - (d) Khawazakhela – Besham (N-90) Road.
  - (e) Chakdara – Kalam (N-95) Road.
  - (f) Kohala – Muzaffarabad (S-2) Road.
  - (g) Abbottabad – Nathiagali Road.
  - (h) Murree – Kohala Road.
  - (i) Rawalpindi – Sudhnoti Road.
- d. **Search and Rescue Operation at OGRE-II**. Two American mountaineers; Mr Kyle Dempster and Mr Scott Adamson were reported missing during their expedition to OGRE-II in District Shigar, GB on 20 August 2016. NDMA coordinated search & rescue mission by Pakistan Army, however mountaineers could not be found.

**8. Overseas Relief (Issued / Receipt)**. NDMA responded swiftly to the International assistance appeals and sent relief assistance to Sri Lanka (Floods), Gorno Badakhshan and Tajikistan (Earthquake). Moreover, NDMA also received emergency relief goods from Government of China. Details of NDMA overseas relief (provided / received) are at **Annex C**.

## **9. Recovery and Rehabilitation Activities**

- a. **Landslides/ Heavy Rains (March & April-2016)**
- (1) As per Prime Minister's directive dated 23 April 2016, an amount of Rs. 216.350 million was paid to 849 affectees of landslides and heavy rainfall in Kotli Sattian, District Rawalpindi at the following rates:-
- (a) Rs. 50,000.00 each for 181 houses damaged upto 40%.
  - (b) Rs. 100,000.00 each for 256 houses damaged from 41% - 70%.
  - (c) Rs. 200,000.00 each for 81 houses damaged from 71% - 80%.
  - (d) Rs. 500,000.00 each for 331 houses damaged from 81% - 100%.



- (2) As per Prime Minister's directive dated 23 April 2016, an amount of Rs. 56.50 million @ Rs. 500,000/- per person was paid to 113 affectees whose houses were completely destroyed/ damaged in Village Danna, District Muzaffarabad.
- b. **Thunderstorm, June 2016.** As per Prime Minister's directive dated 7 June 2016, an amount of Rs. 3.0 million was paid to the 6 NoKs @ Rs.500,000.00 per deceased due to thunderstorm on 1st June 2016 in Islamabad.
- c. **Grant in Aid for Affectees of Unprovoked Firing of Indian Army across the LoC.** As per Prime Minister's directive dated 30 November 2016, an amount of Rs.101.600 million was paid to the affectees (individuals & households) of unprovoked firing by Indian Army across Line of Control as per following rates:-
- (1) Rs. 1,000,000.00 each for 39 martyred persons.
  - (2) Rs. 200,000.00 each for 128 injured persons.
  - (3) Rs.1,000,000.00 each for 04 fully damaged houses.
  - (4) Rs. 5,00,000.00 each for 66 partially damaged houses.
- d. **Release of 2nd Tranche Federal Share of Rs.1.0 billion for Housing Reconstruction Awaran (HRA) Project**
- (1) In December 2013, the Prime Minister announced construction of 16,000 housing units for Awaran earthquake affectees. ECNEC approved the PC-I with the cost of Rs.4.0 billion to be shared on equal basis by Federal Govt and Govt of Balochistan. Federal Govt. released Rs. 1.0 billion in December 2013 and 2nd tranche of Rs.1.0 billion was released in February and March, 2016 respectively as per following details:-
    - (a) Rs 820.217 million through supplementary grant; and
    - (b) Rs 179.783 million from the Prime Minister's Balochistan Earthquake Relief Fund 2013.
  - (2) Out of total 16,000 houses, construction work of 10,943 houses was completed by the owners/self-builders till the end of 2016, whereas, construction work of the remaining houses is likely to be completed in September 2017.
- e. **Housing Foundation of Iran (HFI).** After the floods – 2010 / 2011, Housing Foundation of Islamic Republic of Iran signed a Memorandum of Understanding (MoU) with NDMA in February 2012 for a period of three years, which was extended for another three (03) years upto 28 February 2018. HFI committed to construct 17 health and educational projects in flood affected districts of Punjab and Sindh. The detail of completed and handed over projects by HFI to the concerned provincial authorities in 2016 is as under:-

Serial	Province	No. of Projects		Handed over Projects in 2016	
		Education	Health	Education	Health
(1)	Punjab	04	05	02	02
(2)	Sindh	04	04	-	01



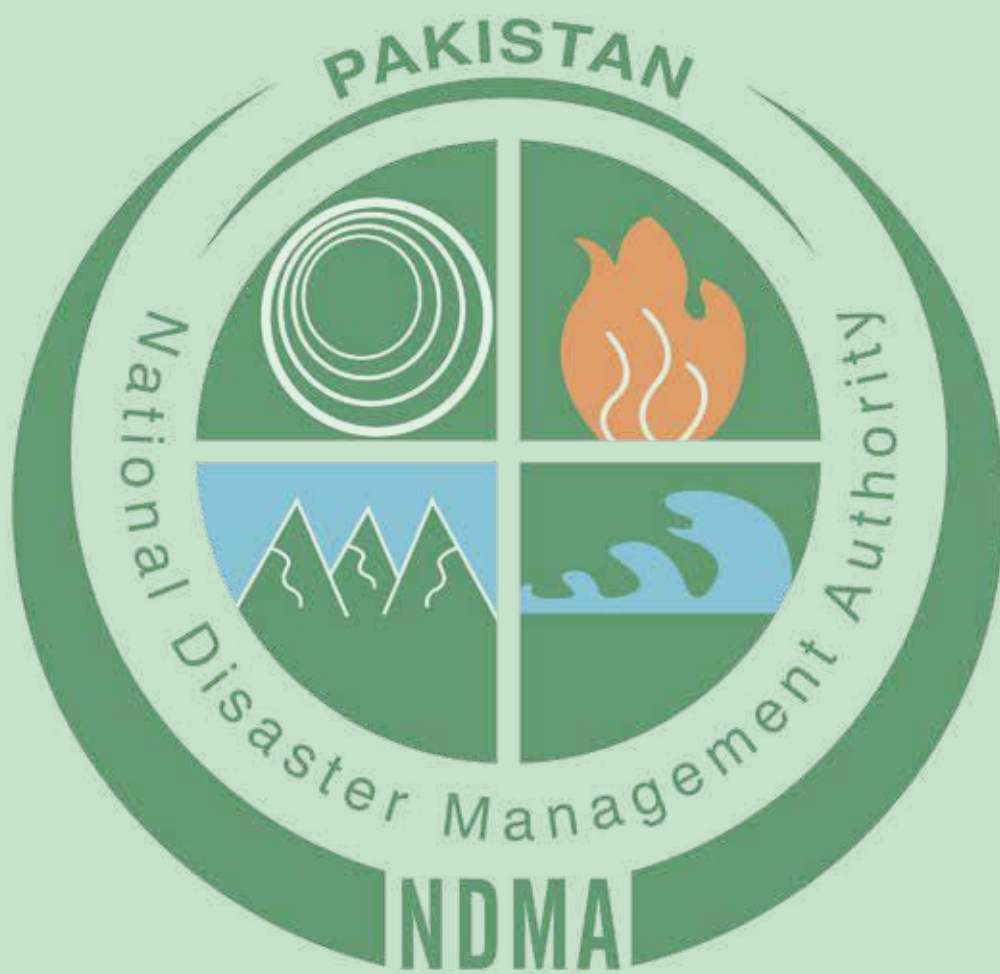
- f. **Custodian of Two Holy Mosques Relief Campaign for Pakistan (CTHMRCP).** After the Floods 2012, KARCPP (now CTHMRCP) approached NDMA for identifying locations for construction of 5000 houses, 40 schools and 25 Basic Health Units (BHUs) in flood affected areas of Punjab, Sindh, KP and Balochistan. NDMA in consultation with concerned PDMAs, forwarded plan/ locations for proposed construction of above projects by CTHMRCP. The details of project completed upto December 2016 is as under:-

Serial	Project	Completed/Handed over	
(1)	Houses	Sindh	- 1925
		KP	- 300
		Punjab	- 300
(2)	Schools	Punjab	- 3
(3)	BHUs	Punjab	- 1
(4)	Water Supply Schemes	Punjab	- 24
		Baluchistan	- 75
		Sindh	- 31
		KP	- 10

- g. **NOCs Issued.** During the year, 08 x NOCs for exemption of duties on the import of relief items were issued to different Government Departments, UN-Agencies and NGOs / INGOs for distribution amongst the affectees of disaster / calamities.
- h. **Applications for Financial Assistance.** A total of 258 applications from Prime Minister's Public Affairs and Grievances Wing, Ministry of Parliamentary Affairs, President Secretariat, MNAs, Senators, complainants etc, for financial assistance on account of various disasters / calamities were received and forwarded to the concerned PDMAs for redressed / necessary action.

## 10. Post Disaster Reports

- a. **Monsoon 2016.** Details at **Annex D.**
- b. **PIA Air Crash (ATR - 661).** Details at **Annex E.**



# Section - III

## Disaster Preparedness





## Section – III

# Disaster Preparedness

## Major Preparedness Activities

### 11. Coordination Conferences for Monsoon

- a. **National Post-Monsoon Review Conference 2015.** In order to compile lessons learnt, good practices, bottle necks identified and valuable experience gained during Floods 2015 and share it with all stakeholders for future preparations, National Post-Monsoon Review Conference 2015 was organised on 22 January 2016 at Islamabad.
- b. **Pre-Pre-Monsoon 2016 Preparedness.** NDMA issued Pre-Pre-Monsoon Instructions to all relevant stakeholders on 18 March 2016.
- c. **High Level Consultative Meetings with Provinces – Monsoon Preparedness.** In order to sensitize all provinces / regions to expedite Monsoon preparations as well as bridge identified gaps, Chairman NDMA organised high level consultative meeting with all PDMA and respective Chief Secretaries as under:-
  - (1) PDMA Sindh and Chief Secretary Sindh on 17 June 2016 at Karachi.
  - (2) PDMA KP, FDMA and Chief Secretary KP on 22 June 2016 at Peshawar.
  - (3) SDMA and Chief Secretary AJ&K on 24 June 2016 at Muzaffarabad.
  - (4) PDMA Punjab and Chief Secretary Punjab on 1 July 2016 at Lahore.
- d. **National Pre-Monsoon Preparedness Conference – 2016.** National Pre-Monsoon Preparedness Conference 2016 was held on 9 June 2016 at Islamabad. The forum facilitated compilation of provincial / regional plans and input to build a well-coordinated National response for impending Monsoon Season.
- e. **National Monsoon Contingency Response Directive 2016.** To lay down response guidelines for all stakeholders at Federal and Provincial level, ensure sound disaster management against possible floods and configure a coherent response against visualised contingencies of Monsoon 2016, National Monsoon Response Directive 2016 was issued to all stakeholders on 15 June 2016.
- f. **Resolution of Frequency Interference Issue of Lai Nullah.** NDMA successfully resolved a long outstanding issue between Frequency Allocation Board (FAB), Ministry of Interior and Pakistan Meteorological Department (PMD). The initiative restructured capability of PMD to predict possibility of flooding in Lai Nullah during Monsoon 2016.
- g. **Coordination with Management of Tarbela Dam.** In order to enhance coordination mechanism with management of major water reservoirs of the Country and ensure prudent operation of dams during floods, a team comprising NDMA Officials visited Tarbela Dam on 18 August 2016.

## 12. Enhancement of Stores / Warehousing

- a. **Completion of Sukkur HRF Site.** NDMA and PDMA Sindh in close collaboration with WFP have completed construction of Sukkur Humanitarian Response Facility on 18 May 2016. This will facilitate relief operations of NDMA and PDMA Sindh in upper Sindh as well as Naseerabad Division of Balochistan Province.
- b. **Creation of Reserve Stocks of Rescue Equipment.** To retain flexibility and enhance response capacity of Pakistan Army, NDMA created Central Reserve North and South as under:-
  - (1) 25 x Fibre Glass Boats, 25 x OBMs and 750 x Life Saving Jackets were handed over to Pakistan Army for storage at Rawalpindi.
  - (2) 25 x Fibre Glass Boats, 25 x OBMs and 750 x Life Saving Jackets were handed over to Pakistan Army for storage at Abdul Hakim.
- c. **Enhancement of Rescue Capacity.** NDMA handed over 20 x Suzuki Ambulances (donated by Pakistan Suzuki Motors) to PDMA Balochistan, SDMA and GBDMA as under:-
  - (1) PDMA Balochistan - 05 Nos.
  - (2) GBDMA Gilgit - 10 Nos.
  - (3) SDMA AJ&K - 05 Nos.
- d. **Procurement of Relief Stores.** NDMA procured / stacked 2,000 x tents each at Islamabad and Jalozi while 1,000 x tents at RGDO Karachi.
- e. **Repair / Maintenance Work at Relief Goods Dispatch Organisation (RGDO) Karachi.** In October 2015, RGDO Warehouse Karachi was taken over from ERC which required repair / maintenance work. Maintenance work like waterproofing of roofs, removal of partitions, ceiling and plumber work in the warehouse was completed while electric work is in process.
- f. **Taking Over of Relief Stores from ERRA.** Following stocks were taken over from ERRA including:-

Serial	Items	Quantity
(1)	Sleeping Bag	4000
(2)	Kerosene Oil Heater	1300
(3)	Mattress Physiotherapy	900
(4)	Blanket	570
(5)	Generator 2.4 KVA	200
(6)	Gas Burner White	33
(7)	Rain Coat	22
(8)	Iron Knife	350
(9)	Water Bottle	50
(10)	Container (20 ft)	08

- g. **Storage Capacity.** World Food Programme (WFP) donated 5 x Rub Halls for enhancement of NDMA storage capacity at Federal Level which were installed at H-11, Islamabad.



- h. **MoU between NDMA and Pak Army for Warehouses.** NDMA and Pak Army finalised MoU covering period from 1 July 2015 to 30 June 2018 for provision of space at following storage facilities of Pak Army:-
- (1) CMT&SD Golra.
  - (2) COD Lahore.
  - (3) COD Karachi.
  - (4) Ammo Depot Kashmore.
  - (5) Ordinance Depot Quetta.
- i. **Country Wide NDMA's Relief Stocks.** Details at **Annex F.**

**13. Industrial Hazards Simulation Exercise.** Industrial Hazards Simulation Exercise was conducted on **29 March 2016 at Dharki** in which all relevant stakeholders participated. Missing links observed in response mechanism against industrial disasters were compiled and shared with all concerned in the form of Post Exercise Report.

**14. Procurement of Heavy Earth Moving Machinery for GB.** On pursuance of NDMA, Prime Minister of Pakistan had very kindly consented 30% share by Federal Government to purchase heavy earth moving machinery for GB. Federal share of Rs 218,996,000/- has been released to Government of Gilgit-Baltistan and the process for procurement of machinery is likely to be completed within next three months. The capability will not only enable Govt of GB to ensure road communication within the region but also along main artery of KKH linking the region with Pakistan.

**15. Indian Ocean Wave 16 (IOWave 16) Exercise.** To refresh procedures, SOPs, and online data sharing of National Seismic Monitoring & Early Warning Centre (NSMC) with Seismic Monitoring Centre of India, Indonesia and Australia, the exercise was conducted at Karachi on **8th September 2016**. It was organised by UNESCO and OXFAM during which an earthquake of 9.0 Magnitude was simulated at Makran Trench South of Pakistan and Iran at 1100 hours. On generation of earthquake, it was assumed that Tsunami waves travelled across the whole Indian Ocean Basin while hitting Gwadar and Ormara in Pakistan leading to practical evacuation at Gwadar Coast by OXFAM in coordination with NDMA, PDMA and local Govt.

**16. Coordination Mechanism with PAEC.** To enhance coordination linkages with Pakistan Atomic Energy Commission (PAEC) with respect to DRR and response to any nuclear power reactor accident at KANUPP and CHASHNUPP, NDMA organised a meeting at Islamabad on 8th September 2016. Grey areas between existing coordination mechanism of NDMA, PDMA Punjab & Sindh, concerned DDMAAs and PAEC were identified for corrective measures in future. Need for a futuristic course of action hinging upon capacity building for disaster management was emphasised.



**17. National Disaster Awareness Day 2016.** To observe Disaster Awareness Day at National / Regional level on 8th October 2016 while keeping in mind solemnity of Muharram Ul Haram, activities were confined to disaster awareness drive only. The Day was observed at Provincial / Regional level too while at National level following activities were organized:-

- a. Awareness drive through city branding of twin cities of Islamabad and Rawalpindi.
- b. Conduct of Cyclathan in Islamabd.
- c. Flag March by CDA USAR Team in Islamabad.

**18. Advocacy and Awareness**

- a. A National Media Consultative Dialogue was organised at Islamabad on 9 January 2016 in which eminent media anchors, print media persons, politicians and representatives from Civil Society participated for joint statement of agreement for disaster reporting.
- b. In order to sensitise general public about heat wave and floods, Public Service Messages of NDMA were aired during Monsoon 2016 at PTV, Radio Pakistan and some Commercial Channels.
- c. 57 x Press Releases were published in 354 newspapers.
- d. Two quarterly Public Service Messages regarding flood awareness were published on 14 June and 30 June 2016 respectively in local and regional newspapers.
- e. Six TV and Radio Programmes were recorded on heat wave, flood, earthquake, drought, fire safety and vulnerable groups in disasters. Two programmes of heat wave and floods were aired on PTV News in June / July 2016 while remaining programmes were aired on weekly basis during July / August 2016.
- f. Public Service Massages TVCs were prepared on Earthquake, Flood (Urban & Flash Flooding), Heat Wave, Landslides & Fire Safety.
- g. 2x NDMA Documentaries on “Disaster Resilient Pakistan” and Vulnerable Groups” were developed. NDMA Documentary with the theme “Towards a Disaster Resilient Pakistan” was also aired at the World Humanitarian Summit held in May 2016 at Istanbul.
- h. NDMA also took initiative to collaborate with Radio Pakistan to broadcast NDMA recorded programmes on general awareness raising on weekly basis from July to August 2016.
- i. Supplements about NDMA achievements during three years of present Government was printed in special edition of Pakistan Observer on 11 July 2016.
- j. Regular awareness advertisement as part of pre, during and post disaster Media Campaigns were also published.
- k. Over 2.5 Million people were directly engaged as part of advocacy through Social Media.



# Section - IV

## Disaster Risk Reduction



## Section – IV

# Disaster Risk Reduction

### Major Projects Undertaken in Collaboration with Development Partners

#### 19. Major Projects Undertaken

Serial	Project Title	Duration		Cost in Million (PKR)	Development
		From	To		
a.	WFP Project “Support for Institutional Capacity Building of NDMA”	January 2016	December 2016	8.729	<ul style="list-style-type: none"> <li>• SIMEX / GOERE Capacity Building Workshops</li> <li>• Purchase of GIS License</li> <li>• HR Support to NDMA</li> </ul>
b.	UNDP Support of Institutional Strengthening of NDMA and National Capacity Building Programs to NIDM	January 2016	September 2016	6.026	<ul style="list-style-type: none"> <li>• SIMEX / GOERE Capacity Building Workshops</li> <li>• HR Support to NIDM</li> </ul>
c.	SDC Supporter Institutional Capacity Building of NIDM / NDMA Project Period: From 10 October 2016 till 28 February 2017	October 2016	December 2016	1.439	<ul style="list-style-type: none"> <li>• SIMEX / GOERE Capacity Building Workshops</li> <li>• HR Support to NIDM</li> </ul>

**20. United Nations International Children Emergency Fund (UNICEF) / NDMA Work Plan.** NDMA’s Gender & Child Cell (GCC) and UNICEF-Pakistan, signed an addendum on 8 September 2016. The objective of this UNICEF / NDMA work plan on DRM - Enhanced capacity and delivery of services of NDMA was to reduce disaster risks for children and to ensure their well-being and protection in disaster preparedness, response and recovery.

**21. UN-Women Support to NDMA.** The Memorandum of Understanding (Budget Re-Appropriated) between NDMA’s Gender & Child Cell (GCC) and UN Women was signed on 15 November 2016 for “enhancing national capacities to develop policy guidelines and standard operating procedures for the presentation and response of Gender Based Violence in emergencies”.



## **22. British Council's Support to NDMA**

- a. The Memorandum of Understanding (MoU) between NDMA's Gender & Child Cell (GCC) and British Council Pakistan was signed on 1 February 2016 for education in emergencies and disasters.
- b. The Memorandum of Understanding (MoU) between NDMA's Gender & Child Cell (GCC) and British Council Pakistan was signed on 10 November 2016 for finalisation and piloting of Pakistan School Safety Framework (PSSF) on Comprehensive School Safety Guidelines and pretesting of the guidelines to be done in selected First Phase District.

## **23. Signing of AWP and LoA with UNDP, WFP & SDC and Implementation of activities for the Year 2016.**

NDMA signed Letter of Agreement with UNDP and WFP for Institutional Capacity Building of all stakeholders at Federal and Provincial Level as well as to implement CBDRM Programme in the most vulnerable districts of the country. NDMA also signed a Letter of Agreement with Swiss Agency for Development and Cooperation (SDC) for Institutional Capacity Building of NIDM / NDMA and SIMEX/GOERE Capacity Building Trainings for all stakeholders at Federal and Provincial Level as well as most vulnerable districts of the country.

## **Major Initiatives Undertaken for DRR**

### **24. First Meeting of NDMP Implementation Steering Committee**

- a. First meeting of the National Disaster Management Plan Steering Committee convened at National Disaster Management Authority (NDMA) on 7-8 January 2016. The Committee is mandated to monitor and evaluate the implementation of National Disaster Management Plan 2012-2022 (NDMP) as well as to provide Strategic Policy Guidelines in the realm of Disaster Management.
- b. Various implementing organisations presented the progress achieved in implementation of the respective activities as indicated in NDMP and highlighted the key challenges faced by them in this regard. Major component of NDMP is related to structural activities and Federal & Provincial agencies especially FFC, PMD, Provincial Irrigation Departments, etc. have to take lead role in this regard and implement projects through their respective annual development programmes. As regarding non-structural components for non-structural interventions, the forum was informed that NDMP Implementation Roadmap was unveiled on 19 October, 2015 by NDMA. It focuses on risk assessments, capacity building and awareness. Two new concepts viz Government Officials Emergency Response Exercise (GOERE) and Mobilisation of Volunteers Emergency Response Exercise (MOVEERE) were also introduced to enhance the response capacities at the lowest tier of Disaster Management i.e. districts with the elements of Disaster Risk Reduction. The Roadmap was well taken by all the development partners and the response is very encouraging.



- c. Steering Committee appreciated the efforts of NDMA. The Meeting concluded with a resolve to rigorously follow-up and review progress made against key decisions for the implementation of National Disaster Management Plan key interventions in Pakistan.

**25. Finalisation of Report on Institutional Assessment on the Integration of Disaster Risk Reduction in the Agriculture Sector of Pakistan with FAO.**

NDMA in consultation with FAO has finalised Report on Institutional Assessment on the Integration of Disaster Risk Reduction in the Agriculture Sector of Pakistan with extensive consultation with all Federal and Provincial stakeholders. The Study is likely to facilitate Government Authorities to redefine priorities and initiate interventions commensurate to dictates of mainstreaming Disaster Risk Reduction into Agriculture Sector. It will thus certainly contribute towards the desired end state of Disaster Resilient Pakistan as envisioned in the National Disaster Management Plan (NDMP).

**26. INGOs Registration in the Realm of Disaster Management Support Provided to Ministry of Interior.**

In order to facilitate the registration of INGOs working in the realm of Disaster Management, NDMA held meetings with all INGOs and provided input/response pertaining to registration of INGOs to Ministry of Interior while keeping in view their work/project carried out in the country.

**27. Preparation of Brief/Material for 71<sup>st</sup> Session of UN General Assembly.**

On request of Ministry of Foreign Affairs, NDMA provided brief / material for sessions pertaining to Disaster Management during 71<sup>st</sup> Session of UN General Assembly.

**28. Implementation of DFID Inception Phase of Building Disaster Resilient Programme (BDRP).**

NDMA in close coordination with DFID has implemented inception phase of Building Disaster Resilient Programme (BDRP) as per agreed Terms of Reference. The project will be implemented in four districts i.e. Muzaffargarh and Rajanpur in Punjab, Ghotki and Kashmore in Sindh. The intended outcomes of BDRP will be:-

- a. To help village communities to mitigate and prepare for disasters with improved early warning systems (EWS), risk information, community level response mechanisms, improved linkages with Disaster Management Authorities and community based disaster risk reduction and climate change adaptation measures.
- b. To support greater Government capacity at National, Provincial and District levels to better manage disasters. The programme will specifically seek to improve linkages between communities, districts and provincial level disaster management agencies.

**29. Collaboration with JICA for the Upcoming Project on “Capacity Building of Disaster Management Institutions in Pakistan.**

In response to the official request of the Government of Pakistan to the Government of Japan, the Japan International Cooperation Agency (JICA) held a series of discussions with NDMA, NIDM and relevant organisations to develop a detailed plan of the Project for Capacity Development of Disaster Management in Pakistan. The overall objectives of the project is to enhance capacities of disaster management organisations at Federal, Provincial and District



level. JICA consultant has completed gathering initial project requirement and submitted report to JICA headquarters. Based on the report, JICA Expert Team will visit Pakistan to formulate Project Proposal / PC-1.

**30. Pakistan Fund for Disaster Management.** NDMA has provided necessary input / views on the proposed Fund for Disaster Management with the fund support from Asian Development Bank. The Fund will primarily be used for Disaster Management activities spelled out in National Disaster Management Plan and National Flood Protection Plan-IV. Implementation modalities of the Fund is in its final stages.

**31. Collaboration for Safe & Secure Pakistan with Pegasus Consultant Pvt Ltd.** NDMA coordination for Safe Secure Pakistan 2016 with Pegasus Consultant Pvt Ltd and delivered lecture on Disaster Management as well as establish stall during exhibition to raise awareness of participants for disaster risk reduction.

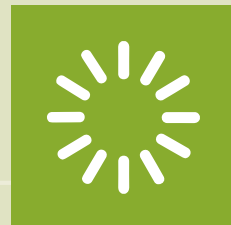
**32. Preparation of PC-Is on Comprehensive Disaster Risk Management Project for which Concept Clearance were Approved from Planning Commission of Pakistan.** NDMA has formulated PC-1 for comprehensive Disaster risk Management project for seeking possibility of funding from EAD. Following Concept Clearance of the project was approved by Planning Commission in 2016:-

- a. Multi-Hazard, Vulnerability and Risk Assessment (MHVRA) for 140x Districts and Development of National Disaster Risk Information System (NDRIS).
- b. Protection & mainstreaming of Vulnerable Women, Children, Elderly & Disable in Disaster Management.
- c. National Integrated Disaster Management Information System (NIDMIS).
- d. NDMA Building Complex.



# Section - V

## Progress on National Disaster Management Plan (NDMP)



## Section – V

# National Disaster Management Plan (NDMP)

**33. Background.** NDMP was formulated in February 2013 after an exhaustive effort of two years in collaboration with Japan International Cooperation Agency (JICA). The Plan has various components of execution involving multiple stakeholders. NDMA being the lead federal agency has the overarching role of monitoring the various components as well as implementation of the component concerning NDMA and PDMA.

**34. Vision.** Enhancing capacity of the Country to prepare for and respond to disasters (Flood, Earthquake, Tsunami, Drought, Avalanches, GLOFs, Cyclone, Storm surge) using a comprehensive National approach.

**35. Outline Plan.** NDMA formulated 10 years prospective NDMP which was approved by National Disaster Management Commission (NDMC) on 1 February 2013. NDMP is a comprehensive document covering all aspects of disaster management in the Country which will be implemented with approximate budget of around Rs 92 Billion (as calculated in 2012). For its effective execution, an implementation roadmap was unveiled on 19 October 2015 which will be implemented from 2016 to 2030 in a phased manner as under:-

Serial	Phase	Timeframe	Implementation Strategy
a.	Phase-I	2016 – 2018	39 High Priority Districts
b.	Phase-II	2019 – 2023	55 Priority Districts
c.	Phase-III	2023 – 2030	63 Remaining Districts

**36. Salient Features.** The salient features of NDMP are:-

- |    |               |   |                      |
|----|---------------|---|----------------------|
| a. | Interventions | - | 10                   |
| b. | Strategies    | - | 41                   |
| c. | Projects      | - | 118                  |
| d. | Timeframe     | - | 10 Years (2013 – 22) |

**37. Financial Outlay.** Details at **Annex G.**

**38. Implementation Progress.** Details at **Annex H.**

- a. **Planned Interventions.** Target interventions of NDMP Roadmap are:
- (1) Multi Hazard Vulnerability Risk Assessment (MHVRA).
  - (2) Community Based Disaster Risk Management (CBDRM).



- (3) Capacity Building through Government Officers Emergency Response Exercise (GOERE), Mobilisation of Volunteers Emergency Response Exercise (MOVEER).
- (4) Awareness and Advocacy.
- (5) Integrate needs & concern of vulnerable of group.

b. **Implementation Strategy**

- (1) **Donors, Bilateral & Multilateral Organisations.** NDMA is in active consultation / collaboration with UN Agencies, World Bank, DFID, Asian Development Bank & JICA etc.
- (2) **Initiatives through Federal PSDP.** NDMA has also taken initiatives to implement the Roadmap through funding by Government of Pakistan. Four PC-1s have been submitted for approval of competent forum. Details are as under:-
  - (a) **Capacity Building of Government Officials.** It aims at Capacity Building of Government Officials and other stakeholders to enhance the capacity of staff of government offices related to disasters management. Approximately 1000 individuals from government and non-government sector were trained during 2016.
  - (b) **Multi Hazard Vulnerability and Risk Assessment (MHVRA) and National Disaster Risk Information System (NDRIS).** It aims at development of standard MHVRA practices to provide a comprehensive pictures of disasters impact. NDRIS will facilitate data sharing, acquisition and authentication. This central repository will later be transformed into a powerful Decision Support System (DSS). MHVRA will be conducted in 4 most vulnerable districts (Hattian, Neelum, Hyderabad and Dadu).
  - (c) **National Disaster Spatial Data Infrastructure (NDSDI).** It aims at development of a central geospatial dynamic structured and authentic repository of all disasters related databases for easier access, wider and timely availability. It will also assist other national regulatory bodies in planning and management within their related spheres to use required data for better decision making.
  - (d) **Protection of Vulnerable Women, Children, Elderly & Disabled in Disaster Management.** It aims at alignment of women development / empowerment with Government of Pakistan's policies concerning gender equality and attainment of sustainable goals. It will integrate needs and concerns of vulnerable groups in all policies for natural and man-made disasters in-line with National DRR policy and NDMP besides National Gender & Child Cell Framework. Efforts will be made to strengthen institutions and develop coordination mechanism for addressing needs and concerns of vulnerable groups at all levels.



# Section - VI

## Regional & Bilateral Cooperation







## Section – VI

# Regional & Bilateral Cooperation

**39. Existing Linkages.** NDMA has initiated number of bilateral cooperating agreements / MoUs to enhance disaster management in the region. NDMA Liaisoned with MoFA for implementation of these MoUs. Details of these MoUs are as under:-

Serial	Country	Executing Agency	Time Period	Signing Date
a.	Republic of Korea	The National Emergency Management Agency (NEMA)	5 Years	3 September 2012
b.	Republic of Turkey	Disaster and Emergency Management Presidency (AFAD), Turkey	3 Years	24 December 2013
c.	Republic of Sri Lanka	Ministry of Disaster Management, Sri Lanka	5 Years	6 April 2015
d.	Kyrgyz Republic	Ministry of Emergency Situation, Republic of Kyrgyz	5 Years	21 May 2015
e.	SAARC agreement on Rapid Response to Natural Disaster has been enforced with effect from 9 September 2016 after ratification by Afghanistan on 20 July 2016.			

**40. New Linkages.** During the Year 2016, NDMA has initiated following MoUs:-

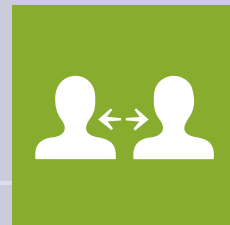
Serial	Country	Executing Agency	Progress
a.	People's Republic of China	Ministry of Civil Affairs of the People's Republic of China	Start of negotiations
b.	Republic of Azerbaijan	Ministry of Emergency Situations Government of Republic of Azerbaijan	Start of negotiations

**41. Linkages in Process.** Pakistan has already ratified the SAARC agreement on Rapid Response to Natural Disasters.

Serial	Country	Executing Agency	Progress
a.	Republic of Cuba	General Staff of National Civil Defense	Final approval of Cabinet for signing of MoU with Republic of Cuba.
b.	Republic of Afghanistan	ANDMA, Afghanistan	After seeking consultation with all stakeholders, the revised draft has been shared with Afghanistan for concurrence.
c.	Republic of Kazakhstan	Committee for emergency situation of the Ministry of International Affairs	MoU is under negotiation between two countries. After agreement on text of MoU, it will be finalized.

# Section - VII

**Capacity  
Building**



## Section – VII

# Capacity Building

**42. National Institute of Disaster Management (NIDM).** 20 x Courses were organized by NIDM during the year and 860 officials were trained. Details at **Annex I**.

**43. Foreign Training.** 24 x Officers of NDMA attended Foreign Training sessions. Details at **Annex J**.

**44. Programme for Enhancement of Emergency Response-IV.** In Country Planning Meeting (CPM) for PEER Stage-IV was organised in NDMA on 27 January 2016 in which National Society for Earthquake Technology (NSET), Nepal, Regional Advisor USAID and other in Country stakeholders participated. Modalities for conduct of PEER Stage-IV with the aim of enhancing capacities of key responders were finalised during the meeting. The training was conducted from October 2016 to January 2017 by NIDM, PRCS, NHEPRN and Emergency Services Academy, Lahore. Details are:-

Serial	Course	Date	Trained Strength
a.	Hospital Preparedness for Emergencies (HOPE)	17–27 October 2016	42
b.	Community Action for Disaster Response (CADRE)	14–23 October 2016	54
c.	Medical First Responders (MFR)	19–31 December 2016	24
d.	Collapsed Structure Search & Rescue (CSSR)	4–12 January 2017	18

**45. Pakistan School Safety Framework (PSSF)**

- a. The PSSF was developed after a series of National level consultative meetings with Government and Private Sector stakeholders and it was also reviewed by international consultants. Framework is being pretested through a pilot programme in selected 68 Schools to evaluate implementation of the Framework and identify the gaps before its scaling up across Pakistan. The Pilot Programme comprises four phases as under:-
- (1) **First Phase.** A core group of 30 lead trainers were trained at Lahore as Master School Trainers & Quality Supervisors.
  - (2) **Second Phase.** The lead trainers were responsible for training of three school teachers and one head teacher from each of the nominated 68 schools on PSSF from 22 November



to 10 December 2016 in all Provinces including ICT, AJ&K and GB. Same training on PSSF will also be given to District Evaluation, Comprising of officers from District Education department, Building department, Fire department and Police to carryout evaluation of schools to ascertain School Safety Standards.

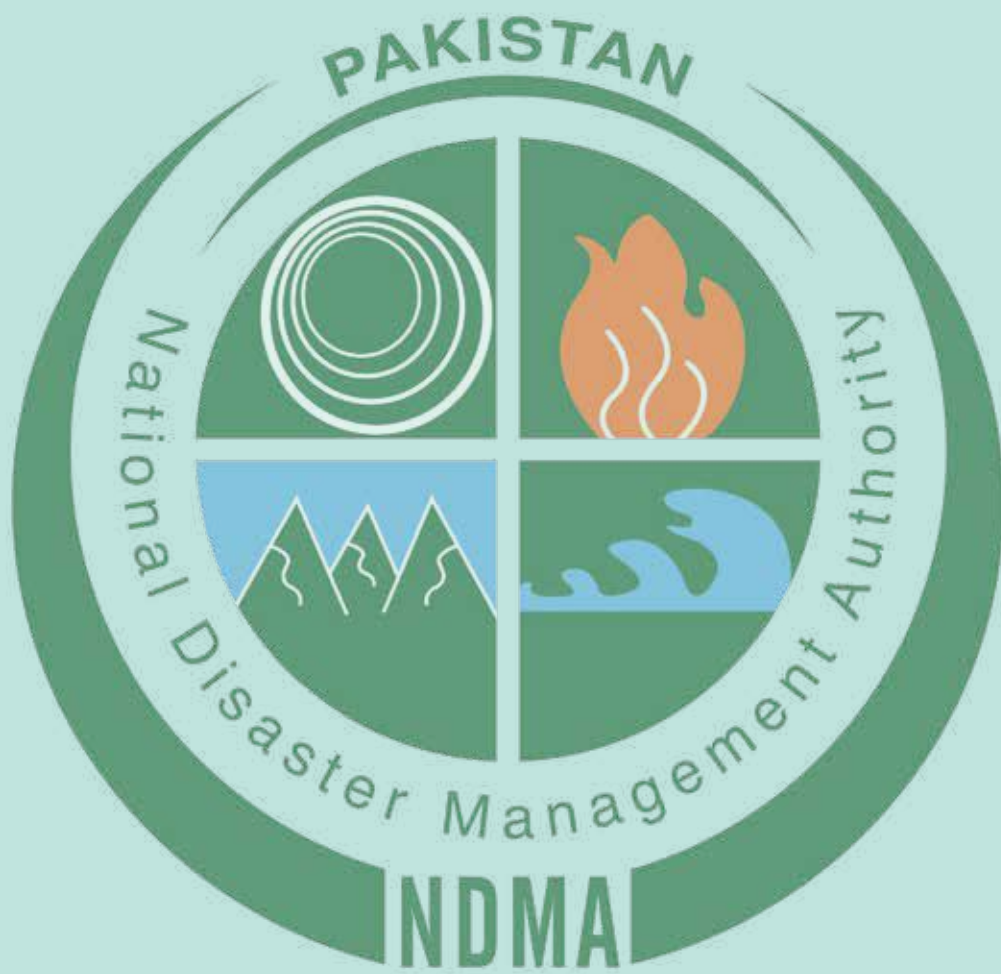
- (3) **Third Phase.** The trained teachers will go back to their respective schools to respective school safety plans, raise School Safety Organisations, undertake self-assessment of the School Safety Standards in accordance with PSSF and prepared school community for response against disasters.
  - (4) **Fourth Phase.** The final phase of the Pilot Programme towards the end of January 2017 was conducted through trained district evaluator alongwith representatives of NDMA and PDMA. During evaluation, the schools shared their self-assessment of safety standards and their school safety plans. The Evaluation Team ascertained School Safety Standards as per the PSSF as a 2nd Party Evaluation at the end of the project. Its implementation will set the stage for scaling up of the programme.
- b. **Training of Trainers (TOTs), School Master Trainers.** Training of Trainers (TOTs), School Master Trainers across Pakistan on Pakistan School Safety (PSSF) Pilot Programme was conducted in Quetta, Lahore, Gilgit, Karachi, Islamabad, AJ&K & KP from 9 January to 10 December 2016. 263 x trainers were trained.

**46. Training of Trainers (TOTs) on SOPs for Missing, Unaccompanied & Separated Children.** Training of Trainers (TOTs) on SOPs for Missing, Unaccompanied & Separated Children was held in Quetta, Karachi and Peshawar from 19 January – 4 February 2016. 67 x participants attended the trainings.

**47. Trainings of NDMA, R/PDMA and Key Ministries.** With the support of Asian Disaster Preparedness Center (ADPC), trainings of PDMA, DDMA and representatives of key ministries / departments in KP, Punjab, Sindh and Balochistan on “Child Centered Risks Assessment, Disaster Risk Reduction & Comprehensive School Safety Guidelines” were conducted. These trainings were held in Lahore, Quetta, Karachi and Peshawar from 25 January – 2 April 2016 and 149 x participants participated.

**48. Consultative Workshops on GBV Mainstreaming.** 3 x consultative workshops on GBV mainstreaming in humanitarian programs were held in Islamabad, Peshawar and Karachi from 11 – 22 November 2016. Total 63 x participants attended these workshops.

**49. Media Workshops.** In order to sensitise Local Media community on National Disaster Management System and role of various stakeholders of society especially Media, four media workshops for capacity building of NDMA beat reporters were conducted at Karachi, Lahore, Islamabad & Peshawar in May and June 2016. A total of 130 x Media reporters participated in the workshops.



# Section - VIII

## Conferences & Seminars



## Section – VIII

# International Conferences & Seminars

**50. Participation in SAARC Ministerial Conference.** Chairman NDMA participated in SAARC Ministerial Conference in Nepal from 15 – 18 March 2016 regarding establishment of SAARC Environmental and Energy Centre in Pakistan.

**51. Expert Group Meeting for ECO Regional Framework for DRR.** Chairman NDMA alongwith Director Implementation, NDMA attended Expert Group Meeting of ECO held in Tehran from 26 - 28 October 2016. The Meeting provided a platform for experts / officials from ECO members states to share their views on a regional framework to reduce risk of disasters and building resilience through regional cooperation and strengthen regional mechanism for implementation of SFDRR. Later on, ECO framework was shared with Pakistan on which important input was provided to ECO.

**52. Participation in World Humanitarian Summit (WHS).** NDMA participated in WHS Istanbul from 21 – 25 May 2016. Besides other dignitaries, NDMA's stall of "Disaster Resilient Pakistan" was also visited by UN Secretary General Mr Ban Ki Moon and Minister SAFRON Lieutenant General Abdul Qadir Baloch (Retired) During the Summit, a Side Event in the form of a Seminar with the theme of "Reaching People in Need; Pakistan's Experience", an Exhibition Fair and Marketplace was also organized which led to recognition of Pakistan's resilience and substantial contributions to the humanitarian cause in the face of recurring disasters.

**53. Conduct of 13<sup>th</sup> RCC Meeting.** NDMA in collaboration with Asian Disaster Preparedness Center (ADPC), first time hosted the 13<sup>th</sup> Meeting of the Regional Consultative Committee (RCC) on Disaster Management on the theme "Pakistan first time hosted RCC Meeting" in Islamabad from 17 - 19 October 2016. The 16 delegates of 13 countries (Afghanistan, Bhutan, China, Indonesia, Maldives, Mongolia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Turkey and Vietnam) attended the Meeting and shared their tangible recommendations / proposals for the operationalisation of global frameworks especially the Sendai Framework for Disaster Risk Reduction (SFDRR). The 13<sup>th</sup> RCC meeting concluded with a self-explanatory Islamabad Statement which proposed a solid regional inputs of RCC countries for Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) 2016.



**54. Participation in COP 22.** Chairman NDMA alongwith PM GCC attended COP 22 held at Marrakech, Morocco from 7 – 18 November 2016. NDMA is the focal organisation for loss & damages in COP 22, NDMA also followed the negotiations on Gender & Climate Change. Post Conference Report has been submitted to MoCC.

**55. 5<sup>th</sup> RTG Meeting of DM-CBM.** Pakistan and Kazakhstan are co-lead of Disaster Management Confidence Building Measure under Heart of Asia-Istanbul Process. Chairman, NDMA represented Pakistan in the 5<sup>th</sup> RTG Meeting on 9 December 2016 in Kazakhstan. Participating countries of HoA including Pakistan, Kazakhstan, Afghanistan, China and Iran attended the Meeting. Representatives of supporting country Japan and Egypt and supporting organisations including AKDN, EU, UNDP, UNISDR, CESDRR and JICA also attended the meeting. During the meeting, Chairman NDMA suggested that a Trust Fund to be established in which token amount is shared by all participating countries to meaningfully take forward the Implementation Plan. It was decided that the proposal may be made by Pakistan and forwarded to all participating countries and taken up in next RTG meeting.

**56. Hosting of SAARC Environment & Energy Centre (SEEC) Centre in Pakistan.** During 37<sup>th</sup> Council of SAARC Minister's Conference hosted in Nepal in March 2016, it was decided to split SAARC Environment & Disaster Management Centre into SAARC Disaster Management Centre (SDMC) to be hosted by India and its Environment Component be merged with existing SAARC Energy Centre in Pakistan. NDMA played an instrumental role in bringing Environment Component in Pakistan. Ministry of Climate Change could be focal Ministry from Pakistan to manage Environment component of SEEC.





# Section - IX

## Financial Overview





## Section – IX

# Financial Overview

### 57. Non Developmental Budget

Major Head of Accounts	Allocated (PKR)	Expenditure (PKR)	Balance (PKR)
A01 Employee Expenses	107,427,000	106,905,243	521,757
A03 Operating Expenses	103,758,000	102,829,571	928,429
A04 Employer Contribution	9,570,000	9,570,000	0
A05 Grant Subsidies and Write Off Loan	2,000	0	2,000
A06 Transfers	251,090,000	251,083,268	6,732
A09 Physical Assets	9,839,000	9,837,793	1,207
A13 Repair & Maintenance	9,253,000	9,248,651	4,349
Total	490,939,000	489,474,526	1,464,474

### 58. National Disaster Management Fund (NDMF)

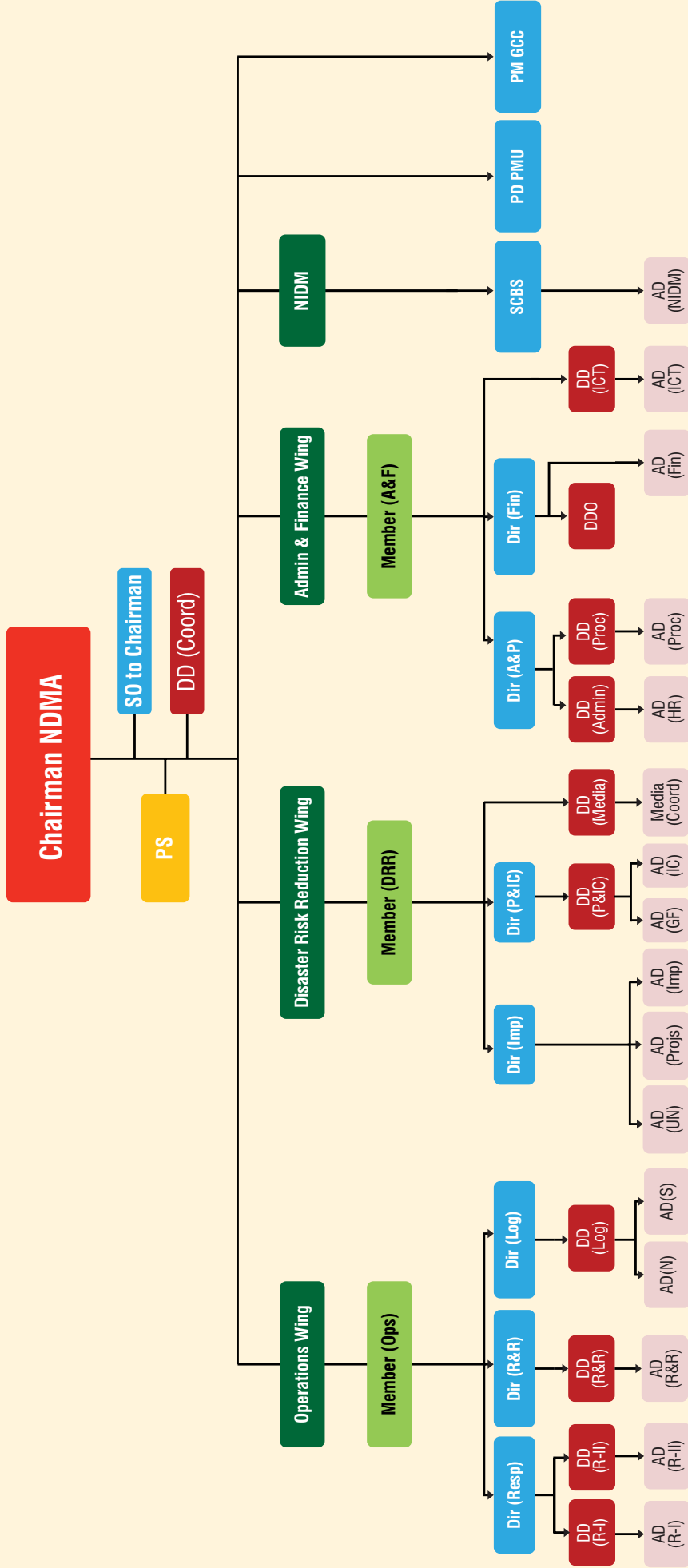
- |    |  |   |               |
|----|--|---|---------------|
| a. | Opening Balance as on 1-7-2015                                     | - | 1,569,615,710 |
| b. | Government Recoupments upto 30-6-2016                              | - | 304,803,000   |
| c. | Donations upto 30-6-2016   | - | 218,995,678   |
| d. | Total Receipt up to 30-6-2016                                      | - | 523,798,678   |
| e. | Annual Expenditure from 1-7-2015 to 30-6-2016                      | - | 1,038,195,602 |
| f. | Closing Balance as on 30-6-2016                                    | - | 1,055,218,786 |
| g. | Details of procurements from NDMF are attached as <b>Annex K</b> . |   |               |

### Conclusion

59. Pakistan faced unprecedented disasters in the recent past which led to a paradigm shift from reactive to proactive approach. Despite resource constraints, National efforts are now shifted to prevention, mitigation, preparedness and capacity enhancement against varying disasters. Maintaining record of past experiences with objectivity will not only protect the chronology of events as they unfolded but also serve as future reference during such recurring phenomenon.



# NDMA ORGANOGRAM





## Annex B

To NDMA Annual Report 2016

# National Relief Effort

## Winter Heavy Rains (Pre – Monsoon) March – May 2016

Province / Region	KHYBER PAKHTUNKHWA	BALOCHISTAN	AZAD JAMMU & KASHMIR	FATA	GILGIT BALTISTAN					Total GB	GRAND TOTAL
	PDMA-KP	PDMA BALOCHISTAN	NDMA	NDMA	GBDMA	PDMA PUNJAB	NDMA	PDMA BALUCHISTAN	UTILITY STORES		
Tents	1,600	409	270	60	8	1,000	-	550	-	1,558	3,897
Milk Powder (Tons)	-	-	-	-	-	-	-	0.48	1.03	1.51	1.51 Tons
Flour (Tons)	-	-	1	-	-	-	-	16	-	16	17 Tons
Mix Ration (Tons)	10	35.5	-	-	7.9	100	-	-	-	107.9	153.4 Tons
Tarpaulin	-	4	270	-	688	-	-	-	-	688	962
Blankets	1,800	610	400	-	-	-	-	5,350	-	5,350	8,160
Plastic Mats	1,200	606	270	-	112	-	-	-	-	112	2,188
Kitchen Sets	-	-	-	-	25	-	-	-	-	25	25
Dall (Tons)	-	-	-	-	-	-	2.5	-	-	2.5	2.5 Tons
Rice (Tons)	-	-	0.5	-	-	-	2.5	-	-	2.5	3 Tons
Sugar (Tons)	-	-	0.2	-	-	-	1.5	-	-	1.5	1.7 Tons

## Monsoon Season 2016 (July – September 2016)

Province / Region	KHYBER PAKHTUNKHWA				BALOCHISTAN	PUNJAB	GB	GRAND TOTAL
	PDMA/DDMA (KP)	NDMA	PDMA SINDH	PDMA PUNJAB	PDMA BALOCHISTAN	PDMA-PUNJAB	GBDMA	
Tents	1,031	-	100	300	1,150	-	15	2,596
Food Items (Tons)	4.95	30	-	10	48.2	50	0.45	143.6 Tons
Blankets / Quilts	766	-	200	1,000	250	-	16	2,232
Plastic Mats	700	-	-	300	1,000	-	10	2,010
Kitchen Sets	100	-	-	-	-	-	-	100
Mosquito Nets	-	-	-	-	650	-	-	650
Cotton Mattresses	100	-	-	-	-	-	-	100
Dewatering Pumps	-	-	-	-	-	25	-	25
Fodder (Packs)	-	-	-	-	-	5,000	-	5,000
Oil Stoves	-	-	-	-	-	-	15	15
Water Coolers	-	-	-	-	-	-	15	15

**Annex C**

To NDMA Annual Report 2016

# Overseas Relief Efforts-2016

## Assistance Provided

Serial	Country	Disaster	Period	Assistance	
				Items	Quantity
1.	Tajikistan	Earthquake	9 February 2016	Tents	2,100
				Winterised Kit	2,100
				Blankets	12,500
				Wheat (Tons)	1,280
2.	Sri Lanka	Floods	23 May 2016	Tents	730
				Tarpaulins	650
				Plastic Mats	500
				Generators (3.5 KVA)	40
				Aqua Tabs	120,000
				Rain Coats	1,000
				Pair of Rain Shoes	500
				Mosquito Repellent	1,000 Bottles

## Assistance Received

Serial	Country	Period	Assistance	
			Items	Quantity
1.	China	25 January 2016	Tents (Winterised)	2,950

## **Annex D**

### To NDMA Annual Report 2016

# Post Disaster Report Monsoon – 2016

**1. Background.** Monsoon Season 2016 unfolded with five rain spells at regular intervals starting from 28 June to 16 September 2016. As per Pakistan Meteorological Department (PMD), Monsoon 2016 remained **25% Above Normal** against predicted rainfall of 10 - 20% Above Normal. During the month of August, rainfall was largely in **excess** across much of the Country while in July, the Country experienced **slightly less** rainfall. Significant events of the Season included urban flooding (Quetta, Karachi, Hyderabad, Lahore), flash flooding (Chitral, GB, Khyber Agency, Lasbela), flooding in District Sialkot (Deg Nadi, Aik Nullah) and landslides (GB, KP, AJ&K).

**2.** A well-integrated National effort in the shape of timely forecast by PMD, apt analysis by NDMA and configuring correct response by disaster management bodies at Provincial / District levels led to mitigate hydro-meteorological hazards of the Season. A comparative analysis of damages / losses due to Pre-Monsoon and Monsoon rains indicates that Pre-Monsoon rains were more intense in nature as compared to the Monsoon Season – 2016.

**3. Aim.** To document major events of Monsoon 2016, analyse lessons learnt and good practices adopted during management of the Season and recommend future course of action.

**4. Significant Events of Monsoon 2016.** Significant events of Monsoon 2016 included flash / urban flooding, canal breaches and landslides. Details of Monsoon Season 2016 are attached as **Appendix-I to Annex D.**

**5. Major Rainfall Record.** Summary of significant rainfall during Monsoon Season 2016 is attached as **Appendix-II to Annex D.** Monsoon 2016 unfolded in five major rain spells, details are as under:-

a. **1<sup>st</sup> Monsoon Spell (24 June – 24 July 2016)**

- (1) All major rivers maintained normal flow.
- (2) Urban Flooding in Quetta on 27 June 2016.
- (3) Flash Flooding in Ursoon Valley, Chitral on 2 July 2016 and Harmosh Valley, GB on 15 July 2016.
- (4) Landslides along Murree – Muzaffarabad Road, Abbotabad – Nathia Gali Road, S-1, N-90, Dir – Chitral Road (N-45), Charsadda – Kalam Road (N-95) and Murree – Kohala Road.
- (5) Breaches at Shahiwah and Manjhuti Canal District Sohbatpur, Balochistan on 10 July 2016.

b. **2<sup>nd</sup> Monsoon Spell (26 – 30 July 2016)**

- (1) All major rivers maintained normal flow.
- (2) Flooding in Deg Nadi and Aik Nullah in district Sialkot from 27 - 29 July 2016.
- (3) Flash Flooding in Khyber Agency on 30 July 2016.
- (4) Landslides along S-1 and KKH.

c. **3<sup>rd</sup> Monsoon Spell (2 – 12 August 2016)**

- (1) River Chenab at Marala reached Peak Level of Season 412,065 Cusecs on 7 August 2016.
- (2) Landslides along S-1.

d. **4<sup>th</sup> Monsoon Spell (25 August – 9 September 2016)**

- (1) All major rivers maintained normal flow.
- (2) Mangla Dam has achieved Maximum Conservation Level of 1,242.00 feet on 16 August 2016.
- (3) Landa Bridge on Quetta – Karachi Road (N-25) at Winder, District Lasbela, Balochistan was damaged due to Flash Flood on 27 August 2016.
- (4) Landslide on Sudhnoti – Rawalpindi Road at Azad Pattan, Tehsil Kahuta on 27 August 2016 and cleared on 29 August 2016.
- (5) Urban flooding in Lahore and Karachi on 27 August 2016.
- (6) Flash Flooding in Village Gamba, Tehsil Aliabad, District Skardu, GB on 2 September 2016.

e. **5<sup>th</sup> Monsoon Spell (12 – 15 September 2016)**

- (1) All major rivers maintained normal flow.
- (2) Breach was reported in Lehri Nadi in District Sibbi on 16 September 2016.
- (3) Windstorm in D.I.Khan on 22 September 2016.
- (4) Significant Peak Discharge Reported on Various Hydraulic Structures / Reservoirs.

**6. Significant Peak Discharge Reported on Various Hydraulic Structures / Reservoirs**

Serial	Date	Dam / Headwork	Peak Discharge (Cusecs)	River	Flood Category
a.	7 August 2016	Marala	393,690	Chenab	High
b.	8 August 2016	Khanki	398,500	Chenab	Very High
		Qadirabad	405,500	Chenab	Very High

**7. Maximum Conservation Level of Major Hydraulic Structures / Reservoirs**

Serial	Dam / Reservoir	Design Capacity (Feet)	Maximum Level (Feet)	Date
a.	Mangla Dam	1242.00	1242.00	16 August 2016
b.	Tarbela Dam	1550.00	1544.07	2 September 2016





**8. Affected Areas.** During July 2016, Central Punjab and KP while in August 2016, North & Central Punjab, KP, Sindh, Eastern Balochistan and AJ&K experienced some significant rains. During September 2016, only R.Y.Khan and Lahore districts experienced significant rains. Summary of affected areas is as under:-

Serial	Province	Districts
a.	Federal	Islamabad
b.	Punjab	Lahore, Faisalabad, Sialkot, Multan, Gujrat, Chiniot, Mandi Bahauddin, Hafizabad
c.	KP	Chitral, D.I.Khan, Swat, Bannu, Lakki Marwat, Mardan, Kohat, Mansehra, Shangla, Malakand, Swabi, Upper Dir, Abbottabad, Haripur, Battagram
d.	Sindh	Karachi, Hyderabad, Tando Allahyar, Mirpur Khas
e.	Balochistan	Barkhan, Sibi, Khuzdar, Harnai, Kalat, Kachi, Dera Bughti, Sohbatpur, Pashin
f.	AJ&K	Bagh, Kotli, Rawalakot
g.	GB	Gilgit, Skardu
h.	FATA	Khyber Agency

## 9. Pre-Monsoon Rains

### a. Damages / Losses

Province	Deaths				In-jured	Houses Damaged		
	Male	Female	Child	Total		Partially	Fully	Total
Punjab	3	2	5	10	18	6	4	10
Balochistan	12	7	-	19	20	49	1	50
KP	62	30	65	157	154	701	339	1,040
AJ&K	4	10	11	25	19	866	451	1,317
GB	8	7	7	22	24	248	203	451
FATA	38	-	-	38*	44	57	4	61
<b>G.Total</b>	<b>127</b>	<b>56</b>	<b>88</b>	<b>271</b>	<b>279</b>	<b>1,927</b>	<b>1,002</b>	<b>2,929</b>

\*Including 7 casualties due to Orakzai Coal Mine incident on 10 March 2016.

b. **Relief Provided.** Details already mentioned at **Annex B** (Page No. 53).

## 10. Monsoon Season – 2016

### a. Human Losses

Province	Deaths				Injured			
	Male	Female	Children	Total	Male	Female	Children	Total
Punjab	12	2	15	29	-	-	-	-
KP	24	16	29	69	28	30	29	87
Balochistan	14	-	4	18	13	8	2	23
AJ&K	2	4	-	6	2	-	-	2
GB	1	1	1	3	-	-	1	1
FATA	2	9	16	27	-	-	-	-
Islamabad	-	1	-	1	-	-	-	-
<b>Total</b>	<b>55</b>	<b>33</b>	<b>65</b>	<b>153</b>	<b>43</b>	<b>38</b>	<b>32</b>	<b>113</b>

### b. Private / Government Property / Livelihood Losses & Damages

Province	Houses Damaged			Villages Affected			Cattle Head Perished	Gov't Property
	Partially	Fully	Total	Partially	Fully	Total		
Punjab	220	63	283	29	-	29	-	-
KP	413	204	617	3	1	4	-	2
Balochistan	357	150	507	1	10	11	40	-
AJ&K	2	-	2	-	-	-	4	1
GB	28	14	42	1	-	1	150	-
Islamabad	1	-	1	-	-	-	-	-
<b>Total</b>	<b>1,021</b>	<b>431</b>	<b>1,452</b>	<b>34</b>	<b>11</b>	<b>45</b>	<b>194</b>	<b>3 School</b>

c. Relief Provided. Details already mentioned at **Annex B** (Page No. 53).

## 11. Salient Aspects

a. Pre-Pre-Monsoon 2016 Instructions. Pakistan Meteorological Department (PMD) issued a Seasonal Outlook for Spring and Early Summer 2016 on 8 March 2016 which stated that “Prevailing oceanic, atmospheric and surface climatic conditions suggest uncertainties in Pakistan’s weather pattern will persist towards the **early Summer** till the El Nino comes to neutral phase in May – June 2016”. Early Monsoon phenomena was experienced first time which dictated formulation of innovative response mechanism to meet its challenges. NDMA issued Pre-Pre-Monsoon Instructions to relevant stakeholders on 18 March 2016. These timely instruction bridged anticipated gap in National response mechanism as Pre-Monsoon rains proved more intense and devastating in nature than actual Monsoon 2016.



- b. **Timely Initiation of Monsoon Preparations.** Preparedness activities were started well in time which led to better preparation to face the challenges of Monsoon. Some of the highlights are:-
- (1) **National Post-Monsoon Review Conference 2015.** The Conference was organised on **22 January 2016** at Islamabad. Lessons learnt, good practices established, bottle necks identified and valuable experience gained during Floods 2015 were compiled and shared with all stakeholders for better preparations.
  - (2) **High Level Consultative Meeting.** In order to sensitise all provinces / regions to expedite Monsoon preparations as well as bridge identified gaps, Chairman NDMA visited all PDMA and respective Chief Secretaries as under:-
    - (a) PDMA Sindh and Chief Secretary Sindh on 17 June 2010 in Karachi.
    - (b) PDMA KP, FDMA and Chief Secretary KP on 22 June 2016 in Peshawar.
    - (c) SDMA and Chief Secretary AJ&K on 24 June 2016 in Muzaffarabad.
    - (d) PDMA Punjab and Chief Secretary Punjab on 1 July 2016 in Lahore.
  - (3) **National Pre-Monsoon Review Conference.** The Conference is generally conducted during the month of July every year. Owing to PMD's forecast for early Monsoon this year, complete process of Monsoon preparations was started early. On culmination of provincial / regional consultative process, National Pre-Monsoon Preparedness Conference 2016 was held on **9 June 2016** in Islamabad. The forum facilitated compilation of provincial / regional plans and input to build a well-coordinated National response against impending Monsoon Season.
  - (4) **National Monsoon Contingency Response Directive 2016.** To lay down response guidelines for all stakeholders at Federal and Provincial level, ensure sound disaster management against possible floods and configure a coherent response against visualized contingencies of Monsoon 2016, National Monsoon Response Directive 2016 was issued to all stakeholders on **15 June 2016**.
- c. **Resolution of Frequency Interference Issue of Lai Nullah.** NDMA successfully resolved a long outstanding issue between Frequency Allocation Board (FAB), Ministry of Interior and Pakistan Meteorological Department (PMD). This facilitated PMD to predict possibility of flooding in Lai Nullah during Monsoon 2016.
- d. **NDMA Virtual Call Centre.** To ensure round the clock availability of Response Team, NDMA set up an innovative Virtual Call Centre (VCC) before onset of Monsoon Season. The initiative ensured response by NEOC officials to all calls made from any part of the Country.
- e. **ROBO Calls for Livestock Evacuation Early Warning.** ROBO Calls through 9211 System by Livestock & Dairy Development Department, Government of Punjab was instituted first time in Punjab. The system helped to register and generate early warning for farmers of vulnerable districts at Union Council and Tehsil level. Total 59817 ROBO Calls were made during the Season.



- f. **Analysis of Rainfall Data by PMD.** PMD regularly analysed progress of rainfall data against predicted rainfall and reflected the same on its website on daily / monthly basis. The initiative assisted to ascertain trend of Monsoon Season and initiate corresponding measures.
- g. **Monsoon Review Conferences.** To review / monitor progress on significant developments / weather pattern during Monsoon Season, coordination conferences were regularly organised in NEOC. Such meetings were chaired by Chairman NDMA and attended by DG PMD and representative of SUPARCO. These meetings assisted in prospective decision making and issuance of crucial instructions to relevant stakeholders.
- h. **Timely Evacuation during Flash Floods.** Owing to awareness drive through a series of preparedness activities before start of Monsoon Season 2016, local administration evacuated considerable population of following districts before devastation by flash floods:-
- (1) On 11 July 2016, near Shahiwah & Manjhuti Canals, District Sohbatpur, Balochistan.
  - (2) On 15 July 2016 in Village Bilchi, Harmosh Valley, GB.
  - (3) On 2 August 2016 near Chachar & Kaha Sultan Nullahs, District Rajanpur, Punjab.
  - (4) On 4 August 2016 near Korai Wah & Mahesaro Canals, Tehsil Pano Aqil, District Sukkur, Sindh.
  - (5) On 6 August 2016 in Sangani Ghot, District Jhal Magsi and Shah Norani, Hub, Balochistan.
  - (6) On 7 August 2016 in Village Kechhi & Sarktti Michan Khel, District Lakki Marwat, KP.
  - (7) On 7 August 2016 in 8 x Villages of Tehsil Lehri, District Sibi while 2 x Villages of Tehsil Saroona, District Khuzdar, Balochistan.
  - (8) On 19 August 2016 in Tehsil Lehri, District Sibbi, Balochistan.
  - (9) On 27 August 2016 in Tehsil Uthal & Windar, District Lasbela, Balochistan.
  - (10) On 2 September 2016 in Village Gamba, Tehsil Aliabad, District Skardu, GB.
- i. **Joint Search & Rescue Operation in Balochistan.** On 6 August 2016, 5 x Vehicles carrying 54 x Passengers were hit by a flash flood in Zardalu near Mangi Dam District Harnai, Balochistan resulting in 5 x deaths. Search and Rescue operation was jointly conducted by Rescue 1122 Balochistan and Frontier Corps Balochistan under the supervision of DG PDMA Balochistan. 49 x Persons were rescued due to timely joint operation.
- j. **Swift Clearance of Landslides.** Due to continuous monitoring, timely coordination and a well-integrated response by NDMA, NHA, Pak Army, FWO and concerned Provincial / District Administration, frequent landslides along following important National arteries were cleared in time:-
- (1) Gilgit – Skardu (S-1) Road.
  - (2) Karakoram Highway (KKH).
  - (3) Nowshera – Chitral (N-45) Road.
  - (4) Khawazakhela – Besham (N-90) Road.
  - (5) Chakdara – Kalam (N-95) Road.
  - (6) Kohala – Muzaffarabad (S-2) Road.
  - (7) Abbottabad – Murree Road at Charian in Galiyat.
  - (8) Murree – Kohala Road.
  - (9) Rawalpindi – Sudhnoti Road.



- k. **Creation of National Reserve of Flood Fighting Equipment.** To retain flexibility and enhance response capacity of Pak Army, NDMA created Central Reserve North and South as under:-
- (1) 25 x Fiber Glass Boats, 25 x OBMs and 750 x Life Saving Jackets were handed over to Pak Army for storage at **Rawalpindi**.
  - (2) 25 x Fiber Glass Boats, 25 x OBMs and 750 x Life Saving Jackets were handed over to Pak Army for storage at **Abdul Hakim (Khanewal)**.
- l. **Procurement of Boat Tracker System.** To facilitate location of real time movement of boats, PDMA Punjab provided 475 Boat Trackers to Rescue 1122. These trackers were installed in boats at D.G.Khan, Multan, Muzaffargarh, and Rajanpur.
- m. **Chairman NDMA's Visit to Ursoon District Chitral.** In the backdrop of devastation of flash flood of 2 July 2016 in Ursoon Village, Tehsil Droash, District Chitral, Chairman NDMA alongwith DG PDMA KP and PTV Team visited affected people on 8 July 2016. Visit of distressed people of Ursoon Valley by high ranking officials of disaster management bodies and announcement of a relief package helped addressing their urgent needs to a great extent.
- n. **Provision of Timely Traffic Diversion.** A bridge on Karachi – Quetta Road (N-25) at Winder, District Lasbela, Balochistan was damaged due to flash flood on 27 August 2016. Prompt mobilisation of available resources by local administration led to swift provision of diversion thus ensuring uninterrupted flow of traffic along an important communication artery between Balochistan and Sindh.

## 12. **Weaknesses**

- a. **Non-Adoption of Standardised Situation Report (SITREP) Format.** To ensure uniform and objective disaster reporting by all stakeholders, NDMA issued a well deliberated and comprehensive SITREP Format before Monsoon Season. The aim was to compile error free data, analyse, plan and assist quick decision making by avoiding lengthy method of data compilation susceptible to erratic disaster reporting. The effort did not yield desired results as most of the PDMA's did not follow given format .
- b. **Gaps in Inter Provincial Coordination.** Rawalpindi – Kashmir Road at Azad Pattan, Tehsil Kahuta, District Rawalpindi was blocked due to a landslide on 27 August 2016. The road being in the domain of C&W Department Punjab at a far flung area had shortage of earth moving resources. Coordination for quick mobilisation of existing earth moving resources of AJ&K Government being in close vicinity could not materialise due to delays in response mechanism. The road was cleared for traffic through exhaustive efforts by local administration and available resources of C&W Department but it resulted in delay of two days to open an important communication artery between Punjab and AJ&K.
- c. **Gaps in Coordination Mechanism.** Some important events were not passed in time to NDMA by relevant stakeholders forcing direct interface with terminal response tier for updation / monitoring of events thus bypassing input of intermediary response tier in the process.



- d. **Incomplete Flood Mitigation Measures Downstream Mangla Dam.** To protect life and property of the people along River Jhelum, installation of control gates / structures alongwith sumps / wells at drainage outlet of Jhelum City was undertaken by Jhelum District Administration. However, issue of encroachment removal from Jhelum River especially at Barakas Nullah and rehabilitation of protective bunds remained oscillating between District Administration, NHA and WAPDA.
- e. **Inadequate Capacity for Urban Flooding.** Continuous rains led to Urban Flooding in Karachi and Hyderabad on 6 August 2016. PDMA Sindh in close coordination with local administration avoided losses, however, some of the capacity issues surfaced during management of Urban Flooding like shortage of high powered de-watering pumps and inefficient sewerage water disposal system.
- f. **Loss of Lives due to Neglect.** On 30 July 2016, a van carrying 27 x Passengers ventured into a nullah having flash flood in Khyber Agency resulting into death of all passengers. The accident pointed out disregard of flood warning and driving in a hill torrent in rainy condition.
- g. **Rehabilitation of Shori Nullah Protection Bund.** A breach in Shori Nullah Bund, district Rajanpur inundated a significant area on 11 July 2016. To avoid any damage to Kashmore City / Cantonment, Punjab Government was sensitised to strengthen / raise Shori Nullah Bund on emergency basis in coordination with Sindh Government. The issue is still unresolved and merits immediate attention.
- h. **Ursoon Valley Flash Flood – A Case Study.** On 2 July 2016, flash flood in Ursoon Valley, District Chitral claimed 27 x deaths, 4 x Injured and 55 x Houses damaged. PDMA KP assisted by NDMA, Pak Army and other PDMA's made substantial rescue and relief efforts to manage the disaster.

**13. Way Forward.** To refine response mechanism, pertinent recommendations based on the management of Monsoon 2016 are as under:-

- a. **Enhanced Response Mechanism.** Following measures are likely to infuse added refinement in response mechanism for management of Monsoon Season:-
  - (1) Provision of timely information regarding incidents and response.
  - (2) Innovative use of modern technology.
  - (3) Special conferences by relevant stakeholders on occurrence of any extreme events will assist timely decision making process.
  - (4) PDMA's to make use of NDMA's Situation Report (SITREP) Format & system of incident reporting has to be made more efficient.
  - (5) Placement of earth moving machinery in remote mountainous districts of AJ&K, GB & KP for timely clearance of roads / landslides.
- b. **Protective Measures against Flash Flood.** Monsoon Season 2016 quantified anticipated losses due to flash flood events. Following protective measures based on experiences of Monsoon Season 2016 will help mitigate such losses in future:-
  - (1) Awareness drive of recorded flash flood history in known water channels.

- (2) Long term planning for rehabilitation of population under threat of flash floods. To start with, population residing in Ursoon Valley may be suitably rehabilitated at a safe location to avoid similar losses in future.
  - (3) Signposting of waterways in local language with known flash flood history. It should clearly demarcate threat level of waterways preventing any misadventure to cross.
  - (4) Exercise community based vigilance mechanism for settlements near or inside waterways as under:-
    - (a) Placing of round the clock lookouts especially at night or during the period of intense rain.
    - (b) Use of sirens or announcements on loud speakers of mosques.
    - (c) Lightening of fire and drum beating by the people living at higher places in an area.
- c. **Protective Measures against Urban Flooding.** Following protective measures based on experiences of Monsoon Season 2016 will help mitigate such losses in future:-
- (1) Identification of low lying areas prone to ponding / inundation in congested areas of mega cities.
  - (2) Preparation of hazard maps of major cities against Urban Flooding based on recorded history or envisaged circumstances for sensitisation, awareness, early warning and evacuation of vulnerable communities.
  - (3) Capacity building of Municipal Corporation with priority to Municipal Corporations of mega cities. Attention must be given to availability of requisite number of heavy duty de-watering pumps and generators.
  - (4) Widening / dredging of sewerage drains.
  - (5) Removal of encroachments from sewerage drains thus reclaiming original extents of such drains.
- d. **Inter Provincial / Regional Coordination.** During management of disasters, inter Provincial / Regional coordination mechanism can render required assistance especially in far flung areas in shortest possible time thus reducing sufferings of distressed population. Information about resources of neighbouring Provincial / Regional Government resources can be more conveniently incorporated in response phase.
- e. **Resolution of Major Issues.** Following issues need to be resolved by relevant stakeholders at priority:-
- (1) Flood mitigation measures downstream Mangla Dam.
  - (2) Rehabilitation / strengthening of Shori Nullah Protection Bund.
  - (3) Protective measures against erosion by River Chenab in District Sargodha and River Indus in District Layyah.
- f. **Lessons of Ursoon Valley Flash Flood.** Management of Ursoon Valley Flash Flood has resonated the need to keep District Chitral in special focus as far as disaster management is concerned. Following measures are necessary:-
- (1) Placement of response measures before the onset of Monsoon. This may not only be



considered for Monsoon Season but also as part of preparedness activities for other disasters, as accessibility across Lowari Top becomes questionable especially after onset of Winter Season.

- (2) Procurement and placing of heavy earth moving machinery for District Chitral as per already identified hazards prone areas.
- (3) Commissioning of Rescue 1122 service in District Chitral.
- (4) Feasibility for construction of a warehouse in Chitral for forward placing of Provincial relief assets. As an interim measure, placing of a FLOSPAN each at tehsil level in District Chitral may be considered.
- (5) In case of a disaster in Chitral, contingency planning for guaranteed Aviation effort.
- (6) Execution of DRR specific interventions in the district at a fast pace.
- (7) Afghanistan National Disaster Management Authority (ANDMA) is to be approached through MoFA for exchange of casualties / dead bodies taken away by River Kunar.

**14. Conclusion.** After Super Floods of 2010, it was year 2016 which saw relatively less intense Monsoon Season but more pronounced factor during the year was emergence of intense Pre-Monsoon Rains. Pre-Monsoon Rains coupled with actual Monsoon 2016 posed myriad challenges for disaster management structure of the Country. It was through paradigm shift from reactive to proactive approach with focus on prevention, mitigation, preparedness and capacity enchantment of relevant disaster management bodies that above challenges were handled in a more efficient manner.



## Appendix-I to Annex D

### Chronological Events - Monsoon 2016

	Date	Event	Location
1.	2 July 2016	Flash Flood	Ursoon Valley, District Chitral, KP
2.		Canal Bund Breaches	Shahhiwah & Manjhuta Bunds, District Sohbatpur, Balochistan
3.	10 Jul 2016	Landslides / Road Blocked	Murree – Kohala Road, Punjab
4.	11 July 2016	Canal Bund Breaches	2 x Breaches at Shahiwhah Canal and 3 x Breaches at Manjhuti Canal District Sohbatpur, Balochistan
5.	12 July 2016	Bund Breach	Breach in Shori Nullah Bund, District Rajinpur, Punjab
6.	13 July 2016	Road closed	Due to rains, third lane on M-1 at 423-424 km marker along Median Drains Gilgit, KP
7.	14 July 2017	Landslides / Road Blocked	Dar, District Poonch & Afsar Market District Sudhnoti, AJ&K on Rawalpindi-Rawlakot Road (Goi Nullah Road)
8.		Landslides / Road Blocked	Malamjaba Speena, Swat, & Karora, District Shangla on Besham - Swat road.
9.	15 July 2016	Flash Flood	Bilchi Village, Harmosh Valley, District Gilgit
10.		Landslides / Road Blocked	KKH was blocked at three places each between Gilgit - Hunza and Gilgit – Skardu
11.	15 July 2016	Lai Nullah Alert	Due to heavy rain following alerts were issued by PMD Punjab:- <ul style="list-style-type: none"> <li>• Rainfall Alerts</li> <li>• Pre-Alert of water level at Kattarian, Rawalpindi</li> <li>• Water receded after the rain stopped and Lai Nullah started flowing at normal level</li> </ul>
12.	17 July 2017	Landslides / Road Blocked	Naran, Gilgit, KP
13.		Landslides / Road Blocked	Gilgit - Skardu Road (RD-26)
14.		Landslides / Road Blocked	Matti Khwar and Baradam near Lowari Tunnel on Dir – Chitral Road (N-45), KP
15.	19 July 2016	Mudflow / Road Blocked	Tattapani, AJK, SDM and between Chilas - Gilgit, (Km 467+270 & 662+00)
16.		Landslide/ Road Blocked	Charsadda – Kalam Road (N-95) at Km 41+225 near Fizagut Park, KP
17.		Landslides / Road Blocked	Abbottabad - Murree Road at Charian Near Bara Gali in Galiyat, KP
18.		Landslides / Road Blocked	Gilgit –Skardu Road (S-1) at Shangus



Serial	Date	Event	Location
19.	22 July 2016	Landslides / Road Blocked	Abbottabad - Murree Road at Charian Near Bara Gali in Galiyat, KP
20.		Landslides / Road Blocked	Khawazakhela - Besham Road (N-90), KP
21.	27 July 2016	Road Blocked	Havelian - Rajoaya Road, Abbottabad, KP
22.	27/28 July 2016	Flooding due to Heavy Rains	Aik, Palkhu and Deg Nadi Nullah, Sialkot, Punjab
23.	28 July 2016	Mud Slides / Road Blocked	KKH at Km 475 near Raikot, Distt Chilas, KP
24.	30 July 2016	Flash Flood	Khyber Agency, KP
25.	2 August 2016	Nullah Flooding	Nullah Chachar, Nullah Sultan, District Rajanpur, D.G.Khan, Punjab
26.	3 August 2016	Road Blocked	D.I.Khan - Mughal Kot (N-50), 415-417 Kms, District D.I.Khan, KP
27.	4 August 2016	Canal Breaches	Korai Wah Canal, Tehsil Pano Aqil, District Sukkur, Sindh
28.	5 August 2016	Canal Breaches	Mahesaro Canal, District Sukkur, Sindh
29.		Urban Flooding	Karachi, Sindh
30.	6 August 2016	Flash Floods	Zardalu Near Mangi Dam, District Harni, District Jhalmagsi, District Lasbela Balochistan
31.		Urban Flooding	Karachi, Hyderabad, Sindh
32.	7 August 2016	Very High Level Flood	Marala, Sialkot, Punjab Khanki, Qadirabad, Mangla, Dag Nadi
33.	7 August 2016	Sharp Peak of High to Very High Flood at Mangla	Mangla Dam Management called Flood Mitigation Committee meeting on 8 August 2016
34.		Very High Level Flood in Deg Nadi	Deg Nadi achieved 32,934 Cusecs, Sialkot, Punjab
35.		Breaches in Lehri Nadi	District Sibi, Balochistan
36.		Flash Floods	District Khuzdar, Balochistan
37.		Medium Level Flood	River Chenab at Trimmu, Punjab
38.		Flash Floods	Village Kechi and Sarkatti Michan Khel, District Lakki Marwat, KP
39.	10 August 2016	Rains / Storm	District Bannu, KP
40.		Road Blocked	Patch of Gilgit - Skardu Road (S-1) at Chamchu, Randu, District Skardu
41.	16 August 2016	Mangla Dam	Mangla Dam achieved Maximum Conservation level of 1,242 feet
42.	19 August 2016	Breaches in Nullah	Ghogi Nullah, District Kohlu, Balochistan



Serial	Date	Event	Location
43.	27 August 2016	Road Blocked	Rawalpindi - Sudhnoti Road at Azad Pattan, Tehsil Kahuta, Punjab
44.		Flash Floods	Tehsil Uthal and Windar, District Lasbela, Balochistan
45	2 September 2016	Flash Floods	Gamba, Tehsil Aliabad, District Skardu
46.	10 September 2016	Flash Floods	Village Palam, Tehsil Bahrain, District Swat, KP
47.	11 September 2016	Road Blocked	Road Chakdara - Kalam (N-95), near Madian (Km-83-85), KP

## Appendix-II to Annex D

### Major Rainfall Record – July 2016

Station	Date Wise Significant Rainfall in mm (July 2016)																																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
<b>Punjab</b>																																				
Islamabad	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75.4	-	-	-	-	-	-	51	-	-	-	-	-	-	-	-	-	-				
Jhang	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Jhelum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Kamra	-	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Lahore	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61	-	-	-	-	-	-	52	-	-	-	-	-	-	-	-	-			
Mianwali	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55			
Okara	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Gujranwala	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	103			
Gujrat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	135		
Sahiwal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sargodha	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	103	-	-	-	-	-	85	-	-	-	-	-	-	-	-	-		
Shorkot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57	
Sialkot	116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	
<b>Azad Jammu &amp; Kashmir</b>																																				
Kotli	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Khyber Pakhtunkhwa</b>																																				
Balacot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
D.I.Khan	-	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kakul	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90
Parachinar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Balochistan</b>																																				
Barkhan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



## Major Rainfall Record – August & September 2016

Station	Date Wise Significant Rainfall in mm ( August 2016)																																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
<b>Punjab</b>																																				
Islamabad	66	-	-	-	-	-	63	-	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	-	-	84	-	-	-	-				
Faisalabad	-	-	-	-	-	-	-	-	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Bahawalnagar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66	-	-	-	-	-			
Jhang	-	-	-	-	-	-	-	-	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57	-	-	-	-	-	-	-	-			
Joharabad	-	-	-	-	-	-	-	-	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Jhelum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	-	-	-	-	-			
Kasur	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	-	-	-	-	-			
Lahore	54	-	-	-	-	-	-	-	73	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	66	-	70	-	52	-	-	-			
Mangla	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	-	-	-	-			
Murree	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	95	-	-	-	-	-			
Okara	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-			
Sialkot	92	-	-	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
<b>Azad Jammu &amp; Kashmir</b>																																				
Kotli	-	-	-	-	-	-	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Khyber Pakhtunkhwa</b>																																				
Balakot	-	-	-	-	-	-	50	-	-	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Bannu	-	-	-	-	-	-	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dir	-	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kohat	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Malam Jabba	-	-	-	-	-	-	-	-	-	-	-	-	-	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Sindh</b>																																				
Hyderabad	-	-	-	-	-	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Thatha	-	-	-	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dadu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61	-	-	-	-	-	-	
<b>Balochistan</b>																																				
Sibbi	-	-	-	-	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Barkhan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44
<b>Date Wise Significant Rainfall in mm (September 2016)</b>																																				
R. Y. Khan	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69	-	-	
Lahore	-	97	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

## Annex E

To NDMA Annual Report 2016

# Post Disaster Report Air Crash Pakistan International Airlines (PIA) Flight ATR PK-661

**1. Background.** On 7th December 2016, PIA ATR-42 aircraft Flight No PK-661, from Chitral to Islamabad took off at 1538 hours and crashed at 1640 hours leaving wreckage ablaze on the side of a hill between villages of Saddha Batolni and Gug near Pakistan Ordnance Factory Havelian in Khyber Pakhtunkhwa. The wreckage was reported to be strewn over an area about 2 kilometres across. The flight had 42 x passengers and 5 x crew members aboard; total 47 x persons (Including 3 x foreigner; two Austrian and a Chinese). Prominent victims included



Junaid Jamshed and Deputy Commissioner Chitral, Mr Osama Ahmed Warraich. All the bodies were burnt beyond recognition. The remains were taken initially by road to Ayub Medical Complex, Abbottabad and subsequently by air to forensic laboratories in Islamabad for DNA testing to aid identification. National Disaster Management Authority (NDMA) took a lead role for rescue and recovery operation in collaboration with all relevant stakeholders. National Emergency Operations Centre (NEOC) was immediately activated at 1730 hours to ensure timely and prompt response to the disaster.

**2. Aim.** To document proceedings of PIA Flight PK-661 air crash, subsequent recovery operation and identification process of deceased, analyse lessons learnt, best practices adopted during management of the disaster and recommend way forward.

**3. Phases of Recovery Operation.** The operation was conducted in four phases as:-

- a. Phase – 1. Recovery from incident site to Ayub Medical Complex, Abbottabad by road.
- b. Phase – 2. Transportation of bodies from Ayub Medical Complex, Abbottabad to PIMS, Islamabad by air.
- c. Phase – 3. DNA sampling and storage of bodies in Islamabad.
- d. Phase – 4. Identification and handing over of bodies to NOKs.



#### 4. Chronological Events of the Air Crash

Serial	Date	Events
a.	7 December 2016	PIA Flight PK-661 took off from Chitral to Islamabad at 1538 hours.
b.		PIA Flight PK-661 crashed near Village Saddha Batolni, Tehsil Havelian, District Abbottabad at 1640 hours.
c.		District Administration Abbottabad, Armed Forces and locals from area reached crash site and started search for survivors.
d.		Army troops cordoned off crash site and began recovery operation.
e.	7 December 2016	NEOC activated by 1730 hours.
f.		NDMA asked PDMA KP and NHEPRN to place hospitals at Abbottabad, Havelian and Islamabad on alert to receive possible casualties.
g.		NDMA placed CDA USAR Team on alert for possible transportation to the accident site.
h.		NDMA placed helicopters from Anti-Narcotics Force and Ministry of Interior on standby.
i.		Pakistan Army Aviation despatched 2 x helicopters for aerial survey / assessment of crash site.
j.		Due to capacity issues to handle more casualties at Tehsil Havelian Hospital, it was decided by 1900 hours to shift deceased to Ayub Medical Complex, Abbottabad.
k.		NADRA Mobile Biometric Identification Team reached Ayub Medical Complex and began identification process by 2030 hours.
l.		NDMA Field Team 1 reached Ayub Medical Complex, Abbottabad by 2100 hours for on ground coordination of the operation.
m.		Situation Report No - 001 about PIA Flight PK-661 Air Crash was issued by NEOC at 2115 hours.
n.		Preliminary identification of 5 x deceased was made by NADRA Mobile Biometric Identification Team at Ayub Medical Complex, Abbottabad.
o.		DNA Samples of deceased were collected at Ayub Medical Complex, Abbottabad.
p.		Based on recommendation of NADRA Mobile Biometric Identification Team, it was decided by 2130 hours to shift all bodies to PIMS Islamabad for DNA testing.
q.		All deceased were shifted from crash site to Ayub Medical Complex, Abbottabad by 2300 hours.
<b>1<sup>st</sup> Phase of Recovery Operation was completed in 6½ hours.</b>		
r.	8 December 2016	Situation Report No - 002 about progress on air crash accident was issued by NEOC at 0900 hours.



Serial	Date	Events
s.	8 December 2016	To receive and manage transportation of bodies from Abbottabad to Islamabad, NDMA Field Team 2 & 3 were deployed by 1000 hours at 6 Aviation Squadron Heliport and PIMS Islamabad respectively.
t.		3 x Helicopters landed at Abbottabad by 1030 hours for transportation of deceased to Islamabad.
u.		
v.		PIMS Facilitation Desk was established for facilitation of next of kin by 1200 hours.
w.		Coordination meeting was held by Member Operations, NDMA at 6 Aviation Squadron Heliport to decide shifting mechanism of deceased from heliport to PIMS.
x.		First sortie of 3 x helicopters carrying 23 x deceased landed at Islamabad by 1300 hours who were received by Member Operations, NDMA and shifted to PIMS.
y.		Due to limited storage capacity of hospitals in Islamabad and Rawalpindi, a coordination meeting between Minister CADD and Member Operations, NDMA was held at PIMS. Modalities for transportation of deceased to Rawat Cold Storage, identification and handing over to next of kin through Deputy Commissioner Islamabad were decided.
y.		Second sortie of 3 x helicopters carrying 24 x deceased landed at Islamabad by 1600 hours who were shifted to PIMS.
<b>2<sup>nd</sup> Phase of Recovery Operation was completed in 5 hours.</b>		
z.	8 December 2016	DNA samples of next of kin were collected at PIMS.
aa.		<b>8 x deceased</b> were handed over to next of kin at PIMS
bb.		39 x deceased were shifted to Rawat Cold Storage from 2230 hours on 8 December to 0145 hours on 9 December 2016.
<b>3<sup>rd</sup> Phase of Recovery Operation was completed in 3½ hours.</b>		
cc.	9 December 2016	<b>1 x deceased</b> was identified and handed over to next of kin.
dd.		NDMA facilitated availability of Dr Humayun Taimur Baig, Forensic Odontologist from Health Department, Govt of Punjab to PIMS.
ee.	10 December 2016	Dr Humayun Taimur Baig inspected 4 x deceased from 2100 hours on 10 December 2016 to 0300 hours on 11 December 2016.
ff.	11 December 2016	14 x deceased were inspected by Dr Humayun Taimur Baig with 2 x positive identifications.
gg.	12 December 2016	8 x deceased were inspected by Dr Humayun Taimur Baig with 2 x positive identifications (Including an Austrian and Junaid Jamshed).
hh.	13 December 2016	Remaining 12 x deceased were inspected by Dr Humayun Taimur Baig.
<b>4<sup>th</sup> Phase of the Operation; dental identification process was completed in 4 days, 6 x Positive Identifications from 38 x deceased, 14 x deceased with 80-90% identification and 8 x deceased with 50% identification.</b>		
ii.	14 December 2016	<b>17 x deceased</b> were handed over to NOKs.
jj.	16 December 2016	Identification process of all bodies completed and 8 x deceased were handed over to NOKs.
kk.	17 December 2016	<b>11 x deceased</b> were handed over to NOKs while 2 x foreigner deceased were held with PIMS.



**5. Technical Data.** Technical data of the air crash is as under:-

- |                             |   |  |
|-----------------------------|---|--|
| a. Aircraft Type            | - | ATR-42 (AP-BHO).   |
| b. Time / Date of Air Crash | - | 1640 hours on 7 December 2016.   |
| c. Location of Air Crash    | - | Village Saddha Batolni, Tehsil Havelian,<br>District Abbottabad, Khyber Pakhtunkhwa. |
| d. Passengers / Crew        | - | 42 x Passengers & 5 x Crew (Including 32<br>Male, 8 Female & 2 x Infants) Total 47   |
| e. Foreigners               | - | Two Austrian and a Chinese National  |

**6. Best Practices.** Some of the best practices during management of the air crash accident are as under:-

- a. **Integrated National Rescue and Recovery Effort.** Completion of four complex phases of recovery operation largely depended upon devoted participation by Local Community, Pakistan Armed Forces, District Administration Abbottabad, Ayub Medical Complex Abbottabad, PDMA KP, PIA, CAA, PIMS, KRL, ANF, NADRA, Ministry of Interior, Ministry of CADD and other philanthropic organizations like Al Khidmat and Edhi Foundation.
- b. **Prompt Response by DC Abbottabad and Local Community.** Challenges of accident site at a remote, uninhabited and distant location were further compounded due to critical twilight and cold weather conditions. These factors had seriously challenged Provincial as well as National rescue and relief efforts. DC Abbottabad and local community of the area were first to make their ways to the accident site. Presence of natives well conversant with easy access routes proved to be a valuable proposition to save any possible survivor of air crash who also deserve credit to effectively steer all incoming medical staff, ambulances and other rescuers to the accident site.
- c. **Safe Custody of Black Box and Belongings of Victims.** Law Enforcement Agencies timely cordoned the area which ensured evidence saving, safety of black box, early recovery of dead bodies and safe custody of their belongings by allowing access to authorized rescue staff only. Inventory of found belongings of victims was prepared by SHO Havelian which led to smooth handing over of the same to next of kin.
- d. **Voluntary Assistance by Medical Staff.** Medical staff with ambulances voluntarily rendered their services as far away as Peshawar and beyond, on disposal of district administration Abbottabad. Such a drive augmented efforts of local administration of Abbottabad to configure a timely recovery operation.
- e. **NADRA Mobile Biometric Identification Team.** Innovative idea of introducing NADRA Mobile Biometric Identification Team proved its utility in early identification process through thumb verification. Although most of the bodies were burnt beyond recognition yet available thumb evidences led to timely identification process at Abbottabad. The drive also enhanced confidence level of distressed relatives of the victims on National institutions.
- f. **Efficacy of Dental Evidence.** NDMA facilitated availability of Forensic Odontologist from



Health Department, Govt of Punjab to PIMS. Available dental evidence was effectively used in recognition process of deceased.

- g. **Regulation of Relatives of Victims.** Distressed relatives of victims insisted for access to the coffin boxes and other evidences which was intelligently articulated by on duty officials especially at information desks. The effort not only saved evidences in original condition but also kept the situation in order.
- h. **Updation of Foreign Media.** Uninterrupted, quality and credible flow of information regarding air crash accident and ongoing recovery operation was frequently regulated to National and International media through official spokesperson of NDMA while keeping other stakeholders in loop. Such an effort effectively rebuked rumours in first instance thereby signifying our firm National resolve at International level to manage the disaster.
- i. **Personal Involvement of Minister of CADD and PIMS Administration.** Minister of CADD was personally involved in receiving bodies at 6 Aviation Heliport Islamabad, storage of bodies at Rawat, identification process and finally handing over of the bodies to their relatives. Timely identification process and final disposal of bodies was efficiently managed due to personal involvement of Minister of CADD, District Administration Islamabad and PIMS Administration.

**7. Weaknesses.** Some weaknesses observed during the rescue and recovery operation of air crash accident are as under:-

- a. **Non Availability of Cold Storage Mapping.** Mapping of cold storage was not available at required level which delayed timely decision making process. At one stage it was decided to distribute bodies for storage in different hospitals of twin cities as no facility could accommodate 47 bodies at one place.
- b. **Capability to Handle Mass Casualties.** The accident has also challenged response capacity of available hospitals to handle mass casualties as a result of any major natural or a man-made disaster.
- c. **Availability of Aviation Assets.** Due to non-availability of dedicated aviation assets, NDMA was forced to rely on aviation assets of Pak Armed Forces, ANF and Ministry of Interior.
- d. **Inability to Absorb Additional Resources.** All required resources available in the Country are normally tapped to configure a well-integrated National response during disasters. It is not possible for one organization or department to meet all challenges of a disaster with its integral resources only. To augment identification process, availability of Forensic Odontologist from Govt of Punjab was facilitated by NDMA, however, he was reluctantly absorbed in the identification process.
- e. **Stand-Alone Role of NHEPRN.** NHEPRN successfully galvanized available medical resources but its role appeared more of a stand-alone activity than being part of an integrated National effort.
- f. **Interaction with Media.** Some restricted information was leaked to media due to ignorance to media protocols or inability to handle media. This could have developed into a panic situation by the relatives of victims which was timely anticipated and forestalled.

**8. Way Forward for Future.** To refine response towards management of such disaster in future, pertinent recommendations based on weaknesses observed during the management air crash accident as well as institutionalization of good practices, following is recommended for adoption in future:-

- a. **Capacity Enhancement of Hospitals.** The challenge of handling mass casualties will keep haunting disaster management structure of the Country in future. In this regard following measures are suggested:-
  - (1) Capacity enhancement of atleast one hospital each in Provincial and Federal Capital to handle mass casualties at one time. This may be extended to district level in a phased programme.
  - (2) Formulation of protocols / SOPs by District Administrations to regulate routine patients to other hospitals in case a hospital is earmarked to handle mass casualties of a disaster.
  - (3) Availability of cold storage mapping at district level.
  - (4) During an air crash, identification of deceased always remains a major challenge. Concerned stakeholders may be asked to evolve a mechanism to incorporate modern techniques in early identification process of such victims.
- b. **Absorbing Additional Resources.** In case some additional resources are placed at the disposal of an effected district, some conventions to be prepared to absorb them in overall disaster management efforts.
- c. **Allocation of Dedicated Aviation Assets to NDMA.** A committee has already been constituted to finalize case for allocation of dedicated aviation assets to NDMA. For the interim period, a mechanism to be evolved to earmark some available resources of ANF and Ministry of Interior on disposal of NDMA during a disaster situation.
- d. **Merger of NHEPRN with NDMA.** To configure an integrated National response and considering mandated role, merger of NHEPRN with NDMA may be considered.
- e. **Media Handling.** In order to ensure efficient media handling, capacity building of officials of stakeholders in disaster management be ensured through conduct of media workshops, capacity building training and seminars.

**9. Conclusion.** During current times, possibility of disasters like air crash cannot be ruled out. Gaps in response milieu to such disasters are also anticipated, however, the impact can be mitigated to lowest through objective analysis for configuring a corresponding response. In this regard, capacity to handle mass casualties, capacity enhancement to ensure timely outreach to the accident site, media handling and merger of organization with overlapping mandates at National level are some of the predominant factors.



## **Annex F**

### To NDMA Annual Report 2016

# NDMA Stocks

Items	A/U	Stock Held on		Issued during the Year
		January 2016	December 2016	
Tents	No	72,182	76,936	5,296
School Shelter Tent	No	3,806	3,806	-
Blankets	No	104,242	83,912	20,900
Plastic Mats	No	101,919	101,419	500
Tarpaulin	No	29,168	55,493	5,250
First Aid Kit	No	10,000	10,000	-
Life Jackets	No	495	495	1,500
Boats with OBM	No	06	06	50
De-Watering Pumps	No	124	90	34
Generator 2 – 120 KVA	No	766	926	-
Sleeping Bags	No	6,355	10,355	-
Aqua Tab	No	20,000	0	120,000

**Note:** Difference between issue and opening / closing balance is due to receipt (procurement and / or donation) during the year.



## Annex G

### To NDMA Annual Report 2016

# Financial Outlay NDMP

Serial	Interventions	Indicative Cost (US \$ M)	Responsibilities
1.	Establish Institutional and Legal System for Disaster Management	2.30	NDMA/F/G/S/PDMAs
2.	Prepare Disaster Management Plans at all Levels	3.00	NDMA/F/G/S/PDMAs, Federal Ministries, Departments
3.	Establish National Hazard & Vulnerability Assessment	24.00	NDMA, PDMA, GSP, ERRA, GCISC, FFC, PMD, WAPDA
4.	Establish Multi-Hazard Early Warning & Evacuation Systems	188.50	PMD, FFC, SUPARCO, WAPDA, PID
5.	Promotion of Training, Education and Awareness in relation to DM	64.30	NIDM/NDMA, Civil Defense, Provincial Education Departments
6.	Disaster Management Awareness	14.00	NDMA, F/G/S/PDMAs, DDMA's
7.	Infrastructure Development for DRR	707.60 *(1707.60) Revised	FFC, PID, WAPDA, Ministry of Ports & Shipping, Ministry of Health, Planning Commission
8.	Mainstreaming DRR into Development	1.20	Ministry of Planning, Development and Reforms, NDMA, F/G/S/PDMAs
9.	Establish National Emergency Response System	31.00	NDMA, F/G/S/PDMAs, DDMA's, M/O IT, M/O information, Ministry of Communication, Ministry of Water & Power
10.	Capacity Development for Post Disaster Recovery	5.00	NDMA, F/G/S/PDMAs, Research Institutions
<b>Total</b>		<b>2040.90</b> Revised owing to finalization of NFPP-IV (National Flood Protection Plan)	

**Annex H**  
To NDMA Annual Report 2016

# NDMP – Implementation Progress

Intervention		Progress
No.	Subject	
1	<b>Institutional Strengthening</b>	<ul style="list-style-type: none"> <li>National Disaster Management Fund established and operational.</li> <li>NDMP Implementation Steering Committee notified.</li> </ul>
2	<b>Plans</b>	<ul style="list-style-type: none"> <li>Monsoon Contingency Plans regularly made at National, Provincial and District levels.</li> <li>National Contingency Plan for Industrial / Technical Disasters.</li> <li>Standing Operating Procedures in emergencies (Urdu).</li> <li>Nuclear Emergency Management Plan (NEM).</li> <li>National Flood Protection Plan - NFPP IV formulated.</li> <li>Training manual in Gender Mainstreaming prepared.</li> <li>Policy Guidelines on Vulnerable Groups in Disasters.</li> <li>National Gender &amp; Child Cell Framework.</li> <li>Recovery &amp; Rehabilitation Strategy for 2014 floods formulated with support of UNDP.</li> </ul>
3	<b>Risk Assessment</b>	<ul style="list-style-type: none"> <li>National Working Group on MHVRA formed.</li> <li>MHVRA:- <ul style="list-style-type: none"> <li>Completed in five districts of Sindh (Thatta, Badin, Tando Allah Yar, Tando Muhammad Khan and Mirpur Khas) in collaboration with WFP.</li> <li>Comprehensive drought Assessment in 14 districts of Baluchistan initiated in collaboration with UNDP.</li> </ul> </li> </ul>
4	<b>Early Warning</b>	<ul style="list-style-type: none"> <li>Facilitated PMD in Upgrading EWS. <ul style="list-style-type: none"> <li>Satellite based Integrated Flood Alert System (IFAS).</li> <li>Replacement of Automatic Weather Stations (AWS).</li> <li>Establishment of Specialized Medium Range Forecasting Center (SMRFC).</li> <li>Upgradation of existing FEWS Computer model.</li> <li>Replacement of Karachi &amp; Islamabad Weather Radars.</li> <li>Facilitated PMD in Upgrading EWS.</li> <li>ECMWF product for Enhanced Medium Range Forecasting.</li> <li>Flash Flood Guidance System.</li> <li>Tsunami EWS (Sindh &amp; Baluchistan Coast).</li> <li>River Flow Inundation Model (RRI) for Western Rivers.</li> <li>Monitoring of Real time river flow situation enhanced (Visualization tool).</li> <li>Revision of Mangla Dam SOPs for Flood routing.</li> </ul> </li> </ul>



Intervention		Progress
No.	Subject	
		<ul style="list-style-type: none"> <li>■ SMS based Early Warning System for communities established with the assistance of PTA and Cellular Companies. In Floods 2014, information disseminated to 6 million people in flood affected districts of Punjab &amp; Sindh.</li> <li>■ SMS based Early Warning System for communities established with the assistance of PTA and collaboration of Cellular Companies – 52 million SMS generated in 2015 on gratis basis.</li> </ul>
5&6	<b>Disaster Education and Awareness</b>	<ul style="list-style-type: none"> <li>● Training and capacity building of government officials, academia and civil society in DRM through the National Institute of Disaster Management, 31 training courses organized.</li> <li>● Integration of DRR Component in Academic Curricula.</li> <li>● Recognition of Bachelor and Master Level Programme on DM by HEC.</li> <li>● National, regional, international conferences &amp; workshops regularly held.</li> <li>● Celebration of 8th October as National Disaster Awareness Day.</li> <li>● Campaign on Safer Schools, Hospitals &amp; Cities.</li> <li>● DRR awareness and Education material for Children Developed with collaboration of UNICEF.</li> </ul>
7	<b>Infrastructure Development / Rehabilitation</b>	<ul style="list-style-type: none"> <li>● Significant Rehabilitation &amp; Reconstruction of 2010-2014 floods damaged infrastructure completed.</li> <li>● Construction of over 300 new flood protection / river training works completed.</li> <li>● Rehabilitation plan for Awaran Earthquake 2013 in progress, implementation of Phase I completed.</li> </ul>
8	<b>DRR Mainstreaming</b>	<ul style="list-style-type: none"> <li>● DRR compliance made mandatory for recovery and reconstruction strategies &amp; programmes.</li> <li>● Comprehensive feasibility study on Disaster Risk Insurance Framework in the context of Pakistan conducted with collaboration of CDKN - LEAD Pakistan and technical support of Munich Climate Initiative.</li> <li>● Demand pilot study on Disaster Risk Insurance in selected districts.</li> <li>● Establishment of Pakistan Fund for Disaster Management is in Process.</li> </ul>
9&10	<b>Disaster Preparedness &amp; Emergency Response</b>	<ul style="list-style-type: none"> <li>● Multi Sectoral Initial Rapid Assessment (MIRA) tool was developed in collaboration with UNOCHA and tested in Floods 2014, final version is in last stage of approval.</li> <li>● Recovery Need Assessment (RNA) was test piloted in flood affected districts in 2014, the tool is being further developed in collaboration with UNDP.</li> <li>● DM Simulation Exercise for Punjab conducted.</li> <li>● Minimum Cash Compensation Package as per NDM Act, 2010 review initiated.</li> <li>● Formulation of cash dispensation Policy Guidelines initiated.</li> <li>● Community Based Disaster Risk Management (CBDRM) activities conducted in 5 districts with collaboration of UNDP and in 12 districts under WFP Annual work-plan 2014. .</li> <li>● Humanitarian Response Facilities (HRF) established at strategic locations and work on remaining in progress.</li> </ul>

**Annex I**

To NDMA Annual Report 2016

# National Institute of Disaster Management (NIDM)

No of Courses	Participants					Total
	Govt	UN/INGOs	NGOs	Academia	Media	
20	627	51	67	61	54	860

## Type of Courses

Serial	vCourse	Dates	Participants
1.	Fundamentals of DRM	11 – 15 January 2016	79
2.	CCDRA & CSS (Lahore)	25 – 30 January 2016	35
3.	CCDRA & CSS (Quetta)	8 – 13 February 2016	39
4.	CCDRA & CSS (Karachi)	15 – 20 February 2016	31
5.	GOERE (Peshawar Division)	7 - 11 March 2016	33
6.	Role of Radio in DM	15 - 16 March 2016	60
7.	CCDRA & CSS (Peshawar)	28 March – 2 April 2016	34
8.	GOERE (D.G Khan Division)	11 - 15 April 2016	41
9.	GOERE (Naseerabad Division)	18 - 22 April 2016	37
10.	GOERE (Gilgit & Diamer-Astore Divisions)	16 - 18 May 2016	40
11.	GOERE (Muzaffarabad Division)	25 - 27 May 2016	48
12.	DRM	1 - 5 August 2016	40
13.	Community Preparedness for Reproductive Health and Gender (TOT)	19 - 21 September 2016	23
14.	GOERE (Sukkur Division)	27 - 29 September 2016	38
15.	GOERE(Mirpur Division)	17 - 19 October 2016	48
16.	Role of Media in DRM	21 October 2016	58
17.	GOERE(Malakand Division)	26 - 28 October 2016	58
18.	GOERE(Skardu Division)	14 - 16 November 2016	38
19.	Role of Media in DRM	18 November 2016	44
20.	GOERE (Hazara Division)	14 – 16 December 2016	36
<b>Total</b>			<b>860</b>





**Annex J**  
To NDMA Annual Report 2016

# Foreign Trainings / Workshops / Meetings

Name	Dated		Appointment	Purpose	Duration	Country
	From	To				
Major General Asghar Nawaz	25-2-16	26-2-16	Chairman	Invitation to the Asian Conference on Disaster Reduction 2016, ACDR 2016, Phuket, Thailand	2 days	Thailand
	15-3-16	18-3-16		SAARC Inter Summit SEDME Issue	3 days	Nepal
	20-5-16	24-5-16		World Humanitarian Summit	5 days	Turkey
	22-8-16	26-8-16		Senior Crisis Management Seminar from 22-26 August 2016 in Washington, DC	5 days	Washington, DC
	26-10-16	28-10-16		Experts Group Meeting (EGM) for ECO Regional Framework for Disaster Risk Reduction	03 Days	Tehran
	7-11-2016	18-11-16		22nd Session of Conference of the Parties to the United Nations Framework Convention on Climate Change	12 Days	Marrakech
	8-12-2016	9-12-2016		5th RTG - HOA in Kazakhstan	02 Days	Kazakhstan



Name	Dated		Appointment	Purpose	Duration	Country
	From	To				
Mr Ahmed Kamal	20-5-16	24-5-16	Member (DRR)	World Humanitarian Summit	5 days	Turkey
	20-6-16	22-6-16		Invitation to the Second Meeting of the Advisory Working Group (20th Jun, 2016) and ISDR Asia Partnership (IAP) Meeting (21-22 June 2016), Bangkok, Thailand.	3 days	Thailand
	5-9-16	6-9-16		The 4th Forum of the Standing Committee on Finance (SCF) of the UNFCCC at the ADB Headquarters	2 days	Manila, Philippines
	03-11-16	10-11-16		12th International Session for Asia and Middle East of the Institute of Higher Studies of National Defence (France)	08 Days	Paris, France
	16-1-17	17-1-17		2nd Workshop to Strengthen Scientific Advisory Capacities for Disaster Risk Reduction	02 Days	Taipei, Taiwan
Brig Mukhtar Ahmed	10-10-2016	14-10-16	Member (Ops)	Work-shop on Natural Disaster Management under Disaster Management Confidence Building Measure (DM-CBM)	05 Days	Beijing, China
Mrs Raheela Saad	30-6-16	1/7/2016	Member (A&F)	ALNAP Coordination Meeting in London (UK)	2 days	London (UK)
	06-10-16	14-10-16		IDI-ASOSAI 3i Cooperative Audit Programme on Audit of Disaster Management: Request for Resource Person to Attend Audit Review Meeting	09 Days	Jakarta, Indonesia
	28-11-16	30-11-16		South Asia Peer Learning Regional Consultation on Disaster Preparedness for an Effective Response for Gender Equality and Women's Empowerment	03 Days	Kathmandu, Nepal



Name	Dated		Appointment	Purpose	Duration	Country
	From	To				
Lt Col Khuda Bukhsh	13-3-16	14-3-16	Dir (Response)	Invitation for Crises and Emergency Management Conference (CEMC) 2016	2 days	Abu Dhabi, UAE
	3-5-2016	6-5-2016		Mid Term Review Meeting and Decision Makers Awareness Building on Nuclear and ISOTOPIC Techniques Involved in Post-Flood Management	4 Days	Vienna, Austria
Mr. Waqar Ud Din Siddique, Director (P&IC)	14-11-16	18-11-16	Dir (P&IC)	3rd Session of the Open-Ended Inter-Government Expert Working Group on Terminology and Indicators Relating to Disaster Risk Reduction	05 Days	Geneva, Switzerland
Mr Muhammad Zafar Iqbal	18-9-16	24-9-16	Dir (R&R)	Training Course on “Rapid Humanitarian Logistics Management” 18-24	7 days	Malaysia
	17-10-2016	22-10-2016		Training Course on Disaster Risk and Loss Assessment	06 days	Beijing, China
Hafiz Shakeel Ahmed Qureshi	18-10-16	19-10-16	Dir (Admin)	1st South Asia Regional Conference on the Management of the Dead: Policy Development and Implementation – Invitation for Pakistani Representatives	02 Days	Sri Lanka



Name	Dated		Appointment	Purpose	Duration	Country
	From	To				
Safwan Ullah Khan	10-10-2016	14-10-16	Director (Finance)	Work-shop on Natural Disaster Management under Disaster Management Confidence Building Measure (DM-CBM)	05 Days	Beijing, China
Lt Col (R) Raza Iqbal	20-5-16	24-5-16	Dir (Impl)	World Humanitarian Summit	5 days	Turkey
	26-10-16	28-10-16		Experts Group Meeting (EGM) for ECO Regional Framework for Disaster Risk Reduction	03 Days	Tehran
Maj Tahir Islam	20-5-16	24-5-16	DD (Coord)	World Humanitarian Summit	5 days	Turkey
Maj Amjad Ali	16-11-16	18-11-16	DD (Coord)	2nd Korea International Safety and Security Expo	03 days	Korea
Maj Imran Rafique	30-3-16	19-4-16	DD (Response-I)	Training Course on Emergency Search and Rescue for Developing Countries in China from 30 Mar 16 to 19 Apr 16 (1-3 SLOTS)	20 Days	China
	20-5-16	24-5-16		(Response)	5 days	Turkey
Lt Cdr Eusaf Viqar	26-4-2016	29-4-2016	DD (Response-II)	Post Disaster Needs Assessment Workshop for SAARC Countries Colombo, Sri Lanka, 26-29 April 2016	4 days	Colombo, Sri Lanka
Mr. Muhammad Razi	26-4-2016	29-4-2016	DD (R&R)	Post Disaster Needs Assessment Workshop for SAARC Countries Colombo, Sri Lanka, 26-29 April 2016	4 days	Colombo, Sri Lanka
Maj Azeem Zafar	20-5-16	24-5-16	SO to Chairman	World Humanitarian Summit	5 days	Turkey



Name	Dated		Appointment	Purpose	Duration	Country
	From	To				
Syed Ayub Ali Shah	8/3/2016	9-3-2016	DD ICT	Workshop on Knowledge and Policy Gaps in Disaster Risk Reduction and Development Planning 8-9 March 2016, Bangkok	2 days	Bangkok, Thailand
	30-5-16	1-6-2016		Induction Capacity Workshop of Seismic Hazard and Risk Analysis	2 days	Tehran
	17-10-16	22-10-2016		Training Course on Disaster Risk and Loss Assessment	06 days	Beijing, China
	19-9-16	23-9-16		SRTM-2 Data and Disaster Resilience	05 Days	Nepal
Mrs. Affaf Fiaz Rasul Malik	20-5-16	24-5-16	DD (Policy)	World Humanitarian Summit	5 days	Turkey
	28-11-16	30-11-16		South Asia Peer Learning Regional Consultation on Disaster Preparedness for an Effective Response for Gender Equality and Women's Empowerment	03 Days	Kathmandu, Nepal
Mr. Tahir-ur-Din	9-5-2016	13-5-16	AD (DRR)	International Workshop-Cum-Training Programme on "Disaster Risk Reduction and Climate Change Adaption" at Mulungushi University, Kabwe, Zambia from 9-13 May 16	5 days	Kabwe, Zambia



Name	Dated		Appointment	Purpose	Duration	Country
	From	To				
Ms. Amna Shuja	10-9-2016	26-9-16	AD (R&R)	UNESCO Chair Programme on Cultural Heritage and Risk Management, International Training Course (ITC) on Disaster Risk Management of Cultural Heritage 2016, 11th Year Ritsumeikan University	17 days	Kyoto, Kobe, Sasayama, Japan
Mr. Abid Shahzad	30-3-16	19-4-16	PS to Chairman	Training Course on Emergency Search and Rescue for Developing Countries in China starting from 30 Mar 16 to 19 Apr 16 (1-3 SLOTS)	20 Days	China
Mr. Liaqat Ali	26-9-16	30-9-16	DDO	SAARC Training Programme on Flood Management	5 days	India
Mrs Tania Humayoun	20-5-16	24-5-16	PM GCC	World Humanitarian Summit	5 days	Turkey
	28-11-16	30-11-16		South Asia Peer Learning Regional Consultation on Disaster Preparedness for an Effective Response for Gender Equality and Women's Empowerment	03 Days	Kathmando, Nepal
	7-11-2016	18-11-16		22nd Session of Conference of the Parties to the United Nations Framework Convention on Climate Change	12 Days	Marrakech
Ms Reema Zubari	20-5-16	24-5-16	Media	World Humanitarian Summit	5 days	Turkey



**Annex K**  
To NDMA Annual Report 2016

# Procurements from NDMF During FY 2015-16

Serial	Items	Quantity	Amount (PKR)
1.	Family tents	42,100	399,950,000
2.	Tarpaulin Shelters	70,000	128,400,000
3.	Blankets	20,000	7,900,000
4.	Socks	25,000	1,813,500
5.	Gloves	5000	362,700
6.	Medicines	-	211,746
7.	Warm Shawls	5,000	4,592,250
8.	Ration pack (Gilgit)	2,150	2,096,909
9.	Ration Pack (GB)	500	947,050
10.	Ration Pack (Afghanistan)	650	487,500
11.	Ration Pack (Skardu)	500	903,000
12.	Ration Pack (Shangla)	596	464,880
13.	Transportation of Goods	-	25,134,000
14.	Clearance of Goods	-	530,00
15.	Advertisement	-	3,900,000
16.	Rain Coats	1,000	435,000
17.	Rain boats	1,000	265,000
18.	Mosquito Repellant	1,000	140,000
19.	Aqua Tabs 33mg	50,000	175,000
20.	Aqua Tabs 67mg	50,000	225,000
<b>Grand Total</b>			<b>578.9 Million</b>





## EVENT CALENDAR - 2016



Islamabad 9 January 2016: Participants of National Consultative Dialogue on Role of Media in Disaster Management



Islamabad 12 January 2016: Team of Auditors from Nepal visited NDMA during study visit of workshop on Disaster Management Audit.



Islamabad 15 January 2016: Chairman NDMA handed over 5 Suzuki Ambulances to Mr Nasib Ullah of PDMA Balochistan.



Islamabad 22 January 2016: Chairman NDMA attended COP21 Debrief 'From Paris to Marrakech - Learning and Way forward' organized by Lead Pakistan.



Islamabad 22 January 2016: Pakistan Coalition for Resilience to establish Safe, Healthy, Resilient Communities organized by PRCS



Islamabad 27 January 2016: Country Planning Meeting held at NDMA in cooperation with National Society for Earthquake Technology – Nepal (NSET), Network of Disaster Management Practitioners Pakistan (NDMP) and United States Agency for International Development (USAID) / Office for Foreign



Islamabad 28th January 2016: Meeting with UN Resident Coordinator & UNDP Resident Representative Pakistan Mr. Neil Buhne.



Islamabad, February 01 2016: NDMA & British Council signed MoU to develop 'Education in Emergencies' strategy.



Islamabad the 2nd February, 2016: First Consultative Dialogue to discuss National Policy Guidelines on School Safety against disasters held by NDMA and UNICEF



Islamabad 8 February 2016: Call on by Begum General Saeed uz Zafar , Director Army Public Schools and Colleges.



Islamabad 10 February 2016: Meeting with Turkish Ambassador H.E. Mr. Baber Girgin



Islamabad 11 February 2016: Meeting with Chairperson NHN, Mr. Naseer Memon and Chairperson PHF, Mr. Ashraf Mall.



Islamabad 16 February 2016: Meeting with Country Director International Organisation for Migrant (IOM), Mr. Davide Tarze



Islamabad 17 February 2016: Orientation visit of Chinese Media Team.



Islamabad 18 February 2016: Meeting with Global Leader WASH Cluster.



Islamabad 18 February 2016: Project Review Board Meeting with UNDP.



Islamabad 19 February 2016: Meeting with Chairman Pakistan Engineering Council (PEC), Engr. Javed Salim Qureshi.



Islamabad 22 February 2016: Roundtable conference on 'Gender and Climate Vulnerabilities: Future Direction for Policy Research and Action', organized by LEAD, Pakistan.



Islamabad 1 March 2016: 12<sup>th</sup> Safe Secure Pakistan International Fire, Safety, Security and Health Exhibition & Conference- 2016 organized by Pegasus Consultancy at Pak- China Friendship Centre.



Islamabad 1 March 2016: NDMA & WFP signed MoU for WFP's Protracted Relief and Recovery Operations-Pakistan-Transition: Towards Resilient and Food-Secure Pakistan (2016 – 2018)



Islamabad 4 March 2016: Meeting with Pro-Rector Bahria University, Rear Admiral (Retd.) Saleem Akhtar HI (M)



Islamabad 10 March 2016: Meeting with officials MCII & Lead Pakistan/ CDKN on Risk Insurance.



Islamabad 10 March 2016: Meeting with Country Director UNOCHA, Mr. George Khauray.



Islamabad 21 March 2016: Chairman briefing CM Punjab on NDMA endeavours.



Chitral 23 March 2016: Search & Rescue operation during landslide in village Susum Tehsil Garam Chashma, District Chitral.



Islamabad 25 March 2016: Second Consultative Dialogue on National Policy Guidelines for School Safety against disasters held between NDMA and UNICEF



Islamabad 25 March 2016: Meeting with Ms. Cheryl Katzmarzyk and Mr. Reto Stocker, ICRC Representatives.



Islamabad 4 April 2016: Meeting with Australian High Commissioner, Ms. Margaret Adamson



Islamabad 4 April 2016: Meeting with State Mission of UNOCHA.



Islamabad 5 April 2016: Training on Urban DRR and Pilot of Sendai Framework Local/Urban Indicators in Islamabad, Pakistan



Gilgit Baltistan 15 April 2016: Efforts for clearance of landslides



Islamabad 4 May 2016: Round Table consultation dialogue by NDMA in collaboration with UNOCHA and Embassy of Republic of Turkey as a prelude to World Humanitarian Summit held on 21-25 May 2016 at Istanbul, Turkey



Sukkur 18 May 2016: Chief Minister of Sindh Syed Qaim Ali Shah inaugurated HRF Sukkur



Istanbul, Turkey 21-25 May 2016: NDMA Exhibition Stall showcased Pakistan experience in DM through picture gallery & DRM publications at WHS.



Istanbul, Turkey 22 May 2016: UN Assistant Secretary General and Deputy Emergency Relief Coordinator OCHA, Ms. Kyung Wha Kang visiting NDMA Exhibition Fair organised during First World Humanitarian Summit.



Istanbul, Turkey 23 May 2016: Minister for SAFRON, Lt. General (R) Abdul Quadir Baloch, visited NDMA exhibition stall at WHS.



Istanbul, Turkey 23 May 2016: Minister for SAFRON and Pakistan delegation at Innovation Marketplace setup by Pakistan at WHS



Lahore 28 May 2016: Media Workshop on 'Reporting Disasters'.



Karachi 4 June 2016: Media Workshop on 'Reporting Disasters'.



Islamabad 6 June 2016: Consultation Workshop on 'Developing synergies of the DRR Forum's future DRR related interventions with the NDMP implementation roadmap 2016-2030'



Karachi, Sindh 17 June 2016: Consultative Meeting on Pre Monsoon Preparedness and Contingency Planning.



Islamabad 21 June 2016: NDMA & UN Signed LOA for Gender Equality & The Empowerment of Women (UN Women)



Peshawar, Khyber Pakhtunkhwa 22nd June 2016: NDMA, PDMA KP & FDMA Consultative Meeting on Pre Monsoon Preparedness and Contingency Planning



Muzaffarabad, Azad Jammu & Kashmir 24th June 2016: Consultative Meeting on Pre Monsoon Preparedness and Contingency Planning



Chitral 2 July 2016: NDMA teams offered condolence with the bereaved families of the flood affectees.



Chitral 2 July: Chairman NDMA distributed relief among the flood affectees



Islamabad 4 July 2016: Call on by Korean Ambassador



Islamabad 20 July 2016: Meeting with Country Director Oxfam Pakistan, Mr. Muhammad Qazilbash



Islamabad 5 August 2016: Call on by Deputy Speaker National Assembly Mr. Murtaza Javed Abbasi



Islamabad 8 August 2016: Meeting with Sardar Mehtab Abbasi, Former Governor Khyber Pakhtunkhwa.



Islamabad 8 August 2016: Orientation visit of Peshawar University students.



Islamabad 8 August 2016: Project Review Board (PRB) Meeting with UNDP.



Islamabad 8 October 2016: National Disaster Awareness Day Participants of flag march - emergency response units of CDA & USAR teams.



Islamabad 17 August 2016: Chairman NDMA with President NDU, Lt General Nazir Ahmed Butt during briefing at NDU.



Islamabad 19 August 2016: Orientation visit of officers from Foreign Services Academy.



ISLAMABAD, 28 September 2016 NDMA and UNICEF signed MoU to extend their partnership for Child Centred Disaster Risk Management (CCDRM)



Islamabad 17 October 2016: Federal Minister for Planning, Development & Reforms Prof. Ahsan Iqbal addressing the Inaugural Session of Regional Consultative Committee Meeting on Disaster Management (13 RCC).



Islamabad 19 October 2016: Federal Minister for Climate Change, Zahid Hamid addressing the concluding session of Regional Consultative Committee Meeting on Disaster Management (13 RCC).



Islamabad 9 November 2016: Orientation visit of 46th Inland Study Tour



Islamabad 18th November 2016: Meeting with officials of World Association of Girl Scouts and Girl Guides and officials of Girls Guide Association Pakistan



Islamabad 5 December: NDMA Organized Earthquake School Safety Drill at Model School for Girls, Islamabad



Islamabad 6 December 2016: Meeting with Country Director UNOCHA, Ms. Heli Uusikyla



Islamabad 14 December 2016: Coordination Conference of Industrial Mock Exercise planned at Rahim Yar Khan.



Islamabad 28 December 2016: Federal Minister for Climate Change, Mr. Zahid Hamid visited NDMA.



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**National Disaster Management Authority**

Ministry of Climate Change

Government of Pakistan

[www.ndma.gov.pk](http://www.ndma.gov.pk)