

State Disaster Response Plan





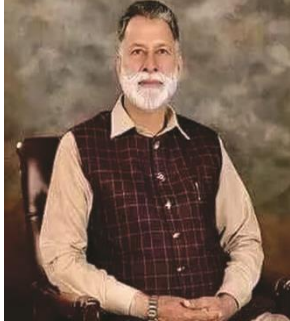
State Disaster Management Authority

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MESSAGE BY THE HONORABLE PRIME MINISTER OF AZAD JAMMU AND KASHMIR



The calamities have always posed formidable challenges to mankind. The State of Azad Jammu and Kashmir has been blessed with a unique geographic location, however it also exposes the area to all types of hazards. The 2005 earthquake which devastated the population of the State and wrought havoc will remain alive in our memories for a long time to come. Realizing the need for proactive disaster preparedness measures, the State Government has created the State Disaster Management Authority (SDMA) to coordinate relief, recovery, reconstruction efforts in addition to preparing the populace for future disasters through structural and non-structural measures. It is a mammoth task requiring effective coordination among all the relevant stakeholders at the State level.

I am glad that State Disaster Management Authority has developed a comprehensive State Disaster Response Plan covering the myriad potential natural as well as human-induced disasters. The plan has addressed relevant aspect of potential hazards, vulnerability analysis, roles and responsibilities of stakeholders and the response measures. I commend the efforts of every single individual put in for this noble cause. I assure that Government is instantly available for any cooperation needed for the implementation of this Plan.

I believe that preparation of the Plan is a step in the right direction and I commend the Authority for preparing this comprehensive document which would provide a way forward to build resilience in the State. I would like to acknowledge the support provided to the Azad Government by the Pakistan Resilience Partnership (PRP) which made formulation of this plan possible.

In the end, I would like to reaffirm the full support of the Azad Government of the State of Azad Jammu and Kashmir towards the cause of building resilience to the impacts of natural disasters.

Sardar Abdul Qayyum Niazi
Prime Minister
Azad Government of State of Jammu & Kashmir

MESSAGE BY SECRETARY/ DIRECTOR GENERAL, STATE DISASTER MANAGEMENT AUTHORITY

The world has witnessed a sharp increase both in natural disaster and humanitarian crisis in the recent past and climate change phenomenon has further compounded the situation. The State of Azad Jammu and Kashmir is no exception given its location, topography and the overall environment. The area is confronted with almost all kinds of natural hazards. The State Disaster Management Authority is the premier entity for leading response related activities in the State. Since its creation, it has been striving to improve the government's response to the natural disasters and to help the people of the State in preparedness. With generous support from the government and assistance from the donor agencies, its capacities have increased manifold.

While disasters are beyond our control, our capacity to minimize risks, prevent losses, prepare, response and recovery has improved considerably. Number of legal instruments have been enacted to institutionalize and operationalize disaster management system. Formulation of the State Disaster Response Plan after extensive cross-sectoral consultation is the culmination of tireless efforts of the team. The plan outlines a framework for emergency response at different levels of the government structure; identifies roles and responsibilities of various stakeholders and lays down coordination mechanism for activities involving all humanitarian actors to harness the full potential for the efficient disaster management.

I would like to acknowledge and appreciate the support provided by the Pakistan Resilience Partnership (PRP) to the authority in developing the plan. With the completion of the State Response Plan, I, along with my team would embark on ensuring its implementation and working closely with the relevant line departments and district administrations to ensure that the coordination mechanisms and operating procedures are implemented and would be tested real-time in disaster episodes. We would further strive to ensure that this plan remains a usable and live document and improved on regular basis to incorporate the lessons learnt and best practice.

Muhammad Shahid Ayub
Secretary/Director General
State District Management Authority

ACKNOWLEDGMENT

The document is an outcome of collaborative efforts of the State Disaster Management Authority, The Azad Government of Azad Jammu and Kashmir, Pakistan Resilience Partnership (PRP), team of experts and other stakeholders. State Disaster Management Authority acknowledges its officials whose concerted efforts paved the way for formulation of the plan. We express our profound gratitude to all the ministries and district departments for their continuous guidance and support during the process of developing the document. The guidance and supervision of Pakistan Resilience Partnership team and hard work put in by the team of consultants in gathering data from related departments and shaping the document remained instrumental in developing this plan. We also acknowledge the contribution of other stakeholders for their support provided in finalization of the plan.

We also owe special thanks to Asian Preparedness Partnership (APP) and Asian Disaster Preparedness Center (ADPC) for their support, without which, we still would have had a long way to go.

EXECUTIVE SUMMARY

The State Disaster Response Plan is amongst the key document outlining the guidelines for managing and responding to disasters/ emergencies in the State. The first ever State Disaster Response Plan has been developed align with the National Disaster Response Plan 2019; which is based on the recurrent disasters after 2010 and experiences learnt thereof and is aligned with National Disaster Management Plan 2012. The plan has also been formulated keeping in view the recent global frameworks i.e., Sendai Framework (2015-2030), Sustainable Development Goals Framework-2015 and Paris Agreement-2015. The plan envisaged rationalized roles and responsibilities of the government departments/ ministries. Moreover lesson learnt from the major national, regional and global response efforts owing to various calamities (2011 Tsunami, Haiti Earthquake, Nepal Earthquake, Nergis Cyclone Myanmar, Yemyin & Phet Cyclones in Pakistan, 2013 & 2015 Earthquakes in Pakistan besides Floods of 2010, 2011, 2012, 2014 and 2015) has also been incorporated.

The State Disaster Response Plan is the “Multi-Hazard” response plan developed with a purpose to enhance the State’s ability to manage disasters using a comprehensive approach. It outlines the processes and mechanisms to facilitate a coordinated response by the State and/or the district level departments/agencies. To achieve this, the State Disaster Response Plan, incorporates all disaster management activities; from preparedness to response. The plan considered the global trends in disaster response and commitments.

Structure of the plan. The State Disaster Response Plan has following four chapters: -

- 1) **Chapter I.** This chapter provides brief profile of Azad Jammu and Kashmir.
- 2) **Chapter II.** The chapter covers hazard profile and historical perspective of disasters in the State.
- 3) **Chapter III.** This chapter presents humanitarian architecture in Azad Jammu and Kashmir, including roles and responsibilities of the stakeholders.
- 4) **Chapter IV.** This chapter provides information pertaining to the activation of the response plan, including roles and responsibilities of the stakeholders before, during and post disaster situations.
- 5) **Chapter V.** This section provides brief information on the provision of emergency services and public assistance immediately after a disaster to save lives, reduce health



impacts, ensure public safety and meet the basic needs of the people affected by the disasters.

The State Disaster Response Plan also acts as the guiding document for the districts and local government institutions who are responsible for the development and improvement of local response plans related to respective areas of responsibility.

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ACRONYMS

ADB	Asian Development Bank
ADPC	Asian Disaster Preparedness
AEOC	Agency Emergency Operation Centre
AJ&K	Azad Jammu and Kashmir
APP	Associated Press of Pakistan
CBDRM	Community Based Disaster Risk Management
CBO	Community Based Organizations
CCI	Chambers of Commerce & Industry
CEO	Chief Executive Officer
DC	Deputy Commissioner
DDMA	District Disaster Management Authority
DEOC	District Emergency Operation Center
DG	Director General
DNA	Damage Need Assessment
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EOC	Emergency Operation Center
EPA	Environment Protection Agency
ERC	Emergency Response Center , Emergency Relief Cell
ERP	Emergency Response Preparedness
ERRA	Earthquake Reconstruction and Rehabilitation Authority
EWS	Early Warning System
FAO	Food and Agriculture Organization
FFC	Federal Flood Commission
GIS	Geographical Information System
GSP	Geological Survey of Pakistan
HCT	Humanitarian Country Team
HFA	Hyogo Framework of Action
HR	Human Resources
IASC	Inter-Agency Standing Committee
IFRC	International Federation of Red Cross
INGO	International Non-Government Organizations
IOM	International Organization of Migration
IUCN	International Union for Conservation of Nature
LGO	Local Government Ordinance
M&E	Monitoring and Evaluation
MHRP	Multi Hazard Response Plan
MIRA	Multi Sector Initial Rapid Assessment
Moi	Ministry of Interior
NDM	National Disaster Management
NDMA	National Disaster Management Authority



NDMC	National Disaster Management Commission
NDMO	National Disaster Management Ordinance
NDRMF	National Disaster Risk Management Fund
NDRP	National Disaster Response Plan
NEOC	National Emergency Operation Center
NGO	Non-Government Organization
NHA	National Highway Authority
NHN	National Humanitarian Network
PDMA	Provincial Disaster Management Authority
PHED	Provincial Health Engineering Department
PHF	Pakistan Humanitarian Forum
PM	Prime Minister
PMD	Pakistan Meteorological Department
PRCS	Pakistan Red Crescent Society
PRP	Pakistan Resilience Partnership
RDNA	Rapid Damage Need Assessment
SDG	Sustainable Development Goals
SFDRR	Sendai Framework for Disaster Risk Reduction
SHA	Seismic Hazard Assessment
SIDM	State Institute of Disaster Management
SDMA	State Disaster Management Authority
SDMA	State Disaster Management Commission
SDRP	State Disaster Response Plan
SCO	Special Communication Organization
SoPs	Standard Operating Procedures
SUPARCO	Space and Upper Atmosphere Research Commission
T&T	Telephone and Telegraph
UC	Union Council
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
UNISAR	United Nations International Strategy for Disaster Risk Reduction
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
USAR	Urban Search And Rescue
WAPDA	Water and Power Development Authority
WFP	World Food Programme
WHO	World Health Organization
WRRC	Water Resources Research Center
WWF	World Wildlife Fund for Nature

TERMINOLOGIES USED

Acceptable Risk. The level of potential losses that a society or community considers acceptable given existing social, economic, political, cultural, technical and environmental conditions.

Building Code. A set of ordinances or regulations and associated standards intended to control aspects of the design, construction, materials, alteration and occupancy of structures that are necessary to ensure human safety and welfare, including resistance to collapse and damage.

Capacity. The combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals.

Capacity Building. Efforts aimed to develop human skills or societal infrastructure within a community or organization needed to reduce the level of risk. In extended understanding, capacity building also includes development of institutional, financial, political and other resources, at different levels of the society.

Climate Change. A change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcing, or to persistent anthropogenic changes in the composition of the atmosphere or in land use.

Contingency Planning. A management process that analyses specific potential events or emerging situations that might threaten society or the environment and establishes arrangements in advance to enable timely, effective and appropriate responses to such events and situations.

Disaster. A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

Disaster Risk Management. The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.

Disaster Risk Reduction. The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.

Early Warning System. The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss.

Emergency Management. The organization and management of resources and responsibilities for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps.



Exposure. People, property, systems, or other elements present in hazard zones that are thereby subject to potential losses.

Hazard. A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Mitigation. The lessening or limitation of the adverse impacts of hazards and related disasters.

Natural Hazard. Natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Preparedness. The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.

Prevention. The outright avoidance of adverse impacts of hazards and related disasters.

Public Awareness. The extent of common knowledge about disaster risks, the factors that lead to disasters and the actions that can be taken individually and collectively to reduce exposure and vulnerability to hazards.

Recovery. The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.

Resilience. The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.

Response. The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

Risk. The combination of the probability of an event and its negative consequences.

Risk Assessment. A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.

Vulnerability. The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

PREFACE



Preface

SDMA Organization

To cater to the challenges and manage the disaster in more professional manner, the promulgation of the National Disaster Management Ordinance (NDMO), 2006 and approval of National Disaster Risk Management Framework (NDRMF) led to the establishment of National Disaster Management Authority (NDMA) as focal agency at the federal level, while State Disaster Management Authority (SDMA) was established for AK&K.

SDMA is established to promote swift and better disaster preparedness and management within the region. SDMA is statutory body mandated to act as leading agency in disaster management, its mitigation and preparedness in AJ&K. The state is highly prone to multiple hazards and has experienced worst disasters situation in the recent past, whereas there is a visible increase in frequency of natural disasters due to climate change. SDMA at state level, has been mandated to effectively set up a system to handle emergencies, disasters and calamities whether natural or human induced.

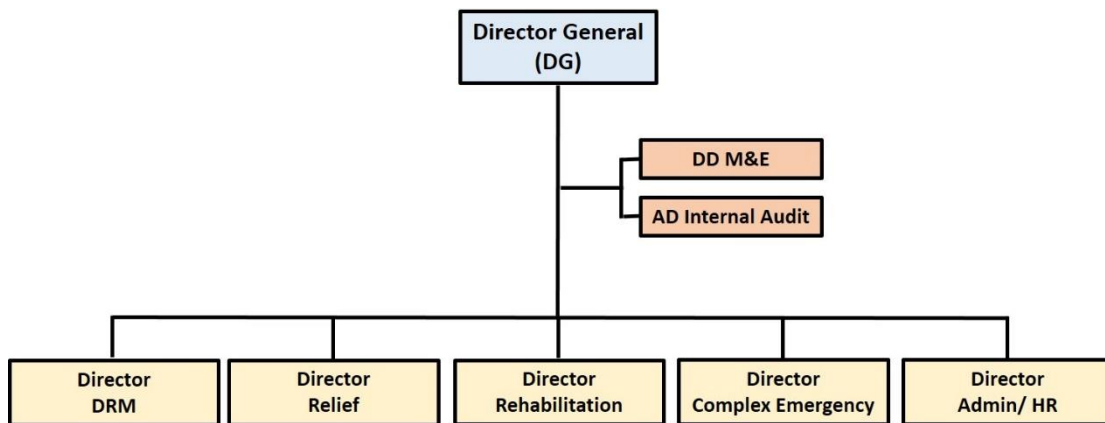
Mission

To reduce vulnerability of human life, property and the environment to natural as well as human-induced disasters through awareness, mitigation, preparedness and coordination.

Vision

Enhance disaster resilience in the State of AJ&K.

Organogram



SDMA Powers and Functions

SDMA mandate is to enhance disaster resilience in the state for which the authority formulates and implements policies of DRM, mitigation, preparedness and hazard risk reduction. SDMA coordinates and communicates with all stakeholders (Federal Government, District Government, International/ National Governmental Organizations and implementing partner’s (IPs) before, during and after a disaster for preparedness and response. Section 9, chapter II of the State Disaster Management Act 2008, envisages following powers and functions of the authority: -

- a) Act as implementing, coordinating and monitoring body for DRM;
- b) Prepare a plan to be approved by the commission;
- c) Implement, coordinate and monitor the implementation of the policy;

- d) Lay down guidelines for preparing DRM plans by different ministries or departments;
- e) Provide necessary technical assistance to governments, district management authorities for preparing their DRM plans in accordance with the guidelines laid down by the commission;
- f) Coordinate response in the event of any threatening disaster situation or disaster;
- g) Lay down guidelines for, or give directions to the concerned ministries, departments and district authorities regarding measures to be taken in response to any emergency;
- h) For any specific purpose or for general assistance requisition the services of any person and such person shall be a co-opted member and exercise such power as conferred upon him by the authority in writing;
- i) Promote general education and awareness in relation to DRM;
- j) Perform such other functions as the commission may require it to perform.

The other key roles of SDMA could be: -

- a) Continuously monitor hazards, risks and vulnerable conditions within the state;
- b) Develop guidelines and standards for all stakeholders regarding their role in DRM;
- c) Ensure preparation of DRM plans by all districts;
- d) Coordinate implementation of State DRM Plan in accordance with the National Disaster Management Plan;
- e) Promote education, awareness and training on DRR and response;
- f) Provide necessary technical assistance and advice to local authorities for carrying out their functions effectively;
- g) Coordinate emergency response in the event of a disaster, through the SEOC;
- h) Develop specific capabilities to manage threats that exist in the State.

Institutional Capacity

SDMA has limited capacity to support the affected community on the onset of disaster. Likewise, all DDMA's can partially support the affected individuals in their respective areas of responsibilities. For effective and subsequent support procurement will be undertaken in addition to assistance received from NDMA and other sources. Based on the learning from Oct 2005 Earthquake, urban search & rescue (USAR) teams are the essential requirement of the State, however presently except for Rescue 1122 trained in collapse structure search and rescue (CSSR) under program for enhancement of emergency response (PEER), no such specialized force is held with SDMA for immediate response in case of an earthquake.

A humanitarian response facility (HRF) at Muzaffarabad and three flospans have been constructed to stock necessary relief items. Number of individuals have been trained by NIDM in the field of DRR, DRM and response. Standardized assessment processes (MIRA, RNA and DNA) have been finalized by NDMA and individuals have been trained to conduct such assessments. The assessment process is aimed at reducing the time.

About SDRP

SDRP is a guiding document that establishes a process and structure for the systematic, coordinated and effective delivery of assistance to address the consequences of any major disaster declared by the State of AJ&K. The document is structured around SDMA/ NDMA's core



commitments in various phases of disasters/ emergencies. The document outlines the role of SDMA, other state departments, institutions and humanitarian stakeholders in managing and responding to disasters/ emergencies in AJ&K.

Purpose of the Plan

SDRP is the AJ&K Government’s “Multi-hazard” response plan. The purpose of the SDRP is to enhance the state ability to manage all disasters using a comprehensive approach. It outlines the process and mechanisms to facilitate a coordinated response by the state/ district and local level departments/ agencies.

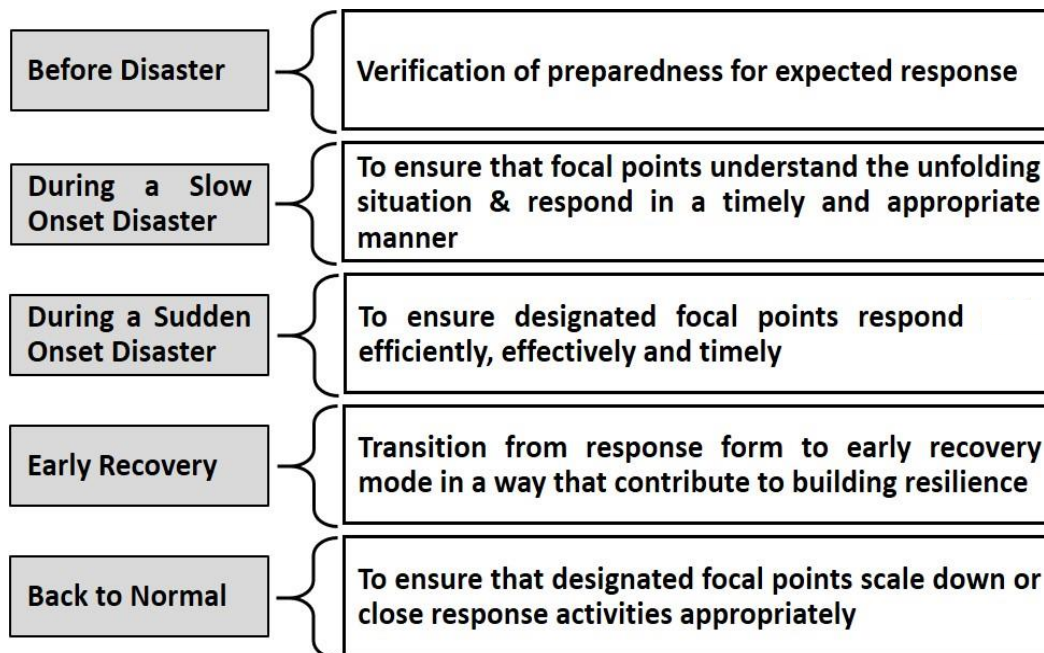
SDRP in Perspective

SDRP classifies different types of hazards, level of vulnerabilities and their causes, as well as the structure, functions and coordination mechanism at all tiers (state and districts), concerned ministries, departments, NGOs, UN Agencies, media, charities/ foundations, business community and CBOs at all level of governance. It focuses on the existing relief system, the procedure of declaring calamity-hit areas, early warning systems and the information flow from state to districts and district to community level and vis-à-vis in the wake of different disasters. The SDRP also prescribes the relevant activities on how the disaster response shall be conducted as augmentation or assumption of response functions to the disaster affected areas.

Who should use it?

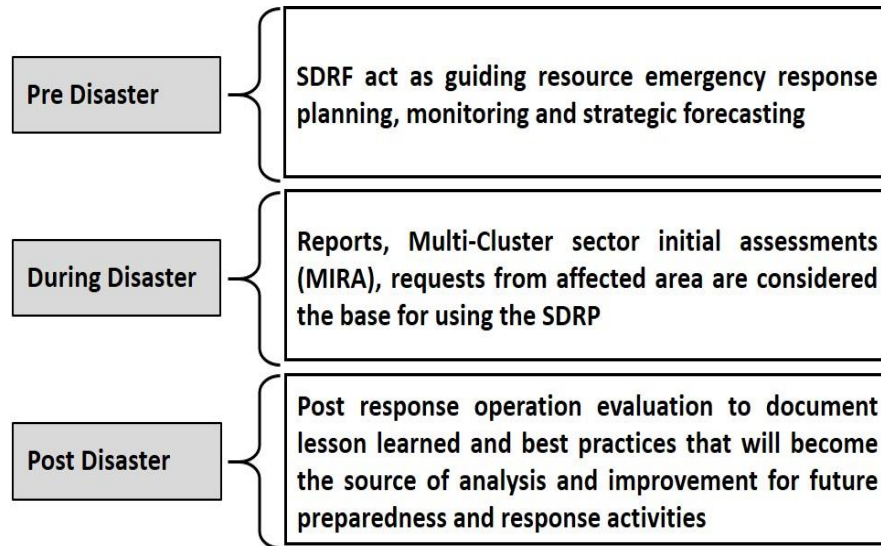
The users of the plan are the decision makers at state and district level, responsible for managing/ responding to disasters and emergencies. It also serves guiding document for all ministries/ departments/ organizations to prepare their respective disaster response plan/ guidelines and standard operating procedures (SoPs).

Applicability of SDRP

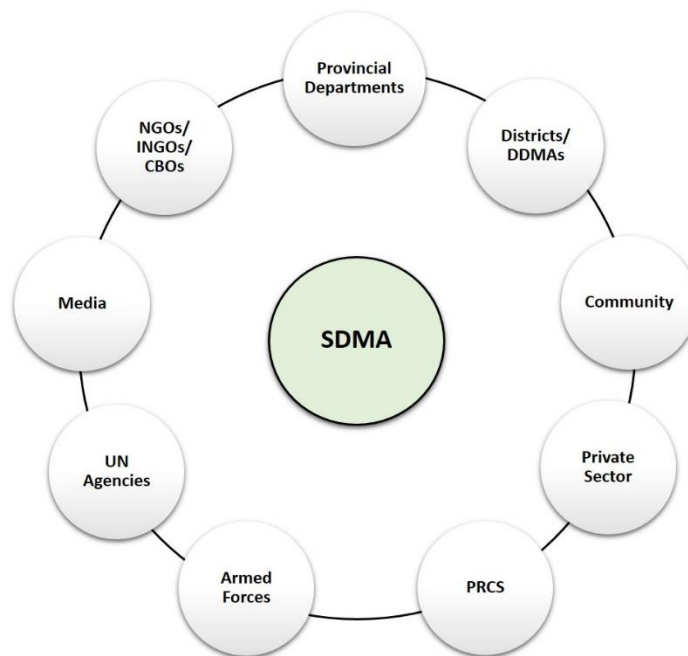




Activities under SDRP



Stakeholders/ Key Players



Approaches used for the Preparation of SDRP

In the development of SDRP the humanitarian standards and principles like Core Humanitarian Standards (CHS), Sphere standards and its companions, ICRC code of conduct are used as guiding document. Following cross cutting themes are added as particular areas of concern in disaster response to address individual, group or general vulnerability.

- a) DRR
- b) Gender and Inclusion
- c) Environment
- d) Protection



Documents used for the Preparation of SDRP

Number of key documents and guidelines prepared both by SDMA and NDMA have been used for development of the plan. Some of these documents are listed below however; the detailed reference documents list is given at the end of document. This plan may be read in conjunction with referred documents.

- a) State Disaster Management Act 2008.
- b) Disaster Risk Management Plan AJ&K 2008.
- c) National Disaster Management Act 2010.
- d) National Disaster Management Plan 2012.
- e) National Disaster Risk Reduction Policy 2013.
- f) National Policy Guidelines on Vulnerable Groups in Disaster 2014.
- g) State Disaster Risk Management Plan 2017.
- h) District Disaster Risk Management Plans 2017.
- i) Host Nation Support Guidelines 2018.
- j) National Disaster Response Plan 2019.
- k) Monsoon Contingency Plan 2020.

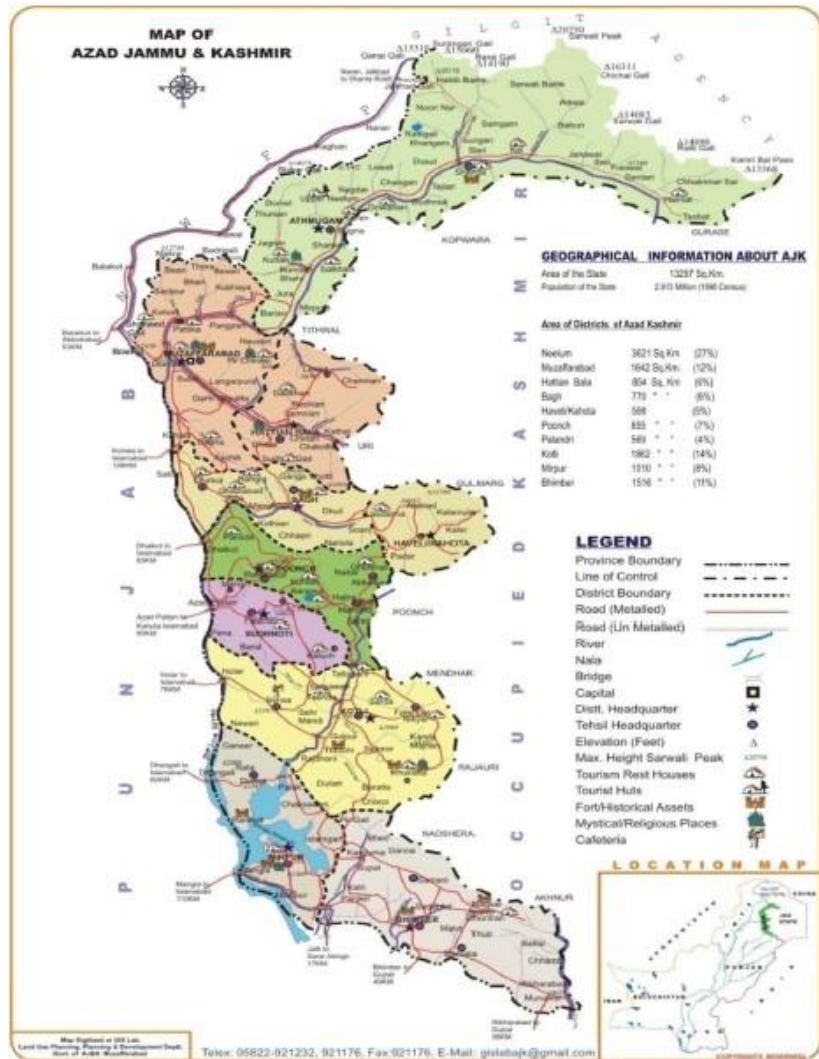
CHAPTER 1

PROFILE OF A&JK

Chapter 1: Profile of A&JK

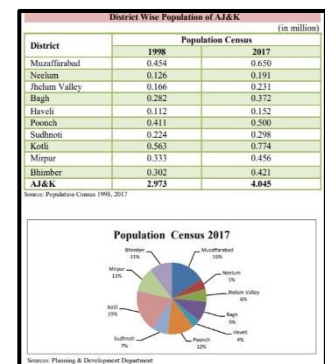
Topography

The State of AJ&K lies between longitude 73o - 75o and latitude 33o - 36o and comprises an area of 5,134 square miles (13,297 square kms). AJ&K falls within the Himalayan organic belt. As such, its topography is mainly hilly and mountainous characterized by deep ravines, rugged, and undulating terrain. The northern districts (Neelum, Muzaffarabad, Jhelum Valley, Bagh, Haveli, Poonch, and Sudhnoti) are generally mountainous while southern districts (Kotli, Mirpur, and Bhimber) are relatively plain. The mountain ecosystems are relatively unstable and have low inherent productivity. Within this fragile environment, however, there is a great variety of ecological niches upon which people base their livelihood. The area is full of natural beauty with thick forests, fast flowing rivers and winding streams. Main rivers are Jhelum, Neelum and Poonch.



Demography

AJ&K is a fascinating land of people, languages & culture. Origin of inhabitants is claimed to be from the descendants of Semitic, Mongoloid, Aryans, Afghans, Persians, Turks & Arabs races. According to the 2017 population census, the State of AJ&K had a population of 4.045 million. The population has grown at 2.41% annually during last decade; however, the family size remains slightly over 7 members per family, living mostly in extended/joint family structures. The population is predominantly rural with only 12% people residing in cities. The rural to urban ratio is 88:12. The population density is 336 persons per Sq Km¹.



¹ Population Census Organization, Islamabad

Languages

Urdu is the official language of the state whereas Pahari, Gojri and Kashmiri are the local languages spoken by majority of the public. Pahari dominates as the most widely used language. It closely resembles Pothohari and Hindko languages with slight variations in accent.

Climate

The region is marked with varied elevation as south being lowest at 360 meters above sea level and north having the highest altitude of 6325 meters. AJ&K experiences varied seasons for which the snow line fluctuates between 1200 meters in winter to 3300 meters in summer.

Depending on the altitude, AJ&K has a wide range of climatic conditions. The south has dry subtropical climate while the north most moist temperate. There is significant variation in the rainfall pattern across different regions both in terms of amount and distribution. Average annual rainfall ranges from 1000 mm to 2000 mm. In the northern districts 30% to 60% precipitation is in the shape of snow. In winter, snow line is around 1200 meters while in summer it is 3300 meters. Average maximum temperature ranges from 20°C to 32°C while the average minimum temperature range is 04 to 07°C.

Health

Health coverage in AJ&K is still inadequate. There are approximately 3855 hospital beds available in the area averaging one bed per 1158 people. Although AJ&K has primary health care coverage of 58%, however gap between service providers and population they supposedly serve is growing. The total number of doctors, including administrative doctors, health managers & dentists is 1078 out of which there are 57 health managers, 76 dental surgeons and 826 medical officers/ specialists, giving an average of 0.18 per 1000 population in respect of medical officers/specialists, 0.017 per 1000 population in respect of dentists and 0.012 per 1000 population, in respect of health managers².

Education

Education has been a priority of the State of AJ&K as about 30% of its total recurring budget, besides, 7% of the total development budget is allocated to this sector. AJ&K's literacy rate is 77% which is significantly higher than the national average of Pakistan. At present the gross enrolment rate at primary level is 115% for boys and 105% for girls (between the ages of 5-9). Level wise detail of education institutions is given below³: -

Ser	Institutes	Numbers
1.	Government Primary Masjid Schools	1,149
2.	Government Primary Schools	2,866
3.	Government Middle Schools	1,047
4.	Government High Schools	805
5.	Government Higher Secondary Schools	89
6.	Government Intermediate colleges	97
7.	Government Cadet Colleges	02
8.	Medical Colleges	04
9.	Education Colleges	02
10.	Universities	05

² Directorate of Health, Muzaffarabad

³ AJ&K Statistical Year Book 2017

Governance and Administrative Set-up

AJ&K has a parliamentary form of government. The President of AJ&K is the Constitutional Head of the State, while the Prime Minister, supported by a Cabinet, is the Chief Executive. AJ&K has its own Legislative Assembly comprising of 41 direct and 8 indirect elected members of which 5 are female and a member each from technocrats, ulama community and overseas Kashmiris. The AJ&K has its institutions of the Supreme Court, High Court and Sharia Court.

AJ&K is divided into three divisions (Muzaffarabad, Poonch and Mirpur) and ten administrative districts with Muzaffarabad as the capital of the State. The Muzaffarabad Division comprises of three districts, Poonch Division comprises of four whereas Mirpur Division consists of three districts. These ten districts are further divided into 32 subdivisions, 183 UCs and 1771 revenue villages. There are 5 municipal corporations, 13 municipal committees, 18 town committees and 31 markaz councils, which are administrated by the Local Government and Rural Development Department (LG&RDD). The detail of divisions, districts, subdivisions, villages and UCs is given below⁴.

Ser	Division	Districts				Sub Division	
		Name	Sub Div	Villages	UCs	Name	Villages
1.	Muzaffarabad • 3 Districts • 7 Sub-Divisions • 670 Villages • 47 UCs	Muzaffarabad	2	415	24	Muzaffarabad	286
		Neelum	4	88	9	Naseerabad	129
						Athmuqam	63
		Jhelum Valley	3	167	14	Hattian	110
						Chikar	33
						Leepa	24
2.	Poonch • 4 Districts • 14 Sub-Divisions • 412 villages • 63 UCs	Bagh	3	140	20	Bagh	52
						Dhirkot	61
						Harighel	27
		Haveli	3	91	9	Haveli	44
						Khurshidabad	16
						Mumtazabad	31
		Poonch	4	122	23	Rawalakot	53
						Hajira	44
						Abbaspur	18
						Thorar	7
		Sudhnoti	4	61	11	Pallandri	27
						Mong	6
Tararkhal	11						
Baloch	17						
3.	Mirpur • 3 Districts • 11 Sub-Divisions • 686 Villages • 73 UCs	Mirpur	2	246	19	Mirpur	176
						Dudyal	70
		Kotli	6	234	36	Kotli	84
						Khuiratta	26
						Charhoi	19
						Darlia Jattan	16
Sehnsa	71						

⁴ AJ&K Statistical Year Book 2017

						Fatehpur	18
		Bhimber	3	207	18	Bhimber	66
						Barnala	94
						Samahni	47
	3	10	32	1,771	183	32	1,771

Agriculture

The agriculture of AJ&K mainly depends upon rainfall. Maize, wheat and rice are the major crops. Most of the area is mountainous. However plains of some valleys of northern areas such as Jhelum Valley, Neelum Valley, Hajira and Bagh are cultivable whereas district Kotli, Mirpur and Bhimber comprise of vast plains stretches and valleys where crops like maize, wheat, rice, jawar and bajra is extensively grown. The pattern of agriculture varies with the condition of soil, climate, rainfall and availability of irrigation water. Where water is assured, paddy has the priority but where the water supply is comparatively limited, maize is grown in summer and wheat in winter. Potato, pulses, oil seeds, jawar, bajra, gram particularly in Mirpur and Bhimber districts are also grown. There are tremendous possibilities of fruit and vegetable cultivation in AJ&K. The high pressure of population on land has led to very small size of holdings, which varies roughly from two acres in District Neelum to three acres in Muzaffarabad and Jhelum Valley. The areas comprising slopes where grass is available, are generally utilized for grazing cattle. The total area under cultivation is around 197,683 hectares which is about 13.0 percent of the total territory. The average farm size is only 1.7 hectare⁵ half of which is cultivated: a large proportion of farm land is cultivable waste, including forest, whereas per capita land holding is 0.235 hectare.

Forestry, Fisheries and Livestock

About 42.6% of the total geographical area (1.330 in million hectares), is controlled by the State Forests Department. The productive forests cover 0.379 million hectares whereas non-productive forests cover 0.188 million hectares out of 0.567 million hectares. The per capita standing volume is 299.5 cubic feet and per capita forest area is 0.35 acre. Deodar, Kail, Fir and Pine are important tree species. The territory of AJ&K is stretched in a strip from north most region of the high mountains to tropical arid zone in the south. As a result of this, a large number of forest types are present in AJ&K. Southern zone contain Acacia, Berry and Sisoo, which is followed by sub-tropical bushes (Pabbies) of Mirpur District with Sanatha, Cassia, Olea, Berry, Dhak and Pine (Chir). Moist temperate zone covers the high altitude forest areas, which fall in the monsoon zone. In Northern zone Kail, Spruse and Poplar are common. Dry temperate zone lies in the Neelum and Leepa Valleys, where best quality Deodar, Kail, Fir, Taxus, Betula, Prunus and Poplar are found. Alpine zone consists of the highest peaks of the Himalayan range with great glaciers and avalanches.

AJ&K has abundant sources of water ranging from big rivers to high altitudinal lakes and snow melted streams. One big reservoir and several canals also contribute to the water resources. As water temperature of these sources ranges from cold to warm regions, hence a large diversified fish fauna is found in AJ&K. Fish fauna which is utilized for commercial, sports and cultivational purposes. In AJ&K 82 species of fish are found. Mahesher, Singhara, Rahu, Thaila, Trout and Gulfam are the famous among these.

⁵ Agriculture Census 2010

Overall gross annual income from livestock is Rs. 1,600.00 per household and contribution of milk is about 68%. Cattle, Buffaloes, Sheep, Goat, Camel, Horses, Mules and Asses are the common livestock in AJ&K.

Industry and Mineral Resources

The State of AJ&K by virtue of its topography, meteorology, hydrology & administrative setup provides huge opportunities of investment in various sectors. In order to accelerate the pace of development, 6 industrial estates has been established in various districts of AJ&K with basic infrastructure. As the area is mostly hilly and does not produce raw-material required to be used in major industries hence more emphasis is on handicrafts and small scale industry. Handicrafts, embroidery, gubba & puttoos, rugs & numdhas, shawls, papier-mache and wood work industries of AJ&K are famous within AJ&K and even known internationally due to their quality and design. The geological environment of AJ&K comprises generally 3 types of rocks i.e. Sedimentary, Igneous and metamorphic. The Industrial minerals and base metals are found in all of 3 rocks spreading all over the AJ&K territory whereas gemstones are confined to metamorphic terrain and occur in the upper parts of Neelum Valley. The most economically promising mineral resources of AJ&K are gemstones and industrial minerals. In AJ&K mineral exploration activities started in 1973 by AKMIDC, a state owned corporation and emphasis was laid on assessment of potential economic deposits and an analysis of value of the different minerals discovered in the area so far amount to 137.915 million tons.

Communication

In the State of AJ&K, in spite of the fact that road construction is arduous and expensive due to hilly and mountainous region even though road network covers almost all the areas of AJ&K regardless of the fact that road quality is also questionable in some hard areas. At the moment the total length of metaled roads is 9,372 km and fair-weather road is 7,423 km. Total length of road network in AJ&K is 16,795 kms. The Government of AJ&K in collaboration with the Civil Aviation Authority of Pakistan has constructed two small airports in Muzaffarabad and Rawalakot cities in order to provide easy and fast travelling facilities.

CHAPTER 2

HAZARD PROFILE OF A&JK

Chapter 2: Hazard Profile of A&JK

Hazard Profile - AJ&K

AJ&K has a diverse hazard and risk profile; the steep slopes, complex geological structures and rugged topographical set up with active tectonic processes and continued seismic activities make it vulnerable to a variety of natural and human-induced hazards ranging from landslides, flash flood, earthquakes, avalanches, cloudburst and lightning. Cross border firing and road accidents are also immense hazard among the human induced disasters followed by forest fires. Furthermore, the region has a climate system with great seasonality in rainfall. With her peculiar hazardous environment, the risks are accentuated for current state of physical, socio-economic and organizational vulnerabilities and exposure. The major hazards existing in AJ&K are highlighted in the succeeding paras.

Natural Hazards

Earthquake

Kashmir lies in the area where the Eurasian and Indian tectonic plates are colliding. Out of this collision, the Himalayas began uplifting 50 million years ago, and continue to rise by about 5 mm/year. This geological activity is the cause of the earthquakes in the area. AJ&K has experienced 2005-Earthquake as a rare example of human suffering in terms of life, property and socio-economic losses. The earthquake of October 8, 2005 shook the calmness and tranquility of the State that brought anguish and woes to the lives of over 4 million. In northern part of AJ&K 7000 sq. km (out of 13297 sq. km) area was affected, inflicting massive damages to the large number of population (1.80 million) in Muzaffarabad and Pooch Divisions. According to different findings /studies the whole of AJ&K falls in active seismic zone which, combined with physical and economic vulnerabilities, poses extreme risks especially to those living either on fault lines or adjoining areas. The northern districts mainly Neelum, Muzaffarabad, Jhelum Valley, Bagh, Haveli, Poonch, Sudhnoti and Kotli are at greater risk compared to extreme southern districts i.e. Mirpur and Bhimber.

Landslides

In AJ&K, occurrence of landslides is a common phenomenon, resulting in massive landslide damage. AJ&K with exception of its southern districts is susceptible to landslides which often results in cutting off of areas for weeks and sometimes even for months, especially in extreme north. The landslides pose extreme risks in Haveli, Jhelum Valley, Neelum, Muzaffarabad, Bagh, Shudhnoti and Poonch Districts. Almost eleven years after the 2005 Earthquake that triggered multiple mass movements and landslides an enduring threat to the population of AJ&K particularly during heavy monsoon rains and climate change scenario.

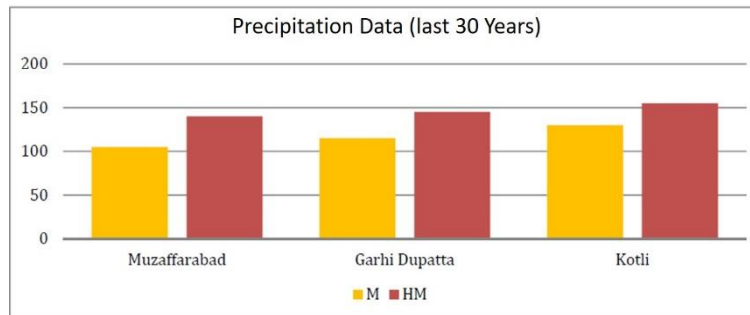
Glacial Movements/ Avalanches

In the extreme northern parts of the State occurrence of snow avalanches is very often when the snow-pack starts to weaken and allows the buildup of snow to be released. Rainfall and sleet also tend to be responsible for avalanches in the summer and monsoon season. Neelum District and the Leepa Valley of District Jhelum Valley, by virtue of their location and topography experience glacial movements and avalanches. Nonetheless, the 2005

earthquake has further weakened glaciers and rocks formation underneath, thus exacerbating the threat of glacier movements and avalanches.

Flash, Seasonal Floods, Cloudburst and Lightening Hazards

The State of AJ&K is severely exposed to the variety of hydro- meteorological disasters. Flash, seasonal floods, cloudburst and lightening are rain induced hazards which have been grouped together as they are inter-linked at times in terms of occurrence and impact. Floods are also becoming amongst the most common forms of natural hazards in the region as seen in last few years. 2010 flood and flash flooding of 2012, 2014, 2015 and pre monsoon rain induced devastation in 2016 caused enormous economic and life losses. Flash floods are the most damaging type of floods due to poor mitigation measures as they often take place in remote mountainous areas. Muzaffarabad, Jhelum Valley, Neelum, Bagh, Poonch, Sudhnuti, Haveli, Kotli and Bhimber Districts are highly susceptible to flash floods. The other districts marked with relatively plain topography are less exposed to flash floods. Flash floods often trigger secondary hazards like land/mudslides, soil erosion and sometimes avalanches.



Source: Pakistan Meteorological Department Reference: NDMA Monsoon Contingency Plan

Cloudbursts and lightening have become more frequent in last few years in AJ&K in almost all districts with exception of Neelum. The impact has often been localized resulting in limited losses. It was observed during 2014 and 2015 monsoon that the cloudburst in some specific areas did not allow for disseminating early warning regarding flash flood to the habitants resulting in human and property losses.

Wind Storms and Droughts

In AJ&K the frequency, intensity and impact of windstorms has significantly increased in recent times. Invariably, all districts of AJ&K are prone to wind storms, however; the events of recent past have affected mostly the communities and families living in makeshift shelters especially in Muzaffarabad district. The most of AJ&K area remained in the grip of prolonged drought from 2000 to 2004, which caused extensive damage to rain-fed crops. It also affected the orchards and livestock, which added to the economic woes of drought. The drought of 2000-2004 is associated with regional climatic change processes whereby the whole region remained in the grip of El Niño effect⁶. The Districts of Mirpur, Bhimber and Kotli have experienced drought in past, however, due to the extensive de-vegetation and low rainfall, drought can be expected in these districts again.

⁶ Reports of Pakistan Meteorological Department

Epidemics/ Pandemics

Epidemics, often of localized impact have been experienced in AJ&K. However, in post-earthquake 2005 scenario, incidences of localized epidemics have registered a steady increase mainly for reasons such as unsafe potable water, poor sanitation and changed housing/living pattern. The wider spread of population together with weak institutional arrangement for immunization and field based surveillance of disease trends are key vulnerabilities. The southern regions experience repeated epidemics related to water borne diseases like diarrhea/dysentery, enteric fever, hepatitis A&E and worm infestation. There are occasional reports of scabies and rabies epidemics in certain areas.

The 21st century pandemic COVID19 has halted global economies and persistently tested global healthcare systems, exhausting countries' resources as they struggle to contain and limit the spread. COVID19 pandemic has also affected AJ&K on large scale.

Human Induced Hazards

Cross Border Firing

The entire stretch of the Line of Control (LoC) between the Indian held Kashmir and the areas of the AJ&K is approximately 740 km. Two hundred and thirty three villages of District Neelum, Muzaffarabad, Jehlum Valley, Bagh, Haveli, Rawalakot, Kotli and Bhimber are located on LoC. Approximately 0.403 million population out of total estimated 4.361 million population of AJ&K is exposed to Indian firing. Since 740 km curved line of control does not follow any well-defined geographical feature and as a result the population residing along the LoC suffers the grave consequences of border skirmishes and Indian firing in terms of life losses, permanent injuries and disabilities, property and livelihood losses.

Road Accidents

Road accidents are regular events and interestingly came up as high priority hazard in Neelum, Jehlum Valley, Haveli, Poonch, Muzaffarabad and Bagh, as compared to other districts. The inter district link roads are often scenes of traffic accidents resulting in loss of precious human life. The key factors contributing to traffic accidents are poor road conditions, incessant land/rock fall along key roads, poor traffic management, careless and speedy driving, absence of support infrastructure along main highways and roads (mirrors, sidewalks), landslides and extreme weather are some of the major reasons. The road accidents are also attributed to faulty road design and construction and bad vehicular condition.

Forest Fire

Wild fires have been identified as predominantly urban hazard. However, forest fires has been rated as pressing hazard for regions with high forest coverage. Forest fires happen because of negligence of bushman/nomads; communities settled in forests and at times are used as cover up for illegal woodcutting. Wild fires are more of risk in urban areas especially in two municipalities i.e. Muzaffarabad and Mirpur; however, sporadic cases of wild fires are regularly reported in other regions. Forest fires are more common in Neelum, Hattain and Muzaffarabad Districts with occasional reports in other districts. Though the impact is often localized, however it came out as a relatively important hazard in the area.

Old and Vulnerable Buildings

Old and vulnerable buildings are another hazard prevailing in AJ&K. People residing in these dangerous buildings are at risk and may face human and material losses at any time. Muzaffarabad, Bhimber, Kotli, Bagh are most dangerous cities as many old buildings are existing in these cities. Past earthquakes show that over 95 per cent of the lives lost were due to the collapse of buildings that were not earthquake-resistant. However, after the earthquake of 2005, most of the public and private buildings have been constructed by adopting resistant design. The lack of knowledge about seismic safety codes and standards, is one of the major cause of poor implementation of earthquake-resistant construction practices.

Factors Contributing to Vulnerabilities

Following factors are contributing to vulnerabilities: -

- a) Population growth.
- b) Unplanned industrialization and migration.
- c) Poverty in hazard prone areas.
- d) Lack of institutional capacity to deal with disaster risk reduction.
- e) Climate change and its impact.
- f) Land use planning.
- g) Life, livelihoods and property risks to communities settled at steep slopes.
- h) Limited access for immediate rescue and relief due to wider dispersion of settled population.
- i) Loss of fertile soil cover, land degradation and land loss.
- j) Land encroachments over forests areas, rivers and nullah's banks in the urban and semi-urban areas.
- k) Increased deforestation phenomena.

Risk Profile - AJ&K

The risk matrix of AJ&K based on the prevailing hazards in different parts of the State is given at Annex "A".

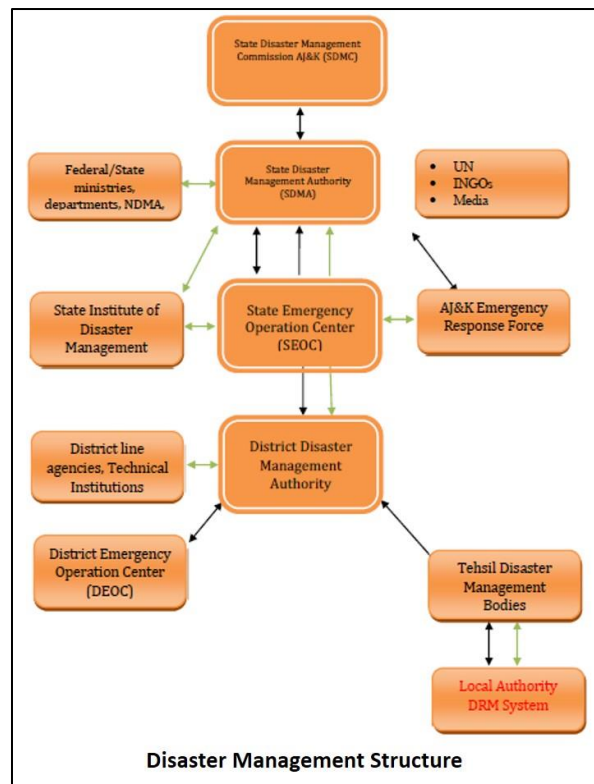
CHAPTER 3
HUMANITARIAN
ARCHITECTURE IN AJ&K

Chapter 3: Humanitarian Architecture in AJ&K

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

State Disaster Management System at AJ&K

A reactive emergency response approach has remained the predominant way of dealing with disasters in AJ&K. The heavy damage brought by the earthquake led AJ&K to initiate State level efforts in developing a structure for disaster management focusing on prevention, mitigation and integration of responses by conducting a review of traditional disaster management systems and policies on emergency response. The need for strong institutional and policy arrangements has been fulfilled with the promulgation of State Disaster Management Ordinance, 2007 and it became the State Disaster Management Act in 2008. The State Disaster Management Commission (SDMC) has been established under the Chairmanship of the Prime Minister as the highest policy making body in the field of disaster management. As an executive arm of the SDMC, the State Disaster Management Authority (SDMA) has been made operational to coordinate and monitor implementation of State Policies and Strategies on disaster management. Accordingly, District Disaster Management Authorities (DDMAs) have been established in all ten districts. The DDMAs are the linchpin of the whole system and are to play the pivotal role of the first line of defense in the event of a disaster.





SDMC

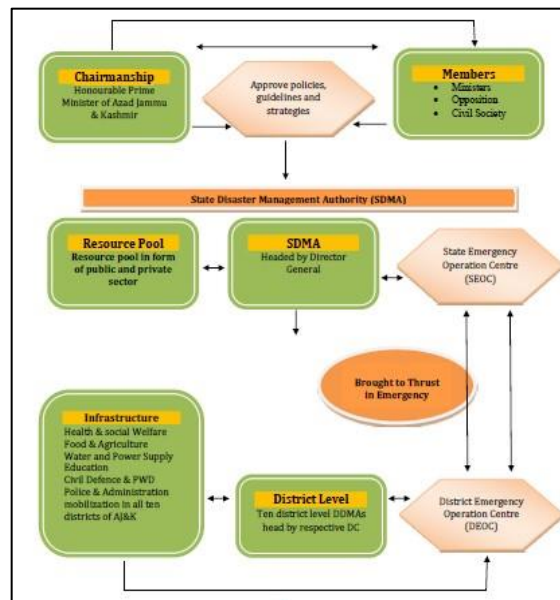
The Act stipulates the constitution of highest policy making body for DRM in AJ&K by the name of SDMC with following composition and powers: -

a) Composition of the SDMC

- 1) The Prime Minister of AJ&K who shall be the Chairperson, ex-officio.
- 2) Leader of opposition.
- 3) Senior Minister in the Cabinet.
- 4) Minister for Communication, Works, Reconstruction and Rehabilitation.
- 5) Minister for Health.
- 6) Minister for Social Welfare.
- 7) Minister for Civil Defense.
- 8) Chief Secretary, Azad Government of the State of AJ&K.
- 9) Senior Member, Board of Revenue, Azad Government of the State of AJ&K.
- 10) Inspector General Police, Azad Government of the State of AJ&K.
- 11) Secretary Finance, Azad Government of the State of AJ&K.
- 12) Representatives of civil society or any other person appointed by the Prime Minister.
- 13) DG SDMA, to be appointed under sub-section (3) of section 8 shall act as ex officio secretary of the commission.

b) Powers and Functions of SDMC

- 1) Lay down policies on disaster management.
- 2) Approve the plan for territory of AJ&K.
- 3) Approve plans prepared by the departments, division & districts.
- 4) Lay down guidelines to be followed by the government.
- 5) The commission may constitute advisory committee/s as required.
- 6) The commission shall meet as and when necessary and at such time and place as the chairperson of the commission may think fit (proposed meeting schedule at least two times every year besides times when required).



SDMA

The SDMA is a multi-sectoral, multi-disciplinary representative body that shall act as focal agency for mainstreaming DRR into development planning, disaster preparedness and shall coordinate emergency response and early recovery.

The SDMA is a focal point to facilitate and guide other public and civil society organizations in disaster responsive development planning and management of emergency response. Additionally, it works on capacity building of line agencies and civil society organizations to develop detailed preparedness plans and coordinates effective and timely disaster response. Under Azad Jammu & Kashmir Disaster Management Act 2008, SDMA has been given a status of Relief, Disaster Management and Civil Defence Secretariat headed by the Secretary.

a) **Composition of the SDMA**

- 1) Chief Secretary Government of AJ&K as Chairman.
- 2) Secretary / DG SDMA.
- 3) Secretary Electricity.
- 4) Secretary Finance.
- 5) Secretary Agriculture and Animal Husbandry.
- 6) Secretary Health.
- 7) Secretary Social Welfare.
- 8) Secretary LG&RD.
- 9) Secretary Law, Justice, Parliamentary Affairs and Human Rights.
- 10) Commissioner Relief.
- 11) DG Civil Defence.
- 12) Additional Secretary (Home).
- 13) Divisional Commissioners, Muzaffarabad, Poonch, Mirpur.

b) **SDMA Functions**

- 1) Act as implementing, coordinating and monitoring body for DRM.
- 2) Prepare the plan to be approved by the commission.
- 3) Implement, coordinate and monitor the implementation of the policy.
- 4) Lay down guidelines for preparing DRM plans by different ministries or departments.
- 5) Provide necessary technical assistance to governments, DMAs for preparing their DRM plans in accordance with the guidelines laid down by the commission.
- 6) Coordinate response in the event of any threatening disaster situation or disaster.
- 7) Lay down guidelines for, or give directions to the concerned ministries and departments and DMAs regarding measures to be taken by them in response to any emergency.
- 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 DRM.
- 10) Perform such other functions as the commission may require it to perform.

c) **Other Key Roles**

- 1) Continuously monitor hazards, risks and vulnerable conditions within the State.

- 2) Develop guidelines and standards for State and local stakeholders regarding their role in DRM.
- 3) Ensure preparation of DRM plans by all districts.
- 4) Coordinate implementation of State DRM plan in accordance with the NDMP.
- 5) Promote education, awareness and training on DRR and response.
- 6) Provide necessary technical assistance and advice to local authorities for carrying out their functions effectively.
- 7) Coordinate emergency response in the event of a disaster, through the SEOC.
- 8) Develop specific capabilities to manage threats that exist in the State.

The SDMA to ensure creation of a platform for DRM in the State. The platform shall be a coordinating body that brings together technical staff of development practitioners, NGOs and government departments involved in DRM across the State to meet on regular basis and exchange information, debate options and decisions on activities formulated for referral to the government, donors, NGOs and other actors. The platform shall also be responsible for addressing disaster risk and development issues in the State, for building trust and understanding, as well as maintaining institutional memory of the key State actors. The platform shall also promote, strengthen and support the multi-agency approach to DRM in AJ&K. Tasks that can be assigned to the platform are: -

- 1) Develop and implement mechanisms to coordinate the flow of DRM and information in the State, and develop procedures to ensure appropriate dissemination and access to the information among the stakeholders.
- 2) Coordinate the effective management of information and reporting among stakeholders and when necessary shift the focus of such meetings from information sharing to action planning and response coordination.
- 3) Develop coordinated response mechanisms to be adopted by all relevant stakeholders. Such guidelines should promote mitigation and early response activities.
- 4) Develop and manage a geographical targeting and distribution system for food and non-food responses to affected areas faced with stress conditions with the primary objective being to avoid parallel structures and improve efficiency and impact.
- 5) Provide technical advice and guidance to all relevant bodies on matters of DRR and management as appropriate.

DDMAs

The district (s) would be key administrative units for effective DRM planning and implementation, also envisaged in the AJ&K Disaster Management Act, 2008. The Deputy Commissioners would serve as the chairman-ex officio of the DDMA. Currently, ten DDMA's have been established and are responsible for the whole spectrum of disaster management at district level. As per the AJ&K Disaster Management Act, 2008, the district authority shall consist of such number of members, as may be prescribed by the Government, and unless the rules otherwise provide.

a) Composition of the DDMA

- 1) Deputy Commissioner of the district who shall be chairperson, ex officio;
- 2) SSP/SP of the district, member, ex officio;



- 3) The District Health Officer, member, ex-officio;
- 4) The Assistant Director Civil Defence member, ex-officio;
- 5) Such other district level officers, to be appointed by the Government;
- 6) Member of Legislative Assembly of Azad Jammu and Kashmir from the respective affected area.

b) **The DDMA Shall**

- 1) Prepare a DRM plan including district response plan for the district based upon local risk assessment.
- 2) Coordinate and monitor the implementation of policies & plans.
- 3) Ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the government at the district level as well as by the local authorities.
- 4) Ensure that the guidelines for prevention, mitigation, preparedness and response measures as laid down by the authority are followed by all departments of the government at the district level and the local authorities in the district.
- 5) Give directions to different authorities at the district level and local authorities to take such other measures for the prevention or mitigation of disasters as may be necessary.
- 6) Lay down guidelines for preparation of DRM plans by the departments of the government at the districts level and local authorities in the district.
- 7) Monitor the implementation of DRM plans prepared by the departments of the government at the district level.
- 8) Lay down guidelines to be followed by the departments of the government at the district level.
- 9) Continuously monitor hazards, risks and vulnerable conditions within the district.
- 10) Organize and coordinate specialized training programmes for different levels of officers, employees and voluntary rescue workers in the district.
- 11) Facilitate community training and awareness programmes for prevention of disaster or mitigation with the support of local authorities, governmental and non-governmental organizations.
- 12) Set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public.
- 13) Prepare, review and update district level response plan and guidelines.
- 14) Coordinate with, and give guidelines to, local authorities in the district to ensure that pre disaster and post disaster management activities in the district are carried out promptly and effectively.
- 15) Review development plans prepared by the district line departments or local authorities with a view to make necessary provisions therein for prevention of disasters and mitigation.
- 16) Identify buildings and places which could, in the event of disaster situation be used as centres or camps and make arrangements for water supply and sanitation in such buildings or places.
- 17) Establish stockpiles of relief and rescue materials or ensure preparedness to make

such materials available at a short notice.

- 18) Provide information to the authority relating to different aspects of disasters management.
- 19) Encourage the involvement of NGOs and voluntary social welfare institutions working at the grassroots level in the district for disaster management.
- 20) Ensure communication systems are in order, and disaster management drills are carried out periodically.
- 21) Perform such other functions as the government may assign to it or as it deems necessary for disaster risk management in the district.

Local Authorities

Communities are first responders in case a disaster strikes, with support of basic administrative units like UCs and tehsils. Hence, it is of paramount importance that these administrative units and communities have requisite knowledge and skills and have access to adequate physical, technical and financial resources to plan and manage disaster management activities.

Few departments may have representation at UC or community level; Institutions at this level are the frontline of DRR and response. For many departments this is the lowest level of administration where they interface directly with communities; agriculture, education, health, police, revenue and others. Extension workers of above departments could play a significant role in promoting risk reduction. For example agriculture extension workers could promote awareness of drought, flood or cyclone resistant crops. Health workers could raise people's awareness about potential diseases that may occur after a flood or drought and how to prepare for them. Education officials could work on school disaster preparedness. Similarly tehsil authorities have an important role in organizing emergency response and relief; e.g. damage and loss assessment, recovery needs assessment. Other key players include; extension workers, police, fire services, community organizations (COs), traditional leaders and NGOs. Appropriate local structures would be established for risk reduction and preparedness. This could be compensated with effective coordination and by encouraging community engagement in DRM. These tiers could play critical role in identifying potential risk reduction measures, by sharing local wisdom or traditional practices, by compiling preparedness plans and coordinating effective response. These tiers could provide immediate rescue and relief services, undertake DNA amongst others.

The AJ&K Disaster Management Act 2008 sets functional responsibilities for local authorities (below district level) which are: -

- a) Ensure that its officers and employees are trained for DRM.
- b) Ensure that resources relating to DRM are so maintained as to be readily available for use in the event of any threatening disaster situation or disaster.
- c) Ensure that all construction projects under it or within its jurisdiction conform to the standards and specifications laid down for prevention of disasters and mitigation by the district authority.
- d) Carry out relief, rehabilitation and reconstruction activities in the affected area in accordance with the district plan.
- e) The local authority may take such other measures as may be necessary for the disaster management.

Although the Act highlights the importance of local authorities by describing their functional responsibilities in Chapter V, however it is silent on the organizational structure at tehsil and UC level. The review of Act will be suggested to clear the organizational setup at local level and summary proposing the following arrangement shall be presented to the government for approval accordingly. The Assistant Commissioner shall be the Chairman of Tehsil level Disaster Management Committee and Instructor Civil Defense and Incharge Rescue 1122 shall be important member of Tehsil Committee. UCs Secretary will be a Chairman of a UC level Disaster Management Committee and Patwari UC, Livestock, Agriculture, Health representatives at UC level shall be member of UC Disaster Management Committee. At village level school Headmaster, Imam Masjid, Lady Health Worker and selected notables will be members of this committee. It will be responsibility of DDMA's to constitute and bring these UCs and village level committees in physical form. Registration of these committees may be part of Act and through DDMA's these committees may be registered with SDMA under the Act.

Community Based Organizations (CBOs)

The Great Hanshin Awaji Earthquake of 1995 was the first milestone, proving the effectiveness of community participation. Statistics show that 72% of the people were either self-evacuated or were rescued from the debris by their neighbors. This indicates the importance of community, and a community-based disaster management committee immediately after a disaster. Since the community participation and involvement has become a universal process and the same is acknowledged in the NDMP 2012-2022, therefore promotion of DRM at local and community levels will be ensured and the strategies in this regard, in line with the NDMP, will be devised.

In order to promote community level DRM activities, the capacity of existing community organizations will be developed and enhanced by district and tehsil authorities. CBOs will be trained about local early warning system, evacuation, first aid, search and rescue, firefighting. Linkages would be developed between CBOs and relevant local agencies; e.g. agriculture, banks, health and veterinary services to promote disaster preparedness. Skills and knowledge of CBO leadership will also be developed in financial management, people management, resource mobilization, interpersonal communication and presentation and negotiation skills. The provision of Citizen Community Boards (CCBs) in Local Government Ordinance (LGO 2001) provides a good opportunity to organize communities and mobilize resources for issues like local level disaster risk management.

State Institute of Disaster Management (SIDM)

The AJ&K Disaster Management Act 2008, envisages establishment of SIDM which shall primarily be responsible for planning and promoting training, research and developing core competencies in the area of DRM, documentation and development of state level information base, relating to disaster management policies, prevention mechanisms and mitigation measures. The SIDM, as laid down in the Act is responsible to: -

- a) Develop training modules, undertake research and documentation in DRM and organize training programmes.
- b) Formulate and implement a comprehensive human resource development plan covering all aspects of DRM.
- c) Provide assistance in state level policy formulation.
- d) Provide required assistance to the training and research institutes for development of training and research programmes for stakeholders including government functionaries.

- e) Provide assistance to the government in the formulation of state level policies, strategies, DRM framework and any other assistance as may be required by the governments for capacity building of stakeholders; government including its functionaries, civil society members, corporate sector and people's elected representatives.
- f) Develop educational materials for DRM including academic and professional courses.
- g) Promote awareness among stakeholders including college or school teachers and students, technical personnel and others associated with multi-hazard mitigation, preparedness and response measures.
- h) Do all such other lawful things as are conducive or incidental to attainment of the objectives.
- i) Undertake any other function as may be assigned to it by the government.

State Disaster Management Fund (SDMF)

As envisaged in the AJ&K Disaster Management Act, 2008, government, by the notification of official gazette shall create a fund to meet the implications of DRM activities and emergency response expenditure. The SDMF shall be financed from the following sources, namely: -

- a) Grants made by the Federal Government;
- b) Grants mad by the government;
- c) Loans, aid and donations from the national or international agencies; and
- d) Donation received from any other source.
- e) Upon issuance of funds, following shall become part of the fund/be financed from: -
 - 1) Prime Minister's Disaster Relief Fund.
 - 2) Any other Fund relatable to natural calamities established at State level as the Government may determine.

The SDMA, towards meeting the expenses for emergency preparedness, response, mitigation, relief and reconstruction, shall administer the SDMF.

Emergency Procurement and Accounting

Where by reason of any impending disaster situation or disaster, the SDMA or DDMA is satisfied that immediate procurement of provisions or materials or the immediate application of resources are necessary for rescue or relief it may authorize the concerned department or authority to make the emergency procurement and in such case, the standard procedure requiring inviting of tenders shall be deemed to be waived.

A certificate about utilization of provisions or materials by the controlling officer authorized by the authority or district authority, as the case may be, shall be deemed to be a valid document or voucher for the purpose of accounting of emergency procurement of such provisions or materials.

Roles and Responsibilities of Department and Stakeholders

The recommended actions and roles & responsibilities for various stakeholders at each stage of disasters are covered here. All departments and agencies will prepare their own action plans in respect of their responsibilities, under the SOP for efficient implementation.

Government Departments

The following government departments in AJ&K perform different functions in their areas of mandate that contribute to development and DRM in the State. The roles and responsibilities of different government departments in relation to DRM and response are: -

a) Revenue Department

The AJ&K Board of Revenue is the highest court of appeal and revision in revenue cases in the State. It is the controlling authority in all matters related with the collection of land revenue, administration of the land, preparation and maintenance of records and any other matter relating thereto. The board of revenue is vested with general superintendence and control over all other revenue officers in the state. The following are the main functions of the Revenue Department in connection with disaster management.

Preparedness

- 1) Micro level land use planning.
- 2) Strict implementation of land use policy and plan.
- 3) Sensitize the revenue field staff, district and divisional officers with issues and challenges of disaster management.
- 4) Livestock census and population census.
- 5) Policy formulation and monitoring of rehabilitation of the affected population.
- 6) Develop plans for relief and rehabilitation of LoC affected persons.
- 7) Planning for safeguarding Mangla Dam.
- 8) Developing strategies for ensuring DRR interventions in private housing schemes.
- 9) Plan for efficient utilization of AJ&K Transport Authority in case of any disaster.
- 10) Computerization of land records, as it will be helpful in paying compensations in case of losses associated with land.
- 11) Pre-positioning of stocks in the vulnerable areas.
- 12) Effective linkage with SDMA.

Response

- 1) Acquisition of land for accommodating the affected population/camp establishment
- 2) Assessment of losses and damages to the affected population.
- 3) Settlement and re-assessment of the displaced population.
- 4) Making the rental/lease arrangements with land lords in case of availing land for camps.
- 5) Rehabilitation of refugees/ displaced population.
- 6) Policy formulation and monitoring of rehabilitation work of the calamities affected population.
- 7) Transfer of state land from one Department to another Department if required.
- 8) Devising and implementing the compensation package with the support of SDMA for the affected population.

b) Department of Agriculture

Department of Agriculture in AJ&K has a role in assessment of damage to agricultural crops and impact of possible fertility loss. Their main role is to provide seeds and necessary planting material and other inputs to assist in early recovery.

Mitigation

- 1) Designate a focal point for disaster management within the department.

- 2) Identify areas likely to be affected by any anticipated hazard.
- 3) Allocate funds in annual budget for implementation of DRM activities in hazard prone areas.
- 4) Organize distribution of seeds, seedlings fertilizers and agricultural inputs for affected farming community.
- 5) Arrange for keeping stocks of seeds, fertilizers and pesticides.
- 6) Undertake vulnerability and risk analysis for food and agriculture hazard-prone areas, particularly in relation to floods, droughts, and erosion.
- 7) Ensure sustainable livelihoods in areas of recurrent climate risks (i.e., flood and drought prone areas) by promoting supplementary income generation from off-farm and non-farm activities.
- 8) Promote effective insurance and credit schemes to compensate for crop damage and losses to livelihoods due to natural hazards.

Preparedness

- 1) Coordinate with SDMA and jointly identify appropriate actions for reducing vulnerability of food and agriculture to disaster risks.
- 2) Coordinate with SDMA, and research institutions to establish warning systems for identification of risks to food and agriculture sectors.
- 3) Develop DRM plan to deal with hazards and disasters with relation to department's mandate and assets.
- 4) Promote contingency crop planning to deal with year to year climate variations and crop diversification including use of hazard resistant crops, to deal with shifts in climate patterns.
- 5) Develop capacity and raise awareness of staff of departments at state levels, local extension workers and farmers on disaster preparedness for food and agriculture sectors.

Response

- 1) Assist in saving crops, agricultural land and livestock in disaster situation.
- 2) Monitor damage to crops and identify steps for early recovery.
- 3) Quantify the loss and damage within the quickest possible time and finalizes planning of agriculture rehabilitation.
- 4) Make available inputs like seed plant, fertilizers and agricultural equipment to victims of disasters on credit basis.
- 5) Ensure adequate availability of food stocks in disaster situation.
- 6) Organize ration depots at location required by the local authorities.
- 7) Restoration of flood damages to agricultural fields, and link roads during emergency.
- 8) Provision of agricultural machinery to farmers on subsidized rates for harvesting and threshing of wheat and paddy.
- 9) Ensure availability of adequate supply of seeds, seedlings, fertilizers, pesticides and agricultural implements to the affected farmers.

c) **Animal Husbandry (Livestock) Department**

The livestock play very important economic, social and cultural functions for rural households in AJ&K as they contribute to improve income and wellbeing of the farm family. Livestock helps on food supply, family nutrition, family income, asset savings, soil

productivity, livelihoods, transport, agricultural traction, agricultural diversification and sustainable agricultural production, family and community employment, ritual purposes and social status. Impacts of disasters are high on the weaker sections of the community. Many of the poor are landless or small holders in AJ&K. This section largely depends on animals, for livelihood. It is apparent that even though animals are the main source of livelihood to the poorest of the poor in the State, disaster management of animals do not figure anywhere in preparedness, mitigation or rehabilitation. There is a significant participation of women in conventional animal husbandry system where a large array of indigenous breeds of domestic and semi-domestic animals live in absolute harmony with man and nature; a situation that can prevent at least some disasters. The main roles of the departments are: -

Mitigation

- 1) Designate a focal point for disaster management.
- 2) Undertake vulnerability and risk analysis for food, livestock sectors in hazard-prone areas, particularly in relation to droughts and locust.
- 3) Coordinate with SDMA and jointly identify appropriate actions for reducing vulnerability and risk exposure to livestock.
- 4) Coordinate with SMDA, and research institutions to establish warning systems for identification of risks to livestock sector.
- 5) Develop capacity and raise awareness of staff of the department at all levels, local extension workers and farmers on disaster preparedness for livestock sectors.
- 6) Ensure sustainable livelihoods in areas of recurrent climate risks (i.e. flood and drought prone areas) by promoting supplementary income generation from off-farm (e.g. animal husbandry) and non-farm activities; provide market outlets for the products of rural farmers.

Preparedness

- 1) Provide early warning information to livestock farmers regarding drought.
- 2) Select and earmark highlands for use as shelter for livestock during flash floods.
- 3) Prepare schemes for supplementary arrangements for rehabilitation of livestock and recouping their loss.
- 4) Programme for vaccination for protection of livestock against contagious diseases.
- 5) Take up schemes for procurement of animal feed on emergency basis for distribution in the affected areas.
- 6) Establish fodder bank schemes as security against fodder shortage for livestock due to disasters in order to ensure fodder security to the rural livestock economy.
- 7) Provide veterinary services to the livestock farmers.
- 8) Allocate funds in annual budget for implementation of DRM activities in hazard prone areas with relation to livestock sub-sector.
- 9) Promote contingency planning to deal with year to year climate variations and that trigger and exacerbate drought.
- 10) Develop DRM plan to deal with hazards and disasters with relation to department's mandate and assets.

Response

- 1) During floods assist the response agencies for operations relating to the rescue and shifting of stranded livestock and poultry.
- 2) During floods arrange for the quick vaccination and treatment of livestock and

poultry at shelter places.(emergency animal vaccines during outbreaks of animal diseases).

- 3) During prolonged droughts and in times of other extreme bad weather arrange emergency animal feeds for sustainability of livestock population.
- 4) Dispatch veterinary teams with appropriate equipment and medicines to aid affected livestock.
- 5) Arrange a rapid survey to assess the loss.
- 6) Arrange for disposal of dead bodies of animals.

d) **Irrigation and Small Dam Organization**

The Department of Irrigation and small dams was established in year 2001. Previously it was a small functional unit of Agriculture Department. However it is still in the embryonic stage to become a well-equipped department. The Irrigation network in AJ&K comprises irrigation channels, drains, tubewells in southern districts, small dams and some flood protection infrastructure on the main rivers flowing in the State. The role of department of irrigation and small dams in AJ&K is very critical for improving and expanding irrigation systems to cope with drought situations and manage flood problems. The department can play a vital role in disaster mitigation in relation to drought and floods, as they affect agricultural production, irrigation systems and water supply and management. Some of these mitigation activities include rehabilitation and management of watersheds and water catchment areas and enforcement of land use patterns. The core functions of the Irrigation and Small Dams Department in relation to DRM and response will be: -

Mitigation

- 1) Develop capacities of the department to mitigate floods and droughts.
- 2) Promote watershed development programs and develop schemes for restoration/conservation of irrigation systems.
- 3) Ensure efficient management of flood forecasting and warning centres and improve procedure of flood forecasts in collaboration with PMD and intimation to appropriate authorities.
- 4) Operate flood information center in the flood season every year.
- 5) Collect all the information on weather forecast, water level of all principal rivers flowing through the State.
- 6) Inform all concerned about daily weather news and issue regular press bulletins.
- 7) Take steps for strengthening of flood protection works and irrigation channels before the flood season.
- 8) Provide for and executing plans for the management of river floods in the State, and to construct and maintain flood protection programs/works.
- 9) Undertake vulnerability and risk analysis for flood prone areas.
- 10) Coordinate with SDMA and jointly identify appropriate actions for reducing vulnerability to flood and other risks that may disrupt livelihoods in the irrigation areas.

Preparedness

- 1) Since flash floods get triggered within short time-spans, take steps to alert all in collaboration with SEOC through telephone and wireless according to needs.
- 2) Mount watch on flood protection works and canal systems.

- 3) Complete repairs of flood protection works in the pre flood season.
- 4) Develop DRM plan to deal with hazards and disasters with relation to department's mandate and assets.
- 5) Allocate funds in annual budget for implementation of disaster risk management activities in flood and drought prone areas.
- 6) Construction of micro dams for the storage of flash-water with a view to maintain and recharge the aquifer to ensure regular availability of irrigation water through neighboring springs, tube wells, and open surface wells.

Response

- 1) Open the control room in the department.
- 2) Launch emergency repair operations for critically damaged flood protection works, canals and other irrigation network.
- 3) Take up sustained programmes for rehabilitation of flood protection works and irrigation channels.
- 4) De-silt of irrigation Channels after the floods.
- 5) Providing assistance and evacuating trapped people during floods.

e) Forest, Wildlife and Fisheries Department

The departments have historically been responsible for implementing forestry programmes in AJ&K. Forests are an integral part of the livelihoods and ecosystem in AJ&K. The Forest Department is responsible for the development and promotion of forest and soil conservation activities, watershed management, wildlife conservation and fisheries. The department takes care of the protection of the forest, wildlife and the aquatic resources.

Mitigation

- 1) Plantation and appropriate engineering measures to mitigate the landslide hazard at the identified landslide affected areas in the State.
- 2) Provide technical advice for rangeland planting and development of tree nurseries for forestation and reforestation programmes particularly in landslide area.
- 3) Coordinate with the SDMA and other scientific agencies to gather information about hazards and risks prevalent in rangelands that may lead to desertification and land sliding. Supply of drought resistant seeds of tree species to farmers and communities.
- 4) Control grazing of animal to rangeland areas that have endangered tree species and may trigger land sliding.
- 5) Supply of timber, firewood, grazing grass and other minor forest produce through open public sales.
- 6) Develop recreational facilities in a sustainable manner in the rangeland areas.
- 7) Ensure a pollution free livable environment in the areas of mandate.
- 8) Offer forestry educations to institutions and schools.
- 9) Management of fisheries resources.
- 10) Conservation of fish stock and development of fisheries potential.

Preparedness

- 1) Aggressive enforcement of forest & environmental laws.
- 2) Establish a landslide management and investigation cell.
- 3) Develop a DRM plan in line with the broad mandate of the department and build

the capacity of departmental staff on DRM.

- 4) Publish materials for communities and other stakeholders about seasonality of hazards and risks in areas of grazing for pasture and water.

Response

- 1) Coordinate emergency response activities through SDMA and make resources available to SDMA upon the receipt of disaster situation reports.
- 2) Constitute a Disaster Management Unit.

f) Health Department

The Health Department, an executive unit of the state government, is responsible to provide health services and deals with all matters related to regulating the health sector in the light of health policies and programs' guidelines jointly devised by military & non-military health professionals. The health set-up in AJ&K provides technical assistance, policy cover, and implementation of some preventive programs only. Therefore, statistics on health facilities and human resources may be seen keeping this observation. The mission of the department is to provide health services to all through augmentation of sustainable health initiatives focusing on human resource development and private sector and community participation. Department of Health has a responsibility in the reduction and prevention of suffering during natural and man-made disasters, as well as in the investigation and response to outbreak of communicable diseases. The main functions in relation to DRM and response are: -

Mitigation

- 1) Carry out and disseminate vulnerability and risk evaluation of the population health related issues.
- 2) Conduct hazard based mapping of all health care facilities, including vulnerability assessment and integrate hazard resilience measures.
- 3) Develop policy framework for the department and plan on emergency preparedness and response within the health sector.
- 4) Ensure pre-positioning of emergency health kits and personnel.
- 5) Develop a disease surveillance system to identify hotspots for communicable disease in the State.
- 6) Establish and operate an early warning system for health threats based on the routine health information and in collaboration with other departments.
- 7) Enhance disaster management capacities of health work force in collaboration with other departments.
- 8) Prepare protocols and guidelines to address all priority public health issues as part of preparedness, response and recovery plans.
- 9) Integrate disaster preparedness and response capacities into all existing and future health programs at State and district level.
- 10) Build effective linkages and coordination with all health agencies/ stakeholders.

Preparedness

- 1) Develop DRM plan to deal with communicable diseases, injuries following mass causality accidents, cross border firing and disasters with relation to department's mandate and assets.
- 2) Allocate funds in annual budget for implementation of DRM activities.
- 3) Train volunteers on emergency preparedness programmes such as first aid and

preventive measure against diseases in disaster prone areas and in areas along the LoC.

- 4) Assess likely health impacts and share with disaster management and relevant agencies for planning purpose.
- 5) Prepare a list of medical and paramedical personnel in disaster prone areas and disseminate it to concerned administrators.
- 6) Coordinate with SDMA and jointly identify appropriate actions for reducing vulnerability to health risks.
- 7) Act as focal point for managing all aspect of healthcare preparedness, response and recovery in a disaster situation in close coordination with the SDMA.
- 8) Prepare DRM plan for each level of health care facilities, including management of mass casualties, epidemics and submit this plan to the SDMA for better coordination of efforts.
- 9) Provide technical support in all health related areas to SDMA and DDMA.
- 10) Device strategies for community involvement in all aspects of emergency preparedness, response and recovery plans with regards to health sector.
- 11) Stand by arrangements to meet any medical needs during and after the incident and stocking of sufficient medicines in all hospitals/medical centres.
- 12) Establishment of temporary team to provide vaccination and medication when required.
- 13) Arrangement of patients' beds and earmarking of patient wards to meet any emergency/crisis needs.
- 14) Provide blood transfusion facilities and motivate the people to donate blood.

Response

- 1) Mobilize medical teams and paramedical personnel to go to the affected areas as part of the rapid assessment and quick response teams.
- 2) Provide medical assistance to the affected population.
- 3) Receive casualties and injured in case of a major incident.
- 4) Provide mobile medical services and ambulance service with medical facilities to affected areas.
- 5) Carry out technical assessment on health infrastructure availability and need.
- 6) Establish emergency health operation to ensure better coordination and mobilization in emergency/ disaster situation at all levels.
- 7) Set-up medical camps and mobilize emergency health teams including mobile teams.

g) Planning and Development (P&D) Department

The role of the Planning Department is to plan and judiciously distribute the meagre financial resources to improve socio-economic conditions of the masses of the State. The P&D Department is the planning organization at the State level that prepares an overall five years plan and the annual development programme. It acts as a catalyst between different departments in order to improve the pace and quality of economic development in the State. The P&D Department has an important role regarding allocation of funds on priority basis for disaster mitigation and rehabilitation projects. It needs to ensure that development programmes implemented in disaster vulnerable areas of the State incorporate disaster mitigation measures. The main functions in relation to DRM and response are: -

Mitigation and Preparedness

- 1) Undertake vulnerability, risk and capacity analysis for development programs and projects.
- 2) Ensure DRR is incorporated in all development programmes.
- 3) Prepare hazard and vulnerability maps at the State level for different kinds of disasters.
- 4) Accord appropriate priority to disaster mitigation projects like embankments, afforestation, landslides management, communications and construction of safe buildings.
- 5) Establish disaster management funding mechanisms to ensure adequate resources for mitigation and preparedness work, and quick availability of resources for relief and rehabilitation when required.
- 6) Coordinate with SDMA and jointly identify appropriate actions for reducing vulnerability to disaster risks.
- 7) Assist development projects and programs to incorporate DRR/M in their implementation.

Response

- 1) Assist SDMA in the evaluation of damages and losses after disaster.
- 2) Allocate funds for the repair, reconstruction of damaged infrastructure after considering their overall loss and damage.
- 3) Provide information on different kinds of disasters based on hazard forecast and vulnerability database for issuance of early warning.
- 4) Coordinate the government's view on economic issues particularly after disaster.

h) Environment Protection Agency (EPA)

The Environment Protection Department of Government of AJ&K is working under the P&D Department. This department is of vital importance as its mandate is very crucial in implementing the environmental protection measures. In order to mitigate certain nature of hazards like land sliding, erosion, water bodies contaminations, the aggressive implementation of environment laws are quite indispensable, particularly in protecting the water bodies being polluted from disposal of city waste and other refuse. EPA plays an important role in improving the plight of common man and bringing about a perceptible change within the society by minimizing and eliminating adverse environmental effects of wastes of all kinds and pollution detrimental to public health, safety and welfare. Main functions and duties in relation to DRM and response are: -

Mitigation

- 1) Assess the environmental impact of development programmes particularly of ongoing hydro-power projects in different parts of State by conducting environmental examination (IEE) and environmental impact assessment (EIA).
- 2) Undertake risk analysis for environmental hazards vulnerability assessment of natural resources (forest, rivers, lakes, streams, protected areas) to natural and human induced hazards.
- 3) Develop DRM plan to deal with hazards and disasters in relation to department's mandate and assets.
- 4) Aggressive implementation of environmental protection laws.

- 5) Ensure budgetary allocation for environment related DRM activities.
- 6) Coordinate with SDMA and jointly identify appropriate actions for reducing vulnerability to environmental hazards.
- 7) Administer laws, rules and regulations relating to the environment within the State.
- 8) Create awareness in public for environmental issues.
- 9) Incorporate natural disaster risk assessment in the environmental impact assessment guidelines.
- 10) Implement programmes for conservation and rehabilitation of natural resources in order to reduce risks of natural hazards; e.g. reforestation, combating desertification, conservation of special natural resources; e.g. rivers and other water bodies.

Preparedness

- 1) Undertake the research on climate change impact and identify climate change adaptation measures.
- 2) Create an emergency response cell in the department to respond to environment related emergencies.

Response

- 1) Develop mechanisms for assessment of environmental losses and damages in the aftermath of disasters and their rehabilitation.

i) Communication and Works (C&W) Department

The C&W Department plays a significant role in the development of AJ&K as it provides services in developing physical infrastructure like roads, bridges and other modes of communication to support developmental activities. The department has an important role in providing and restoring communication links during disasters. The main functions in relation to disaster risk management include: -

Mitigation

- 1) Carry out survey of condition of all roads network/ systems at state level.
- 2) Develop model designs of various facilities and infrastructure (bridges, roads) for safer construction in hazard-prone rural and urban areas.
- 3) Formulate guidelines for safe construction of public work.
- 4) Prepare list, with specifications and position, of heavy construction equipment and debris/ road clearance machinery in the State.
- 5) Ensure that builders, contractors and masons use safer construction methods as per the international best practices.
- 6) Allocate funds for promoting safer construction practices.
- 7) Monitor construction of road infrastructure in hazard prone areas to ensure that safer construction techniques are followed.
- 8) Incorporate disaster risk assessment in the planning process for construction of all roads and bridges.

Preparedness

- 1) Prepare a DRM plan with relation to department programs, infrastructure and mandate.
- 2) Organize periodic training of engineers and other construction personnel on disaster resistant construction technologies.

- 3) Instruct all officials at construction sites to keep manpower and materials prepared for protection and repair of damaged road site.
- 4) Direct construction authorities and companies to preposition necessary, machinery, workers and materials in or near areas likely to be affected by disaster.

Response

- 1) Organize immediate rehabilitation of roads and other infrastructure for restoration of public transport routes after disaster.
- 2) Provide assistance to the damage assessment teams for survey of damage to roads infrastructure.
- 3) Take steps to clear debris and assist search and rescue teams.
- 4) Collate and disseminate information regarding operational and safe routes and alternate routes, fuel availability etc. to personnel operating in the field.
- 5) Launch repair missions for damaged critical infrastructure and routes.
- 6) Take steps for prompt removal of uprooted trees on the roads.
- 7) Assess damage to transportation infrastructure.
- 8) Take steps to ensure speedy repair and restoration of transport links.

j) Physical Planning and Housing / Public Health

Physical planning & housing sector comprises buildings, public health engineering and central design office and is mandated to design, prepare and implement public sector schemes besides deposit works. Sector is determined to implement its vision keeping the midterm development framework (MTDF) targets in view. The department of Physical Planning and Housing has a vital role in provision and maintenance of vital public infrastructure. The department will prepare its own contingency plan for the maintenance of public infrastructure, retrofit important common buildings and identify safer places for relocation. The department also plays an important role in developing appropriate national building codes and byelaws and their proper implementation. In the post disaster phase, the department will take adequate steps to undertake building damage assessment and promote reconstruction.

Mitigation

- 1) Take precautionary steps for the protection of government property against possible loss and damage during disaster.
- 2) Undertake vulnerability and risk assessment of department's assets, infrastructure and services.
- 3) Formulate guidelines for safe construction of public works.
- 4) Prepare list, with specifications and position, of heavy construction equipment in the State.
- 5) Develop building codes for safer construction of houses, buildings and infrastructure in hazard-prone areas for multiple hazards; e.g. earthquakes, floods, landslides etc.
- 6) Develop model designs of various facilities and infrastructure for safer construction in hazard-prone rural and urban areas.
- 7) Ensure that builders, contractors and masons use safer construction methods as per the international best practices.
- 8) Allocate funds for promoting safer construction practices and implementation of DRM activities in relation to access of safe drinking water.

- 9) Monitor construction of government buildings and infrastructure in hazard prone areas to ensure that safer construction techniques are followed.
- 10) Incorporate disaster risk assessment in the planning process for construction of new buildings.
- 11) Retrofitting of all government buildings which do not comply with the disaster resilient construction techniques, including, residential and non-residential government buildings, dak bungalows and circuit houses etc.
- 12) Improvement of sewerage system and sanitary conditions to control flood risk.
- 13) Maintain and update records of all water supply schemes using management information system (MIS).

Preparedness

- 1) Prepare a DRM plan with relation to department programs, infrastructure and mandate.
- 2) Develop guidelines on conduct of damage and loss assessment to infrastructure and housing sectors in the wake of a disaster, and conduct assessments after disasters.
- 3) Coordinate with SDMA / DDMA and jointly identify appropriate actions for reducing vulnerability of infrastructure and services.
- 4) Organize periodic training of engineers and other construction personnel on disaster resistant construction technologies.
- 5) Instruct all officials at construction sites to keep manpower and materials prepared for protection and repair of public works.
- 6) Direct construction authorities and companies to preposition necessary workers and materials in or near areas likely to be affected by disaster.
- 7) Identify and plan for rehabilitation locations for those living in disaster vulnerable areas.
- 8) Prepare building regulations for safe construction.
- 9) Make available piped water, in adequate quantity, for drinking and house-hold purposes.
- 10) Prepare technical design for mitigation of risks to the newly identified schemes.
- 11) Protection of water sources from contamination by continuous water treatment and stream pollution control.

Response

- 1) Provide sites for rehabilitation of affected population.
- 2) Create access route for emergency response following major disasters.
- 3) Carry out detailed technical assessment of damage to public works.
- 4) Assist in construction of temporary shelters.
- 5) Organize repairs of buildings damaged during disaster.
- 6) Prepare detailed programmes for rehabilitation of damaged public infrastructure.
- 7) Arrange technical assistance and supervision for reconstruction works as per request.

k) Local Government and Rural Development Department

LG&RD is one of the main departments in the State that has the mandate to implement vulnerability reduction projects to alleviate poverty and improve people's livelihoods. The LG&RD has access to communities at the grassroots level. The LG&RD handles small scale

projects at the ground level such as water supply, dug wells, sanitation, small roads and community infrastructure. Main functions in relation to DRM and response are: -

Mitigation

- 1) Encourage disaster resistant technological practices in buildings and infrastructure.
- 2) Develop DRM plan.
- 3) Allocate funds in the annual budget for the implementation of DRM activities.
- 4) Undertake vulnerability and risk analysis for rural populations.
- 5) Coordinate with SDMA to build community resilience to disaster.
- 6) Undertake vulnerability analysis of local government infrastructure in hazard prone areas.
- 7) Orient department staff in hazard prone areas on disaster risk assessment.

Preparedness

- 1) Encourage the people in disaster prone areas to adopt disaster resistant construction technologies.
- 2) Prepare maps showing population concentration and distribution of resources.
- 3) Liaise with other line departments and agencies for a coordinated mitigation approach on the basis of its developmental responsibility.
- 4) Activate disaster management focal point.
- 5) Alert all concerned about impending disaster.
- 6) Ensure safety of structures and equipment in the field.
- 7) Ensure formation of committee for rescue, relief and rehabilitation work and local volunteer team.
- 8) Make available piped water, in adequate quantity, for drinking and house-hold purposes.
- 9) Prepare technical design for mitigation of risks to the newly identified schemes.
- 10) Protection of water sources from contamination by continuous water treatment and stream pollution control.

Response

- 1) Ensure information flow from affected area and maintain regular contact with state and district emergency operation centers.
- 2) Coordinate the response activities of DDMA.
- 3) Ensure availability of drinking water at times of need.
- 4) Provide necessary infrastructure to carry out relief works.
- 5) Assess initial damage and quantify the loss/damage.
- 6) Organize reconstruction of damaged houses on self-help basis with local assets and materials received from the response organizations.
- 7) Arrange repair of link roads, water supplies and cleaning of canals.
- 8) Take up repair/reconstruction work of infrastructure damaged by disaster.
- 9) Equip and develop the capacities for emergency response.

l) Electricity Department

Electricity Department of AJ&K was developed to promote electricity and to improve financial effectiveness of the state. The department is responsible for assisting the state in implementation of overall government policies related to power/electricity. The major

functions of the department are to ensure transparency of regulatory framework, accommodate, promote and facilitate the people of the State of AJ&K.

Mitigation

- 1) Ensure disaster resistant technological practices during the installation of electricity network.
- 2) Develop DRM plan.
- 3) Allocate funds in the annual budget for the implementation of DRM activities.
- 4) Develop contingency plans for different water and power infrastructures e.g. hydro-power stations, dams, transmissions etc.

Preparedness

- 1) Undertake vulnerability and risk analysis for electricity supply network.
- 2) Orient department staff in hazard prone areas on hazard risk assessment.
- 3) Maintain stocks for repair, maintenance and replacement of power infrastructure supply restoration.

Response

- 1) Provide temporary power supply at the place of major incident or disaster.
- 2) Disconnect and reconnect power supply as appropriate to avoid secondary hazards of electricity fire following a major disaster.
- 3) Attend to snapping wire and remove broken or snapped wires immediately especially in times of disaster to minimize secondary hazards.
- 4) Repair and replace hanging and damaged power lines that may cause other hazards.
- 5) Maintain power supply lines and address of public complaints promptly in case of power failure.
- 6) Provide safety measures and instructions on safe and friendly ways of using electric power.

m) Department of Education

Education lies at the centre of the human and societal development. Both formal and non-formal education and particularly basic education and training especially for girls, are vehicles for empowerment and essential to addressing root causes of poverty, inequality and exclusion. A powerful correlation exists between education and the attainment of goals aimed at building the resilience of communities. Education has been a priority of the government of the State of AJ&K as about 30% of its total recurring budget, besides, 7% of the total development budget is allocated to this sector. As a result of this substantial investment, AJ&K's literacy rate is 77% which is significantly higher than the national average of Pakistan. The Department will conduct training programme for teachers and children on disaster management. The Department will coordinate with the local authorities and arrange for mock and search & rescue drills. The community of students and teachers can be effectively utilised for dissemination of disaster management awareness and education to the general public. The following are the main functions of the department in relation to disaster risk reduction and management: -

Mitigation

- 1) Identify one liaison officer in the department as disaster management focal point.
- 2) In consultation with relevant stakeholders and Ministry of Education, include disaster related subjects in the curricula in schools, colleges and technical education

institutions.

- 3) Arrange for training of teachers and students about the steps to be taken at different stages of disaster, organize them as volunteers and inspire them for rescue, evacuation and relief works in coordination with SDMA/DDMAs.
- 4) Ensure that construction of all educational institutions in earthquake zones is earthquake resistant.
- 5) Implement school, college and university level activities to enhance the awareness of students and to promote preparedness in educational institutions through conducting drills, reducing vulnerability.
- 6) Identify and document vulnerable educational institutions and infrastructure of the department in hazard-prone areas.
- 7) Implement actions to reduce the vulnerability of infrastructure in education sector in hazard prone areas, e.g. retrofitting, renovation, rebuilding.
- 8) Locate new schools, colleges, universities and other educational buildings located in hazard prone areas to higher standards of hazard resilience.
- 9) Identify and inventory vulnerable educational institutions and infrastructure of the department in hazard-prone areas.

Preparedness

- 1) Develop a DRM plan for the department covering aspects of risk reduction, preparedness and response.
- 2) Development of curriculum on DRR in schools and learning institutions.
- 3) Conduct drills for various disaster situations like earthquake, fire, terrorist attacks.
- 4) Encourage local educational authorities and teachers to prepare school disaster response plans and their implementation.
- 5) Allocate funds for safer construction and disaster preparedness activities at school, college, and university levels in hazard-prone areas.
- 6) Conduct orientation programs to raise awareness of education authorities, professors and teachers about disaster risks in hazard-prone areas.

Response

- 1) In the event of a disaster, place required number of education institutions and their buildings, under the control of the SDMA/DDMAs for using as emergency shelter and relief center if necessary.
- 2) Students and staff can provide local voluntary assistance for distribution of relief material and assistance to special needy people in the locality.
- 3) Provide provisional assistance on education in periods of disaster to ensure the continuity of learning
- 4) Determine the extent of loss in educational institutions and prepare plans for their rehabilitation.

n) **Department of Civil Defence**

The Civil Defence will develop its capacity for disaster preparedness and response in the emergency in close coordination with the SDMA and DDMAs. Some of the key functions of the department are: -

Preparedness

- 1) Standardize and specify civil defence equipment and fire appliances for fire

- brigades, industries and other institutions.
- 2) Provide first aid, fire safety and rescue training to communities, individuals and organizations.
 - 3) Improve community awareness on public safety.
 - 4) Recruit/induct operational staff for search and rescue.
 - 5) Enhance capacity of the existing search and rescue teams.
 - 6) Organize volunteers, train them in rescue, relief and first aid.
 - 7) Ensure the provision of trained rescue workers / razakars and first aid staff.
 - 8) Educate and train volunteers on first aid and emergency evacuations and protection procedures against poisonous gases, chemical/biological/radiological explosions or attack.
 - 9) Participate in emergency drills with other stakeholders.
 - 10) Specify, coordinate and enforce Fire Protection measures in urban and commercial areas and in other premises considered critical.
 - 11) Organize warden service in classified towns and train its volunteers for civil defence services.
 - 12) Inspect Municipal Fire Brigade and fire protection measures in industrial/commercial areas.

Response

- 1) Search and rescue activities.
- 2) First aid and psycho social support to injured and traumatized.
- 3) Evacuation of damaged buildings/structures and demolition.
- 4) Emergency first aid and transport of injured and deceased to health facilities.
- 5) Assist in debris clearance and restoration of essential services.
- 6) Identification and diffusion of unexploded bombs.
- 7) Provide emergency rescue equipment.
- 8) Work with the fire brigade in rescue and first aid operations.
- 9) Liaise with the armed forces on matters relating to civil defence.
- 10) Provide assistance, render advice and impart training in bomb detection and disposal.
- 11) Assist in relief and camp management.
- 12) Security and management of relief stores, warehouses and distribution.
- 13) Training of other organizations like police etc. in rescue, relief, first aid, psycho social support.

o) **AJ&K Emergency Service Rescue 1122**

AJ&K emergency services known as Rescue 1122 is established in AJ&K with the aim to maintain a state of preparedness to deal with emergencies and provide timely response, rescue and emergency medical treatment to the victims. At moment the rescue 1122 emergency service is established as a development scheme of Civil Defense Department and operative in all the districts of the State. AJ&K Emergency Services Rescue 1122 Ordinance 2014 has already been passed for the establishment of a comprehensive emergency service in State. The ordinance outlines following functions of the emergency services: -

- 1) Maintain a state of preparedness to deal with emergencies.
- 2) Provide timely response, rescue and emergency medical treatment to the victims of

any emergency.

- 3) Establish a system for rapid communication, exchange of information and quick response to combat or deal with an emergency.
- 4) Arrange a universal toll free emergency dial-in number to be used throughout the State.
- 5) Play a lead role and coordinate the working of other organizations or agencies which have lawful authority to respond to an emergency.
- 6) Arrange transport where necessary for carrying persons who require emergency medical treatment from the emergency area to the nearest hospital or health care unit having arrangements for emergency medical care and treatment.
- 7) Establish community emergency response teams through enlistment, training, coordination and supervision of volunteers to assist the Service in safety promotion and management of emergencies.
- 8) Impart training and grant certificates to rescuers, volunteers and other private persons for due performance of emergency management duties.
- 9) Establish direct contact with local and international organizations and training institutions to maintain the Service according to international standards.
- 10) Collect, compile, maintain and analyze emergency response data and statistics relating to emergencies and to use it for research and prevention of such emergencies in future.
- 11) Suggest measures for the prevention or mitigation of hazards endangering public safety on roads, public parks and other public places with regard to public safety provisions.
- 12) Encourage, facilitate and train staff of NGOs and educational institutions for emergency management.
- 13) Register and ensure minimum standards and code of conduct to be followed by rescue vehicles, ambulances and patient transportation services.
- 14) Perform such other functions as may be assigned to it by the Emergency Service to achieve the purpose of AJ&K Emergency Service Ordinance 2014.

p) **Home Department/ Police**

This is one of the main departments to provide support to the disaster management organizations in dealing with disaster situation. Police Department is one of the important departments of the Government of AJ&K, which is responsible for maintenance of law and order and protection of life and property of the citizens. The role of police is very crucial in terms of public safety and security in daily life and in times of emergencies and disaster situation. Following are the overall roles and responsibilities of the Police Department: -

Mitigation

- 1) Identify the high risk and risk areas for different disasters and instruct the existing police installations located in those areas for keeping themselves in readiness for undertaking emergency rescue, evacuation relief operations.
- 2) Coordinate the wireless frequency of police with the wireless network of other departments.
- 3) Establish the disaster control room at district level.
- 4) Maintain communications with the police installations in the areas likely to be

affected by disaster.

- 5) Instruct all concerned to accord priority to disaster related wireless messages if required by appropriate officials.
- 6) Effectively monitor law and order and any crisis situation in the State and ensure efficient, coordinated and timely response at appropriate levels.
- 7) Ensure law and order during any disaster situation in the affected areas.
- 8) Aid and cooperate with other agencies for the prevention of destruction of public property by violence, fire or natural calamities.
- 9) Ensure smooth and speedy flow of information by collecting, analyzing, processing and disseminating information to all concerned.
- 10) Every year before the advent of monsoon season prepare operations plan in consultation with SDMA/DDMAs.
- 11) Repair and replace damaged/ defective equipment to ensure complete preparedness.

Preparedness

- 1) Impart training to the members of Police Force in first aid, evacuation, rescue and relief operations.
- 2) Train volunteers from among citizens, voluntary organizations.
- 3) Arrange drills for fire extinguishing, rescue, evacuation and transportation of injured persons and prepare coordinated action plans in cooperation with concerned local agencies.
- 4) Ensure security measures at evacuation points, in evacuated areas, at relief centres and godowns.
- 5) Protect resources and equipment required and being used at the scene of incidence /rescue.
- 6) Ensure easy access for emergency rescue vehicles to disaster sites.
- 7) Arrange sufficient space for the deployment of emergency vehicles by managing traffic signals.

Response

- 1) On receipt of directives from the SDMA/DDMA for evacuation - organize personnel and equipment for evacuation and undertake evacuation operations.
- 2) Provide necessary help in evacuation of casualties from the affected area and arrange traffic cover.
- 3) Provide security during search & rescue operations.
- 4) Set up emergency evacuation shelters, and transport affected people to the shelters.
- 5) Provide security during firefighting operations.
- 6) Provide reflective lights/ reflectors around the scene of incident at night, to facilitate the working of rescue workers, fire fighters and to indicate the troubled area.
- 7) Provide assistance to victims of road accidents.
- 8) Prevent harassment of women and children during any emergency.
- 9) Maintain law and order, especially during relief distribution.
- 10) Protect life, property and liberty of citizens.
- 11) Preserve and promote public peace.
- 12) Prevent public nuisance.

- 13) Keep close watch for any criminal and anti-state activity in the area.
- 14) Arrange security of government property and installations damaged in a disaster.
- 15) Participate in damage and need assessment.
- 16) Coordinate with other offices for traffic management in and around damaged areas.
- 17) Assist the local administration in putting a stop to theft and misuse in relief operation.

q) **Department of Information**

The most critical role of Department of Information is broadcasting/disseminating warnings to communities before a disaster occurs. It also has to play a major role in education and awareness programmes for better organized preparedness and response at government and community levels. Other functions in relation to DRM and response may include: -

Mitigation and Preparedness

- 1) Identify one liaison officer in the department as disaster information focal point.
- 2) Popularize the techniques of preparedness and survival during pre, during and post disaster period through television, radio and other publicity media.
- 3) Ensure strict performance of the allotted duties by radio, television, news media and publications related departments.
- 4) Take proper and adequate security steps for the protection of own installations and properties.
- 5) Prepare guidelines/ policy for necessary action by mass media on reporting disasters.
- 6) Arrange quick collection and dissemination of weather bulletins to reflect the possibility of floods.
- 7) Launch information programme for quick dissemination of disaster warnings to appropriate agencies and community groups.
- 8) Provide information to communities about precautionary measures they can take to avoid loss of life and property from hazards.
- 9) Inform the public with timely and factual information about the extent of disaster, losses caused and the current situation of disaster.
- 10) Advise public about measures to be adopted during the emergency period in order to avoid further losses; e.g. evacuation from unsafe areas, water purification techniques.
- 11) Inform about actions being taken by authorities/aid groups to save lives and property.
- 12) Relay messages concerning welfare of isolated or trapped groups for the benefit of families, relatives, friends and rescue teams.

Response

- 1) Disseminate warning messages to at-risk communities in an easy to understand language through multiple channels, while being sensitive to people's access and timing issues.
- 2) Facilitate communication among affected people and their relatives, friends, families in other parts of the country or world.
- 3) Highlight needs of survivors to make sure that all groups of people affected by the disaster receive appropriate aid, irrespective of their social, ethnic, political status.
- 4) Highlight the need for application of minimum standards to ensure that minimum

needs of disaster survivors in terms of water, sanitation, shelter, food and health are met.

- 5) Communicate about potential secondary risks to minimize further loss or damage.
- 6) Communicate about rehabilitation and reconstruction plans of authorities, UN and NGOs, others in the affected areas.
- 7) Encourage survivors' participation in recovery through conducting surveys and communicating the opinions of public to authorities.
- 8) Ensure that the news to be broadcasted reflects the true and clear presentation of the actual position and does not create panic in the minds of the people and also advises them to desist from taking unreasonable steps.
- 9) Take steps for publicity of news and directives relating to the situation issued by the SDMA/DDMAs.
- 10) Curtail normal programmes to broadcast essential information on disaster if requested by the SDMA.
- 11) Arrange visit to the affected area by the local and national journalists in the interest of publication of accurate and true report in the news.
- 12) Arrange dissemination of information of the short and long term measures of different ministries, departments/ agencies for relief and rehabilitation of the affected people.
- 13) Influence for integrating risk reduction in rehabilitation and reconstruction programmes

r) **Social Welfare and Women Development Department**

The department has an important role in disaster management as women are more vulnerable to disasters due to their socio-cultural status. The department will take special steps to reduce vulnerability of women in disaster prone areas. The main mission of the department is to eliminate gender discrimination against women, help women achieve equal status to that of men in all walks of life. The department will also arrange for protection of manpower and organize special camps for the disabled, widows, children and other vulnerable groups. It will also provide necessary help and assistance for socio-economic rehabilitation. The functions in relation to DRM and response include: -

Mitigation and Preparedness

- 1) Designate one liaison officer as focal point and inform all concerned.
- 2) Sensitization of disaster managers related to gender issues in disaster management.
- 3) Prepare special projects for socio economic uplifting of women towards DRR.
- 4) Make institutional arrangements for involvement of women in DRM.
- 5) Organize health camps for regular medical check-ups of women and other vulnerable individual.
- 6) Assist in provision of drinking water facilities near settlements.
- 7) Organize training programs for women to cope with disaster situations.

Response

- 1) Involve the Health Ministry in catering to special health needs of women.
- 2) Ensure that needs of women survivors are addressed in post disaster situations during the relief rehabilitation and reconstruction phases.
- 3) Establish relief camps for women and ensure fulfilment of basic needs of women in

general relief camps.

- 4) To take steps for safety of women and girls in disaster affected areas.
- 5) Prepare special programmes for the rehabilitation of women.
- 6) Ensure separate sanitation facilities for women in relief camps.
- 7) Introduce special vocational training programs for women.
- 8) Facilitate participation of women in the management of relief, rehabilitation and reconstruction activities.
- 9) Support post-disaster rehabilitation of livelihoods of women survivors.

s) **AKMIDC**

In AJ&K mineral exploration activities started in 1973 by AKMIDC, a state owned corporation and emphasis was laid on assessment of potential economic deposits and an analysis of value of the different minerals discovered in the area so far amount to 137.915 million tons. In addition to preparation and implementation of AKMIDC own contingency plans, the department will perform the following functions: -

Mitigation and Preparedness

- 1) One liaison officer in the department is to be designated as the disaster management focal point.
- 2) Issue detailed instructions to the employees about their duties and responsibilities in pre, during and post-disaster stages of normal disaster.
- 3) Arrange regular training for mining employees in the disaster prone areas on disaster issues.
- 4) Coordinate with SDMA and jointly identify appropriate actions for reducing vulnerability to accidents in mines and industries.
- 5) Perform periodical inspection of every mine to verify the safety provision of mines.
- 6) Make inquiries in case of fatal accidents and to take punitive action against the defaulters as provided under the law.
- 7) Conduct mine safety training for supervisory staff of mines by arranging refresher courses.

Response

- 1) Evacuation of the mineworkers from the mines on the receipt of early warning.
- 2) To keep in contact with the disaster management authorities.
- 3) Provide equipment for search and rescue.
- 4) Provide search and rescue personnel on the request of the SDMA/DDMA
- 5) After assessment of the loss/damage due to disaster, plan for rehabilitation of mines.

t) **Industries Department**

The mission of the Industries Department is to promote and facilitate Industry. The department of Industries has established six industrial estates in various districts of AJ&K with basic infrastructure like roads, water supply, and sewerage system and telephone and electricity facilities. The number of medium & large scale Industries which have already been established in different districts of the State is 1970. Functions related to DRM and response include: -

Mitigation and Preparedness

- 1) Designate one liaison officer in department as the disaster management focal point.
- 2) Ensure all possible steps for the security of manpower, stock and

installations/factories.

- 3) Ensure that all industrial zones / areas must have in-built safety / fire control units in the overall frame-work of the construction plan to cater for not just fire but also chemical leakages.
- 4) Prepare listing and locations of industries and establishments for possible sourcing of relief material during disasters.
- 5) Ensure training on preparedness programmes to be adopted at different levels for all manpower employed in factories and establishments in disaster vulnerable areas.
- 6) Promote the preparation of emergency preparedness plans by all industrial units.
- 7) Proper waste management system should also be included in industrial zones for both solid and liquid wastes.
- 8) Establish systems to monitor implementation of DRR guidelines by industrial sector.
- 9) Develop system of incentives and disincentives for industry to promote application of disaster safety.
- 10) Implement awareness raising programmes for industrial sector including Chambers of Commerce and Industry (CCI) on integrating DRM in project planning and implementation stages.
- 11) Monitor and encourage implementation of safety codes in industry.
- 12) Develop DRM plan with regards to the mandate of the department.
- 13) Develop guidelines for industrial sector to ensure safety of industry and its production processes in hazard-prone areas.

Response

- 1) Request industries to provide emergency relief material such as food products, temporary shelter, medicines and medical equipment and search & rescue equipment.
- 2) Take steps to plan for rehabilitation of industries adversely affected by disasters.

u) Special Communications Organization (SCO)

SCO raised in 1976, is providing state-of-the-art, modern IT and telecom facilities in the most difficult region of AJ&K. Current services include landline telephone (PSTN), mobile (GSM), wireless local loop (WLL), internet broadband (DSL) and digital cross connect (DCC). Vision of the SCO is stipulation of reliable, effective, innovative and up-to-date voice and data communication services to the people living in the most rugged/ arduous terrain. The SCO can play an important role in providing communication links during disasters. The functions of SCO in relation to DRM and response include: -

Mitigation and Preparedness

- 1) Designate one liaison officer in the department as the disaster management focal point.
- 2) Introduce mobile phone network in all the districts of AJ&K including remote areas.
- 3) Take steps to ensure power back up for communication systems during possible emergency situations.
- 4) Take proper and adequate security steps for the protection of own installations and properties.
- 5) Provide support to the Disaster Management Committee and ensure unsuspending

links with SDMA.

- 6) Deliver early warning information to the agencies and communities requiring them.

Response

- 1) Ensure communication system is functioning round the clock (24/7).
- 2) On request, provide additional communication lines for emergency communication.
- 3) On request, establish communication links in the affected areas.
- 4) Provide measures for satellite and other wireless communication from the area affected by disaster and are out of cellular coverage.
- 5) Provide mobile communication facilities to the rapid assessment and quick response teams in the remote areas.
- 6) Assess damage to telecommunication infrastructure and immediately take steps to restore it.
- 7) Take steps to fully restore and rehabilitate any damaged communication infrastructure.

v) **Pakistan Army**

The Pakistan Army has an important role of providing search and rescue assistance, security, logistics, and if necessary, assistance in distribution of relief items and provision of equipment for emergency response. Army can provide trained personnel with specialized skills such as in road and debris clearance machinery, communication technology for placement in isolated areas, and can provide specialized transportation systems. In relation to DRM and response Pakistan Army can assist the SDMA and DDMA by carrying out following functions: -

- 1) Designate one liaison officer as the disaster preparedness focal point.
- 2) Prepare operational plan for providing the assistance during disaster.
- 3) Establish the disaster control room.
- 4) Issue cautionary instructions to all concerned.
- 5) Organize task forces for working of disaster control units. Each unit should be composed of, engineers, doctors with medicines and nursing assistants.
- 6) Earmark a reserve task force, if needed.
- 7) Move task forces to the convenient positions, if needed.
- 8) Distribute emergency relief material to the affected people.
- 9) Send task forces to disaster affected areas.
- 10) Conduct survey in affected areas and assess requirements of relief and rehabilitation.
- 11) Assist local administration in removing the dead bodies and debris in affected areas.
- 12) Set up field hospital if required.
- 13) Participate in reconstruction and rehabilitation operation if requested.

w) **Other Stakeholders**

1) **Pakistan Red Crescent Society (PRCS)**

The PRCS AJ&K plays a vital role in elevating the suffering of affected people across the State. The society works as an auxiliary to the government to ameliorate the suffering of the most vulnerable people in distress without discrimination. The Society assists the public authorities e.g. SDMA/DDMAs in crises, emergencies and disasters but do not replace their responsibilities. The main activities of the Society are relief work during

and after conflict, disaster relief and auxiliary health and welfare services, which include a wide range of activities for the less privileged and marginalized people in both urban and rural areas. The Society provides ambulance and search and rescue service at times of emergencies. The role of PRCS in rapid need assessment is very instrumental in devising the response strategy for any sort of eventuality. It has an effective and continuous programme of capacity building of volunteers, CBOs, and district government officials.

2) **NGOs**

- i. These will work in close coordination with the government departments in relation to DRM as per the core functions, mandate and resources at their disposal.
- ii. Mobilize communities and develop local level capacities for early warning, disaster preparedness and response.
- iii. Implement programmes for community vulnerability reduction; e.g. strengthening livelihoods, safer construction practices, drought mitigation.
- iv. Participate in DRM activities such as training, public education, damage assessment, rehabilitation and construction projects in hazard prone areas.
- v. Formulate DRM plans in order to share resources and information.
- vi. Link with SDMA to ensure that strategic policy and operational implementation incorporates their participation.

3) **Local Charity Organizations**

Local charity organizations like Edhi Foundation etc. provide various services particularly ambulance services, evacuation and distribution of food and non-food items during small to large scale disasters.

4) **Philanthropist Organizations**

Philanthropists and CBOs plays an important role in augmenting the government efforts for disaster management and provision of relief services during disasters and emergencies. They also play an important role in dissemination of early warning, evacuation, first aid, search and rescue and firefighting.

5) **Scout Associations and Volunteers**

Pakistan Boys/ Girls Guide Associations and volunteers from various fields can be employed to supplement the disaster response efforts being undertaken by the provincial government.

6) **Media**

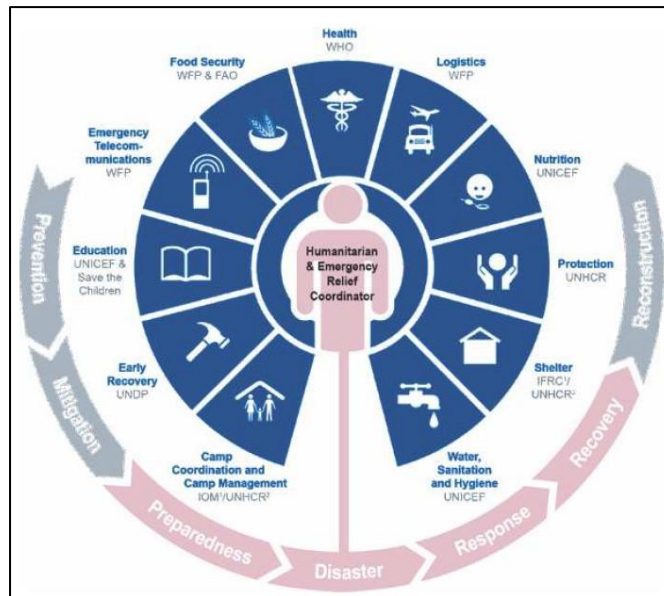
Media plays an important role in saving lives and property before, during and after disasters through dimension of important information on/ for preparedness, early warnings and disaster response. Media can also be of great help in coordinating operations of various agencies/ organizations.

7) **United Nation (UN) Agencies/ Clusters**

UN agencies play an important role in disaster management especially in assessment, planning, coordination, response, recovery and long term DRR program. UN play a lead role in establishing a coordination mechanism to monitor response of various agencies. Moreover, the UN Agencies play an important role in capacity building, providing

technical support to disaster management authorities for disaster management planning.

Clusters are temporarily coordination structures developed by the UN Agencies in the backdrop of calamity if desired by the Government. Clusters are groups of humanitarian organizations, both UN and non-UN, working in a particular sectors e.g. water, health and logistics. They are designated by the Inter-Agency Standing Committee (IASC) and have clear responsibilities for coordination. The cluster approach was applied for the first time following the Earthquake-2005 in Pakistan. Nine cluster were rolled out within 24 hours of the earthquake. The aim of cluster approach is to strengthen the system-wide preparedness and technical capacity to respond to humanitarian emergencies and provide clear leadership and accountability in the main areas of humanitarian response. At all level, it aims to strengthen partnership and the predictability and accountability of the international humanitarian actions, by improving prioritization and clearly defining the roles and responsibilities of humanitarian organizations.



UN Cluster System

CHAPTER 4

ACTIVATION OF THE SDRP

Chapter 4: Activation of the SDRP

Declaration of Emergency

The declaration of emergency depends upon the nature and magnitude of the disaster. Disaster situations of a smaller scale which are within the capacity of district authorities would be managed by the respective district authorities on the declaration of emergency by the State. In case of disaster situation of a relatively larger scale which overwhelms the capacities of district governments but are within the capacity of State Government is declared and managed by the State. In case disaster is a large scale beyond the capacity of State Government but is within the capacity of federal government to manage primarily through national resources would be handled by the federal government as national emergency. In case disaster is of mega scale and can't be handle through national capacities then international assistance may be requested by the Government of Pakistan.

Criteria for Declaring Area Calamity Affected

As per the National Calamities Act-1958, if more than 50% loss of livelihoods of the affected population has occurred the district and state authority declare the area "Calamity Affected". Normally, a technical committee is formed to assess the situation after a relief phase and make recommendations to the Prime Minister for declaring the area calamity-affected.

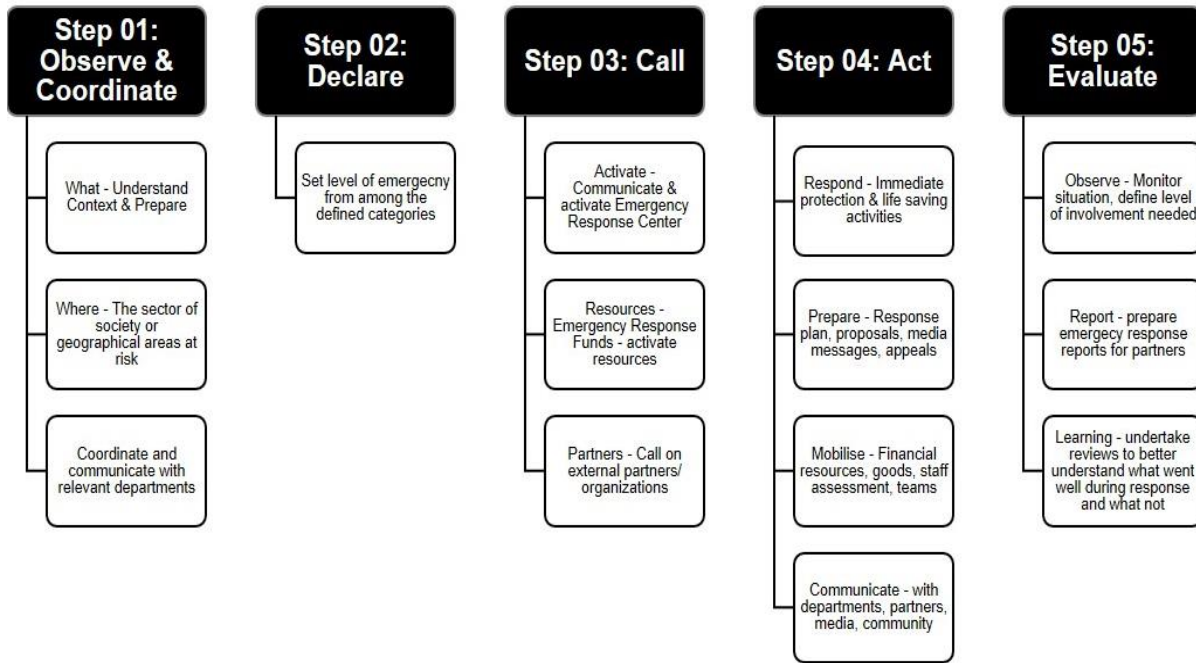
Basic Criteria of Declaring Emergency

Following are some of the important considerations for declaring an emergency: -

- a) Loss of Human lives.
- b) Loss of Property.
- c) Loss of livelihoods.
- d) Loss of agriculture (crops / fruit trees).
- e) Loss of livestock/fodder.
- f) Loss of Storage foods.
- g) Severe damage to infrastructure.
- h) Mass Displacement



Actions for Emergency Response



Categorization of Emergency

Category 01 (C1)	Category 02 (C2)	Category 03 (C3)	Category 04 (C4)
Localised emergency event i.e. small scale fire, landslide, floods, low level epidemics etc. dealt by DDMA at district level. The DDMA is capable of handling the situation on its own. Emergency may be declared by district government.	Emergency which overwhelmed the capacity of district. DDMA request assistance to the SDMA through SDMA. Emergency is declared through Prime Minister of the State.	In case emergency/disaster is beyond the capacity of provincial/state government. National emergency is declared by the Prime Minister of Pakistan.	In case emergency/disaster is beyond the capacity of government at national level, Prime Minister of Pakistan may launch appeal for international assistance
Actions *Activate DEOC *Initial rapid assessment *Declare local emergency *Inform SDMA about declaration of local emergency *Initiate relief work *Prepare report	Actions *Activate SEOC and inform NDMA *Alert & inform provincial departments, NDMA and stakeholders *Damage & loss assessment *Search & rescue and Initiate relief work *Mobilize resource *Coordinate & facilitate CBOs and NGOs for relief *Prepare report	Actions *Activation of NEOC (by NDMA) *Alert & inform federal ministries and other stakeholders *Support provinces/state in damage & loss assessment, search & rescue, Initiate relief work and resource mobilization *Coordinate with Armed Forces for any support *Facilitate NHN, PHF and UN for relief if required *Prepare report	Actions *Recommendation for the international assistance by the Chairman NDMA *Appeal for the assistance by the federal government

Summary of Key Actions of SDMA & DDMA (pre and during disasters)

Following tasks are required to be performed by the state authorities: -

State Disaster Management Authority	
Pre Disaster	During Disaster
Prepare provincial preparedness plans	Activate SEOC
Prepare SDRP, guidelines based on Sphere standards	Undertake rapid assessment



Prepare minimum standards in emerging response	Coordinate with relevant state departments for response
Prepare hazard specific contingency plans	Incident management at region Level
Provide technical support to districts in preparation of contingency plans	Undertake post disaster rapid assessment and actively play role in emergency declaration notification
Prepare, review, maintain and upgrade the communication mechanisms for early warning and devise information dissemination strategy that allows information to reach the end user	Mobilize, activate and deploy resources for disaster response at regional level
Establish stock piles of relief and rescue materials and or ensure preparedness to make such material available at short notice	Coordinate with rescue services and deploy for effective response
Review and give feedback to disaster preparedness emergency response plans prepared by the departments of State Government	Closely coordinate and update NDMA on disaster situation
Identify vulnerable areas to disaster and take needed measures for prevention and mitigating its effects in coordination with government departments	Coordinate and provide necessary support and guidance to the affected districts
Prepare and update SOPs for each department for disaster response	Provide timely and essential relief goods and logistics support to the affected areas of the region
Ensure that communication systems are in order and disaster management drills are being carried out regularly	Monitor hazards risks and vulnerable conditions on regular basis and accordingly prepare plans
Monitor preparedness at all government and non-government levels for effective response to disasters	Encourage participation and facilitate NGOs, voluntary organizations and communities in different aspects of disaster response
Ensure that minimum standards are applied in the response	Coordinate and facilitate humanitarian organizations, UN, and private sector/ organizations for effective response
Prepare hazard maps and carry-out land use planning	Inform public of the latest situation periodically through print and electronic media
Ensure vacation of encroached areas by vulnerable population	Prepare daily situation report, weekly and monthly basis and circulate among stakeholders including NDMA
Clearing of nallahs/ natural drainage systems from encroachment / people living there in before Monsoon Season	
Develop close coordination with other province and NDMA	



District Disaster Management Authority	
Pre Disaster	During Disaster
Prepare disaster management Plans	Activate DEOC
Prepare contingency plans covering potential hazards	Make district level departments ready for emergency response
Vulnerable areas be identifies and measures for disaster prevention and mitigation be taken	Regularly inform SEOC and NEOC about the latest situation
Organize and coordinate training programme for DDMA, district departments and voluntary rescue workers at district level	Conduct rapid multi-sectoral assessment of disaster affected areas and determine the extent of loss and damage
Facilitate community in awareness programme for prevention/ mitigation of disaster impacts with support of government departments and local NGOs	Incident management at district level
Update SOPs for each district department	Organize evacuation on priority basis
Prepare, maintain and upgrade the mechanism for early warning and device information dissemination strategy that information reach to the end user	Prepare plans in detail for the resources needed for relief operations and share with SDMA and DDMA
Prepare list of public buildings and open places/ grounds which can be used as relief centers in the event of disaster	Provide food, drinking water, medical supplies, non-food items to the affected population
Prepare plans for various supplies and stockpile relief and rescue materials, also ensure preparedness to make such material available at short notice	Deploy medical, search & rescue and emergency response team immediately
Monitor hazards, risks and vulnerable conditions on regular basis	Set up relief camps
Encourage participation of NGOs and voluntary social welfare organizations and communities in different aspects of emergency	Coordinate with SDMA and NDMA to deploy resources for emergency response
Enforce vacation of encroached areas, in hazard prone areas, by vulnerable population	Facilitate and coordinate with I/NGOs, UN bodies and philanthropist organizations for response
Clearing of river plains, nallahs/ drainage way from encroachment before monsoon season	Establish complain mechanism at the DEOC and at sub-district level
Educate people about building codes and land use planning	Regularly organize media and public information briefings
	Organize detailed damage assessment for early recovery program and prepare proposal and submit to SDMA and NDMA
	Prepare situation report on daily basis and circulate to the SDMA, NDMA and all stakeholders

Tehsil Administration
Support in development of contingency plans
Support in conduct of damage / loss assessment
Incident management at the tehsil level
Support in organization and conduct of rapid assessment for relief needs and response
Assist in post-disaster assessment for early recovery and rehabilitation
Assist and organize relief operation in affected area of tehsil
Prepare list of public buildings and open ground which can be used as relief centers in case of disaster and prepare requirements for various supplies (water and sanitation) for relief centers
Organize and manage relief camps in affected areas
Identify and prepare list of vulnerable groups for relief response
Support district administration/ relief authorities in distribution of relief goods to the affected communities with priority to poorest of the poor, child and women headed household, disabled and elderly
Facilitate government departments, UN, I/NGOs and philanthropists in relief activities
Prepare final report on relief operations and send to DDMA
Supervise relief operation regularly and report to DDMA
UCs
UCs are the lowest tier in the government's administrative structure, with elected representatives from villages / rural settlements and ward levels
Assist assessment team in damage and loss assessment
Prepare list of beneficiaries in affected area
Provide storage facility and security for relief goods at village level
Assist government functionaries in distribution of relief goods
Assist government in verification of beneficiaries
Maintain record of relief goods distribution
Identify public buildings and open places / grounds, and prepare, list which can be used as relief centers in the event of disaster along with requirements of various supplies (water and sanitation) for relief centers

Disaster Response Functions

Emergency Operation Centre (EOC)

The SEOC serve as the hub for receiving early warning and issuing information to all concerned and shall be part of the SDMA with full/part time staff and facilities for representatives from different departments, media and those humanitarian organizations who will join during the disaster time. SEOC will be equipped with all necessary facilities and headed by an officer to be appointed by the SDMA Chairperson. The SEOC will be working round the clock during the disaster time and in the non-disaster time during normal office hours. The main objectives of the SEOC are to: -

- a) Collect, collate/ analyse and disseminate information.

- b) Disseminate timely warning.
- c) Coordinate with different stakeholders for effective response and issue instructions.
- d) Organize and manage emergency operations.
- e) Mobilization and deployment of resources.

Structure of SEOC

The SEOC will be supervised and directed by the SDMA Chairperson, headed by an officer to be appointed by the chairperson and supported by the team to look after operations, coordination, communication, public information, administration, and logistics & IT support and complaint. The SEOC will work 24/7 during a disaster and during non-disaster times, the SEOC will be functional according to normal office hours and will focus on emergency preparedness and contingency planning.

Objectives and Function of SEOC

a) Objectives

- 1) Collect, collate, analyse and disseminate information.
- 2) Disseminate timely warning.
- 3) Coordinate and issue instructions to all stakeholders for effective response.
- 4) Communicate/ coordinate with different stakeholders for effective response.
- 5) Organize and manage emergency operations.
- 6) Mobilize and deployment of resources.

b) Function

- 1) Collect, consolidate, analyse and disseminate information related to emergency operations to the key stakeholders.
- 2) Issue warnings/ alert to all concerned.
- 3) Mobilize and deploy resources for initial response.
- 4) Coordinate/ monitor initial assessment for further response.
- 5) Coordinate provision of relief items.
- 6) Coordinate with humanitarian organizations for resource mobilization and deployment.
- 7) Coordinate relief and logistic operations.
- 8) Preparation of daily situation report and dissemination to all concerned.
- 9) Prepare media briefs for wider circulation and organize regular media briefings.
- 10) Coordinate/ monitor recovery assessments.
- 11) Coordinate and monitor early recovery initiative undertaken.

Store, Equipment and Communication

SEOC will be equipped with all facilities required to obtain, analyze and disseminate information. The proposed list is as follow: -

- a) Desktop computers, laptops, printing, fax, scanning and photocopying machines.
- b) Master maps, range of status boards and map boards.
- c) Telephones (landlines, cellular and satellite phones), telecommunication system (very high frequency wireless radio communication) and satellite phones.
- d) Internet facility, television sets and cameras.
- e) Audio/video conferencing facilities; connection to external video links.
- f) Generators/uninterruptible power supply/power back-up system.



Activation of State Emergency Operational Center (SEOC)

- a) **On Receipt of Alert (Standby - Stage 1).** Director (Operation) SDMA will collect information from NEOC/ DEOC about the potential disaster, after analysis of situation, advice/ recommend the DG SDMA for alert or standby position of SEOC. The DG SDMA seek approval for activation of SEOC. SOPs to be followed for this stage are: -
 - 1) Monitor the situation.
 - 2) Alert the SEOC staff for operationalization of SEOC at short notice.
 - 3) Put everything ready and functional in the SEOC.
 - 4) Coordinate with key departments, Armed Forces, logistic authorities humanitarian organizations and alert them.
 - 5) Close coordination between DG SDMA and DEOC’s for getting information and review.
- b) **On Receipt of Warnings (Stage 2).** DG SDMA will issue notification for full activation of the SEOC. DG SDMA will inform key departments, irrigation department (only in case of floods), emergency services, civil defence, NGO/ INGOs, UN Agencies, PRCS, and media. SEOC will remain fully operational on 24/7 basis. SOPs to be followed for this stage are: -
 - 1) Places SEOC on fully activation/ operational role.
 - 2) Open all communication system and links.
 - 3) Collect essential information including situation updates, details of resources etc. which will be required for relief operation.
 - 4) Inform all relevant departments and ask them to send their representative / liaison officers to operate from the SEOC.
 - 5) Share daily situation report (sitrep) with NEOC and other concerned. Sitrep template is attached at annex “B”.
- c) **Stand Down Procedure (Stage 3).** After reviewing situation and consultation with concerned departments. The Director operation will recommend to the DG SDMA for stand down. After getting approval will issue/ share notification of stand down to the key departments at regional level and to the DEOCs and NDMA. SOPs to be followed for this stage are: -
 - 1) Director operation will debrief DG SDMA about stand down who will advise the authority for approval of stand down.
 - 2) Director SEOC will disseminate notification to the relevant ministries, departments and other stakeholders.
 - 3) Final report on the emergency operations will be circulated to key stakeholders.
 - 4) Inform DDMA & DEOC for stand down and share final report with them.
 - 5) SEOC staff will work in normal mode.

Principles of Operation of SEOC & DEOCs

SEOC	DEOCs
The SEOC will serve as the hub for receiving early warnings and issuing alerts/ advisories to response agencies, public and media etc.	DEOC will serve as the hub of activities and act as headquarters ensuring implementation of disaster response at district level.



<p>The SEOC will coordinate disaster response operations at State and District level.</p>	<p>DEOC will receive early warning/ alerts/ advisories, disseminates to public down at village level and ensures counter actions.</p>
<p>The SEOCs are headed by the chief coordinator SEOC and supported by staff from operations, communication, public information and administration and logistics. Overall functioning of SEOC is supervised and directed by the DG SDMA.</p>	<p>The DEOC will coordinate management of relief operations in affected areas.</p>
<p>The SEOC will function throughout the year in disaster and non-disaster times.</p>	<p>The DEOC will functions throughout the year in disaster as well as non-disaster times.</p>
<p>In disaster times the SEOC will disseminate early warnings, alerts/ advisories, relief coordination & management and focus on early recovery.</p>	<p>In disaster times the DEOC will disseminate early warnings, issue alerts/ advisories and carry out relief coordination.</p>
<p>In non-disaster time the focus will be on preparedness and contingency planning.</p>	<p>In non-disaster times, the emphasis will be on emergency Preparedness and contingency planning in the districts.</p>
	<p>The DEOC is located in DC office, in the District Headquarters and is overall supervised by the DC of the district.</p>

Chapter 5

Disaster Response

Chapter 5: Disaster Response

Disaster Response can be termed as the provision of timely and well-coordinated emergency services and public assistance immediately after a disaster in order to save lives, reduce health impacts, public safety and meet the basic substance needs of people affected by the disaster.

Early Warning and Dissemination of Information

During a disaster, the government may face uncertainty in taking appropriate actions and disseminating early warnings. Upon the issuance of an early warning, communities may also hesitate to evacuate their households or abandon belongings. There is a dire need to develop an end to end early warning system using a strong and tested coordination mechanism to issue warnings at the right time and by using appropriate tools and effective channels to reach the general public well on time so they can take appropriate actions for early evacuation.

Evacuation

In order to minimize the human losses, people are evacuated from the area in the wake of looming disaster. Evacuation plan can be prepared on the basis of hazard assessment and preparation for evacuation and final evacuation will be based on the early warning. Evacuation can be of small-scale evacuation i.e. removal of people from dangerous/damaged/collapsed building; or large-scale evacuation i.e. move of communities. Evacuation may be carried out before, during or after disaster for which detailed planning may be done in advance.

- a) **Evacuation Planning.** Following factors should be kept in mind while preparing an evacuation plan: -
 - 1) Determine the population need to be evacuated.
 - 2) Identify a safe place for evacuation.
 - 3) Identify shortest and safest route including alternative route.
 - 4) Safe assembly area or areas for assembling the community before evacuation.
 - 5) Forming groups of people to be transported out of the endangered area.
 - 6) Means and procedures of transportation of valuables and cattle etc.
 - 7) Identifying critical items, like medicine, edibles and water, to be taken along during evacuation.
 - 8) Necessary documents, like identity cards, educational certificates and property ownership documents, to be identified for taking along during evacuation.
- b) **Identifying Safe Evacuation Routes.** The safe evacuation routes may be identified and mapped. Following factors must be kept in mind while identifying safe evacuation routes: -
 - 1) Select evacuation route that minimize the exposure to the hazard and other obstacles.
 - 2) The evacuation route should lead to a safe area for assembly of people.
 - 3) Since, loss of electric power, poles, towers, fire breakout etc. may affect the safe route so alternative routes should also be mapped and highlighted.
 - 4) Route should be direct.
 - 5) Evacuation route should be easily accessible to even the most vulnerable groups like women, children, elderly and people with critical disabilities.
 - 6) A sign board highlighting the safe evacuation routes should be put so that people can easily spot such routes.

- 7) The evacuation routes should be reviewed and monitored regularly. In case of issues adjustments have to be made and the communicated to the village populace at the earliest.
- c) **Execution of Evacuation.** Following will ensure effectiveness of the evacuation plan: -
 - 1) Prior arrangement for shelters at earmarked evacuees' lodgment sites.
 - 2) Provision of basic facilities in camps.
 - 3) Adequate arrangements for transportation of the affected communities and their minimum belongings, including livestock.
 - 4) Priority of evacuation be allocated to elderly, pregnant women and disabled persons.
 - 5) Fool proof security arrangements during evacuation and in the camps.
 - 6) Separate camps for the cattle.

In situation like floods and complex emergencies; the authorities may resort to mandatory evacuation, in such situations the responsible officials shall try to convince local communities for voluntary evacuation. At times, government may have to use pressure or force to evacuate local communities to protect them from the potential disaster. In emergency evacuation, whether it is voluntary or forced, communities should be allowed to take along minimum essential belongings and cattle.

Search and Rescue

The first 12 hours of any disaster are regarded as the most critical, therefore timely deployment of search & rescue asset/team can save precious lives. The general field of search and rescue includes many specialty sub-fields, typically determined by the type of terrain the search is conducted over. These include mountain, ground search and rescue, including the use of search and rescue dogs, urban search and rescue in collapse structure, combat search and water rescue. Various mediums like helicopters, boats or field rescue teams can be used for search and rescue of people during disasters. Program for enhancement of emergency response (PEER) qualified individuals of Rescue 1122 can be employed for the task. In case of massive damages, urban search and rescue teams located in the province can be requested through SDMA.

Fire Fighting and First Aid

Access to health care is critical determinant for survival in the initial stages of disaster. Provision of medical assistance and firefighting (if required) can be a simultaneous action during search & rescue and all subsequent phases.

Rapid Need Assessment

Rapid need assessment is carried out by the government alone or in conjunction with UN system, immediately following a sudden-onset of a disaster. The aim of assessment is to acquire basic information on the needs of affected population and to support the identification of strategic humanitarian priorities. It thus enables the government and other stakeholders a common understanding of the situation and likely needs for immediate interventions. To identify the relief needs, NDMA in coordination with OCHA has finalized MIRA methodology to be followed by the RAPID need assessment (refer to NDMA guidelines for MIRA). Main features of the methodology are as follows: -

- a) **Purpose.** To help decision-makers on the nature and dynamics of the crisis and strategic humanitarian priorities

b) Timeline

- 1) Within 72 hours, a situation overview based primarily on secondary data (remote sensing) and other sources
- 2) Within 7 days, carry-out a field assessment on community level to identify needs and priorities of the affected/vulnerable population.

c) Process. the MIRA process and report encompasses following three main steps: -

- 1) Review and analysis of secondary data, which is the basis for the situation overview.
- 2) Community-level field assessment and primary data collection based on key informant interview and structured observations.
- 3) Final inter-sectoral analysis and release of final MIRA report.

Relief

It is the provision of services and public assistance during or immediately after a disaster to save lives, alleviate sufferings of the people, reduce health impact and meet basic subsistence needs of the affected people. During the relief phase, focus must be on provision of food, shelter, health assistance and WASH (water, sanitation & hygiene). NDMA guidelines for minimum standards of relief in camp may be referred too for planning relief operation. Efforts be made to conclude relief operation within three months, after which recovery must begin. However, in certain/exceptional cases it may surpass if situation so warrants. Government agencies are the major relief provider; however, philanthropists, civil society organizations and donors may also take part in relief depending upon the magnitude of the disaster. Some of the important features of effective relief are: -

- a) Elaborate relief mechanism.
- b) Non-discrimination and taking care of vulnerable groups.
- c) Efficient Logistic system for timely flow (receipt & distribution) of relief goods.
- d) Liberty of action and facilitation for relief workers/humanitarian community.
- e) Coordinated operations.
- f) Efficient/transparent cash grant system.
- g) Information management.
- h) Media handling.
- i) Basic ethics to be followed by government officials.
 - 1) In the event of disaster, affectees go through a difficult time and they are more demanding than they would be in normal circumstances. Government officials also have a lot to deal with in that situation; however, they are obligated to adopt a caring attitude towards the survivors in terms of being responsive to their needs.
 - 2) Following the ethical priorities during disaster is often difficult for people in need and government official alike. This difficulty is amplified when government official is likely to face pressure from a host of **political, Religious/Sectarian, Ethnic, and Kith and Kin** quarters. Nonetheless, they must be ethically strong enough to withstand the pressures to ensure the well-being of the affected population.

Early Recovery

The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors is termed as recovery. The main purpose is returning individuals and families, critical infrastructure and essential government or commercial services back to a functional, if not pre-disaster state.

The action often characterized by temporary actions that provide a bridge to permanent measures. Recovery activities may begin when the emergency has ended. In some case recovery activities can be undertaken alongside the relief activities. During recovery, the focus is on shelter, agriculture, food security, health & nutrition, education, water & sanitation, governance, livelihood and community infrastructure sectors. Thematic areas of DRR, gender, environmental and protection should be mainstreamed in all the sectors during recovery interventions.

- a) **Determining the Recovery Needs.** In order to determining the recovery need, recovery need assessment (RNA) is conducted. A comprehensive methodology for RNA has been formulated by NDMA. The assessment is based on the primary data collected by the government authorities, verification by the joint team and analysis. Based on the assessment, the recovery needs are worked out for all the sectors.

Rehabilitation & Reconstruction

Post-disaster reconstruction is a complex process. It requires multi-sectoral involvement, very significant resources and a wide range of skills. Primarily reconstruction is the responsibility of the government; however humanitarian agencies, donors and regional/ friendly countries can be engaged in reconstruction either by providing financial resources or undertaking the projects as per the government's priorities. Damage and reconstruction needs are determined by conducting damage and need assessment.

Damage Need Assessment (DNA)

DNA is initiated with the objective of estimating the extent of the damage and the required needs for Rehabilitation and Reconstruction of the damaged assets and infrastructure; and restoration of livelihoods and economic productivity. Globally the Asian Development Bank (ADB) and the World Bank leads the assessment process in close coordination with Government. In our context Planning & Development Board initiates the request to conduct DNA, whereas all coordination will be done by NDMA / SDMA.

Methodology for undertaking DNA. For the estimation of the effects/ impact of the disaster, the methodological tools developed by UN are used. The impact of the disaster on each sector of the economy is estimated with the following three costs:

- a) Direct damage referring to the monetary value of the completely or partially destroyed assets, such as social, physical and economical infrastructure immediately after the disaster.
- b) Indirect losses referring to income losses, comprising of both the change of flow of goods and other economic flows such as increased expenses, curtailed production and diminished revenue, which arise from the direct damage to production capacity and social and economic infrastructure.
- c) Reconstruction costs measuring the cost of rebuilding lost assets and restoring lost services, assessed as the replacement cost with a premium added for building back smarter.

Data from the districts/ tehsil level is collected by the government and verified/ validated by the DNA sector team. The data received by the DNA sector team is validated through a number of measures including; field visit of affected areas, interview with stakeholders, desk review, satellite imagery and GIS data comparison and other plausibility checks. Based on the above

analytical work is undertaken by sector teams for a comparative pre and post disaster assessment of the infrastructure and services affected.

Gender and Vulnerability Considerations

It has been established that the effect of disasters are more pronounced on the vulnerable groups of society such as women, children, elderly person and persons with disabilities. Within these categories there may be even more vulnerable groups, such as female heading their households, children with disabilities or persons with mental health issues. Because of their vulnerabilities, at times these groups have limited access to relief commodities.

It is therefore imperative for the responders to safeguard the rights of vulnerable people in disaster. They must be accorded priority in rescue operation and all other activities of response. It is also essential to cater to the unique needs of these groups while planning for and executing the response.

Disasters also often give rise to new protection concerns. Population displacement, weak law enforcement and the breakdown of social safety mechanisms can heighten the risks of looting, gender-based violence and child trafficking. These issues occur in the initial stages of a humanitarian response and should be taken care of until the emergency is over. Responses include simple measures such as floodlighting and lockable shelter kits, and more technical programmes such as family tracing, training and monitoring of vulnerable groups.

National Policy Guidelines on vulnerable groups in disaster, issued by NDMA may be consulted for integration of vulnerable groups in disaster preparedness and response.

Stockpiling and Availability of Relief Supplies and Commodities

The ready availability of relief supplies and commodities is an important factor in effective response. After disaster impact, there is usually an urgent need to provide and distribute the food, water, shelter/tents and medical supplies and assistance. The SDMA has the warehouse containing necessary equipment. However, the warehouse need to be fully operationalized and equipped with all necessary food and non-food items to meet potential challenges arising during any disaster. Elaborate guideline should be formulated for procurement and maintenance of relief items. NDMA guidelines on stocking, maintenance and supply of relief & rescue items must be referred to while developing the state guidelines. Moreover, it is considered that a single warehouse and other resources may not be sufficient in case of major disaster, therefore private building and resources must be earmarked for use in case of emergency. A databased of such resources must be developed by SDMA in coordination with all stakeholders. The database must also be updated regularly, especially before the monsoon/ winter season.

Media Handling

Media can play vital role in disaster response/management. Therefore, well-organized arrangement should be made at all tiers for information sharing and periodic media briefs by appropriate spokesperson. Efforts must be made to provide timely updated and accurate information to media houses for dissemination. Delays in provision of information may lead to frustration, and misreporting by media house should be discourage at all levels. Good relations with the local media are also important and usually two-way benefits are involved. Not only do the local media benefit from good cooperation from the management authority, but they can also perform valuable services such as warning and public awareness. It is recognized that during



pressurized response operations, disaster management authorities may regard media information as having to take a low priority. However, this should be avoided.

Monitoring and Evaluation

During the execution of response to track the progress and facilitate the mid-course correction, effective monitoring is essential. Methodology for the monitoring of the response activities may be determined by the SDMA. Frequent interaction with non-government actors can be an effective measure to monitor their activities.

Post disaster evaluation is vital to determine the relevance and fulfillment of objectives. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned. The best practices adopted during the execution of response may also be recorded, analyzed and shared with all the concerned and implemented in future course of actions.

Adherence to Global Standards and Framework

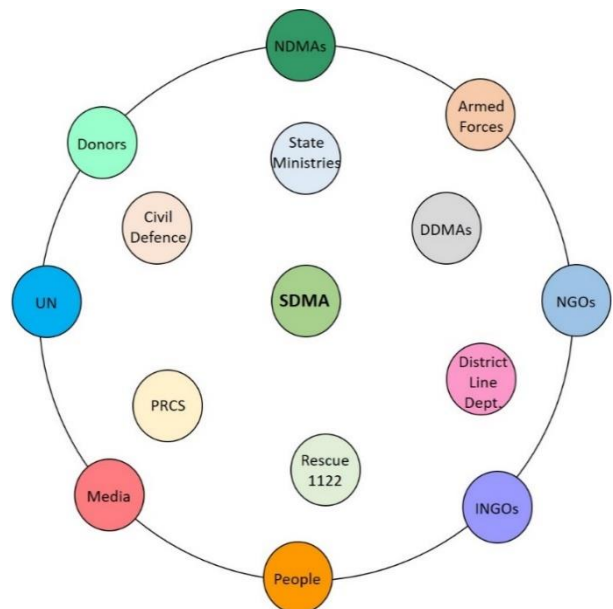
The relief programmes must ensure that most of the population has access to minimum life sustaining requirements: sufficient general food rations, adequate water, sanitation, and basic health care. This can only be ensured by following standards laid down either by the country or following the standards globally recognized. The principles of humanity, neutrality and impartiality must be ensured by use of Core Humanitarian Standards (CHS) and application of Do No Harm (DNH) principles.

The responders should also demonstrate their commitment to accountability to affected populations by ensuring feedback and accountability mechanisms are integrated into plans, programme proposals, monitoring and evaluations, recruitment, staff inductions, trainings and performance management and partnership agreements.

Coordination

Coordination is an important factor in the success of disaster management. A comprehensive mechanism should be put in place by SDMA to promote effective coordination during all the phases of response, involving all stakeholders. The SDMA/SEOC will have to take a central coordination role, with responsibility for overseeing the overall provision and distribution of relief, monitoring and streamlining operations. An information management system (SDMA website) may be established to promote coordination and effectiveness of relief operations. Latest situation, updates, relief data, important decisions and policy matters must be hosted on the website. In addition, regular media briefings on a daily or alternate day basis may be organized to ensure continual provision of updated information.

Effective coordination can further be ensured by having focal/liaison persons from all key ministries/department in SEOC. Regular



coordination meetings to provided strategic direction to relief efforts will also play an important role. Frequency of these meeting can be determine in consultation with all stakeholders, however a daily coordination meeting during the response phase is recommended. Stakeholders/key players are shown in the above diagram.

Epidemics/ Pandemic Management

Communicable diseases remain a major public health concern in Pakistan, and are a primary cause of mortality. Pakistan is at high risk of epidemics because of its over-crowded cities, unsafe drinking water, inadequate sanitation, poor socio-economic conditions, low health awareness and inadequate vaccine coverage. Outbreak of COVID19 during March 2020 has further exposed and aggravated issues related to public health emergency response. In Pakistan the provincial/state governments are responsible for preparedness and response to any health emergency in the respective areas with support from the federal government when needed. SDMA, therefore in consultation with relevant stakeholders should prepare for and respond to epidemics/ pandemics in order to reduce morbidity, mortality and disability due to infectious diseases. Though a comprehensive multi-sectoral plan aimed at ensuring prevention and mitigation of epidemic and pandemic is needed for coordinated preparedness and response.



Risk Matrix of AJ&K

District	Earthquake	Landslide	Avalanche	Flash Flood	Seasonal Flood	Cloud Burst	Wind Strom	Lightening	Drought	Epidemics	Forest Fire	LOC Firing	Road Accident	Drowning
Muzaffarabad	Extreme	Extreme	Nil	High	Extreme	Moderate	Moderate	Low	Moderate	Low	Moderate	Low	Moderate	Moderate
Neelum	High	Extreme	High	High	Low	Extreme	Low	Moderate	Moderate	High	Extreme	High	High	Moderate
Jhelum Valley	Extreme	Extreme	High	High	Extreme	Moderate	Moderate	Low	High	Low	Moderate	High	High	Moderate
Bagh	Extreme	Extreme	High	High	Extreme	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Low	High	Low
Haveli	High	Extreme	High	High	Extreme	High	Moderate	Low	Moderate	Low	Moderate	Extreme	High	Moderate
Poonch	Extreme	High	Low	High	Extreme	Moderate	Moderate	Low	Moderate	Low	Moderate	Extreme	High	Low
Sudhnoti	Extreme	Extreme	Nil	High	High	Moderate	Moderate	Low	Moderate	Low	Moderate	Nil	High	Low
Kotli	Extreme	Moderate	Nil	High	High	Moderate	Moderate	Low	Moderate	Low	High	Extreme	High	Moderate
Mirpur	High	Moderate	Nil	High	High	Low	Moderate	Moderate	High	Moderate	Nil	Nil	Moderate	Moderate
Bhimber	High	Moderate	Nil	Extreme	High	Low	Moderate	Moderate	Low	Low	Low	Extreme	Moderate	Low

Key	
Extreme	Extreme
High	High
Moderate	Moderate
Low	Low
Nil	Nil



Template - Situation Report

DAILY SITUATION REPORT NO - ---

(Period Covered: ----- – -----)

1. Area Affected (Last 24 Hours)

Ser	Area	Daily Incident
a.		
b.		
c.		

2. Cumulative Damages (-----)

a. Summary of Casualty - Injured/ Death

Area	Deaths				Injured			
	Male	Female	Children	Total	Male	Female	Children	Total

b. Summary of Damages of Infrastructure & Private Properties

Area	Road	Bridge	Shop	Hotels	Masjid	Houses		Power Houses
						PD	FD	
Total								

Note: PD: Partially Damaged, FD: Fully Damaged

Details of bridges is attached at **Annex A**.

3. Flood Relief Activities

a. Relief Camps Established.

b. Rescue Activities.

c. Aviation Activities.

d. Relief Activities. Following relief items has been provided (date):

Ser	Relief Items	Total
(1)	Tents	
(2)	Ration Packs	
(3)	Tarpaulin	



-
4. **Threat to Next Likely Areas.**
 5. **River Discharges.** Details of river discharges is attached as **Annex B.**
 6. **Weather Forecast for Next 24 Hours by PMD.**
 7. **Rainfall Last 24 Hours.** Attached as **Annex C.**
 8. **Weather Advisory / Press Release.** In response to PMD weather alert following alert issued:
-
 - a. -----
 - b. -----
 9. **Flood Warning / Alert.**

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- National Disaster Management Authority, Islamabad; National Policy Guidelines on Vulnerable Groups in Disaster, 2014



State Disaster Risk Management (DRM) Plan

http://sdma.pk/wp-content/uploads/2017/08/State-DRM-Plan_AJK_Revised.pdf

SDMA website

Information obtained from field visits/ online meetings

Information obtained from Regional Meteorological Department

The flagship regional platform of Asian Preparedness Partnership (APP), was founded by six countries of Asia including Pakistan for improving the preparedness and emergency response to disasters by strengthening the capacity of local humanitarian actors. The initiative is being implemented by Asian Disaster Preparedness Center (ADPC) with support from the Bill and Melinda Gates Foundation (BMGF).

In line with the regional initiative, Pakistan Resilience Partnership (PRP) was established in 2018, under the umbrella of NDMA. The objective of the PRP is to improve the interface and partnership between PRP partners namely government, local humanitarian organizations, private sector, media and academia for enhancing their capacities through partnerships, knowledge resources, training, and networking opportunities.

The Pakistan Resilience Partnership is contributing towards strengthening the disaster preparedness and emergency response capacity at national and local levels in disaster-prone areas within the country. The PRP strategy aims to develop the local humanitarian networks comprising of National Governments, Local Humanitarian Organizations, Private sector, media and academia, which will result in enhanced coordination and information exchange, during the period of emergencies caused due to disasters.



