

# District Disaster Management Plan (DDMP) - *Anantnag*



# DISTRICT DISASTER MANAGEMENT PLAN (DDMP) – Anantnag

[Attempt to make District Anantnag Disaster Resilient & Fully Prepared]

Edition 2020

**Prepared & Published by**

District Disaster Management Authority – Anantnag  
Jammu & Kashmir

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## **Preparation**

This document has been prepared & reviewed purely on the basis of information obtained from different authentic sources and the information received from concerned departments in the District.

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## **MESSAGE**

*(From the desk of Deputy Commissioner, Chairman DDMA -  
Anantnag)*

*I am happy to present reviewed and updated Disaster Management Plan for District Anantnag (Jammu & Kashmir) in the framed format of State Disaster Management Authority, UT of J&k. The aim of the plan is to make our district safer, adaptive and more disaster-resilient. It includes sophisticated measures that will be implemented for the short, medium and long term mitigation programs. The plan acts as a manual for disaster preparedness of the district and is prepared to guide all stakeholders of DDMA – Anantnag and the public in general at all levels of disaster preparedness and mitigation activities to respond to all kinds of disasters/calamities.*

*Although, the plan provides much clarity and a sound framework, still there is scope for improving and strengthening the mitigation measures, preparedness and effective response to the disasters. It is necessary for all the stakeholders and philanthropic and voluntary organizations and associations to implement the plan sincerely to make the district disaster-resilient.*

*From the first edition of DDMP, DDMA is strengthening its technical capabilities in every measure to reduce risks, prevent losses, prepare, respond, recover and monitor hazards. Since, the drafting of plan was not possible without the cooperation of line departments of the district, therefore, I appreciate the efforts put in by all stakeholders especially the sectoral officers as well as the officials of disaster management cell, who worked tirelessly to concretize the plans and coming up with a broad framework.*

Sd/-

**Kuldeep Krishan Sidha (KAS)**

**Additional Deputy Commissioner (CEO DDMA)  
Anantnag**



## **FOREWORD**

District Anantnag is prone to many disasters - flood, fire, hailstorms, earthquake, snow avalanches and cloudburst are the major disasters which pose consistent threat to the infrastructure and economic assets besides human lives. To curb the graph of losses, District Disaster Management Authority (DDMA) is working hand-in-hand with other stakeholders at every level to enhance the effectiveness of District Disaster Management Plan.

From the publication of first edition of District Disaster Management Plan (DDMP) in 2018, DDMA is working hard to review the plan for increasing its effectiveness to strengthen disaster mitigation measures. With the help of format of DDMP framed by National Disaster Management Authority (NDMA), DDMA has made an effort to fill the gaps with regard to the general layout of plan by introducing all the action plans of the district and utilizing the data lying with different line departments of district to provide help/guidance to all disaster management committees at all levels, planning officers, line departments and institutions for mainstreaming disaster risk reduction, preparedness and mitigation measures in planning and implementation of various on-going new projects.

In improving and enhancing the effectiveness of plan, this office welcomes any valuable insight, feedback and innovative suggestions from the general public, stakeholders and professionals from the relevant institutions.

**Sd/-**

***Gh. Hassan Sheikh (KAS)***

## **ACKNOWLEDGEMENTS**

The Preparation of District Disaster Management Plan(DDMP) - Anantnag is a mammoth exercise and is possible to accomplish only through the cooperation of all the stakeholders of DDMA that play the main role on disaster risk management in the district. The main departments that have helped in the preparation of DDMP include Fire and Emergency Services, JK Police, PWD (R&B), Jal Shakti, FCS&CA, Public Health (CMO and Red Cross), Chief Animal Husbandry, Fisheries, Municipal Communities, Education, ARTO and DFO. We gratefully acknowledge all of their support and their timely intimation of requisite data for updating of the plan.

The plan was drafted in the format prepared by State Disaster Management Authority (SDMA) of UT of Jammu and Kashmir while some valuable inputs were also considered from the National Institute of Disaster Management (NDMA) and some other State government DDMPs. It draws on a large number of documents, guidelines, manuals, SOPs and records from different organizations and institutes available on the internet. We acknowledge the contribution of the authors of all such reference documents.

The former DDMP prepared by former Head Quarter Assistant (HQA) to DC Anantnag with the collaboration of prisman, *Mr. Aasif Majeed Ganie* and former Disaster Management Professional, *Ms. Aymun Hilal Qadri* played a lead role to update, review and draft the present plan. In summary, the preparation of the DDMP for 2020-2021 exemplifies teamwork that spans across different line departments of the district Anantnag.

# ABBREVIATIONS

ACD	Assistant Commissioner Development
ASHA	Accredited Social Health Activist
ATI	Administrative Training Institute
ANC	Anti Natal Care
BDO	Block Development Officer
BIS	Bureau of Indian Standards
BOCA	Building Operations Controlling Authority
BPL	Below Poverty Line
BQ	Black Quarter
BRO	Border Roads Organization
CAPD	Consumer Affairs and Public Distribution
CBO	Community Based Organizations
CCPD	Chief Commissioner for Persons with Disabilities
CDMA	Code Division Multiple Access
CEO	Chief Executive Officer
CFC	Cooperative Finance Corporation
CHC	Community Health Centre
CLW	Community Level Workers
CME	Continuous Medical Education
CMO	Chief Medical Officer
COR	Revenue Commissioner / Commissioner of Relief
DCC	District Coordinator Committee
DCR	Development Control Regulations
DDMA	District Disaster Management Authority
DDMAP	Department of Disaster Mitigation and Prevention
DDMO	District Disaster Management Officer
DFO	District Forest Officer
DIETs	District Institutes of Education and Technology
DM	Disaster Management
DMHP	Disaster Mental Health Providers
DMS	Disaster Management Store
DMU	Disaster Management Unit
DRR	Disaster Risk Reduction
ECEW	Emergency Coordination & Early warning
EIA	Environmental Impact Assessment
EMSA	Emergency Medical Services Authority
EOC	Emergency Operations Centre
ERC	Emergency Response Centre
ESF	Emergency Support Function
ESR	Elevated Surface Reservoir
FIR	First Investigation Report
FMD	Foot and Mouth Disease
FPO	Forest Protection Officer
FPRM	Flood Probability Reduction Measures
FReM	Flood Resilience Measures
GIS	Geographical Information System
GLR	Ground Level Reservoir
GP's	Gram Panchayats
GPRS	Global Packet Radio Services
GPS	Global Positioning System
GSHAP	Global Siesmic Hazard Assessment Programme
GSI	Geological Survey of India
GSM	Global System for Mobile Communications
HFA	Hyogo Framework for Action
HFL	Highest Flood Level
HPC	High Power Committee
HRA	Hazard, Risk, Vulnerability Analysis
HSC	Hazard Safety Cells
HT	High Tension
IAP	Incident Action Plan
IASC	Inter-Agency Standing Committee

IAV	Indira Awas Yojana
IBHAS	Institute of Human Behaviour and Allied Sciences
ICDS	Integrated Child Development Scheme
ICP	Incident Command Posts
IDRN	International Disaster Response Network
IEC	Information, Education and Communication
IMD	India Meteorological Department
IMPA	Institute of Management, Public Administration and Rural Development
ISR	Incident Stress Response
ISRO	Indian Space Research Organization
ITBP	Indo-Tibetan Border Police
IWMP	Integrated Watershed Management Programme
JKPCC	Jammu and Kashmir Project Construction Corporation
KVK	Krishi Vigyan Kendra
LGBMH	Lokopriya Gopinath Bordoloi Regional Institute of Mental Health
LHZ	Landslide Hazard Zonation
LT	Low Tension
MARGS	Mutual Aid and Response Groups
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MHA	Ministry of Home Affairs
MHPSS	Mental Health and Psychosocial Support
MIS	Management Information System
MoU	Memorandum of Understanding
NCC	National Cadet Corps
NDMA	National Disaster Management Authority
NDRF	National Disaster Response Force
NEOC	National Emergency Operation Center
NGO	Non-Governmental Organization
NHRM	National Rural Health Management
NIDM	National Institute of Disaster Management
NIMHANS	National Institute of Mental Health and Neuro Sciences
NIRD	National Institute for Rural Development
NMEW	National Mission for Empowerment of Women
NMHP	National Mental Health Programme
NRDWP	National Rural Drinking Water Programme
NRHM	National Rural Health Mission
NRLM	National Rural Livelihoods Mission
NRSA	National Remote Sensing Agency
NSS	Network Security Services
NYKS	Nehru Yuva Kendra Sangathan
OAR	Organized Avalanche Response Team
PDA	Personal Digital Assistant
PDC	Power Development Corporation
PDNA	Post Disaster Needs Assessment
PFA	Psychosocial First Aid
PGIS	Participatory GIS
PHC	Primary Health Care
PHE	Public Health Engineering
PIO	Public Information Officer
PMRDF	Prime Minister Rural Develop Fellow
PRI	Panchayati Raj Institutions
PRO	Public Relation Officer
PSS	Psychosocial Support
PSSMH	Psychosocial Support and Mental Health
PSSMHS	Psycho-Social Support and Mental Health Services
PSU	Public Sector Undertaking
PWD (R&B)	Public Works Department (Roads and Building)
RGSV	Rashtriya Gram Swaraj Yojana
RKVY	Rasthriya Krishi Vikas Yojana
SAR	Search and Rescue
SASE	Snow and Avalanche Study Establishment
SCP	Special Component Plan
SDM	Sub-Divisional Magistrate
SDMA	State Disaster Management Authority
SDMC	School Disaster Management Centre

SDRF	State Disaster Response Force
SDRN	State Disaster Resource Network
SEC	State Executive Committee
SGRY	Sampoorn Grameen Rojgar Yojana
SGSY	Swaranjayanti Gram Swarozgar Yojana
SIA	Social Impact Assessment
SICOP	Small scale Industrial Development Corporation Limited
SIDCO	State Industrial Development Corporation
SIHFW	State Institutes of Health and Family Welfare
SMHA	State Mental Health Authority
SOP	Standard Operating Procedure
SP	Superintendent of Police
SPDC	State Power Development Corporation
SRC	Special Relief Commissioner
TFCR	Taskforce Control Room
TOT	Training of Trainers
UDD	Urban Development Department
UNICEF	United Nations International Children's Emergency Fund
UNISDR	United Nations International Strategy for Disaster Reduction
VHF	Very High Frequency
VIP	Very Important Person
VSAT	Very Small Aperture Terminal
WHO	World Health Organization
WINSOC	Wireless Sensor Network with Self Organization
WMD	Weapon of Mass Destruction



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**Note:**

Annexure/s to this DDMP has been compiled in a separate volume.

# PREFACE

*In recent years, the Government of Jammu & Kashmir has been giving an increased focus towards the Disaster Management and related aspects all due to the fact that J&K State in general and Kashmir Division, in particular, is geographically vulnerable to multiple natural hazards like floods, earthquake, landslides, drought, windstorm, snow avalanches, etc. resulting in loss of lives, damage to the property, infrastructure and public utilities. The State has already witnessed various disasters like Valtengoo Snow Avalanche (February 2005), earthquake (2005), flashfloods in Leh (2010), and massive floods in the Valley (September 2014).*

*District Anantnag is no exception to this and has too witnessed various disasters during the course of history. However, the resilience shown by the District in tiding over the periods of disaster has always remained impeccable. During 2014 deluge, District Authorities in collaboration with NGOs, Mass Social Organizations and volunteers have not only responded to the disaster with unparalleled bravery but have expeditiously responded and recovered from such an unprecedented deluge within the shortest possible time. The socio-economic activities have again been restarted; the shelter and livelihood of tens and thousands of affectees' have been restored. This not only shows the valor and managerial skills of the District Administration but depicts the resilient nature and will-power of the common masses.*

*While preparing a Disaster Management Plan for Anantnag District, the data collected at various levels was collated and on top of that was added to the Line Department data.*

*In order to address the root cause of vulnerability to natural disasters, District Administration is in the process of shifting its government policies towards proactive preparedness, mitigation and prevention. This highlights the links between disaster management and development, calling for a cross-sectoral approach to identify the bottlenecks to risk reduction. District Disaster Management Plan is being developed with a dual top-down and bottom-up approach, tapping the existing institutional capacity required for coordinated action, in response to community-based voicing of the most pressing needs. Efforts must mobilize a variety of actors – Government, private sector, and civil society – to complement each other with their respective expertise, while allocating specific and binding responsibilities to overcome difficulties of collective action.*

*We have tried to include the District related information, preparedness against risks, responses at the time of disasters as well as Disaster Management and strategy during the disaster. This Plan will be updated periodically, and also we will improve it through continuous feedback from all the Stakeholders and new lessons learnt from the past and present.*

*We hope that this document will go a long way in helping the District Administration in tackling the disaster situations in a systematic, tandem and smooth manner.*

# CHAPTER - 1

## “INTRODUCTION”

Disaster Management (DM) Act 2005 in Section 31 mandates that there shall be a District Disaster Management Plan (DDMP) for each district. The proposed DDMP complies with the National Disaster Management Plan (NDMP) of 2016, State Disaster Management Plan (SDMP) 2012 and conforms to the provisions of the DM Act 2005 making it mandatory for the Government of India and various central ministries to have adequate DM plans. While the district plan will pertain to the disaster management for the whole of the district, the hazard specific nodal ministries and departments notified by the Government of India and State Government will prepare detailed DM plans specific to the disaster assigned. As per Section 32 of the DM Act, every office of the Government of India and of the State Government at the district level and the local authorities shall prepare comprehensive DM plans detailing how each of them will contribute to the national efforts in the domains of disaster prevention, mitigation of risks, preparedness, response, and recovery.

A District-level Disaster Management Plan (DDMP) is a long desired document to have a safe, adaptive and disaster-resilient District for sustainable development. DDMP-Anantnag is a comprehensive document that covers the entire range of disaster management and Disaster Risk Reduction activities in the District Anantnag. As a result of this mandate, this document covers the range of policies and actions that must be undertaken by the District Administration, in consultation with the Line Departments, for addressing disasters in a comprehensive and holistic way in the District.

The efficacy of Disaster Management Plan depends entirely on the extent to which various elements of the Plan can be made operational or brought to the level of active implementation.

The DDMP envisages the accurate assessment of risk and vulnerability to disasters in the District. A significant thematic component will be the mainstreaming of disaster management concerns in development plans/projects/ and programmes. The plan proposes to achieve its stated goals by enhancing capacities and designing preparedness measures that are rooted in socio-cultural, economic, ecological and technological determinants of risks and uncertainties, which affect diverse populations of the District. This plan outlines strategies for proper coordination and allocation of roles and responsibilities of each Government Department and other stakeholders involved. The plan also has provisions of reviewing and updating plan annually.

## **1.1 Aims and Objectives of the DDMP**

### **1.1.1 AIMS OF THE DDMP**

The District Disaster Management Plan (DDMP) is the guide for achieving the objective related to disaster mitigation, preparedness, response and recovery. This Plan will help in disaster response in a planned way to minimize human, property and environmental losses.

The overall aim of this plan is to facilitate actions by different stakeholders to prevent / mitigate disaster, climate risk, to enhance preparedness and to develop capacities for effective disaster management in the district. It further seeks to identify



and clarify the roles and responsibilities of the internal and external stakeholders throughout the entire cycle of disaster management i.e. pre-disaster, during disaster and post disaster management phases.

### **1.1.2 OBJECTIVES OF THE DDMP**

The specific objectives of the DDMP are:

1. To minimize the sufferings of the vulnerable population and the loss of property/infrastructure in the District due to disasters.
2. To achieve maximum efficiency in reducing vulnerability of people to disasters in the District.
3. To identify and map disaster risk,
4. To strengthen institutional arrangements in the district by identifying roles and responsibilities of different stakeholders,
5. To facilitate enhanced level of preparedness of different stakeholders and develop their capacities, preparation and implementation of action plan for disaster risk mitigation, strengthen mechanism for early warning, response & relief, guide rehabilitation & recovery and facilitate mechanism for monitoring, evaluation, revision and updation.
6. To clarify Authority, Responsibility and Relationships as to who is responsible for ensuring that the work gets done, distributing and decision making authority among the team members and the existing organizational units, and establishing formal lines of communication.
7. To facilitate mobilization of resources, funds, personnel, supplies and equipment necessary for doing the required activities.
8. To establish communication and information management system,
9. To nurture and establish efficient disaster response/relief mechanisms in the District.
10. To facilitate Monitoring, Evaluation and updation of the plan from time to time.
11. To promote a culture of disaster resilience in the District.
12. To mainstream disaster risk reduction as an integrated component of development planning in the District.

## **1.2 Authority for DDMP: DM Act 2005**

As per provisions in Chapter-IV of the DM Act, each State Government shall establish a District Disaster Management Authority for every district in the State with such name as may be specified in that notification. The DDMA will be headed by the District Collector, Deputy Commissioner or District Magistrate as the case may be, with the elected representative of the local authority as the Co-Chairperson. The State Government shall appoint an officer not below the rank of Additional Collector or Additional District Magistrate or Additional Deputy Commissioner as the case may be of the district to be the Chief Executive Officer of the District Authority. The DDMA will act as the planning, coordinating and implementing body for DM at the District level and take all necessary measures for the purposes of DM in accordance with the guidelines laid down by the NDMA and SDMA. It will prepare the DM plan for the District and monitor the implementation of the all relevant national, state, and district policies and plans.

The DDMA will also ensure that the guidelines for prevention, mitigation, preparedness and response measures laid down by the NDMA and the SDMA are followed by all the district-level officers of the various departments of the State Government. Moreover, the "District Plan" means the plan for disaster management for the

district prepared under section 31. There shall be a plan for disaster management for every district of the State. It shall be prepared by the District Authority after consultation with the local authorities and having regard to the National Plan and the State Plan to be approved by the State Authority. Every office of the Government of India and of the State Government at the district level and the local authorities shall be subject to the supervision of the District Authority.

The District Authority shall review from time to time the implementation of the Plan and issue such instructions to different departments of the Government in the district as it may deem necessary for the implementation thereof and will regularly review and update the plans. Meanwhile, the copies of the District Plan shall be made available to the concerned Departments of the Government in the district.

### 1.3 Evolution of the Plan in brief

Preparation of the District Disaster Management Plan is the responsibility of the District Disaster Management Authority (DDMA). The first draft plan is to be discussed in the DDMA. The main steps involved in the development of this plan are:

1. Training to develop the DDMP as per NDMA template by State and United Nations Development Programme (UNDP) officials.
2. Data collection from all the line departments.
3. Data analysis.
4. Discussion with experts.
5. Reference of national and international literature.
6. Preparation of action plans for all line departments.
7. Preparation of draft plan document.
8. Mock drill to check the viability and feasibility of the implementation methodology.
9. Wide circulation for public and departmental comments.
10. Preparation of the final plan document.

### 1.4 Stakeholders and their responsibilities

DDMA Anantnag may consult following stakeholders for development of the District Disaster Management Plan and their responsibilities in detail are given in the table 1.

*Table 1: List of Stakeholders and their Responsibilities*

S.No.	Stakeholders	Responsibilities
1.	District Disaster Management Authority (DDMA) - Anantnag	2. Updation and implementation of DDMP. 3. To conduct meetings on disaster management. 4. Building capacity by training and awareness through IEC material development and distribution. 5. Managing all the resources at district level in consultation with their respective State level directorates/offices. 6. Coordinating with stakeholders and liaising with the district as well as state offices. 7. Enable local authorities to establish contact with the state authorities and other departments. 8. Coordinate planning procedures between district, state/UT and the center. 9. Provide ready formats for all formal reporting procedures as a standby.

		<ol style="list-style-type: none"> <li>10. Coordination with the National Disaster Management Authority (NDMA).</li> <li>11. Coordinating Disaster Risk Reduction (DRR) activities and implementation thereof.</li> <li>12. Facilitating resources on demand rise by administration.</li> <li>13. Enhancement of capacity building and training at state and district level.</li> </ol>
<b>2.</b>	District Emergency Operation Centre (DEOC) - Anantnag	<ol style="list-style-type: none"> <li>1. Receive and process disaster alerts and warnings from nodal agencies and Early Warning System (EWS) providers.</li> <li>2. Corresponding with the State Emergency Operation Center (SEOC) for information sharing so that the decision makers at the state level are well aware of the situation and help in further resource mobilization.</li> <li>3. Other sources communicate the same to all designated authorities.</li> <li>4. Monitor emergency operations.</li> <li>5. Facilitate coordination among primary and secondary Emergency Support Functionaries (ESF)/ Departments/ Agencies.</li> <li>6. Requisitioning additional resources during the disaster phase.</li> <li>7. Issuing disaster/incident specific information and instructions specific to all concerned.</li> <li>8. Consolidation, analysis and dissemination of damage, loss and needs assessment data.</li> <li>9. Forwarding of consolidated reports to all designated authorities.</li> </ol>
<b>3.</b>	State Disaster Response Force (SDRF)	<ol style="list-style-type: none"> <li>1. In case of any disorder their services are utilized to maintain law and order.</li> <li>2. The force is well trained in Rescue/First Aid /fire fighting etc in order to deliver the same at the exigencies.</li> <li>3. Their services are used during any type of exigency whether natural or human induced.</li> <li>4. The damage caused by any disaster in life or property is to be quickly reported by them to the higher authorities.</li> <li>5. Carrying out search and rescue on requisition by District as well as state administration.</li> <li>6. Strengthening the response mechanism through training and awareness in the district.</li> <li>7. Coordinate with administration in response as well as capacity building.</li> <li>8. Facilitate administration with the key resources in disaster.</li> </ol>
<b>4.</b>	Fire & Emergency Services	<ol style="list-style-type: none"> <li>1. Provide human and material resources needed to support local evacuation, search and rescue efforts.</li> </ol>

		<ol style="list-style-type: none"> <li>2. To strengthen community response through training and awareness camps.</li> <li>3. To train first responders at village / Panchayat level in firefighting.</li> <li>4. To mitigate the fire risk by auditing, inspection and fighting fire disaster.</li> </ol>
<b>5.</b>	JK Police	<ol style="list-style-type: none"> <li>1. Assure the execution of all laws and maintenance of order in the area affected by the incident</li> </ol>
<b>6.</b>	Public Works Department (R&B)	<ol style="list-style-type: none"> <li>1. Provide materials and supplies to ensure temporary shelter for disaster-affected populations.</li> <li>2. Provide the personnel and resources needed to support local efforts to reestablish normally operating infrastructure.</li> <li>3. Collection and analysis of data on the impact of disaster, develop estimates of resources needed and relief plans, and compiling reports on the disaster as required for District and State authorities and other parties as appropriate.</li> <li>4. Emergency clearing of debris to enable reconnaissance and clearing of roads;</li> <li>5. Construct temporary roads, keep national and other main highways clear from disaster effects such as debris etc.</li> <li>6. Coordination with private services providers for supply of earth moving equipment etc.</li> </ol>
<b>7.</b>	Hydraulics Department	<ol style="list-style-type: none"> <li>1. Assure the provision of sufficient portable water for human and animal consumption (priority), and water for industrial and agricultural uses as appropriate</li> </ol>
<b>8.</b>	Food, Civil Supplies & Consumer Affairs Department	<ol style="list-style-type: none"> <li>1. Assure the provision of basic food and other relief needs in the affected communities.</li> <li>2. Ensure the timely distribution of food and clothing to the people;</li> <li>3. Ensure that all food that is distributed is fit for human consumption as per minimum standards of relief.</li> </ol>
<b>9.</b>	Power Development Department	<ol style="list-style-type: none"> <li>1. Provide the resources to reestablish normal power supplies and systems in affected communities.</li> <li>2. Identify requirements of external equipment required such as DG sets, generators etc.</li> </ol>
<b>10.</b>	Public Health (CMO, Red Cross Society)	<ol style="list-style-type: none"> <li>1. Provide personnel and resources to address pressing public health problems and re-establish normal health care systems.</li> <li>2. Collection and analysis of data on the impact of disaster, develop estimates of resources needed and relief plans, and compiling reports on the disaster as required for District and State authorities and other parties as appropriate.</li> <li>3. To prepare, keep and check ready Mobile Hospitals,</li> </ol>



		<p>stocks of equipment and drugs;</p> <ol style="list-style-type: none"> <li>4. To network with private health service providers;</li> <li>5. To provide ready ambulances and transform other vehicles into ambulances to meet the transportation requirement at mass level.</li> <li>6. To provide improvised as well as ready medical resources.</li> <li>7. To provide resources for mass level water decontamination.</li> </ol>
<b>11.</b>	Chief Animal Husbandry & District Sheep Husbandry Officer	<ol style="list-style-type: none"> <li>1. Provision of health and other care to animals affected by a disaster.</li> <li>2. Collection and analysis of data on the impact of disaster, develop estimates of resources needed and relief plans, and compiling reports on the disaster as required for District and State authorities and other parties as appropriate.</li> </ol>
<b>12.</b>	ARTO Office	<ol style="list-style-type: none"> <li>1. Provide Air, water and Land transport for evacuation and for the storage and delivery of relief supplies in coordination with other Task Forces and competent authorities</li> <li>2. Providing drivers and other skilled manpower for repair and maintenance.</li> </ol>
<b>13.</b>	Chief Agricultural Officer	<ol style="list-style-type: none"> <li>1. Collection and analysis of data on the impact of disaster, develop estimates of resources needed and relief plans, and compiling reports on the disaster as required for District and State authorities and other parties as appropriate.</li> </ol>
<b>14.</b>	District Forest Officer	<ol style="list-style-type: none"> <li>1. Collection and analysis of data on the impact of disaster, develop estimates of resources needed and relief plans, and compiling reports on the disaster as required for District and State authorities and other parties as appropriate.</li> <li>2. Removal of fallen trees and afforestation or shifting of trees.</li> <li>3. Ensuring the mainstreaming of DRR ensured by the development of the roads.</li> <li>4. To provide fuel wood for the relief camps and public;</li> <li>5. Have adequate storage of fuel wood and make arrangement for distribution thereof;</li> </ol>
<b>15.</b>	Media, information and communication (Department of Public Relations office, Office of the District Informatics Officer	<ol style="list-style-type: none"> <li>1. Coordinate and assure operation of all communication systems (e.g; Radio, TV, Telephones, Wireless) required to support early warning or post disaster operations.</li> <li>2. To provide and collect reliable information on the status of the disaster and disaster victims for effective coordination.</li> <li>3. To disseminate the updates and directions to the public through radio broadcasting.</li> <li>4. Respect the socio-cultural and emotional state of the disaster victims while collecting information for</li> </ol>

		dissemination.
16.	District Information Officer	1. Provide liaison with and assistance to print and electronic media on early warning and post-disaster reporting concerning the disaster
17.	Municipal Committees	1. Land usage & promotion of Disaster Resilient housing 2. Solid/ liquid waste treatment and management. 3. Make arrangement for proper disposal of waste in their respective areas; 4. Arrange adequate material and manpower to maintain cleanliness and hygiene
18.	Education Department	1. Building capacity at school/college level through various competitions and awareness campaigns. 2. Safe keeping of infrastructure of schools converted into shelters. 3. To train the volunteers through NCC/ NYKS/ NSS etc. in Firefighting, First aid and other disciplinary & volunteering.

**Note\***

It is pertinent to mention here that the establishment of DEOC of district Anantnag is in the pipeline of DDMA-Anantnag. There is a temporary warehouse of DEOC constituted in Hydraulics building at Sarnal, Anantnag. All the operations and responsibilities of DEOC are conceded currently by the Disaster Management Cell (DMC)-Anantnag that operates under the supervision of CEO DDMA & Chairman of DDMA. Meanwhile, DMC carries all the ground level tasks of DDMA.

### **1.5 Approval Mechanism of the Plan & Authority for implementation thereof**

The DM Act 2005 enjoins central and state governments to make provisions for the implementation of the disaster management plans. The DM Act states that every Ministry or Department of the Government of India shall make provisions in its annual budget for funds for the purposes of carrying out the activities and programmes set out in its disaster management plan. The Chapters V and VI of the DM Act spell out the responsibilities of the central, state and local governments with respect to disaster management. The Act mandates that every Ministry and Department of the Government of India and every state must prepare a DDMP in accordance with the NDMP. Annually, respective DM authorities must review and update their DM plans.

Nevertheless, both central and state governments have already made considerable progress and they are expected to make sincere efforts for the implementation of the DM plans. The NDMA has prepared and published hazard-specific guidelines covering various aspects of disaster management and including a separate one for response.

### **1.6 DDMP review and updation: Periodicity**

Periodicity Plan is reviewed every six months and updated every year before onset of monsoon i.e. in the month of May. Following activities have been involved during DDMP review and updation.

- After developing a plan, it must be disseminated and managers must be required to train their personnel so that they have the knowledge, skills and abilities needed to perform the tasks identified in the plan. Personnel should also be trained on the organization of specific procedures necessary to support those planned tasks.
- Evaluating the effectiveness of a plan which involves a combination of training events, exercises and real-world incidents to determine whether the goals, objectives, decisions, actions and timing outlined in the plan lead to a successful response. The purpose of an exercise is to promote preparedness by testing policies, plans and training personnel.
- Planning teams should establish a process for reviewing and revising the plan. Reviews should be a recurring activity. Review on an annual basis is considered minimum.

## CHAPTER - 2

### “HAZARD, VULNERABILITY, CAPACITY AND RISK ASSESSMENT”

#### 2.1 District Profile

District Anantnag is the oldest District of J&K State. In fact, District Anantnag was only District in South Kashmir prior to creation of three new Districts viz; Pulwama in 1979, Kulgam & Shopian in 2007 from it. District Anantnag is popularly known as 'The Land of Springs, Shrines & Tourist Resorts'. The District shares its boundaries with Pulwama in the North, Kishtwar in the South and Kulgam in the West. The total geographical area of the District is 2917 sq. km and the administrative center of the District is situated at Anantnag about 55 km from Srinagar, the Summer-Capital of the State. District Anantnag is famous for Tourist destinations and has three Tourism Development Authorities viz. Pahalgam, Kokernag & Verinag. The major tourist attractions in the District are Pahalgam, Verinag, Achabal, Daksum & Kokernag.

Table 2.1: District Profile-Anantnag

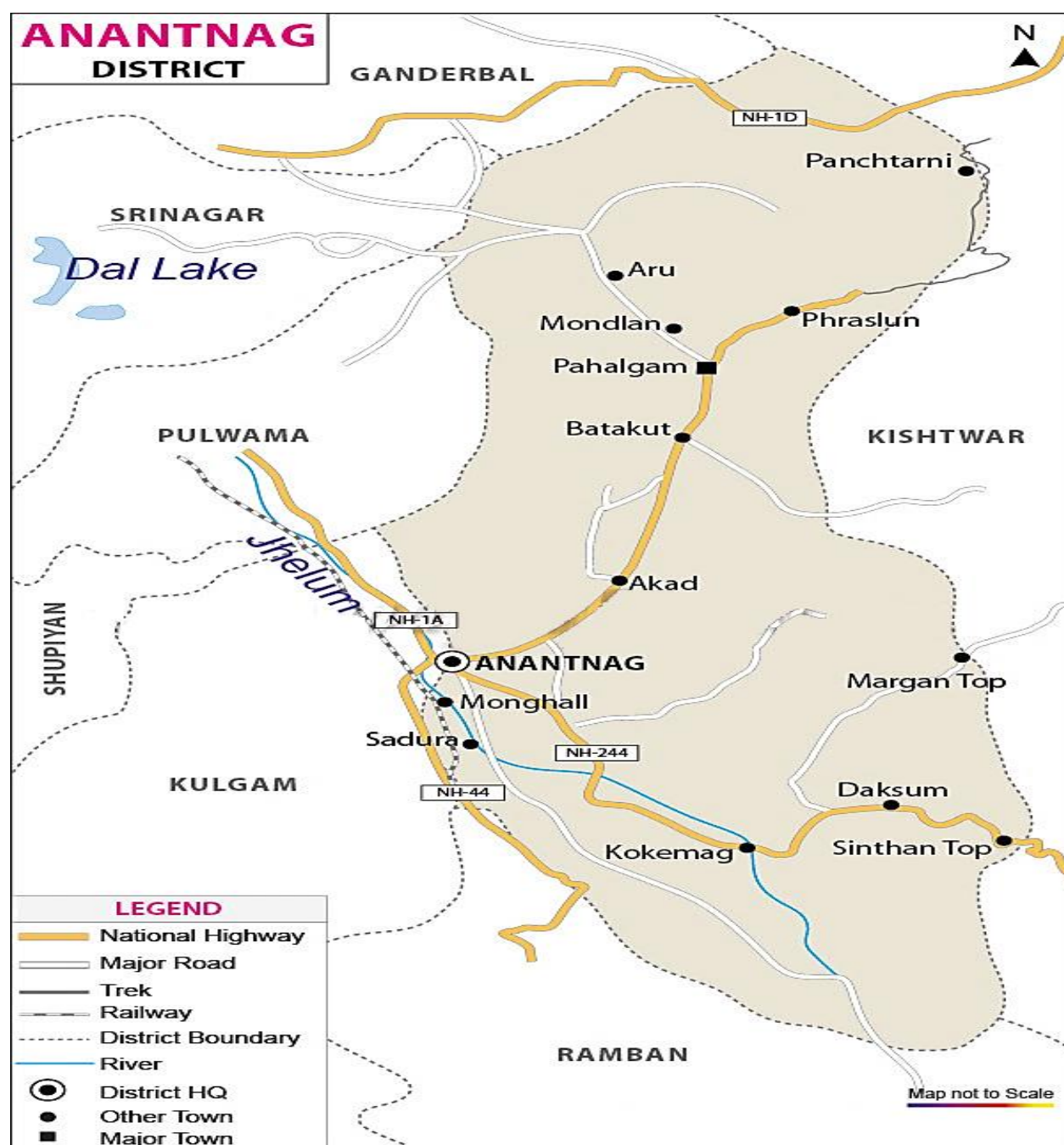
S. No.	Description	Unit	Magnitude
1.	Geographical Area	Sq. Km	2917
2.	Sub-Division	No.	04
3.	Tehsil	No.	12
4.	Block	No.	16
5.	Village	No.	395
6.	Panchayat	No.	303
7.	Municipal Council	No.	01
8.	Municipal Committee	No.	09
9.	Population	Lac persons	10.79 (Census 2011)
10.	Schedule Tribe Population	Lac persons	1.08 (Census 2011)
11	Households	Lac persons	1.54 as per SECC 2011

The District consists of 395 Villages, 01 Municipal Council and 09 Municipal Committees. There are 04 Sub-Divisions viz; Bijbehara, Doru, Kokernag & Pahalgam and 12 Tehsils viz. Anantnag, Bijbehara, Dooru, Shangus, Kokernag Pahalgam, Sallar, Srigufwara, Anantnag East (Mattan), Shahbad Bala, Larnoo & Qazigund which have further been sub divided into 36 Nayabats (Land Revenue Circles) and 99 Patwar Halqas. There are 16 Community Development Blocks viz; Achabal, Anantnag, Bijbehara, Breng, Chittergul, Dachnipora, Hiller, Khoveripora, Larnoo, Pahalgam, Qazigund, Sagam, Shahabad, Shangus, Verinag & Vessu, comprising of 303 Panchayat Halqas. For law & order purposes there are 09 Police Stations and 06 Police Posts in the District. Moreover, one Women's Police Station has recently been established in the District. The Map of District Anantnag indicating its district & state boundaries, important places & headquarters and roads are shown in Figure 2.1.

#### 2.2 Socio-Demographic Contexts of the District

Anantnag district has witnessed various disasters during the course of history. However, the resilience shown by the district in tiding over the periods of disaster has always remained impeccable. During the 2014 deluge, District Authorities in collaboration with NGOs, Mass Social Organizations and volunteers have not only responded to the

disaster with unparalleled bravery but have expeditiously responded and recovered from such an unprecedented deluge within the shortest possible time. The socio-economic activities



**Figure 2.1: Map of District Anantnag indicating general required information**

have again been restarted, the shelter & livelihood of tens and thousands of affectees' have been restored. This not only shows the valor and managerial skills of the district administration but depicts the resilient nature and will power of the common masses.

Reasons for the losses, if any, are attributed to insufficient public awareness, lack or inadequacy in preparedness, lack of early warning system, lack of coordination among inter-government agencies, inadequate financial resources, low quality of human resource in terms of skill in mitigation of natural disasters, and ineffective dissemination of knowledge and skills to the vulnerable population groups.

Table 2.2: Hazard Probability in District Anantnag

S. No	Hazard	Probability of Occurrence	Areas Affected
1.	Earthquakes	Anytime (Seismic Zone IV & V)	Whole District
2.	Flash Floods	Autumn mainly(September)	Whole district
3.	Snow Avalanches, Snow Storm	Winter mainly	Mountainous Areas
4.	Cloudburst	Autumn(September)	Mountainous Areas
5.	Windstorm	Autumn/Spring	Whole district
6.	Hailstorm	Spring(March-May)	Whole District
7.	Landslides	Summer/Autumn	Mountainous Areas
8.	Lightning	Anytime	Plain Areas(Agri.)
9.	Drought	Constant Dry Spell	Low Lying Areas(Agricultural/Horticulture land)
10.	Fire	Anytime	Urban Areas(Congestion)
11.	Forest Fires	Autumn	Mountainous Areas
12.	Tourism/Crowd Management/Stamper	Whole Year(peak at summer)	Tourism spots/Religious places
13.	Biological Hazards	Anytime	Whole District
14.	Mines	Anytime	Mine areas
15.	Drowning	Spring-Summer	Areas along river peripheries
16.	Railway Accidents	Anytime	Along Railway Line
17.	Road Accidents	Anytime	Whole District

**Matrix of past disasters in the District:**

Anantnag has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, Drought, Landslides and Earthquake have been recurrent phenomena. Accordingly, the matrix of past disasters in the District is tabulated below. The threat (risk) and possible impact (vulnerability) which can be actualized from these hazards ranges from minor impacts affecting one village to events impacting larger areas.

Table 2.3: Analysis of Hazard, Risk and Disaster Impact

S. No	Tehsil	Affected area/village	Type of Disaster	Month / Year	Intensity/ Impact
1.	Pahalgam	Pahalgam, Laripora, Amadwagad, Karshangam	Flood	1992	Severe
		Amadwagad, Karshangam	Flood	1996	Moderate
		Amadwagad, Karshangam	Flood	2014	Moderate
		Hardu Khichro, Khayar, Hangalpaho, Laroo, Aamud Wagud, Nowgam, Grendush, Adoo	Earthquake	Oct-2015	Moderate
		Aru	Cloudburst	May 2017 & Dec-2015	.....



		Aru	Snow Avalanche	Nov-2019	Moderate
		Nallah Lidder	Drowning	May 2019	.....
<b>2.</b>	<b>Kokernag</b>	Develgam, Hiller Arhama, Adhall, Gadool Ahlan, Adigam, Nagam, Sagam, Halpora, LoherSenzi, NallahSundbrari, Keherpora, Panzgam, Kandiwarian, Takiya Ahmad Shah partly	Flood	2014	High
		Develgam	Fire	2008	High
		Adigam	Fire	2017	Moderate
		Sagam, Divalgam, Kahoopora, Bindoo, Zalangam, Adigam, Choulgam, Shalnad, Hilad, Arhama, Mehripora, Hardpora, Akingam	Earthquake	Oct-2015	Moderate
		Chondbal, Redwani, Pendobal, Harkhan, Chearward, Lehanwan, Hergai	Cloudburst	Aug-2019	.....
<b>3.</b>	<b>Srigufwara</b>	Sakras, Trail, PethNambal	Flood	2014	Severe
		Srigufwara, Viddy, Hatigam, Darigund & Nowshera	Hailstorm	2015	Severe
		Khiram	Forest Fire	2016	Severe
<b>4.</b>	<b>Anantnag</b>	Qasba Baghat, Azadpora, Chee, Khanabal, Seepin, Mirgund, Pushwara, Hanji Danter, LB Shah, Muniwar, Mir Danter, Ruhoo, Beng Nowgam, Laram Ganjipora, K.G Rana, Tarku Tachloo, Shamsipora, Sursoona, Shoul Wanpora, Uranhall, Kanjigund, Batengoo, Sofigund, Bagagund, Lalipora, Malipora, Zodder, Furrar, Bumthan, Neepora, Chirhama, Nowathoo, Donipawa, Ashajipora, Bona Dilagam, Peth Dialgam, Kamaad, Chichpora. Gund Fatehpore, Fatahpore, Monghall, Ganoora, Sahababad, Thajiwara, Magraypora, Traphoo, Jogigund, Sundsooma, Khandoora, Isso, Audsoo, Tailwani, Shehlipora, Kanganhall, Ulbugnowgam, Brakpora, Karewa Brakpora, Nanwani, Waterigam, Waniharna, Kadpora, Brenti Batapora, Palpora, Hardu Schicheri.	Flood	Sep-2014	High

		Brakpora, Karewa Brakpora, Nanwani, Donipawa, Ashajipora, Monghall, Utresso Nijigund, Ruhu, Bona Dialgam, Kamad, Wanihama, Watrigam, Ganoora, Lalan, Bumthan	Hail Storm	May-2016	High
<b>5.</b>	<b>Dooru</b>	Lokbawan Larkipora / Doru	Floods	Sep-2014	Partly
		Shankerpora / Doru	Floods	Sep-2014	Partly
		Nowpora / Doru	Floods	Sep-2014	Partly
		Hardu Dehruna / Doru	Floods	Sep-2014	Partly
<b>6.</b>	<b>Larnoo</b>	Larnoo, Iqbalabad, Bidihard villages of Tehsil Larnoo	Flood	Sep-2014	
<b>7.</b>	<b>Shangus</b>	Ranipor- A-Circle (1427 Kanals)	Drought	May-2011	Severe
		Dardpora to Chittergull & Chittergul to Krad (35 Kanals 12 Marlas)	Flood	2014	Medium-35%
		Uttersoo, Chaklipora, Shairgund, Krad, Rakh-i-Brah (269 Kanals)	Hailstorm	April-2014	Medium-60%
		11 villages	Windstorm	May-2012	Medium-40%
		Thimran	Cloudburst	May-2012	Nil
		Thimran	Avalanches	March-2012	Nil
		Rakhi Brah	Cloudburst	May 2016	.....
		Uttersoo, Bariangan	Cloudburst	May 2018	.....
		Bajpathinard, Tannal Top, Gafar Baste, Omoh and Bangund	Cloudburst	April 2017 2018	.....
		Chittergul Pati, Matipora	Cloudburst	.....	.....
		Gawran, Brisnoo, Naikbal, Brison, Oh Paisan, Paisan, Naikbal, Khull, Halkha, Mahdaar, Methmooh, Kreeri, Gajhard, Cheerpore, Pathribal, Gujhal, thimran, Dardpora	Cloudburst	Aug-2019	.....
<b>8.</b>	<b>Shahabad Bala</b>	Hengipora, Ringmundu, Chowhan, Kapran, Gawas, Hergawas, Halsidar, Qammer, Thaman-Koot, Rein Chowgund, Nowgam, Bonagund Verinag, Omoh, Poolia Chinigund	Floods	Sep-2014	High
		Hergawas, Hengipora, Ringmundum Halsidar, Kapran, Thaman-Koot, Rein Chowgund.	Earthquake	Oct-2005	Medium
		Verinag, Ommoh, Nowgam, Rain – Chowgund, Thaman Koot,	Earthquake	Oct-2015	Moderate

		Kapran, Hangipora, Chohan, Ringmandoo, Hargawas, Kurigam			
		Rein Chowgund	Cloudburst	June 2018	.....
9.	<b>Mattan</b>	Nanil, Kungsoo, Nowbugh, Mattipora Rakh Chee, Akoora, Nanil Aang, Shamsipora, Panchpora, Gupalpoora Kalan, Gupalpora Khurud, Seer Hamdan	Earthquake	Oct-2015	Moderate
10.	<b>Sallar</b>	Walarhama, Nahum Dajan, Badroo, Kular, Salar Sheikpora, Salar, Salar-Gradbal, Hardwaqtal Sofipora, Lahan Dajan	Earthquake	Oct-2015	Moderate
11.	<b>Bijbehara</b>	Buvrah, Bijbehara, Zirpora, Pazalpora, Semthan, Panchpora, Marhama, Sether Satgar, Waghama, Adar, Gund Nasir, Shalgam, katoor, Dupatyar, Arwani, Bewoora	Earthquake	Oct-2015	Moderate
		Gundchahal	Snow Avalanche	Nov-2019	Moderate
12.	<b>Qazigund</b>	Nasoo Badragund, Sangran Devsar, Vessu, Aherwat Damjan, Kashgund, Nagras, Yoer-khosipora, Kuchpora, Yoer-khosipora, Srundso Shampora, Baagipora	Earthquake	Oct-2015	Moderate

## 2.3 Hazard Risk Vulnerability Assessment (HVCRA)

Table 2.4 summarizes the results of an analysis of hazard, risk and disaster impact in Anantnag District. This analysis indicates that disaster planning at the district level should first focus on the functional response to the Floods and Earthquake. Typical responses to these disaster events can also apply to cloudbursts, landslides, fire, hailstorm, industrial accidents, failure of critical infrastructure and building collapse.

Table 2.4: Hazard Risk Vulnerability Assessment

S. No	Place of Incidence		Hazard Type	Year of Incidence	Area Affected				Total Area Affected	No. of Deaths		Total Deaths
	Tehsil	Village			Agri.		Horti.			M	F	
					K	M	K	M				
	Pah	Aru	Cloudburst	2015	-	-	-	-	-	01	03	4
		Hassan Noor	Hailstorm	2016	473	-	184	-	657 K	-	-	-

1		Aru	Cloudburst	May 2017	-	-	-	-	-	1	-	1
		Aru	Cloudburst	July 2015	-	-	-	-	-	1	-	1
		Aru	Snow Avalanche	Feb. 2019	-	-	-	-	-	3	-	3
		Nallah Liidder	Drowning	May 2019	-	-	-	-	-	1	-	1
2	Kokernag	Develgam, Hiller Arhama, Adhall, GadoolAhlan, Adigam, Nagam, Sagam, Halpora, LoherSenzi, Nallah Sundbrari, Keherpora, Panzgam, Kandiwarian, Takiya Ahmad Shah partly,	Flood	2014	500	0	200	0	700 K	1	0	1
		Develgam	Fire	2008	-	-	-	-	-	3	0	3
		Gawran, Chondbal, Redwani, Pendobal, Harkhan Bridge, Chearward, Lehanwan, Hergai	Cloudburst	Aug-2019	<b>Water Supply Scheme Affected</b> Gowran, Shetroo, Guridraman, Hallan, Chundbal, Palpora, Mathandoo, Narsangri Kachwan, Nilphan, Nayamat POra Drawaya, Noubough, Gowran Gojjar Basti, Redwani, Daksun Wangam, Daksun GB, Drangwan Dadkul, I/R Lehanwan, Damhall				-	<b>16 Schemes Affected</b>		
		Poru	Suffocation	May 2019	-	-	-	-	-	2	-	2
3	Srigufwara	Sakras, Trail, PethNambal	Flood	2014	289	-	172	-	461 K	0	0	0
		Khiram	Forest Fire	2016	-	-	-	-	300 K	0	0	0
		Srigufwara, Viddy, Hattigam, Darigund, Nowshera	Hailstorm	2015	6335	-	5567	-	11902 K	0	0	0
4	Doru	Lokbawan, Larkipora, Shankerpora, Nowpora, HarduDehruna, Doru, Kreeri, Mehmoodabad, BatagundAngoo, Zamalgam, Mantapora	Floods	2014	458	08	00	00	458 K 08 M	0	0	0
5	Larnoo	Larnoo, Iqbalabad, & Naimatpora	HailStorm Cloudburst	April-2015	235	0	600	0	285	-	-	-
Shangus		Ranipor- A-Circle	Drought	May-2011	-	-	1427	-	1427K	-	-	-
		Dardpora to Chittergull&Chittergul to Krad	Floods	2014	-		21	5	35 K,12 M	-	-	-

6		Uttersoo, Chaklipora, Shairgund, Krad, Rakh-i-Brah	Hailstorm	April-2014	-		269	13	269 K, 13 M	-	-	-
		11 Villages	Windstorm	May-2012	-		-	-	11 villages	-	-	-
		Thimran	Cloudburst	May-2012	-		-	-	-	1	-	1
		Thimran	Avalanche	March-2012	-		-	-	-	4	-	4
		Rakhi Brah	Cloudbursts	May 2016	-		-	-	-	LiveStock Died	-	-
		Uttersoo Bariangam	Cloudburst	May 2018	-		-	-	-	1	-	1
		Chittergul Pati, Mantipora	Cloudburst	-	-		-	-	-	A cow died	-	1
		Gawran, Brisnoo, Naikbal, Brison, Oh Paisan, Paisan, Naikbal, Khull, Halkha, Mahdaar, Methmooh, Kreeri, Gajhard, Cheerpora, Pathribal, Gujhal, thimran, Dardpora	Cloudburst	Aug-2019	<b>Water Supply Scheme Affected</b> R.D. Nallah, Tailwani, Kawrigam, Khull, Brisan, Rakhi Brah, Brah, Issous Odouss, Krad, Chattisingpora, Shergung Oh Paisan, Chittergul, Cheerapora, Pakhtoonpora, Khanpora Kreeri, Chandenwarden, Wakilbalan, Nowgam, Shangus, Buchan, Pathribal, Degree College Uttersoo, Thimran, Chaklipora, Andoo Pushroo					<b>25 Schemes Affected</b>		
7	Anantnag	Qasba Baghat, Azadpora, Chee, Khanabal, Seepin, Mirgund, Pushwara, Hanji Danter, LB Shah, Muniwar, Mir Danter, Ruhoo, Beng Nowgam, Laram Ganjipora, K.G Rana, Tarku Tachloo, Shamsipora, Sursoona, Shoul Wanpora, Uranhall, Kanjigund, Batengoo, Sofigund, Bagagund, Lalipora, Malipora, Zodder, Furrah, Bumthan, Neepora, Chirhama, Nowathoo, Donipawa, Ashajipora, Bona Dilagam, Peth Dialgam, Kamaad, Chichpora, Gund Fatehpora, Fatahpora, Monghall, Ganoora, Sahababad, Thajiwara, Magraypora, Traphoo, Jogigund, Sundsooma, Khandoora, Issso, Audsoo, Tailwani, Shehlipora, Kanganhall,	Flood	Sep-2014	106344	-	20040	-	126384 K			

		Ulbugnowgam, Brakpora, Karewa Brakpora, Nanwani, Waterigam, Wanihama, Kadpora, Brenti Batapora, Palpora, Hardu Schicheri.									
		Brakpora, Karewa Brakpora, Nanwani, Donipawa, Ashajipora, Monghall, Utresso Nijigund, Ruhu, Bona Dialgam, Kamad, Wanihama, Watrigam, Ganoora, Lalan, Bumthan	HailStorm	May-2016	-	-	3759	10	3759 K, 10M		
		Jawahir Tunnel & Nallah Sundbrari	Avalanche	Feb. 2019	-	-	-	-	-	10	10
8	Shahabod Bala	Hengipora, Ringmundu, Chowhan, Kapran, Gawas, Hergawas, Halsidar, Qammer, Thaman-Koot, Rein Chowgund, Nowgam, Bonagund Verinag, Omoh, Poolia Chinigund	Flood	2014	22000	-	200		22200 K	-	-
		Hergawas, Hengipora, Ringmundu, Halsidar, Kapran, Thaman-Koot	Earthquake	2015	-	-	-	-	-	-	-
		Kapran, Hergawas, Ringmund, Halsidar, Gawas, Qammer, Thaman-Koot	Forest Fire	2016	-	-	-		500 K	-	-
		Hengipora, Ringmund, Kapran, Halsidar, Qammer, Rein Chowgun, Omoh, Bonagund Verinag	Hail Storm/ Cloudburst	2017	135 kanals -	-	-	-	135 K	-	-
		Rein Chowgund	Cloudburst	June 2018	-	-	-	-	-	Livestock Died	-
		Bajpathrinard, Tannal top, Gafar baste, Omoh and Bangund	Cloudburst	April 2017	-	-	-	-	-	Livestock Died	-
9	Mattan	4 Villages of Tehsil Mattan	Floods	Sep-2014	75056 k	-	3904	-	78960K	-	-
		2 Villages of Akura, Naibal	HailStorm	Aug-2015	4150k	-	300k	-	4450 K	-	-
		8 Villages	HailStorm	May-2016	5219k	6 m	10014 k	18 m	15234K & 4M	-	-
10	Bijbehara	Gundchahal	Snow Avalanche	Nov. 2019	-	-	-	-	-	1	1
11	Sol	Kathsoo	Flash Floods /	June 2019	Closure of Breaches and widening of Nallah			-	-	2 Nallah Affected	



			Incident Rains		Lidder Nallah & Ardwani		
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Furthermore, some brief details about other damage assessments that have not been mentioned in the above table are listed below;

- Due to the cloudburst of 14-08-2019 & heavy snowfall of 07-11-2019 the power supply infrastructure of Electric Division Anantnag got damaged at many locations in the district Anantnag.
- Due to the Flood of June 2018 different Nallahs got damaged that came in the vicinity of Irrigation Division Anantnag.
- A number of infrastructures that came under the vicinity of Superintending Engineer (PWD, R&B) Circle Anantnag/Kulgam and include roads, water supply schemes, culverts, bridges & R. Walls got damaged due to the Flood of June 2018.
- In Jurisdiction Anantnag 11 Temporary and Permanent Restoration works were executed by Irrigation Division Anantnag that include restoration of Nallahs & breaches, construction of cross bunds and removal of slits, and were dislocated & damaged by the floods of June 2018.

### 2.3.1 Floods

Flash floods, short lived extreme events, which usually occur under slowly moving or stationary thunderstorms, lasting less than 24 hours are common hazard events in the state. As a result of the high velocity of the current, which can wash away all obstacles in its way, this phenomenon has resulted in enormous loss of life and property in various parts of the region. Floods also occur in the summer when heavy rain is followed by a bright sun, which melts the snow. If an embankment is breached or topped, a district which is dry a few hours back could turn into a lake after a few hours.

#### **September 2014 episode of extreme flooding and climate change**

The State of Jammu and Kashmir has a very peculiar geography and climate. Most regions of the State are fed by rivers like Jhelum, Indus and Chenab. Low-lying areas of the Kashmir Valley, especially Srinagar, along with parts of Jammu, are prone to floods that occur due to heavy rainfall in upper catchment areas. Heavy rains, in September 2014, caused devastating floods that claimed at least 280 lives, caused severe damage to the public/private infrastructure and stranded hundreds of thousands of residents.



*Figure 2.2 Areas affected during September 2014 Floods in J&K*

This flood in the state is unprecedented in nature, where the most part of the Southern District has received very high rainfall. Weekly total rainfall for most of the stations for the period Sept 2 to Sept 8, 2014 was more than 200 mm. This is very high for a terrain like Jammu and Kashmir.

Analysis of long term daily rainfall of the region, using 25 km IMD gridded data, for the period 1951 to 2013, suggests that heavy rainfall like that of September 2014 has been unprecedented in the past record. Analysis of daily annual maximum rainfall suggests that most of the Southern Districts of Kashmir valley have around a 5-year return period for annual maximum daily rainfall exceeding 64.5mm. Climate model analysis, using MIROC 4h data (which has a spatial resolution of 50km by 50km), for the period 2006-2035 under RCP 4.5 scenario suggests that the return period of annual daily rainfall exceeding 64.5 mm threshold will further decrease for most regions of the state. This implies that, according to climate models, in future there is increased possibility that more frequent events of extreme daily rainfall will be witnessed.

**Table 2.5: Damage caused due to September 2014 Floods in District Anantnag**

<b>Category</b>	<b>Total No. of Houses Damaged</b>	<b>No. of Houses paid under SDRF</b>	<b>No. of Houses paid under PMNRF</b>
Fully Damaged Pucca House	1542	1534	1307
Fully Damaged Kacha House	272	270	246
Severely Damaged Pucca House	3923	3888	3672
Severely Damaged Kacha House	232	228	203
Partially Damaged Pucca House	13482	12579	8246
Partially Damaged Kacha House	534	525	481

### **Formulation of Flood Duty Chart**

Flood Duty Chart has been formulated by the Flood Control Division Anantnag, wherein 08-member District Coordination Committee has been framed with District Development Commissioner as its Convener, as depicted in Table 2.6 below.

**Table 2.6: District Co-Ordination Committee Anantnag headquarter District Development Commissioner Office Anantnag**

<b>S.No</b>	<b>Designation of Officer</b>	<b>Assignment</b>
1	District Development Commissioner, Anantnag	Convener
2	Superintending Engineer, Hydraulics Circle Anantnag	Member Secretary
3	Deputy Inspector General of Police, Anantnag	Member
4	Superintending Engineer; Electric Department Anantnag	Member
5	Superintending Engineer, R&B Circle Anantnag	Member
6	Senior Superintendent of Police, Anantnag	Member
7	Assistant Commissioner Development, Anantnag	Member
8	Chief Medical Officer, Anantnag	Member

Moreover, Flood Control Division Anantnag has identified 188 locations in the District which are prone to and also experienced floods during the deluge of September 2014. The details are given in Table 2.7 below.

**Table 2.7: List of submerged villages during floods of September 2014**

1	Anantnag Town	66	Seer hamdan	131	Peer Taqiya Sagam
2	Nai Basti	67	Badigam	132	Arhama
3	Khannabal	68	Akad	133	Badasgam
4	Lazbal	69	Badaran	134	Hakura
5	Anchidora	70	Hangalpawa	135	Malikpora
6	Chee	71	Gogaldar	136	Damhal
7	Nanil	72	Khayar	137	Palpora
8	Okura	73	Shumhal	138	Dialgam
9	Batgund	74	Chandrigam	139	Brenty
10	Gurry	75	Rakhi Chandipora	140	Irkumoo
11	Gundi	76	Ambirpora Nambal	141	Adigam
12	Katriteng	77	Bumzoo	142	Nagam
13	Waragund	78	Shamsipora	143	Kandiwara
14	Veer	79	Anzullah	144	Khartar
15	Khallen	80	Aanmatipora	145	Hiller
16	Janglat Mandi	81	Seepan	146	Dehrena
17	Mominabad	82	Arder	147	Zaldoora
18	Dabran	83	Krad	148	Naidpora
19	Kadpora	84	Utersoo	149	Larkipora
20	Kanganhaal	85	Shergund	150	Gundfatehpora
21	Magraypora	86	Shangas	151	Schin
22	Brakpura	87	Wangam	152	Sadoora
23	Danter	88	Brakpora	153	Kamad
24	Pushwara	89	Isoosoo	154	Shankerpora
25	Muniward	90	Tailwani	155	Wanpora
26	Behram Shah	91	Tumbirpora	156	Shevpura
27	Harnag	92	Magraypora	157	Vessu
28	Bijbehara	93	Donipawa	158	Sangdan
29	Wuranhal	94	Nunwani	159	Lilipora
30	Gadhanjipora	95	Thajiwara	160	Cherhama
31	Zirpora	96	Oudsoo	161	Hengipora
32	Pazilpora	97	Brisnoo	162	Ringnandoo
33	Tulkhan	98	Dardpora	163	Yakerboo
34	Madhama	99	Brimmer	164	Kapran
35	Simthan	100	Dewa Colony	165	Gawas
36	Sangam	101	Ashajipora	166	Doudwangan
37	Sarigam	102	Papya Bal	167	Halsidar
38	Batkoot	103	Zadipora Batpora	168	Heerward
39	Naina	104	Ganjiwara	169	Rein
40	Movera	105	Danter	170	Chowgund
41	Batpora	106	Hanjidanter	171	Gorinard
42	Yanar	107	Ruhu	172	Panzoo
43	Ganeshpora	108	Utrsoo Nijigund	173	Zamalgam
44	Jaibal	109	Harnag	174	Chnigund

45	Amadzoo	110	Batengoo	175	Polia
46	Amad	111	Hamzapora	176	Mehmood Abad
47	Amad wagad	112	Gaudhajipora	177	Kulam Chinar
48	Karshangam	113	Donipora	178	Umoh
49	Dalseer	114	Gadiseer	179	Verinag
50	Bagwani Sallar	115	Halmullah	180	Bout Tachloo
51	Dachigam	116	Matihundoo	181	Hassanpora Taweela
52	Pathnoo	117	Goridman	182	Arwani
53	Watalfohar	118	Tangwani	183	Laktipora
54	Malpora Fohar	119	Naubugh	184	Naubal Batpora
55	Sakras	120	Larnoo	185	Rahpora
56	Trial	121	Khreti	186	Turka Tachloo
57	Banderbal Seer	122	Nagdraman	187	Hassanpora Bagh
58	Peth Nambal	123	Daksum	188	Naiuna Batpora
59	Kharshhouthoo Hutmurrah	124	Bidhard		
60	Overa	125	Dandipora		
61	Kathsoo	126	Gadole		
62	Loiseer	127	Vailoo		
63	Hugam	128	Soaf		
64	Pushkreeri	129	Panzgam		
65	Kanelwan	130	Watnard		

### **Zonation of Flood-Prone areas**

In compliance to Govt. Order No: 36-DMRRR of 2017 dated: 01.06.2017, areas Vulnerable to Floods have been identified and Mapped by I & FC Department. 190 locations have been identified in the District, prone to floods. Flood Control Division Anantnag has divided the areas into 03 Sectors consisting of 10 Sub-Sectors/Beats, keeping into consideration the tributaries viz. Lidder, Jhelum, Aripath & Brengi, flowing through different areas of the District, as shown in Table 2.8 below. The remaining areas mostly include high altitude areas which are improbable to the flood threats.

**Table 2.8: Zonation of Flood Prone Areas**

<b>SECTORS/ BEATS OF FLOOD ZONAL COMMITTEE ANANTNAG</b>									
<b>a. Lidder Sector</b>				<b>B. Aripath &amp; Brengi Sector</b>			<b>c. River Jhelum</b>		
<b>1/A</b>	<b>2/A</b>	<b>3/A</b>	<b>4/A</b>	<b>1/B</b>	<b>2/B</b>	<b>3/B</b>	<b>1/C</b>	<b>2/C</b>	<b>3/C</b>

After identifying the flood-prone areas through proper survey and vulnerability mapping, Zonal Magistrates have been designated for each Zone, as Nominated by Deputy Commissioner. The Officer In-charge shall have the responsibility of verifying and assessing the damages caused due to the flood and communicating the same to the higher authorities for immediate necessary action:

**Table 2.9: Nomination of Magistrates for Zonal Flood Committees**

<b>S. No</b>	<b>Jurisdiction</b>	<b>Name of the Magistrate</b>	<b>Headquarter</b>	<b>Supporting Members</b>
<b>SECTOR A</b>				
<b>1-A</b>	From Pahalgam to Akad Left Side of Lidder Nallah		Police Station Aishmuqam	i. Engineer from I&FC

	1. From Pahalgam to Amadzoo(Ganeshpora)	NT Pahalgam		ii. Engineer from R&B iii. Municipal Ward Officer iv. I/C Police Station v. Numberdar/Chowkidar /Sarpanch/ Panch vi. I/C SDRF component vii. Civil Defence, Home Guards, Community Volunteers/Local NGO
	2. From Ganeshpora to Akad	NT Aishmuqam		
<b>2-A</b>	From Pahalgam to Srigufwara Right side of Lidder Nallah		Police Station Srigufwara	
	1. From Pahalgam to Sallar	NT Sallar		- SAME AS ABOVE -
	2. Sallar to Srigufwara	NT Srigufwara		
<b>3-A</b>	From Akad to Khanabal L/S of Lidder Nallah and Arder Gurrey right bank of Lidder.		Police Station Mattan	
	1. From Akad To Aung	NT Nanil		- SAME AS ABOVE -
	2. From Aung to Guree	NT Mattan		
<b>4-A</b>	From Kerkadal to Zirpora including Gogsu Nallah	NT Kanalwan	Pump Station Kerkadal	- SAME AS ABOVE -
<b>SECTOR-B</b>				
<b>1-B</b>	From Kanganhall to Ashajipora Aripath Nallah.	NT Achabal	I.T.I Ashajipora	- SAME AS ABOVE -
<b>2-B</b>	From Ashajipora to MandiKadalAripath/Brengi Nallah	NT Dialgam	Police Station Anantnag Mehandikadal	- SAME AS ABOVE -
<b>3-B</b>	From Hiller to Khanabal Brengi Nallah on both sides.		Police Station Achabal	
	1. From Hiller to U/S Larkipora Bridge.	NT Hakhura		- SAME AS ABOVE -
	2. From D/S Larkipora Bridge to Khanabal	NT Larkipora		
<b>SECTOR C</b>				
<b>1-C</b>	From Mendhikadal to Khannabal Bridge Aripath Brengi and Sandran.	NT Anantnag	Police Station Mehandikadal Ang.	- SAME AS ABOVE -
<b>2-C</b>	From Khannabal to Pazalpora	NT KG Raina	R&B Division Khannabal	- SAME AS ABOVE -

<b>3-C</b>	From Pazalpora to Sangam	NT Bijbehara	Police Station Bijbehara	- SAME AS ABOVE -
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Relief camps equipped with immediate relief & rescue equipment/items like Sand bags, Tractors, Boats, blankets etc. shall be established in each zone. Arrangements shall be made for providing shelter to the affected people in the identified shelter sheds along with medical aid facilities at the nearest medical aid centers/DMCs.

Essential service centers shall be established in the vicinity of the Relief Camps/DMCs which will also include Primary Health Centres & Fire & Emergency Services. Resources in the shape of Men & Machinery including Tractors, Boats, Tents etc. shall be kept at the disposal of each zone.

Volunteers from amongst the public, NYC's, NGO's shall be identified and involved for participation in the whole process of Relief, Rescue & Rehabilitation in each village. Training shall be imparted to the volunteers, as and when required.

### 2.3.2 Earthquake

The state of Jammu and Kashmir is the western most extension of the Himalayan mountain range in India. According to GSHAP data, the State of Jammu & Kashmir falls in a region of high to very high seismic hazard zone. As per the 2002 Bureau of Indian Standards (BIS) map, J&K is classified in Seismic Zone IV and V, with intensity MSK of VIII to IX or more. The southern districts of Kashmir including district Anantnag falls in Zone IV and V (very high damage risk zone - MSK of IX or more). Historically, parts of J&K have experienced seismic activity in the M6.0-7.0.

A major earthquake struck the Indo-Pak border in the morning of 8 October 2005. It had a magnitude of  $M_w=7.6$  and was felt strongly in much of Pakistan, northern India and eastern Afghanistan. The earthquake resulted in more than 80,000 deaths in northern Pakistan and adjoining parts of Jammu & Kashmir and is by far one of the deadliest in the sub-continent. Tremors from the earthquake were felt more than a thousand kilometers away in the Indian states including District Anantnag of Jammu and Kashmir state.

Besides, a moderate aftershock struck the Kashmir Himalayas on 23 October 2005 at 15:04 UTC. It was felt strongly in Kashmir including District Anantnag & the NWFP, causing additional damage to buildings weakened in the 8 October 2005 earthquake. It had a magnitude of  $M_w=5.3$ . Some areas like Hergawas, Hengipora, Ringmundu, Halsidar, Kapran & Thaman-Koot of Tehsil Shahabad Bala witnessed damages to property during 2005 earthquakes.

Earthquakes have been categorized into four levels namely L0, L1, L2 and L3. Such categorization is done with the help of firsthand information, earthquake sensors and related disaster communication systems.

#### **L0 LEVEL DISASTER**

- An earthquake with less than 5.0 Richter scale having no impact on human, property and livestock`1k.
- Requires very limited response, if it falls under L0 level.
- The District Disaster Management Cell should maintain a close watch over the State of preparedness.
- Mock Drills at various levels have to be undertaken to check the preparedness.
- Efforts at local level should be made to find out damage/loss if any and to take appropriate actions.

#### **L1 LEVEL DISASTER**

- Earthquakes, when the magnitude is greater than 5.0 and less than 6.0 Richter scale.
- Necessary actions are initiated, even without waiting for formal reports and orders.



- District level ERC is activated and alerts all concerned according to a predetermined procedure.

### **L2 LEVEL DISASTER**

- Earthquakes of magnitude greater than 6.0 and less than 6.7 Richter scale.
- Necessary actions are initiated, even without waiting for formal reports and orders.
- District level EOC and ERC are activated and alerts all concerned according to a predetermined procedure.
- The search & rescue operations would commence immediately.
- The District Administration initiates impact assessment, relief and recovery measures.

### **L3 LEVEL DISASTER**

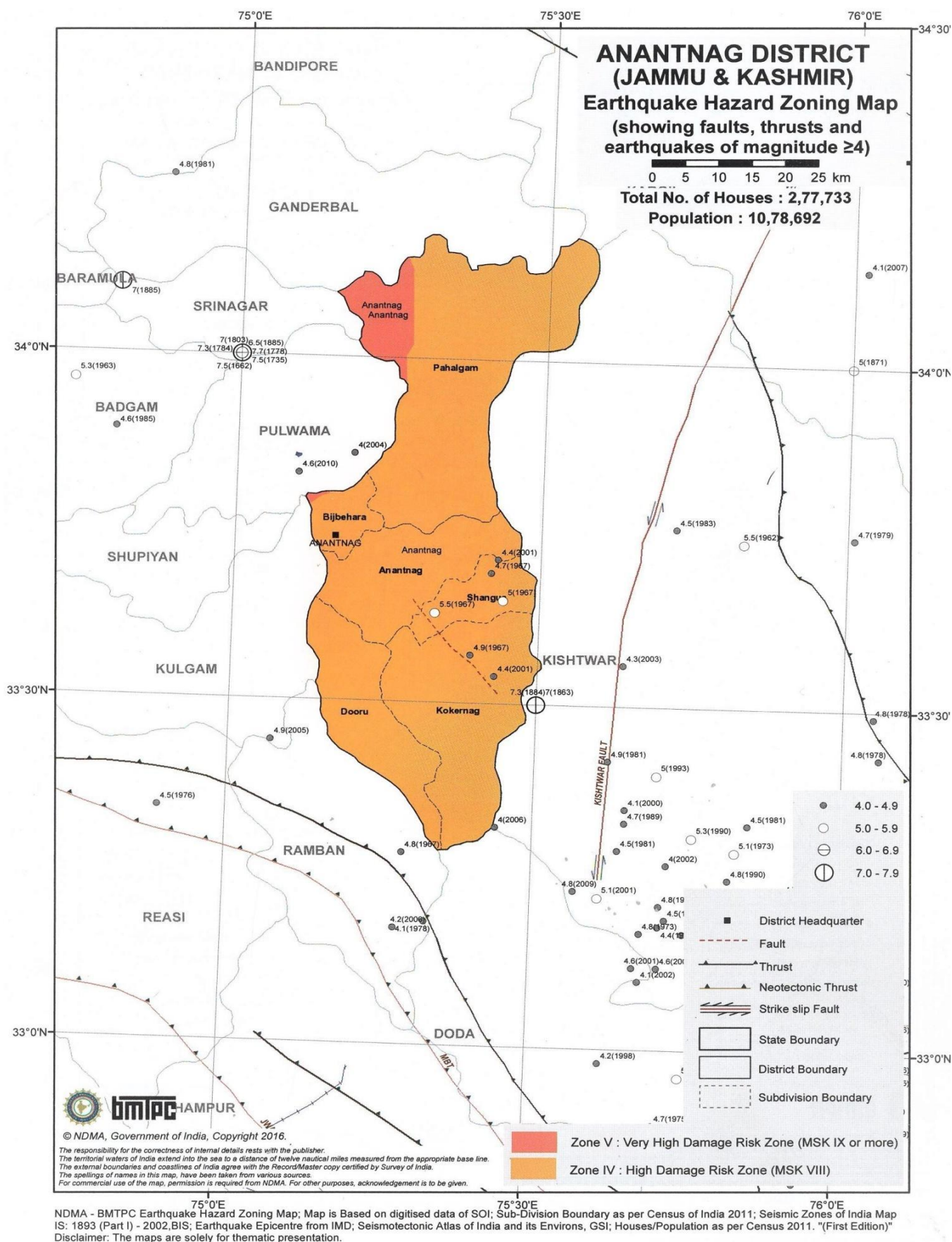
- Earthquakes of magnitude greater than 6.7 Richter scale.
- EOCs become fully operational.
- Outside assistance (Central Government, its Agencies, NDRF and Armed Forces) is called for.

According to the news published in Greater Kashmir on 25.01.2016, titled "Quake in Himalayan Region Overdue, Warn Experts", "there is a definite possibility of the great earthquake, of magnitude 8.0 in the Himalayan region, there is no doubt about it. When it will happen, no one can guess, where it will happen, is also a big question mark. More important today is that less than half of the Himalayas has ruptured which essentially means the strain is building every day which will be released at some point soon causing a massive temblor."

*There is a need to develop "Earthquake Resilient Model District Plan", on the basis of vulnerability of the District, in order to minimize the damage caused during the earthquake and to incorporate the "Guidelines for Earthquake Resistant Reconstruction & New Construction of Masonry Buildings in Jammu & Kashmir State" framed by Prof. Anand. S. Arya, National Seismic Advisor, Ministry of Home Affairs Gol-UNDP DRM Programme on Oct, 19, 2005, in the said Plan. These Guidelines detail out those earthquake resistant techniques and procedures for reconstruction and construction of new buildings using the available material which will make them safe.*

### **2.3.3 Landslides**

Besides earthquakes, landslides are geological hazards that are common and peculiar to the region. In District Anantnag, the mass movement varies in magnitude from soil creep to landslides. Solifluction is another type of mass movement that is common on the higher snow covered ranges of the district. Flash floods particularly in narrow river gorges are the cause of some of the major landslides in the district. These flash floods trigger landslides in the region eventually jeopardizing the stability of the hill as a whole. The vulnerability of geologically young unstable and fragile rocks of the district has increased many times in the recent past due to various unscientific developmental activities. Deforestation, unscientific road construction and terracing, encroachment on steep hill slopes are anthropogenic activities which have increased the frequency and intensity of landslides. Hilly areas of tehsil Kokernag, Pahalgam, Larnoo, Shahbad Bala, Qazigund and a few areas of Tehsil Shangus are prone to landslides.



**Source\*: Earthquake Hazard Zoning Atlas of India, Edition 2016**

### 2.3.4 Snow Avalanches, Snow Storm and SnowFall

Avalanches, river-like flow of snow or ice descending from mountain tops are common in the high ranges of Jammu and Kashmir. It is very difficult to predict avalanches as they are rarely observed closely and normally occur during a short time period of one or two minutes. During winter, the valley of Kashmir including district Anantnag receives snowfall and rainfall from the winds arising from Mediterranean Sea. The degree of coolness is determined by the altitude of the zone. Hilly areas of tehsil Kokernag, Pahalgam, Larnoo, Shahbad Bala, Qazigund and a few areas of Tehsil Shangus (Thimran/Chaklipora) are prone to snow avalanches.

During winters district Anantnag is one of the most prone areas to snow avalanches and snow fall. In order to meet any challenge arising out of such weather conditions effectively and efficiently, Winter Control Room has been established in DC Office Anantnag that works 24x7 under the supervision of CEO - DDMA and is manned by officials from different government departments of the district.

Meanwhile, 03 disaster centres eventually operating as Shelter Sheds have been established on National Highway between Khanabal & Jawahar Tunnel - at Walnut Factory Lavadora, near Jawahar Tunnel (Jeti) & Medical building at Lower Munda (Gulab Bagh). These centres are equipped with breeding facilities, food grains, power supply, drinking water, cooking items & heating systems; besides providing relief items like blankets, food packets etc at the time of exigences to the needful.

### 2.3.5 Windstorm

Windstorms are high velocity winds that sweep with a wind speed of more than 55 km per hour. The windstorm occurrence in the district is mostly during spring and summer and often leads to negative impact to lives and property. One of the major reasons for the catastrophe is due to the lack of early warning procedures and preparedness measures. Non availability of technical experts to aware the people to construct wind proof roof tops as well as the deficiency in building code standard also puts the lives and property of people under risk.

### 2.3.6 Cloudburst

Cloudburst is a disastrous weather condition caused by the downpour, over a small geographical area for a relatively short period. A cloudburst is construed by the meteorologist when there is an intense rainfall at the rate of 100 mm per hour. At the event of cloudburst, 20 mm of rain may fall in a few minutes. The heavy downpour often leads to landslides, flash flood and poses threat to life and property. Topography of the state plays a crucial role in the formation of cloudburst. The hilly terrain of the state favours the formation of cumulonimbus cloud. This leads to the shedding of larger droplets of water at a higher rate, resulting in higher impact on the ground. The topography of this District makes the Cloudburst a recurrent phenomenon, particularly in areas during Autumn. Hilly areas of tehsil Kokernag, Pahalgam, Larnoo, Shahbad Bala, Qazigund and Shangus are prone to Cloudburst.

### 2.3.7 Drought

The south-west monsoon plays a significant role in determining the sustenance of agriculture dependent population in the state of Jammu & Kashmir. More than 75% of the population in Jammu & Kashmir are directly or indirectly dependent on agriculture for livelihood. The deficiency in monsoon rain quite often results in drought, affecting the livelihood of the rural population. The State is prone to deficient rainfall once in three years, putting the lives of the majority of the population at stake. Anantnag as well is considered a drought-prone district. Some areas like Kuthar, Shangus, Breng, Qazigund,

Sallar, Srigufwara, etc. have witnessed drought like situations in the past resulting in a disquiet environment in the District.

### **2.3.8 Hailstorm**

Hailstorms create great devastation to the standing crops in the state. Every year thousands of acres of crops are being affected due to the hailstorm resulting in the loss of crop yield. The government of Jammu and Kashmir has launched crop insurance schemes to support the agrarian population who has been affected by natural disasters such as hailstorm, drought, lightning etc. The insurance schemes are meant to support Rabi crops such as wheat, mustard and potato. Hailstorm too has been a recurrent phenomenon and every year hundreds of acres of crops get affected due to hailstorm.

### **2.3.9 Lightning**

The population of the District is also exposed and vulnerable to lightning. Thus badly affecting crop yield and economy thereof.

### **2.3.10 Biological Hazards**

Biological hazards with respect to Jammu and Kashmir could be understood in terms of epidemics among humans, livestock and pest and disease with respect to agriculture. Within a timespan of January 2012 to June 2013, the following cases were reported in Kashmir division alone: Acute diarrheal disease (182392), Acute Respiratory Disease (261148), Measles (1567), Malaria (176), Bacillary Dysentery (27746), Enteric Fever (25700), Viral Hepatitis (4177).

The prevalence of livestock disease has been recorded in the state of Jammu and Kashmir. Outbreaks normally occur during the post monsoon season. The prominent diseases reported are Black Quarter (BQ), Hemorrhagic Septicemia (HS), SG-POX and Foot and Mouth Disease (FMD). Pest related problems are another biological hazard prevalent in the state. Pest attack not only decreases the productivity of the fruits but also the quality of the fruits which in turn affect the livelihood of the people who depend on agriculture. The need to provide effective and ecological sound insect and disease management is very essential.

Anantnag District has witnessed the rise of Hepatitis-C in areas of Kokernag Tehsil. Detected first in TakiaMagam and Sonbarie villages of Kokernag in 2013, the Hepatitis-C has so far consumed 12 lives in the twin villages while the number of infected patients has reached to more than 1300, according to reports and medicos. The infection has also spread to Sagam, Zalangam, Watinar, Khalihar, Kehripora, Kandiwarra and Warwan villages. Doctors Association Kashmir (DAK) has already declared the infection as an epidemic and had blamed poor health practices in the areas as the major reason for the spread of infection.

### **2.3.11 Forest Fires**

The Anantnag district is well endowed with forest resources that play a significant role in protecting the ecosystem of the region. Forest occupies about 2068.00sq.Km (2011-12) of area in the District. They serve as a catchment for the river basin which enhances the soil stability thus prevents soil erosion. Every year in district Anantnag, there is a probability of forest fires in the months of May and June. Though forests are prone to fire during the dry season, human activities such as military action, timber smuggling etc holds a huge responsibility for the onset of the fire. This District has witnessed minor forest fires in some areas of Tehsil Pahalgam.

### **2.3.12 Industrial Hazards**

There has not been any report of industrial hazards in district Anantnag so far. Industrial hazard principally consists of four hazards such as fire, explosion, toxic release and environmental damage. However, the district needs to be cautious of the industrial wastes



that are disposed of, which could have severe impact on the ecology and health of the citizens in the district.

### 2.3.13 Fire

Several incidents of building fires have been witnessed so far in the district. Every year, numerous buildings including residential houses/shops/cowsheds get ablazed. Some of the recent cases of Accidental fire and the extent of damage caused by them to the particular structure is enlisted in table 2.10.

*Table 2.10 Matrix of recent Accidental Fire cases in the District*

Villages	Kind/Nature of Structure	No of structures	Extent of damage	Year of Incidence
Hangal Pora	Pacca House	1	severely	2015
Gawas, Tehsil Shahabad Bala	Pacca House	1	Severely	
Chohan, Tehsil Shahabad Bala	Kachha / Pacca House	3	Severely	
Shangran Qazigund	pacca House	1	severley	2016
Nowshera Tehsil Srigufwara	Pacca House	1	severely	
Gadole Ahlan, Tehsil Kokernag	pacca House	3	Fully	
Nadura Kralmad, Tehsil Dooru	pacca House	1	Fully	
Hardu Dehruna, Dooru	Pacca House	1	Fully	
Khiram Srigufwara	Kaccha/Pacca House /Cowshed	4	Fully	
Irrvat Damjan, Qazigund	Pacca House	1	Partially	
Damhall, Kokernag	Pacca House	1	Partially	
Adhal Kokernag	Kachha House	1	Fully	
Sadiwara Khagund, Tehsil Dooru	Pacca House	1	Partially	
Har Gawas, Tehsil Shahabad Bala	Pacca House	1	Fully	
Azadpora, Tehsil Anantnag	Pacca House	1	Partially	
Gadole Ahlan, Tehsil Kokernag	Cowshed	2	Fully	
Hassanpora Tawella Tehsil Bljbehara	pacca House	1	severely	
Machbawan Mattan	pacca House	1	partially	
Bijbehara	pacca House	1	fully	
Chaklipora Tehsil Shangus	pacca House	1	partially	
Ainoo Brai Pahalgam	pacca House	1	partially	
Shangus	pacca House	1	partially	
Halpora, Tehsil Kokernag	Pacca House	1	Severley	
Uttersoo, Shangus	Katch House	1	Severley	
Matihindoo, Tehsil	Pacca/Kaccha	4 houses /	Severely/ Fully	

Larnoo	House & Cowshed	1 cowshed		<b>2017</b>
Mirmaidan, Tehsil Dooru	Pacca House	1	Fully	
Machbawan, Mattan	Pacca House	1	Partially	
Chee, Tehsil Anantnag	Cowshed	3	Partially	
Hakura Badasgam	Pacca House	1	Fully	
Rain Arther, Tehsil Larnoo	Pacca House & Cowshed	1 each	Fully	
Sagam, Tehsil Kokernag	Kaccha House	1	Severely	
Pahalgam	Pacca House	1	Severely	
Machbawan Mattan	pacca House	1	Partially	
Arwani, Tehsil Bijbehara	Pacca House	1	Partially	
Sagam, Tehsil Kokernag	Kaccha House	1	Severely	
Batagund Zamalgam Dooru	Cowshed	1	Fully	
Kanelwan Bijbehara	cowshed	1	Fully	
Y.K. Pora Qazigund	Pacca House		Severely	
Bongund Verinag, Shahabad Bala	Pacca House	1	Severely	
Iqbalpora, Tehsil Larnoo	Kaccha House/ Cowshed	1 each	Fully / Partially	
Dessu Nowbugh, Tehsil Larnoo	Pacca House	1	Partially	
Gadwail, Tehsil Larnoo	Kaccha House	1	Fully	
Qasba Dooru, Tehsil Dooru	Kaccha/Pacca House	2	Fully/Partially	
Panzoo Batagund, Zamalgam, Agnoo, Tehsil Dooru	Pacca House / Cowshed	1 houses / 3 cowshed	Severely	
Ujroo, Tehsil Dooru	Pacca House	2	Severely/Partially	
Panzanth Wanapora, Tehsil Qazigund	Pacca House	2	Partially	
Sransoo Shampora, Tehsil Qazigund	Pacca House	1	Fully	
Kadipora, Qasbahagat	Kaccha/Pakka House	3	Fully/Partially/ Severley	
Gowran Tehsil Larnoo	Katch /pacca House	2	Fully/partially	
Anzwalla	pacca House	1	Fully	
Dooru	cowshed	1	Partially	
Vail Nagbal, Tehsil Mattan	Pacca House & Cowshed	2 each	Fully	
Salia Panchalpora, Tehsil Mattan	Cowshed	2	Fully	
Chandrigam, Tehsil Pahalgam	Pacca House	1	Fully	
Hapatnard, Tehsil Pahalgam	Pacca House / Cowshed	1 each	Fully / Severely	
Bindoo Zalangam, Tehsil Kokernag	Cowshed	1	Partially	



Hanji Danter, Tehsil Anantnag	Pacca House	1	Partially	<b>2018</b>
Pehroo Anantnag, Tehsil Anantnag	Cowshed	2	Severely	
Dethu Nagnarian, Tehsil Shangus	Cowshed	3	Fully	
Nowgam Shahabad	Cowshed	1	Severely	
Ulbugh Nowgam, Anantnag	Pacca House	1	Severely	<b>2016 - 2018</b>
Mohalla Bafandan, Qasba Baghat, Anantnag	Pacca House	6	Fully/Severely	
Furrah, Anantnag	Pacca House/ Cowshed	2 Houses / 1 cowshed	Severely	
New Colony Bijbehara, Anantnag	Pacca House	1	Severely	
Jablipora, Bijbehara	Pacca House	1	Severely	
Zirpora, Bijbehara	Pacca House	1	Partially	
H.P. Tawella, Bijbehara	Pacca House	1	Partially	
Nowgam, Shangus	Cowshed	1	Severely	
Brimer Narsar, Shangus	Pacca House	1	Partially	
Liver Hamnadi, Sallar	Kaccha House/ Residential Kotha	1 each	Fully	
Dessu Nowbugh, Larnoo	Cowshed	1	Severely	
Narsangar, Larnoo	Pacca House	1	Severely	
Mathindoo, Larnoo	Pacca House	1	Severely	
Oie Bumdoora, Kokernag	Kaccha House/ Cowshed	2 Houses/ 3 Cowsheds	Fully/ Severely	
Damhall, Kokernag	Pacca House	1	Fully	
Naropora, kokernag	Pacca House	1	Partially	
Halpora, kokernag	Cowshed	1	Severely	
Kandiwarra, Kokernag	Pacca House / Cowshed	1 each	Partially	
Khudamam, Dooru	Kachha House	1	Fully	
Shistergam, Dooru	Pacca House	1	Fully	
Kewa, Qazigund	Pacca House	1	Partially	
Panzath Wanpora, Qazigund	Pacca House	2	Fully/ Partially	
Halsidar, Trajan, Shahabad Bala	Pacca House	1	Severely	
Qamar Heeward, Shahabad Bala	Pacca House	2	Severely	
Hangipora, Shahabad Bala	Pacca House	5	Severely	
Khiram, Srigufwara	Residential Kotha	1	Partially	
Srigufwara	Cowshed	1	Fully	
Hugam, Srigufwara	Cowshed	1	Partially	
Khiram, Srigufwara	Cowshed	1	Fully	

### 2.3.14 Mines

The Kashmir valley comprises sedimentary, metamorphic and igneous rocks ranging in age from Salkhala (Precambrian) to Recent.

The Department of Geology and Mining has played a vital role in overall economic development of the state by providing various mineral deposits for which the Government has granted various Mining Leases. The important minerals found in Anantnag district are Limestone (Calcium Carbonate), Quartzite, Diaspora, etc. Some of the mining locations within the District, are corded by the Geology and Mining Department, are Devipora Mattan/Wantrag/Punzoo Verinag/Sadiwara Doru/Chowgund. Besides, we have 01 Portland cement and 07 Lime Kiln Mineral based units registered/established in the District.

Most of the mining sites are confined to remote hilly regions and their proximity to seismic activities and landslides are also very high. Safety of the laborers in the mines and communities living in the different fault zones of the mining sites should be the top priority. Also, the practice of sand mining and Quarrying should be checked and must be regulated.

### 2.3.15 Tourism/Crowd Management/Stampede

Anantnag District is highly vulnerable to crowd related disasters. Pilgrimage tourism that is promoted widely to the Amarnath Cave needs to take appropriate crowd management measures. Most often, the situation becomes chaotic due to large movement of people that could result in stampede, damage to limbs, injury and loss of life. Though the District Administration has been quite efficient and effective in crowd management, the Shrines at Aishmuqam, Khiram and Anantnag do witness heavy footfall of the commuters on some specified occasions and are vulnerable to crowd related disasters. Appropriate crowd management measures at these locations are to be carried out.

### 2.3.16 Drowning

Anantnag district is very much prone to disasters related to drowning incidents. The threat perception remains from the rivers flowing through the District like Nallah Bringi, Nallah Arpath, Jhelum, Lidder and their tributaries. The District Needs to build immense capabilities to provide warning as well as human resources in terms of divers, rescue teams and related equipment. Reportedly, this District has witnessed the drowning related incidents from Pahalgam, Sangam & Larnoo.

### 2.3.17 Railway Safety

Kashmir Railway route officially termed the Jammu-Udhampur-Srinagar-Baramulla Railway link, crosses major earthquake zones and is subjected to extreme temperatures of cold and heat. Due to the inhospitable terrain, the railway link is also susceptible to landslides. As the State plans to expand its railway network within the State as well as to the rest of the country, it needs to judiciously plan appropriate disaster mitigation and response plans pertaining to rail accidents including technical failure, fire and sabotage. Presently, there are five railway Halt-Stations in the District i.e., Hiller, Qazigund Sadura, Anantnag and Bijbehara. The said halt-stations can even be put to use as relief centres in times of any eventuality.

### 2.3.18 Road Accidents

The District due to its terrain is prone to road accidents. Appropriate Incident Command System, to deal with road accidents, has to be developed taking into account the nature of the roads, terrain and frequency of accidents happening on the roads of the District. Even the National Highway passes through the District and due to

ever increasing traffic rush the frequency of accidents occurring would be on the higher side and the same needs to be taken up effectively.

# CHAPTER - 3

## “INSTITUTIONAL ARRANGEMENTS FOR DM”

The basic responsibility of undertaking rescue, relief and rehabilitation measures in the event of natural disasters at present is that of the concerned State Governments. The district administration is the focal point for implementation of all governmental plans and activities. The actual day-to-day function of administering relief is the responsibility of the District Magistrate who exercises, coordinating and supervising powers over all departments at the district level. The 73rd and 74th constitutional amendments recognize Panchayati Raj Institutions as 'Institutions of Self- Government'. The amendment has also laid down necessary guidelines for the structure of their composition, powers, functions, devolution of finances, regular holding of elections and reservation of seats for weaker sections including women. These local bodies can be effective instruments in tackling disasters through early warning systems, relief distribution, providing shelter to the victims, medical assistance etc. Other than the national, state, district and local levels there are various institutional stakeholders who are involved in disaster management at various levels in the country. These include the police and paramilitary forces, civil defence and home-guards, fire services, ex-servicemen, non-government organizations (NGOs), public and private sector enterprises, and media etc.

The institutional and policy mechanisms for carrying out response, relief and rehabilitation are well-established in the district Anantnag. The Revenue Department of the District would be the Nodal Department for disaster response which includes the coordination of rescue, relief and rehabilitation. All other concerned Line Departments will extend their full cooperation in all the matters pertaining to disaster response. The EOCs, ERC and other Control Rooms at the district level will be activated with full strength at the time of any disaster.

### **3.1 D.M. organizational structure at the national level**

The overall coordination of disaster management vests with the Ministry of Home Affairs (MHA). The Cabinet Committee on Security (CCS) and the National Crisis Management Committee (NCMC) are the key committees involved in the top-level decision-making with regard to disaster management. The National Disaster Management Authority (NDMA) is the lead agency responsible for the preparation of Disaster Management plans and the execution of DM functions at the national level. In most cases, state governments will be carrying out disaster management with the central government playing a supporting role. The central agencies will participate only on the request from the state government. Within each state, there is a separate institutional framework for disaster management at the state-level.

The DM Act of 2005 provides for the setting up of National Disaster Management Authority (NDMA) at national level and State Disaster Management Authority (SDMA) at the state level. The extent of involvement of central agencies will depend on the type, scale, and administrative spread of the disaster. If the situation requires the direct assistance from the central government or the deployment of central agencies, the central government will provide all necessary support irrespective of the classification of the disaster.

### 3.2 D.M. organizational structure at the State level

As per the Disaster Management Act 2005, each State Government shall take necessary steps for the preparation of state DM plans, integration of measures for prevention of disasters or mitigation into state development plans, allocation of funds, and establish Emergency Warning System. Depending on specific situations and needs, the State Government shall also assist the Central Government and central agencies in various aspects of Disaster Management.

The Disaster Management Act 2005 mandates the setting up a State Disaster Management Authority (SDMA) with the Chief Minister as the ex-officio Chairperson. At the State level, the State Disaster Management Authority (SDMA) under the chairmanship of the Chief Minister has the responsibilities of policies, plans and guidelines for Disaster Management and Coordinating their implementation for ensuring timely, effective and coordinated response to disasters.

The SDMA will, inter alia and approve the State Plan in Disaster Management organisational structure at the district level in accordance with the guidelines laid down by the NDMA, it will also approve Disaster Management Plans prepared by the departments of the State Government, lay down guidelines to be followed by the departments of the Government of the State for the purpose of integration of measures for prevention of disasters and mitigation in their development plans and projects, coordinate the implementation of the State Plan, recommend provision of funds for mitigation and preparedness measures, review the developmental plans of the different departments of the State to ensure the integration of prevention, preparedness and mitigation measures and review the measures being taken for mitigation, capacity building and preparedness by the departments. The State Authority shall lay down detailed guidelines for providing standards of relief to persons affected by disasters in the State. The State Government shall constitute a State Executive Committee (SEC) to assist the SDMA in the performance of its functions. The SEC is headed by the Chief Secretary to the State Government and it coordinates and monitors the implementation of the National Policy, the National Plan and the State Plan. The SEC also provides information to the NDMA relating to different aspects of Disaster Management.

#### 3.2.1 State Disaster Management Authority:

After adopting the Disaster Management Act, 2005, the State Govt. formulated the Jammu & Kashmir Disaster Management Rules in the year 2007, constituting there under State Disaster Management Authority (SDMA), State Executive Committee (SEC) and the District Disaster Management Authorities (DDMAs).

The SDMA is headed by the Hon'ble Governor. Under the revamped SDMA the Hon'ble Minister for Disaster Management, Relief, Rehabilitation and Reconstruction (DMRRR) is the Vice Chairman of J&K SDMA and the Administrative Secretary of DMRRR is the CEO, who is assisted by a Deputy CEO. The SDMA is assisted by the State Executive Committee (SEC) headed by the Chief Secretary. The Jammu & Kashmir SDMA (JK-SDMA) is composed of following officers enlisted in table 3.1:

*Table 3.1: List of officers with their specific positions in JK-SDMA*

S. No.	Officer	Designation
1.	Hon'ble Governor	Chairperson
2.	Hon'ble Advisor (I/c DMRRR)	Vice Chairperson
3.	Hon'ble Advisor	Member
4.	Hon'ble Advisor	Member

5.	Hon'ble Advisor	Member
6.	Chief Secretary	Member/CEO
7.	Administrative Secretary (DMRRR)	Member
8.	Dy. CEO	Member Secretary

SDMA has the mandate to lay down the state policies and approval of the State Disaster Management Plan, with the assistance of the SEC.

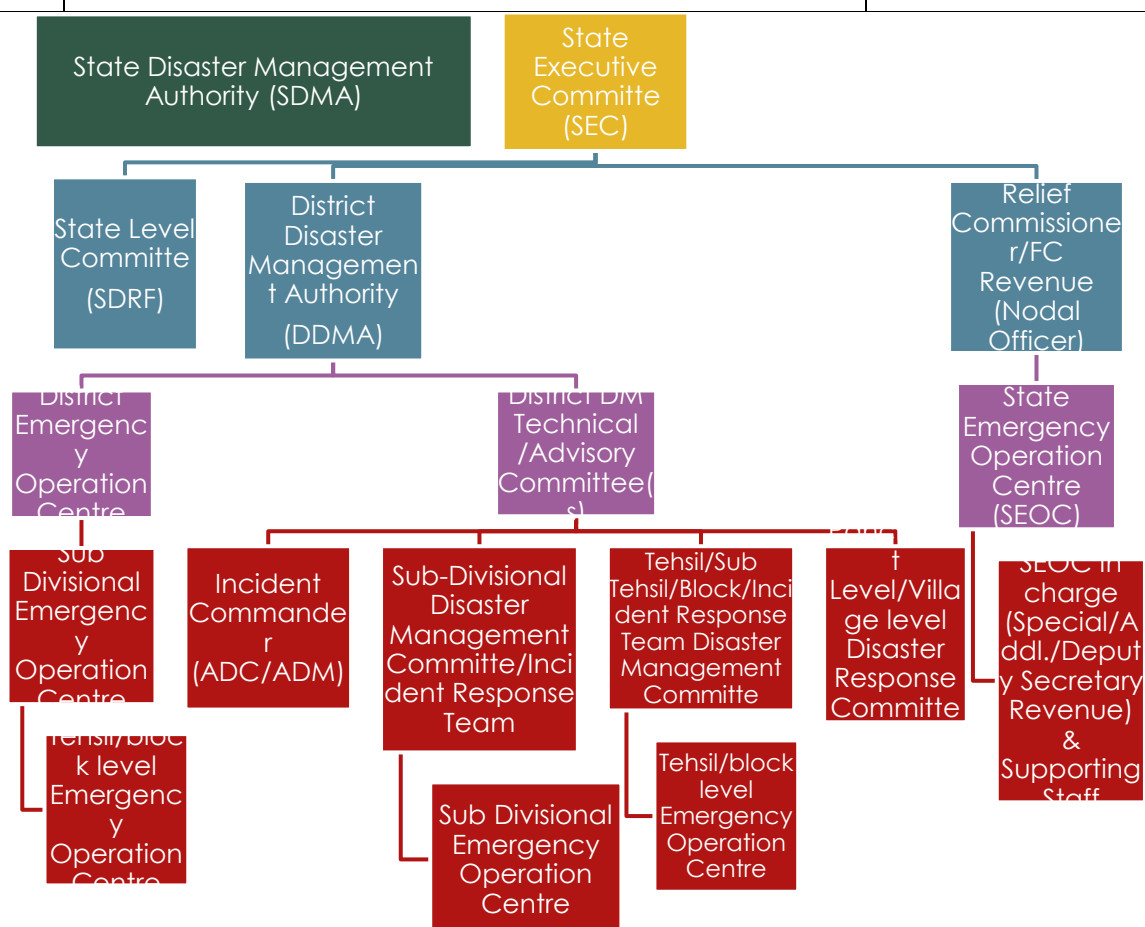
### 3.2.2 State Executive Committee (SEC):

SEC acts as the link between NDMA, MHA and other National and International agencies.

The members of State Executive Committee (SEC) with their specific position is enlisted in table 3.2.:

*Table 3.2: List of officers with their specific positions in SEC*

S. No.	Officer	Designation
1.	Chief Secretary	Chairperson
2.	Administrative Secretary (Finance)	Member
3.	Financial Commissioner (Revenue)	Member
4.	Administrative Secretary Home	Member
5.	Administrative Secretary (DMRRR)	Member Secretary



**Figure 3.1: Organisation Chart of State Disaster Management Authority (SDMA)**



### 3.3 D.M. organizational structure at the Divisional level

The Divisional Disaster Management Authority (Div. DMA) has been created which is headed by the Divisional Commissioner in both the Divisions of the UT of J&K. Additional Commissioner is the Chief Executive Officer of the Divisional DMA. Divisional DMA acts as the planning, coordinating and implementing body for disaster risk reduction and management at the Divisional level and provides guidance for the purpose of disaster management to the DDMA's in accordance with the guidelines laid down by the NDMA and SDMA. Div. DMA comprises the following members enlisted in table 3.3:

*Table 3.3: List of officers with their specific positions in Div. DMA*

S. No.	Officer	Designation
1.	Divisional Commissioner	Chairperson
2.	Inspector General of Police	Member
3.	Deputy Commissioners	Members
4.	Additional Commissioner	Member/CEO
5.	Deputy CEO SDMA	Member Secretary
6.	Principal GMC/Dir. SKIMS	Members
7.	Chief Engineer R&B, MED, EM&RE, I&FC, PHE	Members
8.	Commissioner Municipal Corporation	Member
9.	Chief Conservator of Forests/Chief Wildlife Warden	Members
10.	Director CAPD	Member
11.	Director Rural Development	Member
12.	Director Health Services	Member
13.	DIG/Commandant SDRF	Member
14.	Joint Director Fire & Emergency Services	Member
15.	SSP Police Control Room	Member
16.	Director Meteorological Department	Member
17.	Reps of Air Force, Army, NDRF, Paramilitary, Border Roads	Special Invitees

### 3.4 D.M. organizational structure at the District level

#### 3.4.1 District Disaster Management Authority (DDMA)

As per Notification dated 29th May 2017 under SRO 225, the powers conferred under section 78 of the Disaster Management Act, 2005 the Government of Jammu and Kashmir directs the following amendments in the Jammu & Kashmir Disaster Management Rules, 2007.

Every District of the State shall have a separate District Disaster Management Authority (Rule-7 of Disaster Management Rules, 2007), which shall consist of:

*Table 3.4: List of officers with their specific Designations in DDMA*

S. No.	Officer	Designation
1.	Deputy Commissioner	Chairperson

2.	Addl. Dy. Com	Member/CEO
3.	District Superintendent of Police	Member
4.	Chief Medical Officer	Member
5.	Superintending Engineers R&B, PHE, IFC, EM&RE, MED	Member
6.	Asst. Director CAPD	Member
7.	Deputy Controller, Civil Defence	Member
8.	Asst. Director Fire & Emergency Services	Member
9.	District Disaster Management Officer	Member Secretary
10.	Executive Officer Municipal Committee	Member
11.	Incharge SDRF Component	Member

#### **Powers and Functions of DDMA:**

##### **1. To act and function as the District Disaster Advisory Committee.**

2. To prepare a Disaster Management Plan (including district response plan for the District).
3. To coordinate and monitor the implementation of the National Policy for Disaster Management and J&K State Disaster Management Policy, 2017.
4. Identification of vulnerable areas in the district to disasters and to take measures for prevention and mitigation of its effects by the departments at the district level.
5. To coordinate the functioning of various departments at the district level in disaster response.
6. To Review the state of capabilities for responding to any disaster or threatening disaster situation in the district and give direction to the relevant departments for upgrading as may be necessary.
7. To organize and coordinate specialized training programmes and also to facilitate community awareness programmes with the support of local authorities, NGOs etc.
8. Providing necessary technical assistance/advice to local authorities in the district to carry out their functions.
9. Identification of disaster relief centers and to stock pile relief and rescue material at these centers.
10. Encourage the NGOs & CBO's at the grassroots in the district for disaster management.

#### **3.4.2 Response Mechanism in the District:**

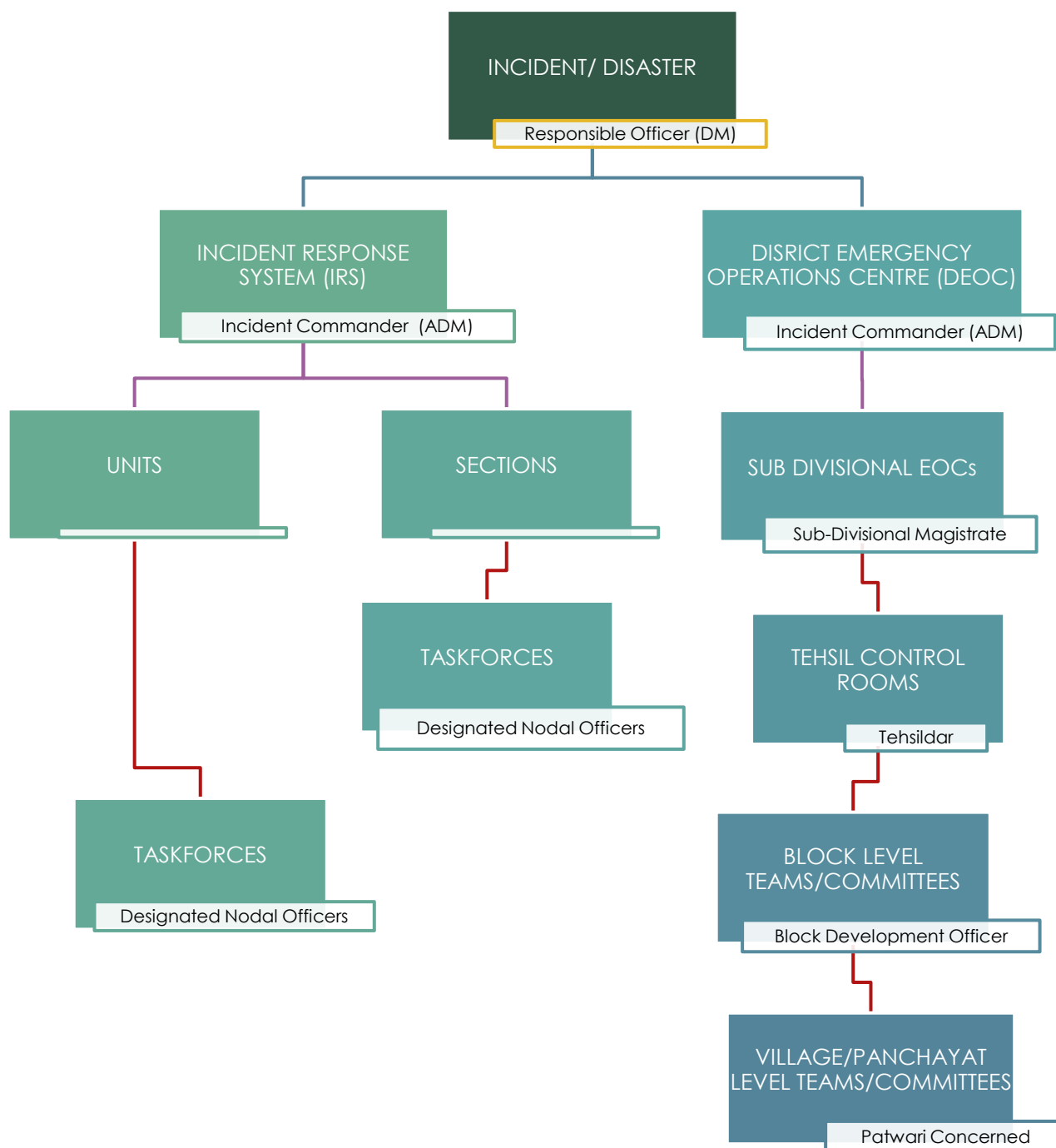
The mechanism proposed for facilitating disaster response in the district is illustrated in Figure 3.2.

#### **3.4.3 Incident Response System (IRS) for the District:**

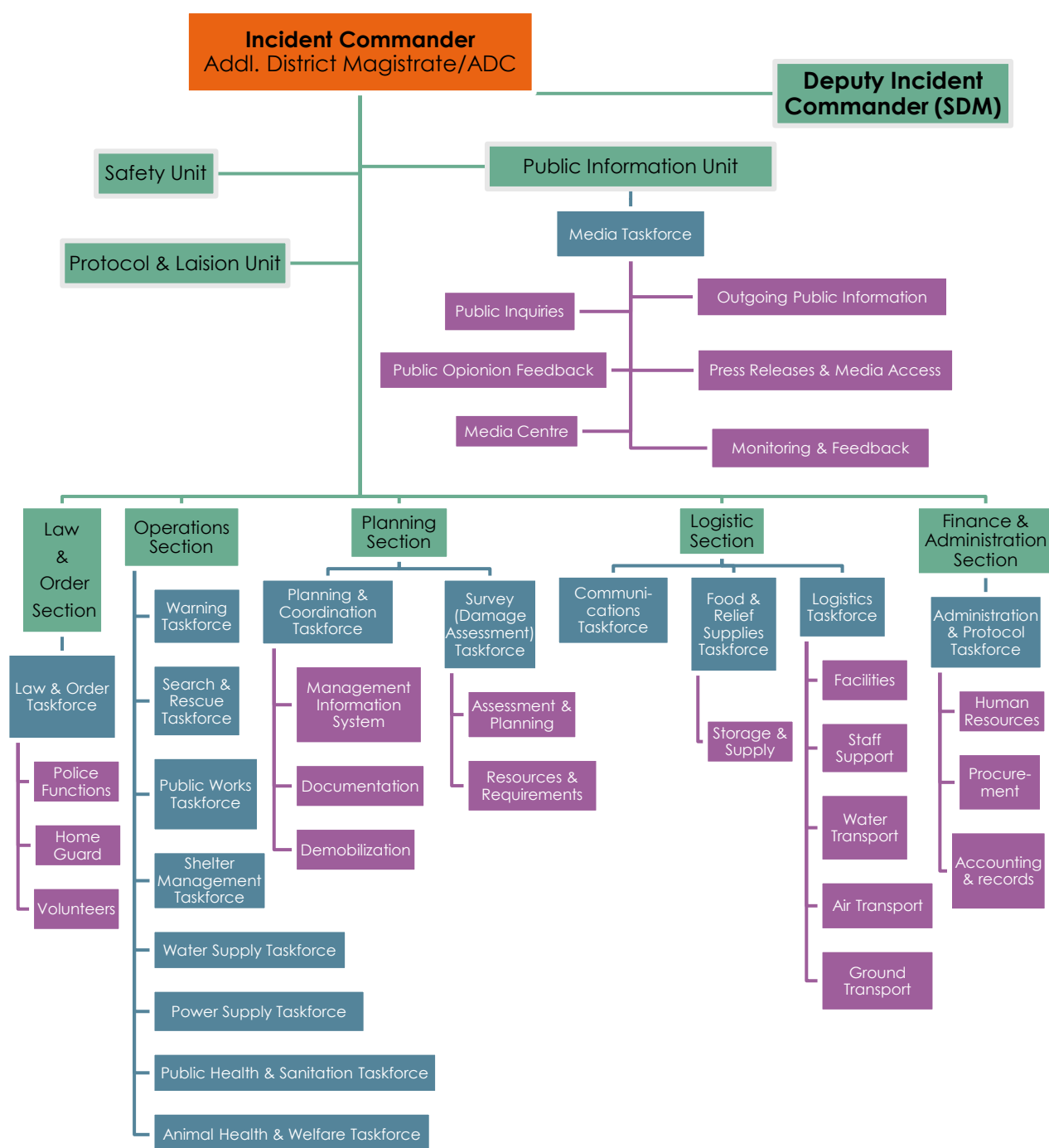
The response to disasters in the district will be organized according to the Incident Response System (IRS). The fundamental elements of IRS – 'Unity of Command, Clarity of Objectives and Efficient Resource Use' are common to the effective response to any disaster.

The disaster response is led by the District Emergency Operations Center (EOC) under the command and control of the District Collector/DM.

The organizational structure of the Incident command system of Anantnag district is illustrated in figure 3.3.



**Figure 3.2: Organisation Chart of District Disaster Management Authority (DDMA)**



**Figure 3.3: Incident Command Structure – Anantnag District**

### 3.4.4 IRS - Basic Functions

The basic functional descriptions for key elements in the District Incident Command System are described below. Not all these functions need to be filled (activated) in every disaster. However, the ensemble of these functions represents all the key tasks, which need to be accomplished in a well-planned manner and executed in effective and cost-efficient disaster response effort.

- **Incident Commander (Additional District Magistrate)**

Responsible for overall management of an incident based on clearly stated mandate from Higher Authority and on focused objectives responding to the immediate impact of the incident. An Incident Commander, who shall be assisted by a Dy. Incident Commander, leads the Incident Command System. Each incident will have as many commanders and other staff, as there are shifts in the incident operation.

Addl. District Collector/ADM is the Incident Commander of the District level EOC. During emergency situations, he/she takes over the charge of the Control Room and commands all emergency operations and so on. The Incident Commander is vested with the responsibility for designing the search and/or rescue and/or recovery that is occurring. The role of the Incident Commander is filled by a representative of the Police, Ambulance Service, Fire Services, and Traffic. They are responsible for the management of all incident operations at the incident site. The requesting agencies with authority to function in the role of Incident Commander are:

- Police force of Jurisdiction
- Ambulance Service
- Civil Defence (SDRF)
- Transport Department (unlikely for avalanche rescue and/or recovery)
- Local Authorities including Fire & Rescue service providers.

### 3.4.5 Emergency Operation Task Forces

Responsible for assuring specific operations according to objectives and plans to address the immediate impacts of the incident. Task Forces under the Operations Section will deal with specific functional tasks, such as Search & Rescue, the provision of water, shelter, etc. The composition and size of these task forces depends on the nature of the incident.<sup>1</sup>

The District administration of Anantnag has identified 16 expected Task Forces for key response operation functions that are described below. Each Task Force is led by one organization and supported by other organizations. The composition of the Task Forces is given in the Table 3.5 below: -

Table 3.5: Emergency Operation Taskforces

S. No	Taskforce	Operations	Nodal Officer	Supporting Members/ Organizations	IRS Section/ Unit
1.	<b>Planning &amp; Coordination</b>	Coordinate early warning, Response & Recovery Operations	District Collector/ DM	Joint Director Planning, Assistant Director Planning, Additional Superintendent of Police	Planning

<sup>1</sup> The Contact Directory of Emergency Operation Task Forces is annexed with this Plan.

2.	<b>Administration &amp; Protocol</b>	Support Disaster Operations by efficiently completing the paperwork and other Administrative tasks needed to ensure effective and timely relief assistance	Additional District Development Commissioner	Assistant Commissioner Development, Chief Accounts Officer DRDA, Additional Superintendent of Police	Finance & Administration
3.	<b>Warning</b>	Collection and dissemination of warnings of potential disasters	Additional Deputy Commissioner	District Information Officer, Executive Engineer Irrigation & Flood Control, Police Control Room.	Operations
4.	<b>Law &amp; Order</b>	Assure the execution of all laws and maintenance of order in the area affected by the incident	Sr. Superintendent of Police	Assistant Commissioner Revenue (ADM), Commandant SDRF	Law & Order
5.	<b>Search &amp; Rescue (including Evacuation)</b>	Provide human and material resources needed to support local evacuation, search and rescue efforts	Deputy Controller, Civil Defense	Deputy Director Fire & Emergency Services, Deputy Superintendent of Police (DAR)	Operations
6.	<b>Public Works</b>	Provide the personnel and resources needed to support local efforts to reestablish normally operating infrastructure	Superintending Engineer PW (R&B)	Executive Engineer, Assistant Executive Engineer /Jr. Engineers (concerned)	Operations
7.	<b>Water Supply</b>	Assure the provision of sufficient portable water for human and animal consumption (priority), and water for industrial and agricultural uses as appropriate	Superintending Engineer, Hydraulics	Executive Engineer, PHE Chief Medical Officer, Assistant Executive Engineer /Jr. Engineers (concerned)	Operations
8.	<b>Food and Relief Supplies</b>	Assure the provision of basic food and other relief needs in the affected communities	Assistant Director, Food, Civil Supplies & Consumer Affairs Department	Supplies Officer with Deputy Commissioner Anantnag, concerned Tehsil Supply Officers, District Red Cross Society	Logistics



9.	<b>Power Supply</b>	Provide the resources to reestablish normal power supplies and systems in affected communities	Superintending Engineer, PDD	Executive Engineer, Assistant Executive Engineer /Jr. Engineers (concerned)	Operations
10.	<b>Public Health and Sanitation</b>	Provide personnel and resources to address pressing public health problems and re-establish normal health care systems	Chief Medical Officer	Community Health Officer, Block Medical Officers, Executive Officers of Municipal Committees	Operations
11.	<b>Animal Health and Welfare</b>	Provision of health and other care to animals affected by a disaster	Chief Animal Husbandry Officer	Sheep Husbandry Officers, Veterinary Assistant Surgeons (concerned)	Operations
12.	<b>Shelter Management</b>	Provide materials and supplies to ensure temporary shelter for disaster-affected population	Superintending Engineer, R&B	Executive Engineer (R&B) Assistant Executive Engineer /Jr. Engineers (concerned)/ Block Development Officers/ Chief Education Officer	Operations
13.	<b>Logistics</b>	Provide Air, water and Land transport for evacuation and for the storage and delivery of relief supplies in coordination with other Task Forces and competent authorities	Additional Deputy Commissioner	Assistant Regional Transport Officer, MVD Inspectors, SRTC Officials	Logistics
14.	<b>Survey(Damage Assessment)</b>	Collection and analysis of data on the impact of disaster, develop estimates of resources needed and relief plans, and compiling reports on the disaster as required for District and State authorities and other parties as appropriate	Additional District Development Commissioner	<b>a) Infrastructure:</b> Assistant Executive Engineer (R&B) /Jr. Engineers R&B (concerned), Tehsildars <b>b) Crops:-</b> Chief Agriculture Officer, Chief Horticulture Officer, Tehsildars <b>c) Forest:-</b>	Planning

				Divisional Forest Officer, Range Officers <b>d) Human/ Animals:-</b> Chief Medical Officer, Chief Animal Husbandry Officer, District Sheep Husbandry Officer, Veterinary Assistant Surgeons	
15.	<b>Communications</b>	Coordinate and assure operation of all communication systems (e.g; Radio, TV, Telephones, Wireless) required to support early warning or post disaster operations	Additional District Development Commissioner	District Information Officer, District Informatics Officer, Officers of Cellular Companies BSNL, Airtel, Jio, etc	Logistic
16.	<b>Media (Public Information)</b>	Provide liaison with and assistance to print and electronic media on early warning and post-disaster reporting concerning the disaster	District Information Officer	NGOs, Local Media Organizations, Journalists	Public Information

- **Roles and Responsibilities of Taskforces**

The actual plans and SOPs developed by prime and supporting organizations for each disaster may result in a variation in the actual composition of each taskforce.

Once activated, these lead and supporting organizations create task forces to accomplish the task as directed by the Incident Commander and appropriate section or Unit Leader. In addition, each task force lead organization will provide a report detailing activities undertaken and lessons learnt during disaster response operations. This report will be purpose –specific reporting during the operation.

The taskforce action plan to identify key actions:

- Before a disaster;
- At the time of warning;
- As the disaster occurs; and
- In periods from:
  - 12 to 48 hours
  - 48 to 72 hours
  - 72 hours and beyond after a disaster

The action plans serve as a quick reference guide to individual Task Forces and the authorities at District Level; as to what specific task forces expect to be doing at specific

stages before and after a disaster. This information will improve coordination within and between task forces and with authorities outside the District.

To facilitate coordination of actions between Task Forces and cross Task Forces, action matrix is a must. This matrix can be used by:

- Individual task forces to identify actions by other task forces in which they are involved;
- The Coordination and Planning Task Force as an aid in coordinating activities across the response to a disaster.
- **Taskforce Control Rooms**

Individual Task Force shall activate & operate their respective control rooms in their offices, manned by a competent person, who is proficient in communication and technically capable of coordinating with District Control Room, EOC, ERC, Tehsil/Block Level Control Room and mobilize requisite resources to the disaster site.

#### **Facilities at Taskforce Control Rooms**

The following facilities should be maintained inside TFCR:

- Telephones
- Facsimile
- Satellite Phone
- Hand held Radios/Base Stations
- Marker Board
- A copy of each Disaster Management Plan and Taskforce Action Plan
- Other relevant documents, if any.

### **3.5 Emergency Services in the District**

#### **3.5.1 District Emergency Operations Centre (DEOC)/Control Room**

During large scale emergencies or disasters, EOC becomes the centre of coordination, planning, resource mobilization and deployment, communication, information management and dissemination. Yet another significant feature of the EOC is that it acts as the platform where key decision makers and administrators interface with technical experts. The Incident Commander takes charge at the District Control Room and commands the emergency operations as per the Incident Command System (ICS) Organizational chart.

District Emergency Operation Center (DEOC) is a physical location and normally includes the space, facilities and protection necessary for communication, collaboration, coordination and emergency information management and temporarily operates from Police Control Room Anantnag. EOC is a nodal point for the overall coordination and control of relief work. In case of 'L1 Disaster' Local Control Room will be activated and in case of L2 disaster SDEOC will be activated along with the DEOC. It is also the central point for information gathering, processing and decision making more specifically to combat the disaster.

Other activities of the Control Room shall include collection/transmission of information concerning the calamity and relief, keep close contact with the Divisional authorities regarding the status of the relief and rescue operations during the calamity. All the Task Force Leaders shall take position in the District Control Room along with Incident Commander to enable one-point coordination for decision-making process. The designated Officer of the Home Guards at the EOC provides security to the EOC entrance.

points. In addition to EOC staff, only authorized individuals should be allowed by the Home Guards to enter the EOC.

**Facilities at District Control Room (DCR) / District Emergency Operations Center (DEOC)**

The District EOC shall be equipped with the items listed below;

- Furniture
- Printer
- Desktop Computers with Scanner, Color Printer and LaserJet Printers
- Laptop
- Photocopier
- Telephone with Broadband facility
- Hot line
- VHF Wireless Set
- VSAT
- Walky-talky Sets
- Weather update Board (Electronic)
- Fax
- Gen set
- Marker Board.
- Video Conferencing System (including Conference table and required furniture)
- UPS/Inverter
- Television -Internet Ready Smart TVs – 40 Inch
- HAM Radios, Handheld Radios and Base Stations
- Drawings showing Disaster information
- Satellite Phones
- Mass alert SMS System
- 4x4 Vehicle
- Motorcycle
- Digital Camera (DSLR)
- CCTV
- GPS Units
- Overhead Projector
- GIS Software
- Max-Min Thermometer
- Emergency Lighting Facility/ Solar lights/ Led Torches/ Search Lights
- First Aid Kit
- Sleeping Bags
- Water Purifier RO
- AC/Room Heater
- LED Lights
- Fire Fighting System
- PA System

### **EOC Levels of Operation**

The EOC activation at various levels depends on the level of disaster. Table 3.6 details these levels of operation. The National/State/District EOCs are activated in the L3, L2 and L1 levels of disasters respectively.

**Table 3.6: EOC Levels of Operation**

<b>Level</b>	<b>Nature of EOC Operation</b>
<b>Level 1 (L1)</b>	<b>Normal:</b> Situation is monitored by EOC in charge
<b>Level 2 (L2)</b>	<b>Watch:</b> When an event / disaster may occur, notification is made to agencies and support staff who would need to take action as part of their responsibilities.
<b>Level 3 (L3)</b>	<b>Partial Activation:</b> Limited activation of EOC when an event / disaster is very probable or following an event which doesn't require full activation. All primary or lead staff will be notified and will staff the EOC.
<b>Level 4 (L4)</b>	<b>Full Scale Activation:</b> All primary and support agencies are notified. All EOC Support personnel will staff the EOC.

### **Back up Control Room**

In case of rare incidents or disasters, the EOC building may be severely damaged or cease to function, a backup EOC or a temporary set up can be used for coordination and control of emergency operation. The HPC has emphasized on setting up of Backup EOCs at all levels right from National level to District level and in this District same can be established at PCR Anantnag.

### **3.5.2 Sub Divisional Emergency Operations Centre (SDEOC)**

For an effective disaster response mechanism, Sub Divisional EOCs are to be established. The Sub-Divisional Magistrate concerned shall take charge as Nodal Officer of Sub Divisional Emergency Operations Centre.

- **Facilities at SDEOC**

The following facilities are maintained inside TFCR:

- PC with internet connection.
- Telephones
- Facsimile
- Satellite Phone (desirable)
- Hand held Radios/Base Stations
- Marker board (1)
- Copy of District Disaster Management Plan and Disaster Management Plan at SubDivision level.
- Other relevant documents, if any.

### **3.5.3 Tehsil Control Room**

The Tehsil Control Room shall be located at the Office of Tehsildar. The Tehsildars of the respective Tehsils shall take charge of the Control Room. The respective Tehsildar shall act and coordinate between the Task Group members working at disaster sites and Block/Panchayat Level Disaster Management Committees for mobilization of resources and dissemination of instructions received from DEOC.

- **Facilities at Tehsil Control Room**

The following facilities are to be maintained inside Tehsil Control Room:

- Telephones
- Facsimile
- Satellite Phone (desirable)
- Hand held Radios/Base Stations
- Marker board
- A copy of Disaster Management Plan at District/SD/Tehsil level.
- Other relevant documents, if any.

### **3.5.4 Emergency Response Centre (ERC)**

The Emergency Response Centre (ERC) is a workplace for emergency preparedness and for crisis management related activities. ERC is the operational heart enabling the authorities to respond to overwhelming natural and man-made disasters quickly and efficiently. The ERC is staffed with experts and equipped with enhanced monitoring and analytical capacity, technologies for satellite images, early warning systems and state of the art crisis management tools. It can monitor hazards globally in real time and respond immediately with the most appropriate means. The 24/7 duty system ensures real-time monitoring and immediate reaction to new emergencies.

#### **EMERGENCY PREPAREDNESS**

Emergency preparedness means an ability to recognize the occurrence of a disaster and, upon its occurrence, to carry out measures specified in emergency plans. ERC ensures the following activities:

- Approves on-site emergency plans.
- Carries out the inspection of emergency preparedness.
- Evaluates the results of inspections;
- Participates in inspections at other workplaces focusing on the emergency preparedness;
- Receives and distributes protocols on an emergency event;
- Management of the Radiation Monitoring Network in the normal radiation situation;
- Exchange of data;

#### **CRISIS MANAGEMENT**

The Crisis management is the summary of management activities of relevant institutions, concerned in analysis and evaluation of safety risks, planning, organization, realization and control of activities performed in connection with the solution of a crisis situation.

As far as the establishment/construction of Emergency Response Centre in district Anantnag is concerned, no such scheme/proposal has been received from the State Government so far. However, the need for advanced ERCs was felt during several occasions like floods & earthquakes were in the services of the Army and CRPF were rendered due to shortage of adequate trained personnel and sophisticated equipment for search & rescue operations. For this purpose, the Trauma & Emergency Centre at District Hospital Janglatmandi and DEOC shall also function as Emergency Response Centres, until any scheme/proposal from the State Government shall be launched.



# CHAPTER - 4

## “PREVENTION AND MITIGATION MEASURES”

District Anantnag is vulnerable to fire (Forest/Domestic), earthquake, floods/flash floods, landslides and snow avalanches. Although, it has not faced any high intensity earthquake in recent past but the fresh repeated tremors in some parts of the district makes it crucial to take necessary prevention and mitigation measures. Studies envisage that the district can receive an earthquake of 4 to 7.3 on Richter scale band. Earthquakes can destroy buildings and infrastructure with secondary effects i.e. fires, embankment failures, landslides and liquefaction etc. Therefore, it is important to consider both primary and secondary effects into earthquake disaster mitigation planning. Also, the damages caused due to the flood of 2014 were very intense due to failure of manmade structures, lack of preparedness and awareness. Therefore, in order to reduce the disaster risks involved in the district, an effective mitigation planning is necessary. For efficient disaster mitigation, the pre-disaster management phase needs to be utilised for planning and implementing preventive measures on the one hand and working on preparedness activities on the other.

### 4.1 Prevention Measures

As a definition prevention is an action taken to avoid an incident or stopping an incident from occurring. It basically includes deterrence operations and surveillance. Whereas, Mitigation refers to measures that prevent an emergency, reduce the chance of an emergency happening or reduce the damaging effects of unavoidable emergencies. Moreover, Disaster Mitigation contributes to lasting improvement in safety and is essential to integrate disaster management in mainstream planning.

The prevention and mitigation strategies need to be both structural and non-structural strategies. While the former generally indicates investment made on physical constructions or other development works (such as engineering measures and construction of hazard resistant / protective structures), the latter refers to soft measures such as awareness creation and education, policies strengthening techno-legal systems and practices, training, capacity development etc.

### 4.2 Mianstreaming in Development Plans and Programs

The DM Act mandated DDMA to “lay down guidelines to be followed by the departments of the Government of the State for the purposes of integration of measures for prevention of disasters and mitigation in their development plans and projects and provide necessary technical assistance therefore” and to “review the development plans of the different departments of the State and to ensure that prevention and mitigation measures are integrated therein”. Under Section 38 (2) (e) of the Act;

- the State Government is to ensure that the integration of measures for prevention of disaster or mitigation have been incorporated by the departments of the Government of the State in their development plans and projects.

- the State Government is further to ensure integration of measures to reduce or mitigate the vulnerability of different parts of the State to different disasters in the state development plan.
- each district should prepare a District Disaster Management Plan (DDMP) and should incorporate measures suggesting as to how mitigation shall be integrated into development plans and projects.
- the DDMPs shall prescribe “the manner in which the mitigation measures shall be integrated with the development plans and projects”.
- the DDMPs of departments at State and District level shall also have provisions for prevention of disaster and mitigation of its effects or both in the development plans and programmes as provided for in the State Disaster Management Plan and as is assigned to the department or agency concerned.

Mainstreaming disaster management into the development planning process essentially means looking critically at each activity that is being planned not only from the perspective of reducing the disaster vulnerability of that activity, but also from the perspective of minimising that activity's potential contribution to the hazard. Every development plan in the state would require incorporating elements of impact assessment, risk reduction and adoption of 'do no harm' approach. The measures such as urban planning and zoning, upgradation of building codes their enforcement, adoption of disaster resilient housing designs and flood proofing, response preparedness planning, insurance, establishment of early warning systems, generating community awareness, creating technical competence and promoting research among engineers, architects, health experts, etc, will be taken on priority.

### 4.3 Mitigation Measures

Risk mitigation measures are typically designed to reduce or limit the adverse impacts of already existing risks of disasters through various structural or non-structural measures or a combination of both. For example, risks of drought can be reduced through measures of water conservation and drought proofing. Risks of earthquakes can be reduced by retrofitting life line structures in seismic zones. Risks of every type of disaster can be reduced with proper strategic action plans for risk reduction as well as development of capacities at all levels.

Broadly mitigation ways can be divided into two parts i.e. structural measures and non-structural measures. Structural measures undertake to strengthen buildings, lifelines and infrastructure to withstand any hazard. Non-structural measures emphasis on land-use planning programmes for sustaining awareness, dissemination of information materials on do's and don'ts at the time of disaster. Once the area has been identified as hazard prone, it becomes important that the government and the community should practice these above-said measures. Based on this ideology, mitigation plans may vary according to major hazards identified.

#### 4.3.1 General Mitigation Strategies:

The strategy envisages the development and implementation of a policy framework on disaster risk reduction from a holistic perspective, which emphasizes prevention, mitigation and preparedness in the pre-disaster phase. This requires the;

- (i) establishment of the mitigation fund for the District;
- (ii) raising awareness for disaster risk reduction at all levels and
- (iii) improving preparedness amongst all stakeholders using optimized and accessible Information and Communication Technology Systems.

To achieve the same, there needs to be appropriate legislative and regulatory instruments that would support and strengthen the enforcement mechanisms at different levels of the government. At the local and regional levels, there needs to be relevant capacity building for vulnerability and risk assessment and in investigating the nature and extent of damage in post disaster situations. The strategy will also be to promote the use of disaster resistant construction techniques. The government will ensure that a culture of safe building codes and practices are followed across all sectors and will be enforced by law. By promoting and encouraging scientific research on risks and disasters, databases on disasters and vulnerability, and a sound understanding on their impacts and preventive measures to be taken will be developed for the district.

### **4.3.2 Structural Mitigation Strategies:**

The general plan outline for any kind of structural mitigation for the district Anantnag is given below.

#### **Land Use Planning**

- Land use planning should take into account the hazard risk and vulnerability context of the District.
- Ensure that development schemes of the District are undertaken in view of hazard, risk, vulnerability and microzonation.
- Provide sufficient evacuation and transportation space in roads and streets that are highly risk prone to hazards (including widening of existing roads and building of new evacuation routes).
- Preparation of risk vulnerability maps; and notification of risk prone areas by micro-zonation.

#### **Infrastructures for Disaster Management**

- Establishing/construction of EOC (Emergency Operations Centre) and Emergency Response Centre (ERC) at district-level.
- Operationalizing EOCs at all levels.
- Construction and strengthening of disaster management cells at local jurisdictions of governance in tune with the ecological and social vulnerability of the populations at risk.
- Construction/strengthening of disaster shelters, disaster management stores and essential life-line infrastructures that are accessible by diverse vulnerable groups.

#### **Adaptation of New/Appropriate Technology**

- Application of Science and Technology based innovations in improvising infrastructures such as dams and reservoirs, building designs, construction etc.
- Identifying appropriate vernacular architecture and related technology that strengthens the resilience of structures.

### **4.3.3 Non-structural Mitigation Strategies:**

Non-structural mitigation measures range from planning, logistics, techno legal regime, capacity building, and community-based disaster mitigation to ecosystem conservation and management. Activities carried out under each task should be

executed by responsible line departments. Accordingly, activities of planning involve strict regulation of land use; regular monitoring of life line structures; ensuring multi hazard preparedness, response and mitigation plan at all levels and strategies for implementation; evolving or strengthening administrative capabilities to plan and implement post disaster management. The general plan outline for any kind of non-structural mitigation for District Anantnag is given below.

### **Mainstreaming Disaster Management in Development Programmes**

- Incorporate DRR concept into developmental schemes.
- Ensure that each development programme/scheme in the District should be sanctioned/undertaken only if it meets the requirement of disaster risk reduction.

### **Techno-legal Regime**

- Restructuring of zoning regulations.
- Strict regulation of land use.
- Regular monitoring of lifeline structures.
- Enforcement and strict adherence to building codes and rules in design and implementation.
- Review and revision of building laws taking into account the objectives of disaster resilience.
- Review and revision of Town planning acts and rules/Master Plans taking into account the objectives of disaster resilience.
- Continuous monitoring and prevention of unplanned, ad-hoc development of buildings and other infrastructure.
- Ensure that expert comments are taken/made on permitting the construction of new buildings.

### **Planning**

- Develop vulnerability atlas map.
- Prepare a multi hazard preparedness and mitigation plan at all levels.
- Prepare Departmental Contingency plans for managing emergency situations.
- Ensure that each department should nominate a Nodal Officer for point of contact.
- Develop strategies for implementation of risk mitigation.
- Prepare generic categorization of disaster response for multiple hazards (articulation of Quick Response Team, Quick Assessment Teams).
- Prepare hazard-wise departmental action plans and SOPs.
- Update the plan as per the requirement.
- Monitor similar activities at district and Tehsil level.

### **Capacity Building**

- Capacity building through Simulation and Mock Drills needs to be carried out both horizontally (across line departments) and vertically (at all levels).
- Develop a cadre of specialized task force in disaster mitigation.
- Strengthen the skills and knowledge of task forces involved in the mitigation of disasters.
- Conduct workshops/training for sensitization of the stakeholders.
- Carry out specific research for instance EIA and SIA
- Regular updation and documentation of the disaster database.
- Launch awareness campaigns regarding safety measures against potential hazards.

- Develop multi- hazard IEC material for Publication and Distribution.
- Organize exhibitions for public awareness through local institutions.
- Promote communication activities such as awareness, emergency contact numbers, do's and don'ts through posters, volunteers training, and village Taskforce.
- Formulate literature of do's and don'ts for building in local/ vernacular languages.
- Conduct regular drills at all institutions at District, Tehsil & Village levels.
- Networking to share knowledge and best practices on effective approaches.
- Encourage disaster insurance for crop, building, and health.
- Include disaster related topics in schools and colleges curriculum.
- Strengthening of coordination between stakeholders at all levels.
- Encouraging Coordination and Information sharing between stakeholders - Knowledge based management and sharing the existing information / data amongst relevant stakeholders.
- Encourage Academic Collaboration with Colleges & Schools offering Disaster Management specialization for exchanging and enhancing knowledge and information.
- Training medical and non- medical staff for handling Mass Casualty and providing basic First Aid.
- Ensure that each village has 10 trained individuals in basic first-aid for emergency response.
- Ensure that the District has at least 20 divers to deal with drowning related incidents.
- Similar expertise to deal with specific hazards needs to be identified and capacity building for the same needs to be ensured.

### **Safety Audit**

- Ensure that all Departments undertake safety audits in their prescribed domains.
- Ensure fire audit of both the Government and Private Hospitals and other lifeline infrastructures, including the proposed EOCs.
- Ensure that BIS seismic code is incorporated in the construction of new buildings.
- Carrying out structural safety audit of all critical lifeline structures at regular intervals.
- Proper maintenance of existing helipads for emergency purposes.
- Proper maintenance of Roads, infrastructure including bridges and alternate routes to deal with emergencies.

### **4.3.4 Guiding Principles and Framework for Mitigation:**

This plan recommends certain guiding principles that would facilitate effective mitigation in tune with an ecosystem based approach to disaster risk reduction. Some of the guiding principles that would facilitate effective mitigation are given in Table 4.1.

**Table 4.1: Guiding Principles for Mitigation**

1. Ensuring commitment from all stakeholders.
2. Build knowledge and awareness.
3. Identify and cooperate with relevant stakeholders.
4. Explore and prioritize potential hazard impacts.
5. Explore a wide spectrum of mitigation and adaptation processes.
6. Prioritize mitigation options.
7. Modify existing policies, structures and processes.
8. Monitor and evaluate systematically.

## 4.4 Geological Hazards

The hazard-wise mitigation measures are as follows:

### 4.4.1 Earthquake:

- Delineation of fault zones.
- Slope stability.
- Undertake micro-zonation consultancy on a priority basis.
- Provide good quality seismic microzonation maps to all stakeholders.
- Develop and provide regularly updated vulnerability and risk assessment maps.
- Monitoring of seismic activity.
- Equip buildings with basic first aid facilities.
- Establish seismological network and round-the-clock monitoring.
- Review and implementation of building codes/land use code. Revision of codes, if necessary. Incorporating the BIS seismic codes for construction.
- Constitution of Hazard Safety Cells (HSC). The function of Hazard Safety Cells towards Earthquake Risk Mitigation include:
  - (i) Establishing proper mechanisms for implementation of all the building codes in all future constructions;
  - (ii) To ensure the safety of buildings and structures from various hazards; and
  - (iii) To carry out an appropriate design review of all government buildings to be constructed in the District.
- Capacity building of Engineers & Architects in earthquake risk mitigation (to design seismically safe buildings and related techno-legal requirements).
- Organize awareness camps at all levels of governance.
- Train all stakeholders in providing and understanding warnings.
- Provision of loans by banks for retrofitting buildings and structures on easy terms.
- Establish a committee for safety audit and suggest seismic retrofitting of buildings.
- Integrating Earthquake Mitigation in Rural Development Schemes such as Indira AwasYojana (IAY), Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and Sampoorna Grameen Rozgar Yojana (SGRY).
- Modify construction guidelines under these schemes so that the houses/schools or community buildings constructed are earthquake resistant.
- To promote seismically safe construction at village/block level.

### 4.4.2 Landslides:

- Construction of deep drains, cut-off walls.
- Setting up of indigenous, alternative and innovative contour bunds and similar structures for diverse terrains.
- Construction of check dams, gully plugs, vegetative barriers, etc.
- Develop landslide inventory and landslide susceptibility maps.
- Assessing the status of risk and vulnerability of the existing built environment.
- Identify safe zones.
- Evaluate engineering and construction approaches to mitigate landslide hazards.
- Wide dissemination of model land use practices in hilly areas.
- Promoting afforestation of large scale plantation/afforestation of indigenous trees in the landslide prone areas.
- Preparing an inventory of existing landslides, active or inactive, in the District.
- Strict implementation of land use measures.



- Revision of town planning bylaws and adoption of model land use bylaws in the district.
- Restrict construction of structures at high contours (sloppy high level grounds).
- Total ban on grazing, cutting of trees in affected areas.
- Promotion of ecosystem based land use practices.
- Apply remote-sensing technologies such as Synthetic Aperture radar and laser altimetry and wireless sensor techniques (WINSOC) for monitoring landslide movement.
- Training of professionals like engineers and geologists for landslide mapping, investigation techniques, analysis, and observational practices.
- Streamlining the mobilization of communities, government agencies, the corporate sector, and other stakeholders.
- Evolve early warning system for landslides.
- Engage MGNREGA and PMRDF work towards reducing landslide risks and enhancing the capacities of vulnerable populations.

#### **4.4.3 Avalanches:**

- Modification of path of avalanche.
- Construction of snow avalanche control structures such as: Prevention Structures, Stepped Terraces, Avalanche Control Piles, Snow Cornice Control Structures, Retaining Walls, deflecting structures such as deflection berms and avalanche track mounds.
- Carry out drainage correction.
- Construction of breaker.
- Construction of snow sheds and tunnels in avalanche prone travel routes.
- Exploration of wind sails as a mitigation strategy.
- Exploring alternative road management options.
- Large scale plantation of indigenous varieties in risks prone the areas.
- Disposing the avalanche potential snow packs by artificial triggering.
- Documenting avalanche incidents and avalanche hazard maps.
- Issuing land use regulations and guidelines taking into account avalanche risk.
- Micro-hazard zonation.
- Strict implementation of avalanche control measures.
- Ensure snow avalanche forecasting and warning; not only testing snow stability with explosives.
- Use infrasonic sensors to monitor avalanche activities.

## **4.5 Hydro-meteorological Hazards**

### **4.5.1 Windstorm:**

- Construction of shelters in windstorm prone areas.
- Construction/strengthening and repair of roads and bridges in windstorm prone areas.
- Enhancing natural vegetation and setting up windbreaks across the wind paths.
- Develop terrain specific warning dissemination systems.
- Strengthening and up-gradation of existing windstorm forecasting system at the State and District level.
- Preparation of contingency plans at district, Tehsil and community level.
- Preparation of specific disaster related departmental action plan and SOPs.
- Imparting training to the stakeholders involved in disaster mitigation and management.

- Awareness creation and campaign for wind mitigation.
- Procure sufficient food grains in the areas likely to be affected.
- Mobilization of resources such as vehicles for evacuation.
- Setting up mobile health units in the vulnerable pockets.

#### **4.5.2 Floods:**

- Strengthening and sensitization of Zonal Flood Committees.
- Ensure fortification of weak embankments and vulnerable points in canals/rivers during free flood monsoon.
- Ensure emergency flood ways and river diversions.
- Improvement of design for irrigation and flood protective structures.
- Construction of flood protection wall, flood diverting channels etc.
- Construction of barrages on the banks of rivers.
- Construction of rising and/or construction of community cum shelter buildings above HFL.
- Construction of rain gauge at Tehsil headquarters.
- Ensure Channel improvement.
- Ensure flood proofing.
- Take up holistic watershed management.
- Regular clearance of drains from slit and weeds.
- Strengthening/ repair of existing roads and bridges and other critical infrastructure in flood plains.
- Restore natural drainage blocked by roads and canals.
- Removal of encroachment along the riverbanks/tributaries.
- Development of catchment area of the floodplain (i) Forestation, (ii) Land sloping and (iii) Small reservoirs/Check dams/ponds etc.
- Repair/restore vulnerable points on roads and bridges before onset of monsoon.
- Establish infrastructure for flood warning and dissemination.
- Strengthening and Upgradation of existing flood forecasting systems.
- Spatial planning (flood risk adapted land use); building regulation and improvement of building flood resistance (wet-proofing and dry-proofing)
- Restriction of construction near / along water way.
- Ensure emergency flood ways and river diversions.
- Prepare contingency plans for any eventuality.
- Ensure that safe citing in flood prone areas is being done.
- Update resource inventory.
- Procure ration in advance at various micro-zones in sufficient quantity before the onset of monsoon.

#### **4.5.3 Cloudburst:**

- Construction/maintenance of small reservoirs/check dams/ponds and barrages.
- Promote large scale plantations in barren lands.
- Ensure forecasting and early warning systems for predicting cloudburst.
- Enactment and enforcement of land use code.
- Organize nallah training.
- Evacuate people residing in low lying areas.

#### **4.5.4 Snowfall:**

- Construction of snow gauges at necessary points
- Provide snow cutters at risk prone areas

- Strict Implementation of existing Snow Clearance Plan in the newly emerging tourist and other villages.
- Procure ration in advance at various micro-zones in sufficient quantity before winter.
- Store relief material at Tehsil headquarters.
- Strengthen co-ordination between diverse stakeholders such as Municipal Corporation, Public Works Department, Border Road Organization and National Highway Authority of India for snow clearance.

#### 4.5.5 Drought:

- Strengthen water conservation techniques.
- Strengthen and stabilize the irrigation system.
- Construct/ Repair dams, reservoirs, lift irrigation, tube wells, tanks, farm ponds and canals for surface irrigation.
- Construct warehouse and cold storages for preservation /storage of food grains.
- Strengthen and upgrade existing drought forecasting systems.
- Establish infrastructure for drought warning and dissemination.
- Application of advanced agro-Science technology and agro-engineering inputs to improve agriculture production.
- Enforcement of soil/ forest conservation measures and afforestation.
- Enactment and enforcement of laws regulating groundwater level and exploitation of natural resources.
- Develop mechanisms for water audits.
- Develop drought related departmental action plans and SOP.
- Impart training to the stakeholders involved in drought mitigation and management.
- Encourage people to use advanced technology of drip and sprinkler irrigation.
- Encourage indigenous rain water harvesting and conservation.
- Encourage farmers to understand crop patterns to be adopted in their area.
- Encourage the adaptation of technique for preservation of green fodder.
- Implementation of nutrition programmes for the vulnerable groups.
- Promote self-schemes for employment generations.
- Ensure drought forecasting and early warning.
- Introduce and implement crop and seed insurance.
- Introduce dry land farming/ drought resistant crops.
- Conduct regular surveillance of public health measures.
- Disseminate drought risk to the general public residing in drought prone zones.
- Campaign for drought tips for agriculture, general public and industries.
- Integrating drought proofing with governmental programmers such as MGNREGA, Integrated Watershed Management Programme (IWMP), National Rural Drinking Water Programme (NRDWP), Rashtriya Krishi Vikas Yojana (RKVY), Fodder and Feed Development Schemes and Rural Infrastructure Development Fund.

## 4.6 Biological Hazards

### 4.6.1 Pest and Disease:

- Encourage crop rotation.
- Plantation of trap crops.
- Destruction of crop refuse or insect infested plant.
- Promote use of resistant varieties of domestic plants.
- Ensure pest forecasting.

- Ensure integrated pest management.
- Generate programmes for eradication and suppression of pests.
- Ensure effective monitoring and surveillance of post-harvest damage in crops.

#### **4.6.2 Epidemics:**

- Provision of functional isolation wards in all tertiary hospitals.
- Provision of labs which could diagnose all the rare pathogens and their characteristics including bio-terrorism agents.
- Improvement of drinking water supply system and sanitation structures.
- Strengthening the public health institutes, surveillance system and epidemiology department.
- Making provision of quarantine facilities; border and airport safety protocols for pandemics or transportation of Bio-terrorism agent.
- Establishing a biological vector control system through environmental engineering.
- Provision of store house for essential drugs with inventory management.
- Prepare Tehsil-wise risk-profile of epidemic prone diseases.
- Map the areas with emergence of multi-drug resistant bacteria.
- Specific programs of community health education for epidemics or other biological disasters.
- Identify the biohazard places and create biosafety and biosecurity measures to reduce the risk of spread of the disease.

### **4.7 Human Induced Disasters**

#### **4.7.1 Industrial Hazards:**

- Planning permission of any factory/industry should consider the land use planning in view of hazard, risk and vulnerability of the district.
- Carry out structural safety inspection/audit.
- Application of Science & Technology and engineering inputs to improve industrial infrastructures.
- Installation of eco-friendly technology in industrial areas.
- Installation of fire alarms and fire fighting equipment in all public buildings and government offices.
- Establish infrastructure for onsite and offsite warning dissemination.
- Procurement of all necessary equipment.
- Strict implementation on factory / industry safety rules.
- Strict implementation of guidelines issued by the State Pollution Control Board.
- Ensure all essential installations meet the carrying capacity and are capable of withstanding working conditions.

#### **4.7.2 Building Fire:**

- Strict implementation of work regulations.
- Strict adherence to fire safety standards in all buildings.
- Equipping Block, Tehsil and Municipal Corporation Headquarter with fire hydrants.
- Install fire fighting equipment and fire alarms in all the public buildings and government offices.
- Install smoke detectors in each floor of the building.
- Organize awareness campaigns regarding safety measures for incidents.
- Conduct regular drills.

- Enhance firefighting capabilities.
- Store cylinders of flammable gases in well ventilated places.
- Release firefighting resources to rural areas outside local municipal limits.

#### **4.7.3 Forest Fire:**

- Review & update the existing regulatory codes and standards for wildland fire protection.
- Forest use restriction. Only authorized officials or permitted local people should be allowed to enter the forest.
- Allocation of funds for developing forest fire lines.
- Maintenance of fire lines.
- Develop a community based disaster management strategy by involving community in fire detection and prevention.
- Routine assessment of forest fire risk.
- Train and equip the firefighting team.
- Ensure that the dead and dying trees are removed from the forests.

#### **4.7.4 Crowd Management:**

- Develop a crowd management plan that takes into account all aspects such as the venue, movement patterns identify possible problem areas, and describe how the plan will accommodate normal and emergency crowd movement.
- Setting up of a centralized crowd management and communications centre to provide real time information. The ideal centre should provide a maximum view of the venue, supplemented by video camera access to blind spaces, pressure points and major movement pathways.
- Developing an Incident Response System for mitigating any eventualities.
- Issues updated, and clear guidelines to specific authorities for crowd management.
- Training for crowd management personnel on the basics of normal and emergency crowd movement and assembly, initial handling of accident victims, communications procedures and use of communications equipment, avoidance of actions that would incite or trigger dangerous crowd behaviors, and conduct and demeanor during an emergency should be provided.
- Full communications coordination should be established between all venue staff, local police, fire & emergency, medical services and any on-site radio or television media.
- Crowd participants need to be legally warned of crowding hazards and be instructed in aid procedures.
- Prior distribution of all radio frequencies, telephone numbers and relevant information and related procedures in printed form to all staff.
- Building codes should be correlated with the movement capabilities of all corridors, stairs, ramps, bridges, escalators etc.
- Establish traffic capacities of corridors, stairs, passenger conveyors and walking spaces.
- Pressure points or locations where a change in pathway processing capacity, normal directions of movement, or a confluence of traffic streams results in conflicts or accident exposures need to be identified and mapped.
- Alternative power sources (back-up standby power) for lighting and communications need to be designed and operationalized.
- Emergency room space and equipment sufficient to handle larger crowd accidents needs to be designed, built and operationalized.

- Training of crowd management staff is vital. Responsibility should not be vested to volunteers/casual laborers alone.
- Organize public meetings and local speaker announcements.
- Distribute reading materials to the general public.



# CHAPTER - 5

## “PREPAREDNESS MEASURES”

Disaster preparedness describes a set of measures that minimises the adverse effects of a hazard including loss of life & property, and disruption of livelihoods. Disaster preparedness is achieved partially through readiness measures that expedite emergency response, rehabilitation and recovery and help in providing timely assistance and also community-based approaches and activities that build the capacities of people and communities to cope with and minimise the effects of a disaster on their lives.

Due to the unawareness and unpreparedness of calamity or disaster affected community the results extend to the loss of their lives and property. Hitherto, coping the effects of disasters have been post-disaster management, involving many problems related to law and order, evacuation, communications, search and rescue, firefighting, medical and psychiatric assistance, provisions of relief and shelters etc. After initial trauma, the next phase starts with long-term reconstruction planning which takes about 5 to 6 years to normalize the life-style in a particular area.

To tackle the post disaster problems a comprehensive DDM plan is in need. The preparedness measures that are mentioned in this chapter of DDMP include setting up of disaster relief machinery, formulation of community preparedness plans, training to the specific groups and earmarking funds for relief operations.

### 5.1 Identification of Stakeholders regarding Resource Planning

The primary focus is to enable the decision makers to find solutions on availability of equipment and human resources required to combat any emergency situation. A District Disaster Resource Network has to be established to collect, compile and update information on resources available and integrate with the GIS – based state resource network for timely use. The different agencies involved at the time of (i) collection and compilation, (ii) creating GIS based network and access, (iii) maintaining and updating the network needs to be identified.

Table 5.1: Resource Planning for Disaster Preparedness

Strategies	Task	Responsibility
Resource Mapping	✓ Identify available resources viz. human, financial and equipment for disaster preparedness and response with <ul style="list-style-type: none"> <li>- Dist. Level</li> <li>- Tehsil level</li> <li>- Village level</li> <li>- Public sector</li> <li>- Private sector</li> <li>- Community level</li> </ul>	Dist. Collector; Fire and Emergency Services; Municipal Council/Committees; Civil Defence (SDRF); Para Military Forces; Traffic Police; Forest Department; Police; Irrigation and Flood Control; Power Development Department; Agriculture Department Horticulture Department;

	<ul style="list-style-type: none"> <li>✓ Identification of gaps of resources as per the need.</li> <li>✓ Delineate processes for procurement of lacking resources.</li> </ul>	Food, Civil Supplies & Consumer Affairs; Veterinary Department; Animal Husbandry Department; Health Department; Government Medical College; Education Board; Social welfare; Red Cross; SDM; Block Development Officers; NGOs.
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The stakeholders as identified from above table includes the Fire and Emergency Services Department, Civil Defence (SDRF), Para Military Forces, Traffic Police, Forest Department, Police, Irrigation & Flood Control Department, Power Development Department, Agriculture Department, Horticulture Department, Food Civil Supplies & Consumer Affairs Department, Veterinary Department, Animal Husbandry Department, Health Department, Government Medical College, Education Board, Social Welfare, Red Cross, Sub-Divisional Magistrates, Block Development Officers, NGOs. The availability of resources should be regularly monitored and updated on the IDRN Website to combat any emergency situation in the District. Information in the database will enable stakeholders in DRR to assess the level of preparedness for specific hazards.

### **India Disaster Resource Network (IDRN)**

India Disaster Resource Network (IDRN) has already taken an initiative to collect and collate information on resources available in the Country/State/District for emergency response and to enhance the decision making capabilities of Government functionaries in quick response to emergencies. IDRN is accessible to the Emergency Officers, District Collectors and other disaster managers at various levels of Government. A web-enabled centralized database for the IDRN is operational enabling quick access to resources to minimize response time in emergencies. The system gives the location of specific equipment/specialist resources as well as the controlling authority for that resource so that it can be mobilized for response in the shortest possible time. All the proactive steps shall be taken to verify and update the dataset on IDRN database as per pre-devised formats ('Form1' & 'Form2A, 2B & 2C') provided on the IDRN Website.

The resources available at different line departments of district Anantnag have been recently uploaded on the official website of IDRN at [www.idrn.gov.in](http://www.idrn.gov.in). However, the copy of the same is also annexed herewith the DDMP.

## **5.2 EOC – Preparedness**

This section specifically deals with the functions and roles of EOC during the preparedness phase, which includes:-

- ✓ Ensure functioning of warning system & communication systems;
- ✓ Facilities for early warning like radio, TV, police wireless and cell phones should be made available;
- ✓ Public Address System should be installed in all associated hospitals;
- ✓ Installation of hotline/communication system. Arrangement of vehicle and sound system for spreading the information.
- ✓ Equipping the Control Room with following:

- District maps showing identified school buildings/shelters;
  - List of Resources Persons with contact address.
  - Database on Resources & Inventory;
  - First-Aid & other basic medical assistance;
  - One retiring room with adequate facilities such as: Generator sets/ Emergency light/Candles etc; Telephone, Fax, Satellite phones, telephonic linkage with Army, Para-Military like ITBP, CRPF etc; Printer & Modem; Thermometer, Fire extinguisher, White Hardboard & soft board;
- ✓ Capacity assessment of different NGOs need to be recorded in order to work hand in hand with the government officials at the event of calamities;
  - ✓ Ensure the formation of Block/village level Disaster Management Committees;
  - ✓ Equip EOCs for providing all the necessary services and facilities to the affected areas / villages;
  - ✓ Ensure that adequate staffs are available by recalling personnel out of station officers or those on leave when required and assisting extension officers to establish work schedule;
  - ✓ Collect the information on the agencies who will involve at the time Disaster;
  - ✓ Activate District Control Rooms and depute senior officers from time to time to review the receipt of information and dissemination;
  - ✓ Arrange meeting with stakeholders such as: Sectoral Departments/Police/Army/ Paramilitary/ NGOs for assigning specific responsibility that need to be carried out at the event of a disaster;
  - ✓ Prepare an accessibility map showing the location of temporary shelter camps;
  - ✓ Sufficient funds for all types of hazards may be kept available for all the department;
  - ✓ Warn people about the impending danger and provide information on the rescue shelter. Firefighting control room in each Gamma unit should be activated and operationalized round-the-clock with a duty roster.
  - ✓ Arrange emergency supply of drugs.

### 5.3 Community Based Disaster Preparedness

Generally, community preparedness depends upon following four major components:

1. Population characteristics (number of children, women, settlement etc.)
2. Building and critical infrastructure such as road, drinking water, communication network, health and sanitation.
3. Physical environment.
4. Social environment (social groups).

In view of these components, risk assessment study can be conducted and identified. Many steps have been taken by DDMA – Anantnag but still a high degree of awareness and training is required to lay down an organization system within communities.

#### 5.3.1 Community Based Disaster Management Plan:

People are often the first responders to any disaster situation therefore a Community based Disaster Management plan is in need to resist and recover from the consequences of catastrophic events. The plan will suggest some broader strategies for strengthening community preparedness. Some of these steps would involve

- i. Identifying and working with vulnerable populations and groups at risk.
- ii. Communicating and generating awareness about their vulnerability and nature of risks to these populations.

- iii. Evolving and designing participatory institutions in dealing with disaster risk and mitigating them, including the development of culturally and geographically suited disaster preparedness measures.

The purpose of any community based disaster preparedness is to strengthen local level capacities for disaster response. There are certain prerequisites for setting up the community Task Forces in district Anantnag. Firstly, local communities should be equipped with adequate and essential medical supply, communication infrastructure and equipment such as radio, wireless systems and extrication equipment. Early warning mechanisms should be established and tested. Local level stockpile for relief and warehouses need to be ensured.

### 5.3.2 Community Warning System, Awareness, Education & Responsibility:

District Anantnag had taken the preparedness measures from village level to District level. At the Village level some volunteers were also trained about First aid and Health, Search and Rescue, and Disaster Management. However, this is just a beginning and a lot more needs to be done.

## 5.4 Media Management

The role of media, both print and electronic, in informing the people and the authorities during emergencies becomes critical, especially the ways in which media can play a vital role in public awareness and preparedness. Media through educating the public about disasters; warning of hazards; gathering and transmitting information about affected areas; alerting government officials, helping relief organizations and the public towards specific needs; and even in facilitating discussions about disaster preparedness and response. During any emergency, people seek up-to-date, reliable and detailed information. Both print and electronic media are regularly briefed at predetermined time intervals about the events as they occur and the prevailing situation on ground.

## 5.5 Medical Preparedness

A very crucial preparedness strategy will be to strengthen the medical preparedness to disasters and emergencies in the District. This will include:

- The preparation and provision of accessible medical databases of public and private facilities available in the District.
- Strengthening and provision of manpower, logistics, equipment and infrastructure, medicines including vaccinations and antidotes, protective gears, disinfectants etc.
- Identification of Medical and Health Incident Command System at all levels of the administrative structure.
- Diverse Taskforce needs to be set up.
- Control Rooms need to be operationalized and activated.
- A medical management plan including hospital preparedness suited to deal with both natural and man-made disasters has to be evolved and disseminated at levels.
- Training and capacity building of diverse stakeholders associated with the health sector has to be designed and conducted. Some of the important themes will be hospital preparedness, first-aid, mass casualty management etc.

Table 5.2: Strategies for Medical Preparedness

S.	Name of Health	Location	Availability of Life	Important
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No	Centre		Savings Drugs	Contact Nos

## 5.6 Evacuation

The plan allocates responsibility for management of each of the elements of shelter. Considering the wide range of services, agencies and issues to be managed, it becomes essential for 'shelter' to be managed within a structure, which facilitates the coordination of agencies and services and support of emergency workers. The following factors will be taken under consideration:

- Setting up of Shelter/temporary shelter in suitable and safe places.
- Assigning responsibilities to officials for distribution of emergent relief/running of free kitchen.
- Provision of lightning facilities for shelter places
- Identification of shelter places with maps.
- Arrangement of food/drinking water/medicine in the shelter places.
- Deployment of vehicle.
- Deployment of Police Personnel. Arrangement of tents (for workers as well).
- Temporary supply of safe drinking water.

## 5.7 Damage & Loss Assessment

Immediately after the disaster, there is an urgent need of damage assessment in terms of loss of life, injury and damage to property. The objectives of damage assessment are to mobilize resources for better rescue and relief, to have detailed information on the extent of damage due to disaster and to develop strategies for reconstruction and restoration facilities. Damage is assessed with regard to building stock, standing crops, agricultural area, livestock lost, forest cover decimated, vital installations etc. In damage assessment of building stock, generally three types of flags are used; green, yellow and red. The green colour is given to the buildings that are safe and require 2-3 days to return to their original function. Yellow flags depict the considerable damage to the buildings and considered unsafe for living, as they require proper structural repairs and careful investigation. The red flag is assigned to buildings that are partially or completely collapsed. Immediately after a disaster event, damage assessment will be conducted in 2 phases viz. Rapid Damage Assessment and Detailed Damage Assessment.

## 5.8 NGOs & Other Stakeholders Coordination

NGO and Voluntary groups are doing very important activity and responding during disasters. DDMA also organized capacity-building programmers, awareness programmers on Disaster Management for NGO and Voluntary groups. For arrangement of water supply, temporary sanitation facilities, search and Rescue activity, Relief distribution can be sought with help of special agencies, NGOs and CBOs.

## 5.9 Awareness

As a part of Preparedness Awareness, generation among the community will be a continuous process. From District to Taluka, Village level awareness programmes must be conducted with the help of Print Media, Electronic media, folk media authority can create awareness among the community.

Table 5.3: Strategies for Awareness Generation

Strategy	Task	Responsibility
<b>Information Education and Communication</b>	<ul style="list-style-type: none"> <li>✓ Imparting awareness about do's and don'ts for various emergency situations through electronic media like television, print, radio, internet, pamphlets, literature, education, in vernacular languages.</li> <li>✓ Generating awareness on disaster preparedness using mediums like public meetings, speaker announcement, street plays, village Task Force/ volunteers training, sign board, hoarding, walling, poster, religious and discourses utilizing the services of preachers.</li> <li>✓ Organizing declamation/debate, poster and quiz competition for mass public awareness</li> </ul>	Information Centre; Education Department; Religious leaders; Media; Municipal Council; Elected members; Telecommunication; Civil society; Red Cross; NGOs; PRIs; IMPA; Civil Defence; Line Departments
<b>Fail safe communication and last mile connectivity</b>	<ul style="list-style-type: none"> <li>✓ Undertake research to establish safe two-way communication – information system from state level to disaster site connecting State, District, Tehsil and city/village level.</li> <li>✓ Set up alert/siren with multi-lingual recorded messages in risk prone areas.</li> <li>✓ Establishment of multiple/alternative systems of warning.</li> <li>✓ Training/IEC campaign for the general public of the risk prone areas.</li> <li>✓ Planforre-establishment of a disrupted system of communication network.</li> </ul>	IMPA; Information Department; District Administration; PRIs; Executive Officer Municipal Council/Committee; Private Mobile Network Providers; Police.
<b>Plan Testing</b>	<ul style="list-style-type: none"> <li>✓ Provide a copy of the plan to each stakeholder.</li> <li>✓ Organize mock drills and rehearsal for plan testing.</li> <li>✓ Lesson learnt through mock drill; identification of gaps through feedback and modification of plan.</li> <li>✓ Organize annual mock drill and updation of plan</li> </ul>	District Administration; IMPA; Information Department; PRIs

## 5.10 Communication

The DDMP also envisages that there should be appropriate provisions for effective risk communication. Risk communication need not be only from state to communities vulnerable to disasters but it can also be vice-versa. Many times, local stakeholders are the first informers of hazard events, which are later verified and confirmed by formal authorities at the district and state level. An effective communication channel to capture this process of sharing and receiving warning has to be designed and implemented. Apart from these, there is a need to establish hazard/region/culture specific early warning systems or alert



systems. The relevant actors and agencies for the same needs to be identified and their capacities need to be enhanced.

**Table 5.4: Strategies for Communication Preparedness**

S.No	Name of Line Department	Concerned Authorities	Contact Nos

## 5.11 Food Supply and Nutrition

Prevent malnutrition in the population affected by the disaster must be ensured in the preparedness measures of disaster management. It is necessary, however, to plan for the treatment and management of cases of malnutrition that existed prior to the disaster or which have become acute, and will become evident during aid operations.

### **What factors should be considered when preparing rations?**

- The food ration should be as simple as possible: a basic food (e.g. rice, corn, wheat flour), a concentrated source of energy, (oil or another fat) and a concentrated source of protein (e.g. dried or canned fish or canned meat).
- Although dried vegetables are an excellent source of protein, is necessary to take cooking difficulties into account.
- Along with the basic ration, vulnerable groups (children under 5, pregnant and breast-feeding women, and malnourished persons) need to receive a supplement.

**Table 5.5 Strategies for Ensuring Food Supply and Nutrition**

Strategies	Task	Responsibility
<b>Techno legal regime</b>	Strict implementation of Infant Milk Substitute Act, 1992 (amended in 2003).	Social Welfare; Health Department
<b>Capacity Building</b>	Provision of alternative crop strategy for maximum output of Kharif crop and a better ensuing Rabi crop; Provide insurance coverage of crops.	Agriculture Department; Horticulture Department
<b>Infant Care</b>	Integrating infant feeding during emergencies. Ensure adequate strategies to maintain optimal infant and young child feeding as it is paramount for child's survival	Social Welfare; Health Department

## 5.12 Animal Welfare

Veterinary Services will play a leadership role in advising the authorities on animal health, welfare and veterinary public health in disaster situations. Veterinary Services should provide sufficient and appropriate input to ensure policies governing support for animals in disaster situations are effective. Where appropriate, Veterinary Services should consider incorporating policies and procedures regarding the use of search and rescue animals in their plans.

Some of the guidelines that must be ensured while preparing the preparedness plan for the welfare of Animals affected by the disaster are given below;

- ✓ Establish cattle camps to take complete care of the cattle population;
- ✓ Encourage fodder cultivation wherever feasible;

- ✓ Arrangement of safe shelter for animals;
- ✓ Ensure insurance cover to livestock through Livestock development board where the department provides 50% of the total premium;
- ✓ Ensure that adequate staff is available by establishing work schedule by cattle camp and hospital administrator;
- ✓ Construction of mounds/local strategies for safe shelter of animals;
- ✓ Training of volunteers and creation of local units for carcass disposal.
- ✓ Procurement of fodder and medicine for animals in selected outlets;
- ✓ Ensure supply from molasses to cattle feed plants;
- ✓ Ensure that extra supplies and materials should be obtained quickly;
- ✓ Ensure that sterilized surgical packs are stored in protective cabinets;
- ✓ Mobilizing community participation for carcass disposal.
- ✓ Monitor the prices of fodder in selected places/ market;
- ✓ Carry out thorough survey of cattle sheds which are more vulnerable to collapse all over the District;
- ✓ Foresee expected injuries and illness;
- ✓ Determine sufficient amount of drugs and medicine in case of emergency;

### **5.13 National Disaster Management Guidelines**

National Disaster Management Authority has conducted many studies related to different Disaster Risk Reduction programmes and prepared Guidelines for preparedness and risk reduction measures that include

- National School Safety
- Disability Inclusive Disaster Risk Reduction
- Temporary Shelters for Disaster- Affected Families
- Home Owner's Guide for Earthquake and Cyclone Safety

#### **5.13.1. National School Safety Guidelines:**

Emphasize on the need for active mainstreaming of Disaster risk reduction in all the school education in the country. This would require collaboration between the state education department and SDMA.

Further, it needs

1. Capacity development activities such as sensitization of officials, public awareness on disasters, training of teachers and students.
2. Pre-positioning equipment for emergency response.
3. Creation of educational material on disaster.
4. Monitoring of risk.

#### **School Safety:**

- ✓ Formulation of School Safety & Disaster Management Plan for the District.  
School Disaster Management Plan should include:
  - Hazard and safety assessment;
  - Various School DM teams; Delineation of roles and responsibilities;
  - Required Equipment;
  - Evacuation plan- Assembly Areas, Location of School Control Room;

- ✓ Setting up of the School Disaster Management Committee (SDMC) with the Principal as its Chairperson.
- ✓ Conduct mock exercises on the perceived disaster in school every six month;
  - The Coordinator before conducting a mock drill exercise should review:
    - The updated School Disaster Management Plan;
    - The type of disasters in which the mock exercise is to be conducted (to be given by the Principal of the school);
    - Incident Commander during mock exercise;
    - The presence of members of various school DM Teams;
    - The Floor Evacuation Plan;
    - The location of School Control Room;
- ✓ Formulation of DM structure in each school;
- ✓ Equip the school to be self-reliant, till the first respondent arrives;
- ✓ Formation of various DM teams in school: Disaster Awareness Team, Early Warning & Information Dissemination Team, Evacuation Team, Search & Rescue Teams, First Aid Team, Fire Safety Teams and Transport Safety Team.

### **5.13.2. Guidelines on Disability Inclusive Disaster Risk Reduction:**

Persons with disabilities are at a greater risk to the adverse impacts of a disaster. It is imperative that we consider their needs at all levels of policy making and implementation if we want to make our state/district disaster-resilient. National Disaster Management Authority (NDMA) has prepared guidelines on Disability Inclusive Disaster Risk Reduction to achieve the same and help disabled persons by involving them in the process, thus enhancing their preparedness, coping capacities and response mechanisms. These guidelines can be easily accessed from the NDMA website [www.ndma.gov.in](http://www.ndma.gov.in) under the link NDMA Publications: NDMA Guidelines/Reports.

Each concerned department/institution of district Anantnag is working to implement the mentioned guidelines under the supervision of DDMA in order to make the district disaster-resilient for persons with disabilities.

### **5.13.3. Guidelines on Temporary Shelters for Disaster-Affected Families:**

One of the major tasks after a disaster is to swiftly plan and provide adequate and efficient temporary shelters to affected families. These Temporary shelters should be cost-effective, sturdy and take into account the needs of the people. NDMA has prepared National Guidelines on Temporary Shelters for Disaster-Affected Families -2019, to help States/other stakeholders address these needs. These guidelines prioritise social inclusion; promote use of local materials and look at involving local communities in the process and can be easily downloaded from NDMA website [www.ndma.gov.in](http://www.ndma.gov.in) under the link NDMA Publications: NDMA Guidelines/Reports.

To implement these guidelines DDMA has directed all the concerned, in order to provide adequate and efficient temporary shelters at the time of disasters/calamities.

### **5.13.4. Home Owner's Guide for Earthquake and Cyclone Safety:**

UT of J&K is prone to earthquakes & floods. In fact, our district Anantnag has experienced many disasters in the past related to Earthquake and Floods. Therefore, people living in the district need to be aware of simple, easy-to-understand tips for making their houses resilient to these disasters. The most important of such measures is adopting safe building construction practices. NDMA has prepared a Home Owner's Guide to equip

people with the right knowledge and right set of questions before building/buying a house, which covers all kinds of construction across different geographies.

For wider and general awareness DDMA has directed the concerned departments/agencies to translate the guidelines in Urdu language and distribute the same. These guidelines can be also easily accessed at NDMA website [www.ndma.gov.in](http://www.ndma.gov.in) under the link NDMA publications: NDMA Guidelines/Reports.

# CHAPTER - 6

## “CAPACITY BUILDING AND TRAINING MEASURES”

The implementation of a District Disaster Management Plan will not be feasible without cooperation of all the stakeholders and a large-scale simulation exercise involving all or several stakeholders is a must for coping disasters and their post-effects in the future. Awareness generation, capacity building and simulation exercises must be rapidly undertaken to enable successful implementation of the DDMP.

Capacity Building develops and strengthens skills, competencies and abilities of both Government and non-government officials and communities to achieve their desired results during and after disasters, as well as preventing hazardous events from becoming disasters. DDMA- Anantnag has been doing CBT activities in past years and planned for further measures to minimize the response time and mitigate the disaster risk. Following training cum Orientation Programme are already organised by DDMA- Anantnag, and the list of such programmes conducted by DDMA so far are listed in table 6.1.

**Table 6.1.: Capacity Building / Training Programmes Conducted by DDMA – Anantnag so far**

S. No.	Scheduled Date	Programme	Scheduled Location/Place
1.	09.01.2018	One Day Awareness-cum-Training Programme	Town Hall Anantnag
2.	15.01.2018	One Day Awareness-cum-Training Programme/ Mock Exercise	Verinag (Dooru)
3.	27.01.2018	One Day Awareness-cum-Training Programme/ Mock Exercise	Town Hall, Dooru
4.	29.01.2018	One Day Awareness-cum-Training Programme/ Mock Exercise	Town Hall, Qazigund
5.	05.02.2018	One Day Awareness-cum-Training Programme/ Mock Exercise	English Medium School Larnoo
6.	22.06.2018	Coordination Conference	Dak Bungalow, Khanabal
7.	26.06.2018	Table Top Exercise	Pahalgam
8.	25.06.2018	Mock Exercise	Pahalgam
9.	27.06.2018	Disaster Preparedness Review Meeting	Dak Bungalow, Khanabal
10.	29.06.2018	Flood Preparedness Meeting	D.C. Office Meeting Hall
11.	16.07.2018	Interactive Session by Ravi Jyee	Dak Bungalow, Khanabal
12.	02.01.2019	One Day Awareness-cum-Training Programme	Govt. Degree College, Uttersso, Anantnag

### 6.1. Capacity Building Plan

#### 6.1.1. Training and Capacity Building:

To enhance organizational and capability skills to deal with emergency situations requires training and capacity building exercises of the various linked government and non-government officers. Since disaster management is a multi-organizations effort, it emphasizes training in execution and coordination as well. Therefore, wide ranges of

training related to management skills are highly required for potential officers in order to equip them for specialized disaster related tasks. They require orientation of various aspects of crisis management such as;

- Skill training and Planning,
- Training on Emergency Response Functions such as first-aid, search and rescue, emergency operation center, emergency feeding and welfare, communication and damage assessment etc.
- Trainings for coordinated disaster management activities and response operations are highly required especially for the persons engaged in emergency services, government – line departments, non-government organizations and important private sector groups,
- Training requirements are likely to comprise core activities of emergency management such as Incident Response System, Emergency Response Functions and basic management skills.

Persons to be trained shall be:

- Government Officers at par with the rank requirement under Incident Response System,
- Team leaders and members under Emergency Support functions,
- Quick Response Teams at headquarter and field level,
- Community level task forces including Volunteers, NGOs and home guard volunteers, school and college students, etc.

District Administration can organize seminars and workshops with the help of SDMA and other concerned stakeholders at respective district level. A record of trained manpower shall be maintained by each department and their representation shall be noticed during mock-drill. The further strategies required for the capacity building plan are listed in table 6.2.

**Table 6.2: Strategies for Capacity Building**

Strategy	Task	Responsibility
<b>Mock Drills</b>	<ul style="list-style-type: none"> <li>✓ Conduct mock drills periodically. Organize combined mock drills among various actors to create a cordial atmosphere.</li> <li>✓ Develop training programmes for volunteers to conduct mock drills.</li> <li>✓ Arrangement of advance preparatory periodic Mock Drills on Disaster Management.</li> </ul>	IMPA; Fire and Emergency Service Department; Health department; Civil Defence; Red Cross; District Administration; Government Medical College
<b>Immediate Response</b>	<ul style="list-style-type: none"> <li>✓ Ensure availability of rescue materials.</li> <li>✓ Establish search, rescue, relief and rehabilitation Taskforce.</li> <li>✓ Co-ordinate with NCC/NSS/Civil Defence/NGO/UNICEF/RedCross/ other voluntary organizations and PSUs</li> </ul>	District Administration; Revenue Department; Fire and Safety; Police; Civil Defence; PRIs
<b>Planning</b>	<ul style="list-style-type: none"> <li>✓ Carrying out detailed vulnerability analysis and risk assessment in the wards/ villages as per hazards/ disaster.</li> <li>✓ Preparations of disaster preparedness in consultation with experts on specific subject plans for: Women/housing and</li> </ul>	District Administration; Line Departments; PRIs



	infrastructure/ livestock/community based participation/ industrial disaster/ drinking water/ electricity/ land use. ✓ Formulation of various committees for different hazards.	
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### 6.1.2. Institutional Capacity Building:

Institutional capacity-building will be structured upon a level-system that will be designed to bring officials and professionals from multiple fields and skill-sets at the district level. For different programmes conducted at national, state or district level DDMA – Anantnag plays a key role in nominating officers/officials from different departments/institutions/agencies relevant to the theme of programmes conducted at National/State/District level to enhance the abilities and expertise of these nominees in disaster management. The role of the DDMA will, thus, be predominantly that of coordination and monitoring. Furthermore, DDMA will also be responsible for ensuring that the Heads of Department (HODs) of the following departments discharge their responsibility of nominating officials from their departments for various disaster management training pertaining to their specific areas of work.

### 6.1.3. Training:

There are four prime responsibilities in this regard. This involves: -

- The identification of stakeholders who are to be trained.
- The departments and other agencies who will offer the training.
- Designing training modules as per the need and context.
- Offering the training.

The stakeholders who need to be trained include Civil Defense Personnel, NCC & NSS cadets, personnel belonging to educational and training institutions, Civil Society actors and CBOs, Corporate entities, Personnel of Fire and Emergency Services, Police and Traffic Departments, Disaster Response Teams, Media, Government Officers/Officials at different levels, Health Personnel and Personnel in the engineering and construction industry. This plan proposes the following training strategy for preparedness.

**Table 6.3: Training Strategy for Preparedness**

Components of Training	Stakeholders to be Trained	Trainers/Resource Personnels
Information; Education; Communication; Management & Administration; First Aid; Response & Evacuation; Mass casualty preparedness; Emergency coordination; Search and Rescue; Operations	Civil Defence; Police; Fire Brigade; Line Departments; Anganwadi Workers; Medical, paramedical and supportive staff; Civil Society Networks (NGOs); Volunteers from educational institutions; NSS/ NCC cadets; Members of PRIs; Local Youth	Fire and Emergency Services Department; Health Department; Social Welfare; Civil Defence; Traffic Police; Police; IMPA & RD; Red Cross; Government Medical College;

## 6.2 Strengthening of DEOC

For strengthening post-disaster Preparedness measures it is mandatory on priority basis that District Emergency Operations Centre (DEOC) should be strengthened after making it operational and fully functional in District Anantnag.

This can be achieved by:

- Ensuring regular training of all staff meant to be present in the EOC.
- Video-conferencing equipment.
- Satellite Phones with annual subscription.
- Wireless Phone Setup in the EOC.
- Training and provision of HAM Radios.

### 6.3. Community Capacity Building

Community Disaster Management Planning is one of the vital components of community preparedness. It involves all important parameters related to hazard awareness, evacuation planning, resource inventory, community level task forces and committees etc. In combating post-disaster effects the planning will help community members in organizing themselves in a pre-planned manner.

As per the records of past hazards/disasters in the district, there is a vital need of awareness among community through public awareness programs on the following themes of disaster:

- Types of disasters and basic Do's and Don'ts related to those disasters.
- Post disaster starvation / Health (epidemic) problems.
- Mitigation measures such as retrofitting techniques for hazard resistant building construction.
- Communication of information of all possible risks based on vulnerable areas, groups, structures / situations and related responses such as evacuation in the district and to solve preparedness problems at community level.

DDMA-Anantnag is working to impart training on a regular basis to the volunteers of Home Guards, NYKs/NYC's, Non Governmental Organisations (NGOs), Self Help Groups etc., to involve them into community planning. It is also crucial to focus on imparting training, cultivating community awareness and ensuring skill development among members of the community. Furthermore, capacity-building at the community level should be done on the Public Private Partnership (PPP) model. This can be done by ensuring identification of local resources and developing local infrastructure through PPP. Community Based Disaster Risk Reduction (CBDRR) and Village Contingency Planning (VCP) are also critical for capacity building at the community-level and will be managed by the concerned departments in the district.

### 6.4. Disaster Management Education

#### AMRUT Programme in Schools

UNESCO has on multiple occasions stressed on the importance of Disaster Management Education in schools. On its website they have written,

*"The integration of disaster risk management in the education sector is crucial in order to increase awareness of the effects and causes of disasters. Schools that take action to manage risks contribute to a culture of prevention, which is essential in the sustainable development process of countries. Indeed, it reduces disaster risks and strengthens the capacities of the most vulnerable communities to respond to emergencies."*

*When a disaster occurs, **education restores everyday life and gives people hope for the future**, in addition to helping satisfy basic humanitarian needs and transmit essential messages that promote security and well being."*

Many countries have realized and understood the importance of disaster awareness education and so have already involved it as a subject in their school curricular. The Children in their primary schooling itself learn about disaster awareness and its management.

DDMA – Anantnag under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) that is a centrally sponsored flagship scheme new mission is training and awaring school students by conducting Disaster Management Exhibitions and Mock Drills in schools with the help of different stakeholders including Chief Education Officer - Anantnag. The broad guidelines for implementation and conduct of exhibitions on the theme of disaster management and mock drills in educational institutions (Schools) are given under;

- The focus for conducting DM Exhibitions and mock drills would be "schools" in each AMRUT City.
- Each AMRUT City undertakes the activities in all the schools one by one throughout the year on a continuous basis.
- The focus of the DM Exhibition should be to generate adequate and appropriate awareness amongst children and youth on the basis of disaster management.
- The exhibition could include display of fire, first aid equipment and educational material on essentials of disaster preparedness and emergency services.
- Since the Exhibition caters to the segment of children/youth of various age groups, care should be taken to include age appropriate/relevant information/content.
- The IEC (information, education and communication) material/content prepared by NDMA and other DM Institutions/ Agencies could be displayed as well.
- Given the scale of the effort, the respective district collector/municipal commissioner/state nodal officer/mission directors of AMRUT as considered appropriate by the State/UT (office of the Chief Secretary/Administrator) should be given the responsibility of the implementation of the initiative at the local level.
- The respective State/UT will send progress in the specified format on a quarterly basis to NDMA with copy to MHA, MoUD and MHRD. A reporting format has been prepared for monitoring of the effort at the National level which is enclosed in the **Annexure** of this DDMP.

# CHAPTER - 7

## “RESPONSE AND RELIEF MEASURES”

Response measures are those which are taken instantly prior to, and following, disaster aimed at limiting injuries, loss of life and damage to property and the environment and rescuing those who are affected or likely to be affected by disaster. Response process begins as soon as it becomes apparent that a disastrous event is imminent and lasts until the disaster is declared to be over. Since response is conducted during periods of high stress in a highly time-constrained environment and with limited information and resources (in majority of the cases), it is by far the most complex of four functions of disaster management. Response includes not only those activities that directly address the immediate needs, such as search and rescue, first aid and shelters, but also includes systems developed to coordinate and support such efforts. For effective response, all the stakeholders need to have a clear perception/vision about hazards, its consequences and actions that need to be taken in the event of it.

The aim of disaster response measures need to be aimed at rescuing those who are affected or likely to be affected by hazards. This involves minimizing the impact of injuries, loss of life and damage to property and the environment. Usually disaster response is carried amidst periods of heightened stress and often with constraints of time, information and resources. Apart from addressing the immediate needs and functions of search and rescue, it also involves the activation and coordination of various lifeline systems.

Relief on the contrary is viewed as an overarching system of facilitation of assistance to the victims of disaster for their rehabilitation in the States and ensuring social safety and security of the affected persons. Relief needs to be prompt, adequate and of approved standards. It is no longer perceived only as gratuitous assistance or provision of emergency relief supplies on time. Therefore, Emergency response plan is a first attempt to follow a multi hazard approach to bring out all the disasters on a single platform incorporating disaster resilient features to 'build back better' as the guiding principle. It provides a framework to the primary and secondary agencies and departments which can outline their own activities for disaster response. Response process begins as soon as it becomes apparent that a disastrous event is imminent and lasts until the disaster is declared to be over. Disaster response is aimed at: Saving Life-Minimise the Loss- Stabilising the Situation.

### **7.1. Response Planning, Preparedness and Assessment**

The onset of an emergency creates the need for time sensitive actions to save life and property, reduce hardships and suffering to restore essential life support and community systems, to mitigate further damage or loss and to provide the foundation for subsequent recovery. Effective response planning requires realistic identification of likely response functions, assignment of specific tasks to individual response agencies, identification of equipment, supplies and personnel required by the response agencies for performing the assigned tasks. A response plan essentially outlines the strategy and resources needed for search and rescue and evacuation etc.

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### **7.1.1. Disaster Response Functions to be carried out by DDMA:**

DDMA plays the main role in Response Planning, Preparedness & Assessment to mitigate any damage or loss caused to life or property and is the main pillar in restoring essential life support components post-disaster. The main disaster response functions carried out by DDMA are distinguished in two phases – Early Warning Phase & Immediate Post Disaster Phase.

#### **Early Warning Phase:**

- Activation of Control Room/DEOC: As soon as Early Warning Message/Information is available, DDMA will activate DEOC.
- Inform Community likely to be impacted.
- Inform Line Departments/Agencies.
- Hold Meetings of DDMA.
- Requisition of State Disaster Response Force (SDRF) or National Disaster Response Force (NDRF).
- Requisition of Paramilitary forces.

#### **Immediate Post Disaster Phase:**

- **Search & Rescue:**

Home Guard/Civil Defence/Fire will carry search and rescue in coordination with Police and NDRF and the existing Paramilitary Forces within or nearby the district.

- **Quick Damage Assessments:**

DDMA will constitute a multi-sectoral damage and need assessment team which will carry out the process of damage and need assessment and report to the DDMA for further action. The multi-sectoral teams will be constituted and its members having local knowledge and will come from different expertise to do the synthesis damage and need assessment compressively. The team will conduct damage assessment in the special following sectors;

- Roads and Bridges,
- Life Line Buildings,
- Food and Civil Supplies,
- Houses,
- Water lines and Tanks,
- Electricity,
- Communication,
- Medical Infrastructure,
- Monuments,
- Agriculture Crops and Horticulture,
- Livestock,
- Forest

### **7.1.2. Quick Need Assessments**

Need assessment will be undertaken by a multi-sectoral team with a special focus on the following sectors listed below;

- Temporary Shelter,

- Food and Civil Supplies,
- Medical/health,
- Special Needs,
- Psychosocial care,
- Security needs in context of varying social groups,
- Restoration of essential services like, roads, water facilities, power and communication.

## **7.2. Warning and Alert**

On the receipt of warning or alert from any such agency which is competent to issue such a warning, or on the basis of reports from District Collector of the occurrence of a disaster, the response structure of Anantnag District will be put into operation. The details of agencies competent enough for issuing warning or alert pertaining to various types of disasters is briefed in chapter 12.

The EOCs and ERC will be put on full alert and expanded to include branch arrangements, with responsibilities for specific tasks, depending on the nature of disaster and extent of its impact. The number of branches to be activated will be decided by the Deputy Commissioner/District Collector at the District level. All line departments and Nodal Officers will work under the overall supervision and administrative control of the District Collector. All the decisions taken in the EOC have to be approved by the District Incident Commander. Immediate access to the disaster site through various means of communications such as mobiles, VSAT, wireless communication and hotline contact needs to be established and maintained. As mentioned earlier, the EOCs and ERC in its expanded form will continue to operate as long as the need for emergency relief and operations continue and the longer term plans for rehabilitation are finalized. For managing long-term rehabilitation programmes, such as reconstruction of houses, infrastructure and other social amenities, the responsibilities will be that of respective line departments through a well-structured R&R Programme.

## **7.3. Activation of District Emergency Operations Centre (EOC) and District Emergency Response Centre (ERC)**

Disaster response measures include those that are aimed at limiting casualties, alleviating hardship and suffering, restoring essential life support and community systems, avoiding further damage and losses, and providing the foundations for subsequent recovery.

When a disaster strikes, every minute counts for saving lives. Immediate, coordinated and pre-planned response is essential. With a capacity to deal with several simultaneous emergencies in different time zones, around-the-clock, the EOC/ERC is a coordination hub facilitating a coherent response during emergencies helping to cut unnecessary and expensive duplication of efforts.

It collects and analyses real-time information on disasters, monitors hazards, prepares plans for the deployment of experts, teams and equipment in the District, and works with the State to map available assets and coordinate the disaster response efforts. Better planning and the preparation of a set of typical disaster scenarios will further enhance the EOCs/ERCs capacity for rapid response.

Following measures should be taken during the Disasters:



- **Incident Support:** The provision of resources and/or strategic guidance, authorizations, and specific decision-making support. This support may be provided to an Emergency Response Taskforces at a site or in limited circumstances, to another EOC.
- **Essential Services and Continuity of Operations:** Ensuring that essential services are maintained, including where possible, in the areas impacted by the emergency.

During disasters, EOC/ERC shall be activated. Emergency Operation Task Forces shall be deployed to the disaster site/sites. All the task force leaders shall take position in the District EOC in order to enable one-point coordination and efficient decision making.

### 7.3.1. Main Roles of DEOC after activation:

- Assimilation and dissemination of information.
- Liaise between Disaster site and State Head Quarter.
- Monitoring, coordinating and implementing the DDMP.
- Coordinate actions and responses of different departments and agencies.
- Coordinate relief and rehabilitation operations.
- Hold press briefings.

### 7.3.2. Activation of Emergency Operation Task Forces:

The Incident Response System in the District is activated on warning or occurrence of a disaster. Task Forces are activated according to predetermined SOPs, and as appropriate for the nature of the hazard or disaster. Activation can be:

- In anticipation of a District level disaster, or
- Occur in response to a specific event or problem in the District.

On activation, coordination of warning and response efforts will operate from the District Control Room (DEOC).

To activate a Task Force, the Collector or designated Incident Commander will issue an activation order. This order will indicate:

- The nature of needs to be addressed,
- The type of assistance to be provided,
- The time limit within which assistance is needed,
- The contacts for provision of the assistance,
- Other Task Forces with which coordination should take place, and
- Financial resources available for Task Force operations.

Special powers are conferred on Incident Commander during disasters. The principal organization leading each Task Force is responsible for alerting the appropriate authority to accomplish warning, relief or recovery objectives given to a Task Force.

## 7.4. Resource Mobilisation

For responding to disaster in an efficient manner Resource mobilisation is one of the most important and crucial activities during the occurrence of any unmet disaster in the district. DDMA – Anantnag has uploaded all types of resources available at its different stakeholders to the IDRN portal along with their location across the district. It can lead to quick and immediate procurement of the required resources from the nearest available site and department for response to any disaster. After the concerned departments receive the requisition of different resources for any type of disaster mitigation programme or post-disaster needs, the resources are mobilized to the affected site instantly through the possible and efficient type of transportation at the instant, by the same department.

Following is the list of the departments which are responsible for mobilising various needs identified in damages need assessment:

**Table 7.1: Resource Mobilization and Responsible Department**

S.No.	Identified Need	Nature of resources	Responsible Department
1.	Medical	Medicines, doctors, nurses, Asha Workers	Chief Medical Officer – Anantnag, Red Cross
2.	Temporary Shelters	Tents, sleeping bags, blankets, clothing, Sanitizer, sanitary pads and stretchers.	DDMA – Anantnag, DEOC, Red Cross, Revenue, CMO - Anantnag
3.	Food and Civil Supplies	Essential food items and fuel	Food and Civil Supplies Department, Anantnag
4.	Security needs for maintaining law and order	Trained persons for security needs	J&K-Police/Home Guard, Civil Defence
5.	Road clearance	Earth removers and man power	PWD (R&B), PMGSY
6.	Communication	To restore the communication network, v-sets, satellite phones, walkie talkie	NIC - Anantnag, J&K-Police, BSNL and other Network operators
7.	Electricity	DG sets, wires, manpower, batteries	PDD - Anantnag
8.	WASH	Chlorine tablets for water purification, drinking potable water, Drinking water, sanitation, sanitation kits	PHE – Anantnag, CMO-Anantnag

## **7.5. Media Management/Information Dissemination**

Media has to play a major role during disasters. They will aid in information dissemination about help-line, aid-distribution camps, emergency phone number or the needs of the people. Further, they will also help in quashing rumours, for crowd management and prevent panic situations. Media will also help in mobilising resources [money, volunteers etc.] from other areas. To disseminate information about various hazards in the district and the relevant Do's and Don'ts during and after a disaster encompassed under the media management. This will be done through various media such as newspapers, television, radio, internet, media, through information van, etc. The DDMA – Anantnag will establish an effective system of collaborating with the media during emergencies. At the District Emergency Operation Centre (DEOC) [presently operations are carried by DDMA-Anantnag] a special media cell will be created during the emergency. Both print and electronic media are regularly briefed by some senior officials designated from DDMA at predetermined time intervals about the events as they occur and the prevailing situation on ground. The NIC-Anantnag in consultation with the DDMA would take appropriate steps in this direction.

## **7.6. Relief Measures and Management**

### **7.6.1. Shelter Management:**

Disaster situations typically result in an immediate need for shelter and protection against an incidence of any disaster. The concerned Government Departments and local authorities would provide temporary shelter, health and sanitation services to rescued

victims in order to prevent an outbreak of diseases. All the Disaster Management Centres in the District shall be used as shelter sheds in case of exigencies. The concerned authorities shall make all the necessary arrangements for providing shelters to common masses and prepare a database of the sufferers with full particulars. The following measures shall be taken by State/District authorities for providing shelter to the affected people:

- Disaster affected people who have lost their dwelling units or where such units have been rendered damaged/useless shall be provided sufficient covered space for shelter.
- Disaster affected households shall be provided access to appropriate means of artificial lighting to ensure personal security.
- Disaster-affected households shall be provided with necessary tools, equipment and materials for repair, reconstruction and maintenance for safe use of their shelter.

### **7.6.2. Relief Camp:**

The following steps will be taken for setting up of relief camps in the affected areas:

- Adequate numbers of buildings or open space shall be identified where relief camps can be set up during emergency.
- The use of premises of educational institutions for setting up of relief camps shall be discouraged.
- One member of the Incident Command Team of the district, trained in running and management of relief camps will be deputed for its management.
- The requirements for operation of relief camps shall be worked out in detail in advance.
- Agencies to supply the necessary stores will be identified in the pre-disaster phase.
- The temporary relief camps will have adequate provision of drinking water and bathing, sanitation and essential health-care facilities.
- Adequate security arrangements shall be made by local police.
- Adequate lighting arrangements shall be made in the camp area at water points, toilets and other common areas.
- Wherever feasible special task forces from amongst the disaster affected families will be set up to explore the possibility of provision of food through community kitchens, provision of education through the restoration of schools and anganwadis.
- Efficient governance systems like entitlement cards, identification cards, bank accounts for cash transfers, etc., shall be developed.

### **7.6.3. Management of Relief Supplies:**

Speedy supplies of relief materials shall be ensured in relief operations. A supply chain management system shall be developed. Standard Protocols shall be put in place for ensuring the procurement, packaging, transportation, storage and distribution of relief items. A mechanism shall be developed for receiving donations in cash or kind and their distribution. DDMA-Anantnag shall take all appropriate measures for transparency in the relief operations. Affected people shall be apprised of the nature and quantum of relief admissible to them. Proper formats will be developed to acknowledge the receipt of relief materials and their further distribution.

### **7.6.4. Public Health:**

During the post disaster phase many factors increase the risk of diseases and epidemics. These include poverty, insecurity, overcrowding, inadequate quantity and quality of water, poor environmental and sanitary conditions, inadequate shelter and food supply. The components of public health response are given in Table 7.2 below.

Table 7.2: Public Health and Disaster Response

Components	Tasks	Responsibility
<b>First Aid</b>	<ul style="list-style-type: none"> <li>✓ Provision of Medical facilities.</li> <li>✓ Provision of required medications such as dressing, antibiotics, Fluids, steroids, tincture iodine/fly repellants, digestive tonics, phenyl, NSAIDs etc.</li> <li>✓ Vaccinations after disaster for Food-Mouth Disease and other infections in cattle and livestock.</li> <li>✓ Vaccinations against Typhoid, Hepatitis A, Cholera etc.</li> <li>✓ CMO shall ensure that the teams are assigned zones for providing necessary medical assistance.</li> <li>✓ Medical team shall continue to assist till the situation returns to normal.</li> </ul>	Deputy Commissioner; Civil Defense; Chief Medical Officer(CMO); Surgeon Specialist; Physician Specialist; ChildS specialist; Gynecologist; Microbiologist; Health Supervisor; Sr. Assistant Animal Husbandry.
<b>Ambulance Service</b>	<ul style="list-style-type: none"> <li>✓ Administer first aid to injured individuals.</li> <li>✓ Evacuate people to relief camps/shelter</li> </ul>	Health Services; Trained Civil Society Volunteers.
<b>Casualty Service</b>	<ul style="list-style-type: none"> <li>✓ Immediate response in handling the casualties.</li> <li>✓ Medical assistance should be given to the needy and injured persons.</li> <li>✓ Carry out on spot first aid facilities.</li> <li>✓ Transport the patients who are in critical conditions to hospitals for treatment.</li> <li>✓ In patients having sustained craniofacial (i.e. head and neck region) trauma it is essential to understand that the patient has to be transferred in such a way that the neck area (cervical spine) is put to minimum strain.</li> </ul>	Civil Defence; Command Officers; Chief Medical Officer; Civil society; Semi-Govt Organizations; Medical Staff
<b>Management of Epidemics</b>	<ul style="list-style-type: none"> <li>✓ Draw-up Plans at PHC level to cope with any epidemic.</li> <li>✓ Immunization against infectious diseases.</li> <li>✓ Disease surveillance and transmission of reports to the higher authorities on a daily basis.</li> </ul>	Medical Staff; District Officials
<b>Corpse Disposal Centre</b>	<ul style="list-style-type: none"> <li>✓ NDMA guidelines regarding corpse disposal would be followed.</li> <li>✓ Arrange sufficient manpower for burial of dead bodies immediately to prevent spread of diseases.</li> <li>✓ Recovered bodies shall be kept in the mortuary of the local hospital dispensaries for identification purposes.</li> <li>✓ Identified and claimed bodies should be handed over to their kith and kins.</li> <li>✓ Assistance in funerals.</li> <li>✓ Manage the disposal of dead bodies and carcasses to clean the environment.</li> <li>✓ The process of identification and handing over to next of kin shall be followed.</li> <li>✓ Mass burial/disposal of bodies shall be the last resort. The bodies shall be disposed in honorable manner by observing religious and cultural practices in the area.</li> </ul>	Municipality; Government Hospital; District Hospital; Police; DistrictAdministration

### 7.6.5. Medical Response:

Medical response has to be quick and effective. The execution of medical response plans and deployment of medical resources warrant special attention at the State and District level in most of the situations. The following measures shall be taken by the DDMA through the concerned departments:

- A mechanism for quick identification of factors affecting the health of the affected people shall be established for surveillance and reporting.
- An assessment of the health and nutritional status of the affected population shall be done by experts with experience of emergencies and if possible local knowledge.
- The voluntary deployment of the nearest medical resources to the disaster site, irrespective of the administrative boundaries will be warranted.
- Adequate supply of medicines, disinfectants etc. shall be made.
- Where necessary inoculation shall be done.
- Vaccination of the children & pregnant women shall be undertaken.
- Vector-borne diseases are a major cause of sickness and death in many disaster situations. Vector control measures shall be undertaken.
- Water borne diseases may cause sickness and deaths and therefore adequate measures shall be taken to prevent such outbreaks.

### 7.6.6. Food Supply and Nutrition:

People affected by disasters may be deprived of food and therefore food aid shall be provided to sustain life. The responsibility of concerned departments and the tasks carried by them is enlisted in Table 7.3

Table 7.3: Food Supply and Nutrition Services during disaster response

Components	Tasks	Responsibility
<b>Food Security, Nutrition &amp; Food Aid</b>	<ul style="list-style-type: none"> <li>✓ Pre-positioning of staff in the areas that are vulnerable to the risk and arrange food and other basic requirements for emergency response.</li> <li>✓ Assign responsibilities to the officials for distribution of emergent relief and to run free kitchens.</li> <li>✓ Assign role to trained voluntary staff/ taskforce/Anganwadi workers etc. for delivering effective service.</li> <li>✓ Provision of supplementary nutrition through Integrated Child Development Scheme (ICDS)/Anganwadi to the vulnerable groups.</li> <li>✓ Monitor the price through committees from the Panchayat level.</li> <li>✓ Ascertain the availability of dry food, drinking water and medicines to the evacuees especially the ones in the cut-off and inaccessible areas.</li> <li>✓ Arrangements for food and ration etc. to be made available to the people.</li> <li>✓ Prior storage of food grains in the vulnerable pockets.</li> <li>✓ Make necessary arrangements for air dropping of</li> </ul>	DC; SDMs; Tehsildars; BDOs; Social Welfare Department; Health Department; Food Civil Supplies & Consumer Affairs PRI

	food packets in the marooned villages through helicopters.	
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### 7.6.7. Water Supply, Sanitation and Hygiene:

#### Water Supply

Water supply is invariably affected in natural disasters. Safe drinking water might not be available particularly in hydro-meteorological disasters. The following measures shall be taken by the DDMA:

- The District Administration shall identify alternative sources of water and make necessary arrangements for supply to the affected population.
- The District Administration shall ensure that affected people have adequate facilities and supplies to collect, store and use sufficient quantities of water for drinking, cooking and personal hygiene.
- It shall be ensured that drinking water supplied conforms to the prescribed quality standards.
- It shall be ensured that water made available for personal and domestic hygiene should not cause any risk to health.

#### Sanitation and Hygiene

Sanitation services are crucial to prevent an outbreak of epidemics in the post disaster phase. Therefore, a constant monitoring of any such possibilities will be necessary. It should be ensured that disaster affected households have access to sufficient hygiene measures. Soap, detergents, sanitary napkins and other sanitary items should be made available to ensure personal hygiene, health, dignity and well-being. In the relief camps, toilets should be sited, designed, constructed and maintained in such a way as to be comfortable, hygienic and safe to use.

The responsible departments and the tasks carried by them at time of any disaster are enlisted in table 7.4.

**Table 7.4: Water Supply and Nutrition Services during disaster response**

Components	Tasks	Responsibility
<b>Water Supply</b>	<ul style="list-style-type: none"> <li>✓ Provision of drinking water.</li> <li>✓ Normal water supply in the affected areas either by arranging tankers or fire tenders.</li> <li>✓ Desalting and dewatering of the inundated areas. Provision of water supply schemes and check dams across Nallahs and riverbeds.</li> <li>✓ Disinfection of water sources.</li> </ul>	Revenue Department; PHE Department; Municipality; PRIs
<b>Sanitation</b>	<ul style="list-style-type: none"> <li>✓ Ensure round the clock sanitation and shall take necessary help from NGOs &amp; volunteers.</li> <li>✓ Provide assistance till the situation returns to normal.</li> </ul>	Municipality; PRIs; Health Services;- Civil society



## 7.7. Assessment Report

### 7.7.1 Preliminary Damage Assessment:

Once a disaster strikes, the Government Departments and the local authorities shall carry out a preliminary 'need and loss assessment' and the District Administration shall mobilize resources accordingly. The members of the rapid impact assessment will be officials drawn from various line departments facilitated by the Tehsildar of the affected Tehsils. The rapid impact assessment report will be detrimental to take decisions on the required rescue and relief operations. The preliminary report should be made available within 24 hours of the calamity.

### 7.7.2 Post-relief Assessment:

The post-relief assessment will be aimed at faster recovery and in reducing vulnerabilities to future risks. The District Administration, with assistance from Government Departments and local authorities, will also document learning from the relief experience, which can serve as inputs into further mitigation, relief or rehabilitation and reconstruction plans.

### 7.7.3. Finalizing Relief Payouts and Packages:

Relief packages would include details relating to collection, allocation and disbursement of funds to the affected people. Relief would be provided to all the affected families without any discrimination of caste, creed, religion, community, sex or whatsoever.

## 7.8 Search and Rescue Management

The District Collector, in conjunction with local authorities will be responsible for the search & rescue operations in an affected region. In doing so, the Collector will be guided by relevant disaster management plans and will be supported by Government Departments and local authorities. Dedicated search and rescue teams from various line departments have been formed to support the search and rescue operations in the district. Team members have to be periodically trained and retrained on the elements of collapsed structure, confined space search & rescue and rope rescue etc. Table 7.5 enlists the key components and actors of the rescue services.

Table 7.5: Key Components and Actors in Rescue

Components	Tasks	Responsibility
<b>Rescue Service</b>	<ul style="list-style-type: none"> <li>✓ Rescue the victims under debris in damaged buildings.</li> <li>✓ Give necessary first aid to such casualties at the post before rescue.</li> <li>✓ Recover the dead bodies.</li> <li>✓ Carry out demolition of dangerous structures and remove debris.</li> <li>✓ Adoption of Green Corridor System for emergency Response.</li> </ul>	<p>Rescue Team consist of:</p> <ul style="list-style-type: none"> <li>- Paramedical Staff</li> <li>- Home Guard</li> <li>- Police personnel</li> </ul> <p>Other actors include:</p> <ul style="list-style-type: none"> <li>- Fire Services</li> <li>- Paramilitary forces</li> <li>- Civil Defence</li> <li>- Civil Society</li> <li>- Civilians</li> </ul>
<b>Evacuation</b>	<ul style="list-style-type: none"> <li>✓ Shift the injured and the affected population from the disaster site.</li> <li>✓ Employ sufficient manpower and material resources, transport facilities whatsoever available in the district for immediate evacuation.</li> <li>✓ Formation of rescue sub-committee.</li> </ul>	<p>District Administration; SDMs; Tehsildars; BDOs; DFO; SDPO; SHO; Range officer; Fire Brigade;</p>

	<ul style="list-style-type: none"> <li>✓ Civilians should be evacuated from military areas to prevent their interference with the operation of troops.</li> <li>✓ Control of spontaneous exodus to prevent panicky condition.</li> </ul>	PRIs
<b>Emergency Operation</b>	<ul style="list-style-type: none"> <li>✓ Rescue people trapped in burning, collapsed or damaged buildings, damaged vehicles, including motor vehicles, trains, industries, boilers and pressure vessels etc.</li> <li>✓ Control fires and minimize damages due to explosions.</li> <li>✓ Control other dangerous or hazardous situations such as oil, gas and hazardous materials spill.</li> <li>✓ Protection of property and the environment from fire damage.</li> <li>✓ Provide support to other agencies in the response to emergencies.</li> <li>✓ Investigate on the causes of fire.</li> </ul>	SDM/ Chairman Tehsildars- BMO - Coordinator SDPO/SHO - Member BDO - Member Executive Officer MC -Member Zonal Education Officer PWD, PHE PDD PRIs
<b>Relief/ Aid</b>	<ul style="list-style-type: none"> <li>✓ District Headquarters is the focal point for all rescue and relief activities.</li> <li>✓ Provide immediate first aid and relief.</li> <li>✓ Carry out relief operations at one place so that control/sub-control centre can easily issue orders for movement of services.</li> <li>✓ Organize a relief camp.</li> <li>✓ Immediate freezing of 75% stock of POL Bunkers in the districts and should be used during time of disaster followed by scarcity.</li> <li>✓ Assisting in distribution of relief material. Maintaining law and order.</li> <li>✓ Cash relief/ex-gratia grant to affected families.</li> <li>✓ Encourage the formation of Mutual Aid and Response Groups (MARGs).</li> <li>✓ Prepare a damage list by conducting a preliminary damages assessment at Tehsil/block Level/ Panchayat Level.</li> <li>✓ Help the evacuees return to their houses.</li> <li>✓ Coordination between agencies is needed on the issue of compensation.</li> </ul>	District Administration; Police; Fire Services; Health Department; Education Department; Paramilitary Forces; Civil Defence; Civilians; Civil Society; PRIs
<b>Welfare Service</b>	<ul style="list-style-type: none"> <li>✓ Provide orphans, widows and other vulnerable people every sort of relief and rehabilitation.</li> <li>✓ Establish rest centres to provide shelters, food and care to them.</li> <li>✓ Establish rest centres for homeless citizens.</li> <li>✓ Collect clothing from NGO's and others like the Red Cross and distribute them amongst the deserving and needy people.</li> </ul>	Social Welfare Department; PRIs Civil Society; Local Auqaf

## 7.9 Assessment Infrastructure and Essential Services

Disasters can result in breakdown of essential infrastructure and support systems such as roads, public buildings, airfields, ports, communication network etc. An immediate priority after a disaster is to bring the basic infrastructure into operating condition and deal with fires and other hazardous conditions that may exist in the aftermath of the disaster. The local authorities would work in close coordination with relevant Government departments

like PWD (R&B), Police etc. to restore infrastructure to normal operating condition. Some of the crucial tasks that the PWD (R&B) will take up are given below.

- Maintenance and construction of infrastructure facilities such as roads, embankments.
- Inspect, strengthen and repair all the roads and sewer system.
- Repair power, telephone and sewerage lines on priority basis to restore normalcy.
- Filling of ditches, disposal of debris, and cutting of uprooted trees along the road.
- Schemes should be sanctioned for repair/restoration of public as well as private properties.

Some of the crucial tasks associated with re-establishing road network connectivity are given below in Table 7.6.

**Table 7.6: Establishing Road Network Connectivity after Disasters**

Components	Tasks	Responsibility
<b>Road Network Connectivity</b>	<ul style="list-style-type: none"> <li>✓ Establish Connectivity.</li> <li>✓ Identification and notification of alternative routes to strategic locations.</li> <li>✓ Mobilize the community to obtain assistance for clearing blocked roads.</li> <li>✓ Facilitate movement of heavy vehicles carrying equipment and materials.</li> </ul>	PWD (R&B); Police; Fire & Emergency Services; Paramilitary forces; Civil Defence; Civil Society
<b>Transport Services</b>	<ul style="list-style-type: none"> <li>✓ Availability/arrangement of high ground clearance vehicles.</li> <li>✓ Maintain the transport in an efficient and road worthy condition.</li> <li>✓ Make arrangements for quick service training of drivers.</li> </ul>	Transport Department; SRTC

## **7.10 Nodal Ministries, State Departments and District Departments/Authorities for Specific Hazards**

### **7.10.1. Hydro-Meteorological Hazards:**

**Table 7.7: Departments/Authorities for Hydro-Meteorological Hazards**

DISASTER	Nodal Ministries/ Department	Nodal State Department	Nodal District Department/ Authority
<b>Flood</b>	MHA/ Ministry of Water Resource	Irrigation and Flood Control Department	Irrigation & Flood Control Department
<b>Drought</b>	Department of Agriculture and Cooperation / Ministry of Agriculture	Revenue Department	Revenue Department/ Agriculture and Horticulture Department
<b>Snow Avalanche</b>	MHA/Ministry of Defence	Snow Avalanche Study Establishment (SASE),DRDO	Revenue Department
<b>Hailstorm</b>	Department of Agriculture and Cooperation/ Ministry of Agriculture	Agriculture and Horticulture Department	Revenue/ Agriculture and Horticulture Department

### **7.10.2. Geological Hazards:**

Table 7.8: Departments/Authorities for Geological Hazards

DISASTER	Nodal Ministries/ Department	Nodal State Department	Nodal District Department/ Authority
<b>Earthquake</b>	MHA/ Ministry of Earth Sciences	Revenue Department	Revenue Department
<b>Landslide</b>	MHA/ Ministry of Mines	Revenue Department	Revenue Department

### 7.10.3. Chemical, Industrial and Nuclear Hazards:

Table 7.9: Departments/Authorities for Nuclear Hazards

DISASTER	Nodal Ministries/ Department	Nodal State Department	Nodal District Department/ Authority
<b>Chemical and Industrial Disasters</b>	Ministry of Environment and Forests	Department of Home	District Industries & Commerce Department

### 7.10.4. Accidents:

Table 7.10: Departments/Authorities for Accidents

DISASTER	Nodal Ministries/ Department	Nodal State Department	Nodal District Department/ Authority
<b>ForestFire</b>	Ministry of Environment and Forests	Forest Department	Forest Department
<b>Serial Bombblast</b>	MHA	Department of Home	Police
<b>Buildingfires</b>	Directorate General Civil Defence, MHA	Department of Home	Police/ Fire & Emergency Services
<b>BuildingCollapse</b>	MHA	Department of Home	Police/ PW Department
<b>Boatcapsizing</b>	MHA	Department of Home	Police, Civil Defense

### 7.10.5. Biological Hazards:

Table 6.11: Departments/Authorities for Biological Hazards

DISASTER	Nodal Ministries/ Department	Nodal State Department	Nodal District Department/ Authority
<b>Epidemics</b>	Ministry of Health and Family Welfare	Department of Health and Education	Department of Health and Education
<b>Pest Attack</b>	Department of Agriculture and Cooperation/ Ministry of	Agriculture Department	Agriculture/Horticulture Departments

	Agriculture		
<b>Cattle Epidemic</b>	Department of Agriculture and Cooperation/ Ministry of Agriculture	Revenue Department	Revenue/Sheep/Animal Husbandry Department
<b>Food Poisoning</b>	Ministry of Health and Family Welfare	Department of Health and Education	Assistant Controller Food/Food Inspectors

# CHAPTER - 8

## “RECONSTRUCTION, REHABILITATION AND RECOVERY MEASURES”

District Anantnag is very prone to disasters. Snowfall, snow avalanches, flood/flash floods and cloudbursts are the most common disasters faced by different parts of the district Anantnag throughout the year. Almost, after every disaster, on minor or major level destruction occurs on the regular basis to constructed structures that may include bridges, civilian houses, Govt. buildings, etc. DDMA - Anantnag uses State Disaster Response Fund (SDRF) as a primary source for temporary or permanent reconstruction and restoration of these structures and provide humanitarian relief as per the norms of the SDRF to the affected people. However, these norms cater to the immediate needs for subsistence but hardly meet the requirements of long term recovery and reconstruction. Therefore, the needs of post-disaster reconstruction remain largely unfulfilled even for minor disasters.

### 8.1 General Process

Recovery is defined as decisions and actions taken after a disaster with a view to restore or improve life and assets of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk. Recovery and Reconstruction (R&R) or comprehensive rehabilitation is the last step in the cycle of disaster management. In addition, this is the phase of a new cycle, where the opportunity for reconstruction and rehabilitation should be utilized for building a better, safer and resilient society. The reconstruction and rehabilitation plan is designed specifically for the worst case scenario. Post-disaster reconstruction and rehabilitation should pay attention to the following activities for speedy recovery in disaster affected areas.

- Damage assessment.
- Disposal of debris.
- Disbursement of assistance for houses.
- Formulation of assistance packages.
- Monitoring and review.
- Relocation.
- Town planning and development plans.
- Reconstruction as Housing Replacement Policy.
- Awareness and capacity building.
- Housing insurance.
- Grievance redressal.

### 8.2 Strategies

Strategies for restoring physical infrastructure and lifeline services may be:

- **Build Back Better:**

This ensures greater resilience, preparedness; and minimum loss in an event of future disaster.

- **Participatory Planning:**

Infrastructure improvement measures need to be balanced with, or at least be inline with, the social and cultural needs and preferences of beneficiaries

- **Coordination:**



A plan of recovery will help better coordination between various development agencies. Damage Assessment and Need Assessment shall be the basis of recovery planning, various sectors for recovery process may be:

- Essential Services: Essential Commodities (eatables), Health, Water, Sanitation Power, Communication & Transport.
- Infrastructural: Housing, Public Buildings and Roads
- Livelihood: Employment, Agriculture, Cottage Industry, Shops and Establishments.

Basic services such as power, water supply, sanitation, etc., should be restored in the shortest possible time. Alternate arrangement of water supply, temporary sanitation facilities can be sought with the help of special agencies. Special arrangements for provision of essential services should be ensured. It can include creating temporary infrastructure for storage and distribution of water supply, running tankers, power supply and sanitation facilities.

## 8.3 Detailed Damage and Loss Assessment

### 8.3.1 Sector-wise Damage Assessment Formats

After an event of disaster, every intending Department shall communicate the damage-loss assessment to the district authorities, through proper channel, on the devised formats, as given below.

**Name of Department:**

**Dated:**

**Type of Hazard:**

Table 8.1: Power

S. No.	Name of Tehsil	Name of village	Item/Services	No. of unit damaged	No of villages affected	Population affected	Recovery measures
			Feeder				
			Transformers				
			HT Lines				
			LT Lines				
			Electric Poles				

*Note: To be planned after initial damage assessment by concerned departments*

Table 8.2: Health

S. No.	Name of Tehsil	Name of Village	Items	Particulars	Total
1			PHCs (Damaged/ Destroyed)	No. of buildings	
				Estimated Loss (Rs.In Lacs)	
2			CHC's (Damaged/ Destroyed)	No. of buildings	
				Estimated Loss (Rs.In Lacs)	
3			Other Buildings (Damaged/Destroyed)	No. of buildings	
				Estimated Loss (Rs.In Lacs)	
4			Human Lives Lost	Male	
				Female	
5			Person who suffered grievous injurious	Male	
				Female	

6			Person who suffered minor injuries	Male	
				Female	

Note: To be planned after initial damage assessment by concerned departments

People in need of immediate rehabilitation including psychosocial support (due to disaster)

Table 8.3: Social

S. No.	Name of Tehsil	Village	Men	Women	Children	Total	Recovery measures

Table 8.4: Water Supply

S. No.	Tehsil	Village	Type	No. of Unit(s) affected	Population affected	Recovery measures
			Well			
			Bore wells			
			Ponds			
			Water Supply Disrupted			
			Contamination			
			ESR damaged			
			GLR Damaged			
			Sump Damaged			
			Pipelines damaged			
			Stand Post damaged			
			Hand pump			

Table 8.5: Housing

S. No.	Name of Tehsil	Name of village	Items	Particulars	Total
1			Fully damaged pucca houses	No. of houses	
				Estimated Loss (Rs.In Lacs)	
2			Fully damaged kuccha houses	No. of houses	
				Estimated Loss (Rs.In Lacs)	
3			Severely damaged pucca houses	No. of houses	
				Estimated Loss (Rs.In Lacs)	
4			Severely damaged kuccha houses	No. of houses	
				Estimated Loss (Rs.In Lacs)	
5			Partly damaged houses (Pucca/kuthca)	No. of houses	
				Estimated Loss (Rs.In Lacs)	
6			No. of huts damaged	No. of houses	
				Estimated Loss (Rs.In Lacs)	

Table 8.6: Agriculture/Horticulture

S. No	Name of Tehsil	Name of Village	Type of Crop	Total cropped area affected (in Acres)		Estimated Loss to Crops (Rs. In Lacs)		Total
				Agriculture	Horticulture	Agriculture	Horticulture	
1								
2								

Table 8.7: Livestock

S.No	Name of Tehsil	Name of Village	Item	Particulars	Total
1			Milch animal lost (Buffalo/Cow)	No.	
				Estimated loss (Rs.InLacs)	
2			Milch animal lost (Sheep /Goat)	No.	
				Estimated loss (Rs.InLacs)	
3			Draught animallost (Horse/Bullock)	No.	
				Estimated loss (Rs.InLacs)	
4			Draught animal lost (Calf/Donkey/Pony/Mule)	No.	
				Estimated loss (Rs.InLacs)	

Table 8.8: Education

S. No.	Name of Tehsil	Name of Village	Items	Particulars	Total
1			Primary Schools (Damaged- Fully/Severely/Partially)	No.ofbuildings	
				Estimated Loss (Rs. In Lacs)	
2			Middle School (Damaged- Fully/Severely/Partially)	No.	
				Estimated Loss (Rs. In Lacs)	
3			Higher Secondary School (Damaged- Fully/Severely/Partially)	No.	
				Estimated Loss (Rs. In Lacs)	
4			Other Educational Institutes (Damaged- Fully/Severely/Partially)	No.	
				Estimated Loss (Rs. In Lacs)	

Table 8.9: Public Utilities

Sl.No	Name of Tehsil	Name of Village	Item	Particulars	Total
1			Roads(All)	Length	
				Estimated Loss (Rs. In Lac)	
2			State Roads	Length	
				Estimated Loss (Rs. In Lac)	
3			District Roads	Length	
				Estimated Loss (Rs. In Lac)	
4			Village Roads	Length	
				Estimated Loss (Rs. In Lac)	
5			Bridges	No.	
				Estimated Loss (Rs. In Lac)	
6			Bridges	No.	
				Estimated Loss (Rs. In Lac)	
7			Culvert	No.	

				Estimated Loss (Rs. In Lac)	
8			Hospitals	No.	
				Estimated Loss (Rs. In Lac)	
9			Office Buildings	No.	
				Estimated Loss (Rs. In Lac)	
10			Police Station	No.	
				Estimated Loss (Rs. In Lac)	
11			Shops	No.	
				Estimated Loss (Rs. In Lac)	

Table 8.10: Food Supplies

S. No.	Name of Tehsil	Name of Village	Type	No. of Godown(s) damaged	Type of Grain(s) perished	Qty of Grain(s) perished (Ton)	Qty of Grain(s) at risk (Ton)	Recovery measures
			Civil Supply					
			Other					

## 8.4 Grievance Redressal System

Grievance redressal is an important aspect in the context of providing need based assistance to affected communities with transparency and accountability. It is also ensuring the protection of their rights and entitlements for disaster response services.

Table 8.11: Grievance Redressal

S. No.	Key Person/ Establishment	Contact No.	Address
1	District Control Room	01932-222337	Office of Deputy Commissioner/ District Magistrate, Lal Chowk Anantnag
2	DEOC/ERC		District Emergency Operations Centre, Sarnal
3.	Police Control Room	01932-222870	S.P. Office, Anantnag

## 8.5 Long-term recovery programme

Disaster recovery typically occurs in phases, with initial efforts dedicated to helping those affected and have immediate needs for housing, food and water. As homes and businesses are repaired, people return to work and communities continue with cleanup and rebuilding efforts. Many government agencies, voluntary organizations, and the private sector cooperate to provide assistance and support.

Some individuals, families and communities that are especially hard hit by a disaster may need more time and specialized assistance to recover, and a more formalized structure to support them. Specialized assistance may be needed to address unique needs that are not

satisfied by routine disaster assistance programs. It may also be required for very complex restoration or rebuilding challenges. Community recovery addresses these ongoing needs by taking a holistic, long-term view of critical recovery needs, and coordinating the mobilization of resources at the community levels.

Oftentimes, committees, Taskforces or other means of collaboration formed with the goals of developing specific plans for community recovery, identifying and addressing unmet or specialized needs of individuals and families, locating funding sources, and providing coordination of the many sources of help that may be available to assist. Some collaboration focuses on the community level and relies on the expertise of community planning and economic development professionals. Other collaborations focus on individual and family recovery and are coordinated by social service and volunteer groups. All such efforts help to lay the groundwork for wise decisions about the appropriate use of resources and rebuilding efforts.

Under the National Response Framework, Emergency Support Function (ESF) Community Recovery coordinates the resources of federal departments and agencies to support the long-term recovery of States and communities, and to reduce or eliminate risk from future incidents. While consideration of long-term recovery is imbedded in the routine administration of the disaster assistance and mitigation programs, some incidents, due to the severity of the impacts and the complexity of the recovery, will require considerable inter-agency coordination and technical support. ESF efforts are driven by the authorities, focusing on permanent restoration of infrastructure, housing and the local economy.

## **8.6 Approach Used in Reconstruction/Repair of**

### **8.6.1 Lifeline Buildings/Social Infrastructure:**

This sector consists;

- **Public Assets**

Public Assets include roads & bridges, culverts, public buildings like hospitals & schools.

**Approach:**

Multi-hazard resistant construction approach to be followed, while reconstruction of public assets. For example:

- Hazard resistant buildings to be made with the help of certified engineers.
- Use of non-shrinking mortar,
- Evacuation plans to be made for the public buildings,
- Non-structural mitigation measures to be taken into consideration.

Risk sensitive development will be ensured in each of the reconstruction Programme. For example:

- Landslide and flood zone mapping to be implemented.
- Detailed geological survey of the land to be used for reconstruction.
- Recommendations from PDNA (post disaster needs assessment) report to be considered.

- **Utilities**

Utilities include water supply, electricity and communication.

**Approach:**

Multi hazard resistant construction approach to be followed. For example:

- Water pipelines, communication equipment used can be of such material which can resist impact of certain hazards.

Risk sensitive development will be ensured. For example:

- Electric and communication junctions to be installed after considering landslide and flood zonation.
- Recommendations from PDNA report to be considered.
- **Economic restoration**

Economic restoration may include Agriculture, Horticulture, Industry, Allied sectors, Tourism, etc.

**Approach:**

- Multi sectoral assessment.
- Assess direct and indirect losses.
- Develop sectoral strategies the sectors that affected the most poor.
- The sectors which are most critical for district's economy.
- Risk sensitive development will be ensured.
- Owner driven approach will be preferred.
- Provision of single window insurance claim system.
- Promote insurance facility for all sectors through government and private institutions.

## 8.6.2 Damaged Buildings:

**Approach:**

- Multi hazard resistant construction to be followed.
- Risk sensitive development will be ensured.

- **Owner Driven Approach for Recovery:**

In this approach:

- National and State schemes like Pradhan Mantri Awas Yojna (rural/ urban) and Mukhya Mantri Awas Yojna can be included in construction of the individual houses.
- Non-structural mitigation measures to be taken into consideration.
- Use of non-shrinking mortar.
- Further loans can be sourced through banks and other financial institutions.

## 8.7 Matrix form of Short term and long-term recovery programme

Disaster recovery has three distinct but interrelated meanings. First, it is a goal that involves the restoration of normal community activities that were disrupted by disaster impacts – in most people's minds, exactly as they were before the disaster struck. Second, it is a phase in the emergency management cycle that begins with stabilization of the disaster conditions (the end of the emergency response phase) and ends when the community has returned to its normal routines. Third, it is a process by which the community achieves the goal of normal life.

Table 8.12: Short Term and Long Term Recovery

Activity/Action	Estimate of Duration (Short-Term)	Estimate of Duration (Long-Term)
Warning	Hours to a few days	Hours to a few days



Response/Operations	Ongoing	Ongoing
Emergency	1-15 days	1-60 days
Preparation of damage assessment	1-4 days	4-8 days
Disaster declaration	1-10 days	0-30 days
Federal/State mitigation Strategy	1-15 days	15-30 days
Recovery	7-150 days	150-365 days
Temporary building moratorium	<=30 days	<=60 days
Letter of intent to submit HM Grant	<=60 days	<=60 days
Short-term reconstruction	<= 1 year	200-365 days
Long-term reconstruction	100 days to 5 years	5 to 10 years

# CHAPTER - 9

## “FINANCIAL RESOURCES FOR IMPLEMENTATION OF DDMP”

There are different levels at which DDMA – Anantnag receives/generates funds for emergency response, providing relief to victims, rehabilitation and other restoration measures in the district.

### 9.1. Funds Created at District level

Under DM Act - 2005, there are two funds mentioned to be created at each district level to meet the Disaster preparedness and Mitigation needs. These are District Disaster Response Fund (DDRF) & District Disaster Mitigation Fund (DDMF).

#### 9.1.1 District Disaster Response Funds (DDRF):

As mandated by Section 48 of the DM Act – 2005 DDRF is created at the district level and used by the DDMA, in order to meet the expenses at district level for emergency response, relief, rehabilitation in accordance with the guidelines and norms laid down by the Government of India and the State/UT Government. However, hitherto DDMA – Anantnag has not initiated any process to create DDRF.

#### 9.1.2 District Disaster Mitigation Funds (DDMF):

Likewise, DDRF District Disaster Mitigation funds (DDMF) is mandated by the same act to be created at the district level and utilized by DDMA. However, DDMF is meant for the mitigation purposes of the district.

### 9.2. At State level

#### 9.2.1 State Disaster Response Fund (SDRF):

The SDRF is a fund constituted under section 48(1) (a) of the Disaster Management Act, 2005 (53 of 2005). Keeping in view of the provision of the Disaster Management Act, 2005 and the recommendations of Fourteenth Finance Commission, Government of India has framed guidelines for administration of SDRF at the state level.

#### Calamities Covered under SDRF

As per the constituted guidelines the SDRF covers the expenditure for providing immediate relief to the victims of cyclones, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanches, cloud burst and pest attack.

As per the norms State Govt. may use only 10% of the funds available under the SDRF for providing immediate relief to the victims of natural disasters subject to the condition that the State Govt. has listed the State specific natural disasters and notified clear and transparent norms and guidelines for such disasters with the approval of the state Authority, i.e., the State Executive Authority (SEC).

#### Notification of State Specific Disasters

In a meeting of the State Executive Committee (SEC) held under the chairmanship of Chief Secretary, J&K on 16<sup>th</sup> July 2018, following State Specific Disasters were approved by the committee that get covered under SDRF:

- Road/rail accidents.
- Climate disaster- lightning.
- Thunderstorms/windstorms.
- Stampede.
- Cross border shelling (To the extent not covered under SRE).
- Drowning and electrocution.

The expenditure on these items will be as per existing SDRF norms for disasters which are already covered. DMRR&R will notify these disasters to the concerned.

### **Items of Assistance from the SDRF**

Based on consideration of the recommendations of the Fourteenth Finance Commission on financing of expenditure on immediate relief during natural disasters for the period 2015-2020, Govt. of India has revised the items for assistance from SDRF/NDRF in the wake of identified natural disasters. The revised list of items eligible for assistance from SDRF/NDRF is enlisted below as;

- Gratuitous Relief.
- Search & Rescue Operations.
- Relief Measures.
- Clearance of Affected Areas.
- Agriculture.
- Animal Husbandry Assistance to Small & Marginal Farmers.
- Fishery.
- Handicrafts/Handloom Assistance to Artisans.
- Housing.
- Infrastructure.
- Procurement of essential search, rescue and evacuation equipment including communication equipment, etc. for response to disaster.
- Capacity Building.
- State specific disasters within the local context in the state, which are not included in the notified list of disasters eligible for assistance from SDRF/NDRF, can be met from SDRF within the limit of 10% of the annual funds allocation of the SDRF.

### **9.2.2 State Disaster Mitigation Fund (SDMF):**

J&K being one of the disaster vulnerable places in South Asia, J&K Ministry for Revenue Relief, Rehabilitation, Reconstruction and Disaster Management created State Disaster Mitigation Fund (SDMF) for mitigation of disaster.

It is envisaged that State Disaster Mitigation Fund shall employ a broader concept of risks and shall include not just physical risks, but also social risks associated with livelihoods, health, education and issues relevant to social protection and climate change. It shall provide a practical and concrete dimension to community-based disaster risk management also by demonstrating to the local authorities the viability of a comprehensive disaster risk reduction approach. Funding high priority disaster risk reduction interventions through this fund gives the local Disaster Management Committees/Task Forces at the village level an opportunity to get involved with the implementation of these measures. This encourages local authorities to take ownership of disaster risk reduction initiatives and increases the level of community participation in such programmes.

It is also envisaged that District Disaster Management Authorities should have a proper role in the operation and execution of State Disaster Mitigation Fund or related activities. Hence, the mitigation projects evolved by any agency – District Administration, Departments of the State/District, NGOs/Community Based Organisations/Civil Society Organisations, Scientific Organizations, etc should first be submitted to District Disaster Management Authorities concerned, assessed and approved by District Disaster Management Authorities. The District Disaster Management Authorities then forward the project proposals to the Secretary, State Disaster Management Authority.

### **9.3. At National Level**

#### **9.3.1 National Disaster Response Fund (NDRF):**

NDRF is a fund constituted under section 46 of the Disaster Management Act 2005. These Guidelines are issued under section 46 (2) of the Disaster Management Act, 2005 (hereinafter DM Act, 2005), to supplement funds from the State Disaster Response Fund (SDRF) of a State, to facilitate immediate relief in case of calamities of a severe nature.

##### **Calamities Covered under NDRF:**

Natural Calamities of Cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, avalanches, Cloud burst and pest attack considered being of severe nature by Government of India and requiring expenditure by a State Government in excess of the balances available in its own State Disaster Response Fund (SDRF), will qualify for immediate relief assistance from NDRF.

##### **Items of Assistance from the NDRF:**

The items of assistance covered under NDRF are the same as listed for SDRF. However, the revised items coming under SDRF or NDRF can be also downloaded from the website of Disaster Management Division of the Ministry of Home Affairs, i.e. [www.ndmindia.nic.in](http://www.ndmindia.nic.in). Furthermore, the approved list of items and norms for assistance from SDRF/NDRF in the wake of identified natural disasters is annexed herewith this DDMP.

#### **9.3.2 Prime Minister's Development Plan:**

Prime Minister's Development Plan (PMDP) essentially rests on five Pillars- Humanitarian Relief, Crisis Management, Social Infrastructure Development Projects and Economic Infrastructure. The Plan aims at expanding economic infrastructure, expanding provision of basic services, providing thrust to employment and income generation and providing relief and rehabilitation to the victims affected by natural Calamities and to strengthen Disaster Management Framework of the nation.

For the relief and rehabilitation activities in the district Anantnag, additional Financial Assistance to the victims affected due to the floods of September – 2014 was granted under PMDP, 2015 under Account Head 4235 Capital Outlay on Social Security and Welfare. This package has also helped DDMA-Anantnag in 2019 to provide relief to the victims affected by heavy snowfall of 2018 -2019.

##### **Humanitarian Relief:**

This involves humanitarian relief under PMDP to the affected families in the form of enhanced ex-gratia relief for reconstruction of houses; assistance for rehabilitation of

livelihoods in the form of interest subvention for traders / self employed / business establishments etc.

#### **Crisis Management:**

Under PMDP, this includes undertaking a Comprehensive Flood Control Project for Rivers and its tributaries including dredging and desilting; assistance for permanent restoration of damaged public infrastructure assets; assistance under World Bank assisted Jhelum Tawi Flood Recovery project; strengthening the Disaster Management Framework in the State, including setting up of EOCs and allied infrastructure etc.

## **9.4. Other Financing Options**

### **9.4.1 Techno-Financial Regime:**

Considering that the assistance provided by the Government for rescue, relief, rehabilitation and reconstruction needs cannot compensate for massive losses on account of disasters, new financial tools such as catastrophe risk financing, risk insurance, catastrophe bonds, micro-finance and insurance etc., will be promoted with innovative fiscal incentives to cover such losses of individuals, communities and the corporate sector. In this regard, the Environmental Relief Fund under the Public Liability Insurance Act, 1991, enacted for providing relief to chemical accident victims is worth mentioning. Some financial practices such as disaster risk insurance, micro-finance and micro-insurance, warranty on newly constructed houses and structures and linking safe construction with home loans will be considered for adoption.

### **9.4.2 Corporate/Public/Private Investments:**

Opportunities of Corporate Social Responsibility (CSR) & Public-Private Sectors funds investments would also be explored and elaborated by the DDMA for increasing disaster resilience.

### **9.4.3 Seek of Other Options:**

DDMA – Anantnag also looks for other financing options to meet the needs of affected people post-disaster for mitigation/restoration/relief measures.

# CHAPTER - 10

## “PROCEDURE AND METHODOLOGY FOR MONITORING, EVALUATION, UPDATION AND MAINTENANCE OF DDMP”

District Disaster Management Plan (DDMP) - Anantnag is prepared in the interest of public domain and is used to aware general public and the institutes/departments/agencies related with disaster management about the policies, techniques, methodology, etc used to come over different disaster threats and prepare for the same in order to reduce the post-disaster effects and save the precious lives. The underlying principle of disaster management is that it has to be part of all departments and none can fold fingers against it.

### 10.1. Authority for maintaining & reviewing the DDMP

DDMA – Anantnag periodically reviews the DDMP every six months and updates it every year before the onset of monsoon (in the month of May). After getting approval from the concerned Headquarters the copies of the same are circulated to the concerned stakeholders of DDMA. With respect to the below mentioned clauses of the DM Act - 2005, DDMA – Anantnag ensures the planning, coordination, monitoring and implementation of DDMP:

- Preparation of plans is the ultimate responsibility of the District Disaster Management Authority DDMA.
- The first draft of DDMP is to be discussed in the DDMA and later the Chairman of the DDMA shall rectify it.
- As per the Section 31, Clause (4) of DM Act 2005, the DDMP shall be reviewed and updated annually by the DDMA.
- In order to update the document, all Vertical and Horizontal plans shall be collected and incorporated to the District Plan.
- The final approved copy of the updated document shall be circulated to each stakeholder of the DDMA.
- In accordance with the sub-section (7) The DDMA shall, review from time to time, the implementation of the Plan and issue such instructions to its different stakeholders as it may consider necessary for the implementation thereof.
- The DDMP shall include-
  - a) the areas in the district vulnerable to different forms of disasters;
  - b) the measures to be taken, for prevention and mitigation of disaster, by the Departments of the Government at the district level and local authorities in the district;
  - c) the capacity-building and preparedness measures required to be taken by the Departments of the Government at the district level and the local authorities in the district to respond to any threatening disaster situation or disaster;
  - d) the response plans and procedures, in the event of a disaster, providing for-
    - i. allocation of responsibilities to the Departments of the Government at the district level and the local authorities in the District;
    - ii. prompt response to disaster and relief thereof;



- iii. procurement of essential resources;
- iv. establishment of communication links; and
- v. the dissemination of information to the public;
- e) such other matters as may be required by the State Authority.
- The District Authority shall send a copy of the District Plan to the State Authority which shall forward it to the State Government.

## **10.2. Proper monitoring & evaluation of the DDMP**

To review different disaster management activities in the district and evaluation of the DDMP, all the concerned stakeholders/agencies participate in the meeting conducted half-yearly under the chairmanship of the Chairman, DDMA – Anantnag. In the meeting, all concerned departments/agencies give their recommendations on specific issues on Disaster Management and are directed to submit their updated reports quarterly.

## **10.3. Post-disaster evaluation mechanism for DDMP**

The DDMA Chairman shall make special arrangements to collect data on a particular disaster irrespective of size and vulnerability. This post disaster evaluation mechanism shall be set up with qualified professionals, experts and researchers and the collected data shall be thoroughly cross checked and documented for further reference. The DDMA will evaluate the DDMP by conducting meetings and consultation with all stakeholders. The list of stakeholders and their responsibilities for development of the DDMP is given in Table 1.1 of chapter 1 of this plan.

## **10.4. Regular Updation Process for the DDMP**

The updated DDMP of District Anantnag is uploaded on the official website of District Magistrate at [www.anantnag.nic.in](http://www.anantnag.nic.in) for general information of the public just after the final approval of the plan. The Chairman of DDMA ensures regular updation of the DDMP by consulting the concerned line departments to update their plans by taking into consideration:

- Resource Inventory of equipment and manpower in the district with their addresses and contact details,
- Valuable inputs from actual disasters and updating Matrix of past disasters,
- Major change in the operational activities and location through SOPs & Checklists,
- Lessons learnt from training, near-missed incidents,
- Inputs from mock drills/ simulation exercises,
- Changes in disaster profile,
- Technological developments/ innovations in identifying potential hazards,
- Updation of databases using new technologies like GIS,
- Change in demography of surrounding population,
- Changes in the geo-political environment.

## **10.5. Uploading of updated plans at DDMA/SDMA websites**

DDMP - Anantnag is for the interest of public domain and therefore would be uploaded at the official websites of DDMA/SDMA under the supervision of the District Information Officer after each updation with prior approval of the Chairman DDMA. Furthermore, the copy of the same must be submitted to the higher authorities like Department of Disaster Management, Relief, Rehabilitation & Reconstruction, J&K in order to transmit the said copy to the Government of India, Ministry of Home Affairs, New Delhi.

## 10.6. Conducting of Mock Drills

Mock-drills help in evaluating disaster preparedness measures, identify gaps and improve coordination within different government departments, non-government agencies and communities. They help in identifying the extent to which the DDMP and the associated SoPs are effective. Mock Drill exercises also help in revising the plan through lessons learnt and gaps identified. Furthermore, enhance the ability to respond faster, better and in an organized manner at the times when response and recovery measures are taken.

### 10.6.1 Debrief and Evaluation-Mock Drills:

- After the mock exercise, debriefing and evaluation is very important. It is of critical importance that these insights are collected from participants (who participated in the exercise) and used to modify the plan.
- Hot debriefing is very effective as it is carried out immediately after the exercise. It also includes documentation in terms of recommendations and improvements of the plan.
- The lessons learned from the mock exercise are likely to be similar to those from real events.

The only major difference is that exercises are controlled events, specifically designed to test procedures and they can be repeated again and again until sound/workable arrangements are in place.

### 10.6.2 The Responsible Parties for Organizing District Drills:

DDMA – Anantnag conducts Mock Drill exercises at at various levels:

- **District Level:**

It is the responsibility of the concerned chairman and the CEO of DDMA – Anantnag to conduct Mock drills at district level. The chairman or CEO directs different stakeholders and the concerned agencies of DDMA to Involve in Conducting a Mock drill as the incident of disaster may be.

- **Sub Divisional Level:**

On Sub Divisional level it is the responsibility of the concerned Sub Divisional Magistrate (SDM) to conduct mock drill exercises.

- **Block Level :**

Similarly, at Block Level the Block Development Officer will be the concerned authority to get the mock exercise conducted.

### 10.6.3 Schedule for Organizing Mock Drill Exercises:

For monitoring, evaluation, updation and maintenance of DDMP each DDMA shall hold mandatory mock drills at least twice annually. Looking to the disasters occurring usually during winter season and Monsoon-Autumn season (when the flood disasters usually occur) in the district Anantnag, it is mandatory for DDMA-Anantnag to conduct Mock Drill exercises before the beginning of these seasons in order to aware and prepare different stakeholders of DDMA about the unmet incidents happening during these seasons and evaluate their departmental plans accordingly. Furthermore, the mock drill exercises related to other disasters can be conducted after checking the efficiency of the departments for any unforeseen incidence from taking place.

### **10.7. Monitoring & gap evaluation**

To check, train and update the personnel involved in different programs of the Disaster Management about the latest skills and SoPs, it is the authority of DDMA – Anantnag. As per one clause of DM Act - 2005, the DDMA shall organize & coordinate specialized training programmes for different levels of officers, employees & voluntary rescue workers in the district. Chairman of DDMA ensures the maintenance of DDMP and analyzes the identified gaps. All the stakeholders of DDMA are directed to participate in the meeting conducted half yearly, where they give their specific recommendations on different issues of DDMP, and submit their monitored & review report on different aspects of Disaster Management.

Plan maintenance is a dynamic process of updating the plan on a periodic basis. The back-bone of maintaining the plan is carrying out mock drills, undertaking periodic vulnerability and risk assessment, improvising in the context of new development programmes/projects and updating the plan accordingly. All the concerned stakeholders of DDMA must have a system to ensure that all Officers of their departments who have a specific role to play are fully conversant with their responsibilities/tasks.

# CHAPTER - 11

## “COORDINATION MECHANISM FOR IMPLEMENTATION OF DDMP”

For proper and effective disaster management in the district it is mandatory for DDMA – Anantnag to ensure that there is a warm coordination between DDMA & its stakeholders, between DDMA & other local bodies/authorities, between DDMA & SDMA, between DDMA & NDMA, and even between each of mentioned departments/bodies/authorities. These partnerships recognize that each level of the disaster management arrangements must work collaboratively to ensure the effective coordination of planning, services, information and resources necessary for the interest of making district disaster resilient. A progressive escalation of support and assistance is borne when a step based disaster management coordination based on bottom to top approach i.e., Village level -Tehsil level - Sub-Division level - DDMA – SDMA, is ensured.

For effective mechanism for implementation of DDMP within the district, it is the responsibility of chairperson or CEO of DDMA to ensure about the following arrangement in the district:

- Disaster management committees'/ Task forces are operational at Village, Tehsil, Sub-Division and district level. The above committees are responsible for planning, organising, coordinating and implementing all measures required to mitigate, prevent, prepare, respond and recover from disasters in the affected area under their jurisdiction.
- Emergency Operation Centers at Sub-Division and district level supports disaster management groups while coordinating information, resources, and services necessary for disaster operations.
- Functional agencies of district administration, DDMA and DEOC, are responsible to coordinate and manage specific threats and provide support to other agencies on and as required.

### 11.1 Intra and Inter - Departmental Coordination

It requires both inter-departmental and intra-departmental coordination between all the stakeholders of DDMA, line departments, local bodies and other local authorities, for proper disaster management in the district. Each stakeholder of DDMA – Anantnag prepares their Departmental Disaster Management Plans and constitute departmental level Disaster Management committee headed by a gazetted officer pertaining to that department. To analyse the preparedness level of the department towards any unmet disaster or calamity on quarterly basis meetings are organized by the heads of these departments, where the committee members give their opinions about different preparedness and management measures, decide the measures to be taken for reducing the gaps in their capacities and ensure the revision of their departmental plans accordingly.

## **11.2 Coordination mechanism with NGOs, CBOs, Self Help Groups (SHGs), Industries, Private Schools and Hospitals**

The DDMA will maintain a proper record of the NGO's and CBO's working in the district and also map the available resources for them. The DDMA will appoint a Nodal officer for coordination with NGO's, CBO's and SHG's. The DDMA will call annual meetings of NGO's, CBO's & SHG's for mapping their resources. The meeting will be coordinated by the designated Nodal officer.

DDMA can utilize the linkage of NGOs, CBOs, SHGs and other bodies or institutions to create greater public awareness on disaster risk and vulnerability, initiating appropriate strategies for strengthening the capacity of stakeholder groups to improve disaster preparedness, mitigation and improving the emergency response capacities of the stakeholders.

In addressing the emerging concerns of climate change adaptation and mitigation, NGOs can play a very significant role in working with local communities and introducing innovative approaches based on the good practices followed in other countries. Besides, NGOs can bring in the financial resources from bi-lateral and multilateral donors for implementing pragmatic and innovative approaches to deal with disaster risk and vulnerability, by effectively integrating and converging the various government programs, schemes and projects to create the required synergy in transforming the lives of at-risk communities.

## **11.3 Coordination with Block/Village Level Task Force(s)**

It is the local level that respond first towards any disaster occurring in locality. Therefore, the coordination between different communities at block and village level is more vital to resilient/mitigate the disasters and minimize the damages caused due to these disasters within locality. Tehsil, Sub division and District levels are to provide additional resources, support, assistance and expertise as required. Local government is the key management agency for disaster events at local level. Local government achieves coordinated disaster management approach through Local Disaster Management committees. For preparedness measures DDMA trains volunteers and other local agencies with the relevant skills and awareness them about different preparedness and mitigation programs of the DDMA.

## **11.4 Coordination System with State/National Departments/ Institutes**

It is the responsibility of DDMA to remain in coordination with different departments at national and state level in order to make DDMP more effective, updated and systematic. Without the guidance of SDMA and NDMA district authority of disaster management won't be able to prepare its DDMP and conduct any programs to make the district disaster resilient.

Different programs are conducted on state and national level where the officers/officials of different Govt. departments, volunteers from different agencies/local bodies and personnel from NGOs/Civil Society are trained to promote and enhance human capacity for early warning and communications in emergency and disaster risk assessment, prevention, mitigation, preparedness, response and recovery efforts for damage and loss reduction as well as needs assessment. It therefore becomes mandatory

for effective DDMA to generate and promote a warm coordination system with different departments/institutes at national and state level.

### 11.5 Intra-block and Intra-village Coordination

The intra-block and intra-village coordination can be simply and efficiently achieved by creating village/block level disaster management committees. Local Committee meetings must be held at least once in every six months at particular time and place decided by the chairperson of the group, in order to:

- To help the Local government to prepare a local disaster management plan for its area;
- To identify, and provide advice to the relevant District Authority about support services required by the Local Committee to facilitate disaster management and disaster operations in the area;
- To ensure the community is aware of ways of mitigating the adverse effects of an event, and preparing for responding to and recovering from a disaster;
- To manage disaster operations in the area under policies and procedures decided by the district Authority;
- To provide reports and make recommendations to the relevant District Authority about matters relating to disaster operations;
- To identify, and coordinate the use of resources that may be used for disaster operations in the area
- To establish and review communication systems in the Local Committee, and with the relevant District Authority and other Local Committees in the situation of disaster.
- To ensure that information about a disaster in the area is promptly given to the relevant District Authority, and
- To ensure risk management and contingency arrangements of essential services within the Local government area.

### 11.6 Linkage with DDMPs/DDMAs of Neighbouring Districts

DDMA – Anantnag has a strong linkage and coordination with its neighbouring DDMPs that include DDMA – Pulwama, DDMA – Kulgam, DDMA – Kishtawar, DDMA – Ramban, DDMA – Ganderbal and DDMA – Kargil. If the district – Anantnag meets any unpredicted disaster or calamity, these resources and manpower lying within the vicinity of these neighbouring DDMPs can be utilized either directly by making communication with them or through the channel of SDMA or state Government. Creating a strong bond with neighbouring DDMPs will prove beneficial for both DDMPs in terms of

- **Enhancing capacity building:** This can be done by conducting joint skill enhancing programs, mock drill exercises, etc.
- **Increasing Effectiveness of DDMP:** This can be achieved if the experts from different DDMPs conduct a meeting or communicate through a proper channel in order to share their opinions or innovative ideas for reviewing and updating the plan.
- **Rescue Team Help:** At the time of disaster or calamity necessary help can be borne from the rescue teams working in neighbouring DDMPs.
- **Resource Sharing:** Likewise Rescue teams different resources available in the district can be also shared at the time of exigencies, etc.

The DDMA will call an annual meeting with neighboring district authorities pertaining to Disaster risk reduction and capacity building by reducing the existing gaps through regular coordination. The DDMA will participate in the meetings called by SDMA or other State level authorities to promote coordination with other districts and state authorities.



# CHAPTER - 12

## “STANDARD OPERATING PROCEDURES (SOPs) AND CHECKLIST”

### 12.1 Standard Operating Procedures (SOPs)

Each Department and Government Agency involved in Disaster Management and Mitigation will:

- Designate a Nodal Officer for emergency response and will act as the contact person from that Department/Agency.
- Ensure establishment of fail-safe two-way communication with the District and other Emergency Control Rooms and within the organization.
- Emphasis on communication systems used regularly during L0 with more focus on the use of VHF's with automatic repeaters, mobile phones with publicized numbers, HF radio sets, etc. it should be remembered that SAT phones fail during prolonged emergencies and electric failure if the phones can't be recharged.
- Work under the overall supervision of the District Collector during emergencies.

#### 12.1.1 SOPs for Planning and Coordination:

Coordinate early warning, response and recovery operations.

**Task Force Leader: District Collector**

(Table 12.1)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Before Disaster</b>		
Establish a disaster management structure up to village level (DDMC)	Links to State level and establishment of ICS structure	On-going
Develop disaster plans at all levels down to the village level. (DDMC)		On-going
Hold regular meetings on disaster management including government, NGOs and private sectors. (DDMC)		Quarterly
Continuous training, including public awareness. (DDMA and Media Taskforce)	Involvement of DDMA	On-going
Check warning, communications and other systems (DDMC), including the use of drills		On-going
<b>Warning</b>		
Frame Crisis Management Committee (CMC) - (Collector)	Communications between Districts and with State Control Room	On receipt of warning.
Mobilize Task Forces at all levels (District, Tehsil, Block, village depending on disaster) (CMC, Telecommunications, Media Task Forces)	Communication systems and procedures	As decided by CMC.
Disseminate Information (CMC, Media Taskforce)		As decided.
Mobilize resources to be positioned near vulnerable points depending on type of disaster.	Telecommunication system, plans	As decided.
Establish alternate communications system (Telecommunications Taskforce)		As decided.

### 12.1.2 SOPs for Administration and Protocol:

Support Disaster Operations by efficiently completing the paperwork and other Administrative tasks needed to ensure effective and timely relief assistance

#### Task Force Leader: Additional District Development Commissioner

(Table 12.2)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Disaster</b>		
Start Search, Rescue and Evacuation activities (CMC)	SAR Task force operational	Immediately
Begin Collecting Information on extent of damage and areas affected. (CMC)	Assessment teams have communications and transport	Should be started within 4 hours
Start plan development and provide instructions on where Task forces should go and what they should do. (CMC, Collector)	Information on damage and areas affected	Should be started within 4 hours
Mobilize outside resources (CMC)	Information on damage and needs	Should be started within 4 hours
Provide Public Information (CMC, Media Taskforce)		Should be started in 6 hours)
<b>12 Hours</b>		
Begin regular reporting on actions taken and status by Task Forces. (Task Forces)	Operating communications system	After 12 hours
Reassess damage information, resources, needs and problem areas/activities. (CMC)		After 12 hours
Begin rotation of staff (CMC)		After 12 hours
Establish regular liaison with the State Control Room.	Working communications systems	After 12 hours
Shift focus of efforts to relief. (CMC)		Open
Restore key infrastructure (CMC through Public Works and other Taskforces)		Before 48 hours
<b>48 hours</b>		
Continue review and reassessment of operations (CMC)	Information on operations	
Conduct broad damage assessment (CMC and Damage Assessment Taskforce)		
Establish Temporary Rehabilitation Plan (CMC)		
Begin demobilization based on the situation. (CMC)		
Focus on creating a sense of normalcy. (CMC)		Before 72 hours
<b>72 hours</b>		
Start Rehabilitation activities. (CMC)	Plan	As early as possible
Conduct detailed surveys of damage and needs. (CMC and Damage Assessment Task Force)		
Begin regular reporting on operations	Information on operations	As early as possible
Restore all public and private sector services (CMC)		As early as possible
Lessons Learned meeting. (CMC and others)		After 2 weeks
Final Report/Case Study (CMC)		After activities completed

### 12.1.3 SOPs for Warning:

Collection and dissemination of warnings of potential disasters

**Task force Leader: Additional Deputy Commissioner**

(Table 12.3)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Before a Disaster</b>		
Verify communication and warning systems are functioning - drills		Every 15 days
Have warning messages prepared in advance.		
<b>Warning</b>		
Receive and dispatch warnings. (Taskforce)	Coordinate with Telecommunications Taskforce	As received.
Verify warnings received and understood. (Taskforce)		Within 1-2 hours of dispatch.
Independently confirm warnings if possible (Taskforce)		As time allows.

### 12.1.4 SOPs for Law and Order:

Assure the execution of all laws and maintenance of order in the area affected by the incident.

**Task force Leader: Sr. Superintendent of Police**

(Table 12.4)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Before a Disaster</b>		
Evaluate expected disaster needs versus normal resources. (Taskforce)		Completed in 8 days.
Estimate personnel and resources needed for disasters. (Taskforce)	Based on standard for number of security personnel per population depending on severity of disaster	Completed in one week
Planning and coordination with the Revenue Dept. (Taskforce)		Immediately
Conduct drills, including public awareness raising. (Taskforce)	Includes participation of Media Taskforce	Every 45 days
Provide information to the public, e.g., road status. (Taskforce)	Involves Control Room, Media Taskforce, and Deputy Magistrate	As needed.
<b>48 hours</b>		
Implement a Force Management Plan (increase, reduction, redeployment, of forces). (Superintendent of Police)		From start of period
Plan for return to normal ((Superintendent of Police, Taskforce, Control Room)		From 72 hours after the disaster
Conduct Lessons Learned Session (Taskforce with input from other parties.)		1 week after the disaster
Final Report		2 weeks after the disaster

### 12.1.5 SOPs for Search and Rescue (including Evacuation):

Provide human and material resources to support local evacuation, search and rescue efforts.

**Task force Leader: Deputy Controller, Civil Defense**

(Table 12.5)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Before a Disaster</b>		
Risk assessment and vulnerability mapping (Taskforce)		Before warning
Develop inventory of personnel and material resources. (Taskforce)		Before warning
Training (Taskforce)	Input from SDMA and NDMA	Before warning
Establish a public education program. (Taskforce)	Media Taskforce	Ongoing
Establish an adequate communications system. (Taskforce)	Additional equipment required.	
Drills (Taskforce).		Before warning
Establish transport arrangements for likely SAR operations. (Taskforce)	With Logistics Taskforce	Before warning
Develop Rescue SOP. (Taskforce)		Before warning
<b>Warning</b>		
Mobilize Taskforce and SAR teams. (Taskforce)		On warning
Verify equipment is ready. (Taskforce)		On team activation
Confirm transport is ready. (Taskforce)	Logistics Taskforce.	On warning
Undertake precautionary evacuation. (Taskforce)	Logistics and Shelter Task Forces	As directed.
Re-deploy teams and resources, if safe. (Taskforce)	Logistics Taskforce	Based on conditions
Start public awareness patrols. (Taskforce)	Media, Law and Order and Logistics Taskforces.	As required
<b>Disaster</b>		
Assure safety of staff.		Immediately
Restore own communications. (Taskforce)		Immediately
Dispatch rescue/evacuation teams based on assessments. (Taskforce)	Input from Control Room.	Immediately
Call for additional resources if needed. (Taskforce)	Communications systems in operation	3-4 hours of disaster
Provide reports on operations. (Taskforce)		Starting at 3-4 hours
Begin handling the deceased per SOP. (Taskforce)	Various Revenue officers and Police involved.	Starting at 3-4 hours
<b>12 Hours</b>		
Begin staff rotation system. (Taskforce)		Starter at 12 hours
Begin specialized rescue (may begin earlier). (Taskforce)	May require outside resources, coordination with Logistics Taskforce	Started at 12 hours
Begin debris removal in cooperation with the Public Works Taskforce.	Focus on critical infrastructure. Liaison with Control Room	Start at 12 hours
Secure additional resources (e.g., fuel, personnel) for continued operations. (Taskforce).		Start at 12 hours.

48 hours		
Demolish/Stabilize damaged buildings in cooperation with the Public Works Taskforce.	Logistics Taskforce, workers, equipment.	Starting at 48 hours.
Demobilization, reconditioning, repair and replace equipment and other resources. (Taskforce)		Based on the nature of disaster.
Remain on stand-by for additional operations, particularly related to safety of recovery work. (Taskforce).		As needed.
72 hours		
Lessons Learned meeting. (Taskforce and others)		After 2 weeks.
Final Report. (Taskforce)		After major activities are completed.

### 12.1.6 SOPs for Public Works:

Provide the personnel and resources needed to support local efforts to re-establish normally operating infrastructure.

**Task force Leader: Superintending Engineer PW (R&B)**

(Table 12.6)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
Before a Disaster		
Inventory of personnel, equipment and status of infrastructure. (Taskforce)		One week before warning.
Identify critical infrastructure. (Taskforce)	Need to define what critical infrastructure is.	Before warning.
Identify alternate transport routes and publish maps. (Taskforce)		Before warning.
Plan for prioritized post-disaster inspection of infrastructure. (Taskforce)		
Establish and maintain a resources and staffing plan. (Taskforce)		
Plan to provide sanitation and other facilities for shelters. (Taskforce)		
Warning		
Establish a Control Room. (Taskforce)		No later than 6 hours from warning
Mobilize Taskforce and personnel.	Requires communications	No later than 6 hours from warning
Liaise with the District Control Room. (Taskforce)		No later than 6 hours from warning
Verify status and availability of equipment and re-deploy if appropriate and safe. (Taskforce)	Coordination with Logistics Taskforce and Control Room.	24 hours from warning
Review plans. (Taskforce)		No later than 6 hours from warning

<b>Disaster</b>		
Begin damage assessment and inspections. (Taskforce)	Coordination with Damage Assessment Taskforce.	Within 12 hours of disaster
Develop operations plans and communicate to Control Room.		Within 12 hours of disaster
Mobilize and dispatch teams based on priorities. Teams will (1) repair, (2) replace, (3) Build temporary structures (e.g., resting facility, shelters).	Coordination with Logistics, Water, Power Task Forces and Control Room.	Within 12 hours of disaster
Collaborate with other Task Forces.		Continuous
<b>12 Hours</b>		
Begin staff rotation system and manpower planning. (Taskforce)		Start at 12 hours
Mobilize additional resources based on expected duration of operations. (Taskforce).	Coordination with Logistics Taskforce, Contractors. May need additional funding.	Started at 12 hours
Assure safety. (Taskforce)		Start at 12 hours
Establish security arrangements. (Taskforce)	Law and Order Taskforce.	Start at 12 hours.
Provide public information on roads, access and infrastructure. (Media Taskforce)	Coordination with Control Room	Start at 12 hours.
<b>48 hours</b>		
Start a detailed survey. (Taskforce)	In cooperation with Damage Assessment Taskforce	Starting at 48 hours.
Begin reporting on operations (Taskforce)		Starting at 3 days
Reconditioning, repair and replace equipment and other resources. (Taskforce)		Based on nature of disaster
Plan and start demobilization. (Taskforce)		Starting at 3 days
<b>72 hours</b>		
Develop a long term restoration plan and start activities. (Taskforce)		From 72 hours
Lessons Learned meeting. (Taskforce and others)		After 2 weeks
Final Report. (Taskforce)		After major activities completed

### 12.1.7 SOPs for Water Supply

Assure the provision of sufficient potable water for human and animal consumption (priority), and water for industrial and agricultural uses as appropriate.

#### Task Force Leader: Superintending Engineer, Hydraulics

(Table 12.7)

<b>Action and (Who Should Take It)</b>	<b>Requirements or Conditions to be met for the action to occur.</b>	<b>Timeframe</b>
<b>Before a Disaster</b>		
Establish water availability, capacities, reliabilities and portability. (Taskforce)	Standard of 20 liters of drinking water per person per day.	1 month before warning.
Plan for alternate water delivery and storage (Taskforce)	May need tankers, tanks, and generators set.	1 month before warning.
Secure new and additional equipment. (Taskforce)		Requires funding.

Secure extra stocks of chemicals, expendable supplies and equipment. (Taskforce)	May require additional funding.	1 month before warning.
Open Water Control Room in Monsoon. (Taskforce)		Done.
<b>Warning</b>		
Establish staff rotation and shift system. (Taskforce)		No later than 24 hours from warning
Provide public awareness on use of water. (Taskforce)	Media Taskforce.	No later than 24 hours from warning
Provide instructions to government and private sectors on protection of water supplies. (Taskforce)		No later than 24 hours from warning
Mobilize Taskforce members		24 hours from warning.
Mobilize additional personnel and vehicles. (Logistics Taskforce)	May be difficult to locate additional personnel locally. Recourse to outside or contractor sources may be required.	24 hours from warning.
Coordinate activities with Power and other Taskforces.	Involves District Control Room.	24 hours from warning.
Verify water source status and protection. (Taskforce).		No later than 24 hours from warning.
<b>Disaster</b>		
Plan and prioritize supply of water to users. (Taskforce)	Requires information on needs, damage and demand.	Completed by 24 hours into disaster.
Assess status and damage to water systems. (Taskforce)	Coordination with Damage Assessment Taskforce.	Completed by 24 hours into disaster.
Mobilize water tankers. (Taskforce)	Coordination with Logistics Taskforce and Control Room.	Started by 24 hours into disaster.
Repair/restore water systems, based on plan. (Taskforce)	Coordination with Power and Logistics Taskforces.	Started by 24 hours into disaster.
Assure supply point/distribution security. (Law and Order Taskforce)		Started as soon as distributions begin.
Coordinate distribution of water and storage and provision of information on safe water use. (Taskforce).	Coordination with Media Taskforce and Control Room	Started by 24 hours into disaster.
<b>12 Hours</b>		
Establish temporary water systems. (Taskforce)		Up to 72 hours from disaster.
Move toward a permanent water supply system. (Taskforce)		After 72 hours.
Complete long term recovery plan and needs. (Taskforce)		After 72 hours.
Begin reporting and documentation.		From 48 hours.



(Taskforce)		
Begin demobilization. (Taskforce)	Coordinated with Control Room.	From 48 hours.
Lessons Learned meeting. (Taskforce and others)		After 2 weeks.
Final Report. (Taskforce)		After major activities completed

### 12.1.8 SOPs for Food and Relief Supplies:

Assure the provision of basic food and other needed resources in the affected communities.

**Task Force Leader: Assistant Director, Food, Civil Supplies & Consumer Affairs Department**  
(Table 12.8)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Before a Disaster</b>		
Establish procedures and standards. (Taskforce)	Need standards.	On-going.
Maintain two months stock of essential supplies. (Taskforce)		Done.
Develop transportation plans. (Taskforce)	In cooperation with the Logistics Taskforce.	Completed in 8 days
Develop a list of NGOs. (Taskforce)		Done
Plan staffing for disaster. (Taskforce)		Done
Identify locations, which can be isolated and increase stock as needed. (Taskforce)		On-going.
Identify food preparation locations. (Taskforce)		Done
<b>Warning</b>		
Pass on warning. (Taskforce)		Within 12 hours of receipt of warning.
Alert NGOs to prepare food. (Taskforce)	Contact with NGOs.	Within 12 hours of receipt of warning.
Verify stock levels and make a distribution plan. (Taskforce)	Possible cooperation with Logistics Taskforce.	Within 48 hours of receipt of warning.
Alert transport contractors to prepare for transport. (Taskforce)	Coordinate with Logistics Taskforce.	Within 5 hours of receipt of warning.
Mobilize staff. (Taskforce)		Within 6 hours of receipt of warning.
<b>Disaster</b>		
Receive and respond to instructions from Control Room. (Taskforce)		As received.
Monitor conditions of stocks and facilities. (Taskforce)		Need for communications.
Develop distribution plan. (Taskforce)	Need information on needs and locations.	As requested by the Control Room.
Order food packets and provide supplies as needed. (Taskforce)	Coordination with Logistics Taskforce.	As per distribution plan.
Establish relief supplies receptions centers. (Taskforce)	Coordinate with Control Room and Logistics Taskforce.	As required.
<b>12 Hours</b>		

Start distribution operations. (Taskforce)	In coordination with Logistics and Shelter Task Forces.	At the beginning of the period.
Formalize reporting, communications and monitoring. (Taskforce)		Completed by 48 hours.
Start staff rotation system. (Taskforce)		At the beginning of the period.
Begin mobilizing and managing additional supplies.	Coordination with Logistics and Control Room.	Underway in 48 hours.
Establish security for all sites. (Law and Order Taskforce)		At the beginning of the period.
Begin public announcement of distribution plan and standards. (Media Taskforce)		Underway in 48 hours.
<b>48 Hours</b>		
Shift to normal operations. (Taskforce)		Within 1 week.
Reconcile receipts and distribution records. (Taskforce)		Within 30 days.
Continue providing relief to special areas/populations. (Taskforce)		For 15 days from the disaster
<b>72 Hours</b>		
Restore Public Distribution System. (Taskforce)		From 1 week after the disaster.
Lessons Learned meeting.		Within 14 days

### 12.1.9. SOPs for Power Supply:

Provide resources to re-establish normal power supplies and systems in affected communities

#### Task Force Leader: Superintending Engineer, PDD

(Table 12.9)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Before a Disaster and Warning Phases</b>		
Develop inventory of the current status of the power system and resources. (JKPDD)		
Establish minimum stock levels and procure necessary additional stocks. (JKPDD)		
Conduct monthly meetings. (JKPDD)		On-going
Develop contact lists. (JKPDD)		
Conduct informal hazard and risk assessment. (JKPDD)		Completed.
Develop a disaster plan. (JKPDD)		
<b>Disaster</b>		
Assess impact according to SOP. (JKPDD)	Coordinate with the Control Room and Damage Assessment Taskforce.	
Prioritize response actions. (JKPDD)		
Collect more information. (JKPDD)	Need to establish priorities.	
Mobilize additional resources. (JKPDD)	Coordination with the Control Room and other Task Forces.	
Check for unforeseen contingencies		
<b>12 Hours</b>		
Revise plans based on feedback and		Continuous

assessments. (JKPDD)		
Monitor status of actions. (JKPDD)		Continuous
Begin staff rotation plan. (JKPDD)		At the beginning of the period.
Disseminate public information. (Media Taskforce)		At the beginning of the period.
Secure support for staff (food, lodging) from NGOs. (JKPDD)		
Assure security as needed. (Law and Order Taskforce)	Coordinate with the Control Room.	
Establish constant communications on needs, requirements and resources with the Control Room.		
<b>48 Hours</b>		
Look for improvements in efforts. (JKPDD)		
Reinforce central coordination. (JKPDD)		
Conduct regular coordination meetings with other actors. (JKPDD)		
Begin formal documentation of efforts. (JKPDD)		
<b>72 Hours</b>		
Review shift plan for safety. (JKPDD)		
Plan for return to normal, including additional security if needed. (JKPDD)	Involvement of Law and Order Taskforce.	

### 12.1.10 SOPs for Public Health and Sanitation:

(Including first aid and all medical care):

Provide personnel and resources to address pressing public health problems and re-establish normal health care systems

**Taskforce Leader: Chief Medical Officer**

(Table 12.10)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Before a Disaster</b>		
Develop inventory of personnel, resources and facilities. (Taskforce)		1 week.
Training. (Taskforce)	Coordination with SDMA	6 months.
Establish Control Room.		Completed.
Prepare for specific diseases by season (e.g., monsoon)		Completed.
Establish Epidemiological Reporting System (ERS). (Taskforce)		Completed.
Identify disease vulnerable areas. (CMO)		Completed.
Improve public awareness. (Media Taskforce)		
<b>Warning</b>		
Send out warning to health facilities. (Taskforce)		As received.
Mobilize health teams to possible disaster areas. (Taskforce)	In coordination with Control Room.	As needed.
Activate Taskforce for whole district. (CMO)		On warning.

Disaster		
Begin first aid efforts. (Taskforce)		Within 1 hour of disaster.
Establish status of health care system. (Taskforce)	Requires communications.	Within 6 hours of disaster.
Begin referral of injured to upper-level facilities. (Taskforce)		Within 1 hour of disaster.
Implement SOP for management of deceased. (Taskforce)	Involves cooperation with Law and Order and SAR Taskforce.	Within 1 hour of disaster.
Coordinate efforts with Control Room and other Taskforces.		Within 2-3 hours of disaster.
12 Hours		
Begin to call in outside resources. (Taskforce)	Involves Telecommunications and Logistics Taskforces and Control Room.	Within 3 hours.
Establish temporary medical facilities where needed. (Taskforce)	Coordination with Public Works, Power, Water, and Law and Order Taskforces.	Within 24 hours.
Expand surveillance of health status. (Taskforce)		Within 24 hours.
Establish shift system for staff. (Taskforce)		At beginning of period.
Visit and review health status in shelters. (Taskforce)		Within 24 hours.
Develop health care system recovery plan. (Taskforce)	In coordination with Control Room.	2-3 hours.
48 Hours		
Establish formal health care system reporting. (Taskforce)		At beginning of period.
Start solid waste and vector control management SOP. (Taskforce)		At beginning of period.
Start waste water management SOP. (Taskforce)		At beginning of period.
Focus health status surveillance on children 0 to 5 years.		Implements in one week.
Establish public awareness and IEC efforts. (Taskforce and Media Taskforce)		At beginning of period.
72 Hours		
Develop demobilization plan.		By beginning of period.
Lessons Learned meeting.		Within 14 days of disaster.
Final Report		Within 14 days of disaster.

### 12.1.11 SOPs for Animal Health and Welfare:

Provision of health and other care to animals affected by a disaster

**Taskforce Leader: Chief Animal Husbandry Officer**

(Table 12.11)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
Before a Disaster		
Update animal list. List of staff & training for disposal of carcass. (Taskforce)		Done.
Stock medical supplies and vaccines.		Done

(Taskforce)		
<b>Warning</b>		
Alert staff (by phone). (Taskforce)		As warnings received.
Distribute supplies to vulnerable areas. (Taskforce)		During warning period.
Contact Control Room. (Taskforce)		As required.
<b>Disaster</b>		
Remove and destroy carcasses. (Taskforce)	Need fuel and logistics.	As soon as possible.
Treat injured animals. (Taskforce)		As soon as possible.
Issue certification of death. (Taskforce)	For insurance purposes.	Within 48 hours.
Call in staff from other districts as needed. (Taskforce)		As needed.
Assist local authorities in survey of damage and reconciliation of records.		As required.
<b>48 Hours and Beyond</b>		
Assist local authorities in providing fodder as needed.		As required.
Collect feedback. (Taskforce)		
Final Report. (Taskforce)		In 15 days.

### 12.1.12 SOPs for Shelter Management:

Provide materials and supplies to assure temporary shelter for disaster-affected populations.

**Taskforce Leader: Superintending Engineer (R&B)**

(Table 12.12)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Before a Disaster</b>		
Develop shelter operating procedures. (Taskforce)		
Develop inventory of shelters (location, capacity.). (Taskforce)	IDRN updating, project inventory.	On going
Provide information to other Taskforces on location of shelters. (Taskforce)	Logistics, Water, Power, SAR, Food/Relief Supplies Taskforces and Control Room	
Training for shelter managers. (Taskforce)	Need training module.	
<b>Warning</b>		
Mobilize shelter managers. (Taskforce)		Within 6 hours of warning.
Review shelter locations for operating status. (Taskforce)	Communications needed.	Within 6 hours of warning.
Open shelters as instructed.	Coordination with Control Room.	Within 6 hours of warning.
Mobilize additional resources for shelters and camps. (Taskforce)	Cooperation with Logistics, Food and Relief Supplies, Water and Power Taskforces.	Within 6 hours of warning.
Provide public announcements on locations and status of shelters. (Media Taskforce)		Within 6 hours of warning.
<b>Disaster</b>		

Beginning logging-in of occupants. (Shelter managers).		Immediately.
Report on status of shelters. (Taskforce)	To Control Room.	As needed.
Plan for prioritization of shelter use. (Taskforce)	Coordination with evacuation operations and Control Room.	Immediately.
Coordinate with other Taskforces on water, power, food, health, security. (Taskforces)		Immediately.
Provide support and assistance to occupants. (Taskforce)	Liaise with Animal Taskforce on management of animal and with Health Taskforce on health care.	
<b>12 Hours</b>		
Continue operations. (Taskforce)		Continuously
Monitor shelter status and movement of people. (Taskforce)		Continuously
Mobilize additional resources. (Taskforce)	Coordinate with Control Room and Logistics Taskforce.	Continuous.
<b>48 Hours and Beyond</b>		
Begin Demobilization as appropriate. (Taskforce)		
Begin reconditioning/repairs to shelters. (Taskforce)	In cooperation with Public Works Taskforce.	As needed.
Lessons Learned session. (Taskforce)	Involvement of other Taskforces and evacuees.	14 days after completion of operations.
Final Report. (Taskforce)		1 month after completion of activities.

### 12.1.13 SOPs for Logistics:

Provide air, water and land transport for evacuation and for the storage and delivery of relief supplies in coordination with other Taskforces and competent authorities.

**Taskforce Leader: Additional Deputy Commissioner**

(Table 12.13)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Before a Disaster</b>		
Conduct resource inventory (air/land/water transport and storage; inside and outside district.). (Taskforce)		1 month.
Establish deployment requirements, procedures and alternate options. (Taskforce)		1 month.
Conduct drills. (Taskforce)		1 month.
Coordinate with other Taskforces.	Work through Control Room.	As needed.
<b>Warning</b>		
Alert and mobilize Taskforce members. (Taskforce)		Within 1 hour of receiving warning.
Mobilize transport and other resources for action on short notice depending on disaster expected. (Taskforce)	Coordination with Control Room	Within 2-3 hours of warning.

Liaise with Control Room and SAR, Shelter and Food/Relief Supplies Taskforces.		Within 1 hour of receiving warning.
Review plan and determine if outside resources are needed. (Taskforce)		Within 6 hours of receiving warning.
Plan for logistics based depending on nature of disaster. (Taskforce)	Coordinate with Control Room and Food and Relief Supplies Taskforce.	As needed.
<b>Disaster</b>		
Take action based on instruction from Control Room. (Taskforce)		Within 2 hours of receiving warning.
Continually review requirements and resources. (Taskforce)		Continuous.
Develop operations plan. (Taskforce)	Coordinate with Control Room and Food and Relief Supplies Taskforce.	Within 2 hours of receiving warning.
Strengthen liaison with Control Room and key Taskforces. (Taskforce)		Within 2 hours of receiving warning.
Verify quality of service. (Taskforce)	Requires set standard of service and information on operations.	Daily.
<b>12 Hours</b>		
Respond to increased demand for logistics. (Taskforce)		Continuous.
Begin rotation of staff. (Taskforce)		At start of period.
Establish logistics bases as needed. (Taskforce)	Coordinate with Control Room and Food and Relief Supplies Taskforce.	Continuous.
Review plans and communicate with other Taskforces. (Taskforce)		Continuous.
Begin regular reporting and documentation. (Taskforce)		At start of period.
<b>48 Hours</b>		
Reassess needs and requirements. (Taskforce)		Continuous.
Begin demobilization as appropriate. (Taskforce)		
<b>72 Hours</b>		
Lessons Learned meeting.	Include Shelter, Food and Relief Supplies in meeting.	Within 14 days of disaster.
Final Report		Within 14 days of disaster.

#### 12.1.14 SOPs for Survey (Damage Assessment):

Collect and analyze data on the impact of the disaster, develop estimates of resource needs and relief plans, and compile reports on the disaster as required for District and State authorities and other parties as appropriate.

#### Taskforce Leader: Additional District Development Commissioner

(Table 12.14)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Before a Disaster</b>		
Establish assessment procedures and forms. (Taskforce)	Collaboration with SDMA and COR.	



Compile baseline data. (Taskforce)	Collaboration with SDMA project.	
Establish assessment groups and teams. (Taskforce)		
Develop an assessment coordination plan. (Coordination and Planning Task Force)		
Develop a communications plan. (Taskforce)	In cooperation with Telecommunications Taskforce	
<b>Warning</b>		
Mobilize Taskforce. (Taskforce)		Within 6 hours of warning.
Review Plan. (Taskforce)		Within 6 hours of warning.
Consider pre-disaster impact assessment. (Taskforce)	Based on expected nature of disaster.	Within 6 hours of warning.
Active village-level assessment teams. (Taskforce)		Within 6 hours of warning.
<b>Disaster</b>		
Consider safety of assessment teams. (Taskforce)		Immediately.
Start planning for assessment. (Taskforce)	As initial impact information is available.	
Begin initial assessment procedures. (Taskforce)	When conditions allow.	
Communicate assessment plans to Control Room. (Taskforce)	Once initial plan is developed.	
<b>12 Hours</b>		
Publicly disseminate assessment plans and reports. (Media Taskforce)		As available.
Initiate continual up-dating of assessment information. (Taskforce)	Coordinate with Coordination and Planning Taskforce.	
Initiate continual up-dating of assessment plans. (Taskforce)	Coordinate with Coordination and Planning Taskforce.	
Coordinate with other Taskforces. (Taskforce)		
Begin staff rotation and secure more staff as needed.		At beginning of period.
<b>48 Hours</b>		
Prepare detailed damage, losses, needs assessment and long term recovery plans. (Taskforce)	Coordinate with other Taskforces.	3-5 days after disaster.
Coordination of requirements, plans and activities.	Working through Control Room and Coordination and Planning Taskforce.	Continuous.
<b>72 Hours</b>		
Lessons Learned meeting.	Include Shelter, Food and Relief Supplies in meeting.	Within 14 days of disaster.

### 12.1.15 SOPs for Communications:

Coordinate and assure operation of all communications systems (e.g., radio, TV, phones, wireless) required to support early warning or post-disaster operations.

**Taskforce Leader: Additional District Development Commissioner**

(Table 12.15)

Action and (Who Should Take It)	Requirements or Conditions to be met for the action to occur.	Timeframe
<b>Before a Disaster</b>		
Develop telecommunications inventory and SOPs. (Taskforce)	Telecommunications training.	
Coordinate with other Taskforces. (Taskforce)		
Identify sites of vulnerable system components (e.g., switches). (Taskforce)		
Ensure redundancy in communications systems. (Taskforce)	May require close liaison with private sector providers.	
Training in communication skills and methods. (Taskforce)		
<b>Warning</b>		
Verify communication systems are working. (Taskforce)		Within 24 hours of warning.
Mobilize Taskforce.		Within 24 hours of warning.
Repair down systems and establish alternate communications systems. (Taskforce)	Coordinate with Control Room.	Within 24 hours of warning.
Mobilize resources. (Taskforce)		Within 24 hours of warning.
Facilitate telecom demands of other Taskforce members. (Taskforce)		
<b>Disaster</b>		
Check status of communications systems. (Taskforce)		In 2-3 hours.
Identify damage to systems. (Taskforce)		First information available in 2-3 hours.
Contact Control Room and other Taskforces on telecom needs. (Taskforce)		In 2-3 hours.
Start repairs. (Taskforce)		In 2 hours.
<b>12 Hours</b>		
Mobilize outside resources (may start earlier). (Taskforce)		Continuous.
Complete plans for repairs and re-establishment of systems. (Taskforce)	Coordinate with Control Room.	Continuous.
Liaise with Control Room and other Taskforces.		
Start shift system for staff. (Taskforce)		At beginning of period.
<b>48 Hours and Beyond</b>		
Continue to assist other Taskforces. (Taskforce)		
Continue repair work. (Taskforce)		
Begin demobilization. (Taskforce)		
Lessons Learned meeting.	Include Shelter, Food and Relief Supplies	Within 14 days of disaster.
Final Report. (Taskforce)	Involve other Taskforces.	Within one months of end of operations.

## 12.2 Action on Receipt of Warning & Warning Dissemination

### 12.2.1 Early Warning Management:

Following Tables 12.1 & 12.2 give the brief about how the early warning management is carried in District Anantnag.

Table 12.16: List of Responsible Warning Agencies for Different Hazards

Hazard	Responsible Warning Agency
Earthquake/ Heavy Rain / Snowfall/Avalanche	<u>On National Level:</u> (IMD) Indian Meteorological Department / NEOC, <u>On State Level:</u> SDMA/SEOC, <u>On District Level:</u> DDMA/ DEOC.
Landslide	<u>On National Level:</u> (GSI) Geological Survey of India, <u>On State Level:</u> SDMA/SEOC, <u>On District Level:</u> DDMA/ DEOC.
Flood/ Flash Flood	<u>On National Level:</u> (CWC) Central Water Commission Irrigation and Public Health Dept. <u>On State Level:</u> SDMA/SEOC, <u>On District Level:</u> DDMA/ DEOC.
Domestic / Forest Fire	<u>On District Level:</u> Department of Fire Services/ Department of Forest
Epidemics	<u>On District Level:</u> Chief Medical Officer – Anantnag/ Health and Family Welfare Department
Human Induced Hazards	<u>On District Level:</u> J&k Police
Drought	<u>On District Level:</u> Agriculture/Horticulture Department

Table 12.17: Early Warning Management: Actions and Responsibilities

Actions	Responsible Deptt./Officer
➤ Obtain early warning inputs from the concerned Departments / Institutes/ Agencies	In District Anantnag presently it looked by District Disaster Management Cell ( <b>DDMC</b> ) working under supervision of CEO-DDMA
➤ Notify the early warning to DDMA Chairman & its members/ SDMs/ Other stakeholders of Disaster Management.	CEO of DDMA
➤ Hold meeting to assess situation and make a decision whether to evacuate specific communities/ population. ➤ Communicate decision regarding evacuation to concerned Revenue and Police officers.	Chairman of DDMA
➤ Disseminate early warning on divisional and block level	Concerned SDM/ Superintendent of Police
➤ Notifying through all media sources + establish disaster dash board on the official website of District	District Information Officer (NIC – Anantnag)
➤ Inform local communities/public/villagers using loudspeakers mounted on vehicles and announcing through loudspeakers of Mosques, Temples & Gurdwaras	Tehsildars/ Naib Tehsildars/ Patwari of Halqa
➤ Evacuating people to safer places.	Concerned SDMs/ Tehsildars
➤ Deploy teams for law and order maintenance, traffic management as well as cordoning specific areas	District Superintendent of Police
➤ Establish routes, shelters and other logistics arrangements	DDMA/ Revenue Department

### 12.2.2 Non Early Warning Management:

At the time of non-early warning, the brief about the processes carried in management at district level is figured in Table 12.3.

Table 12.18: Non- Early Warning Management: Actions and Responsibilities

Actions	Responsible Deptt./Officer
➤ Activation of the Emergency Operation Centres & Operating Rescue Teams available in the district.	Chairman or CEO of DDMA
➤ Notify about the disaster event to DDMA chairman & its members/ SDMs/ Other stakeholders of Disaster Management.	CEO of DDMC
➤ Hold meeting to assess situation and make a decision whether to evacuate specific communities/ population. ➤ Communicate decision regarding evacuation to concerned Revenue and Police officers.	Chairman of DDMA
➤ Evacuating people to safer places.	Concerned SDMs/ Tehsildars
➤ Deploy teams for law and order maintenance, traffic management as wells as cordoning specific areas	District Superintendent of Police
➤ Establish routes, shelters and other logistics arrangements. ➤ Establish Information desk, helpline, etc	DDMA/ Revenue Department

## 12.3 Roles & Responsibilities of Different Departments/Stakeholders in Emergency Response

At the time of any exigency in the district, on leading basis it is the responsibility of District Emergency Operation Centre (DEOC) to respond to the arising exigencies at the time of any unmet calamity or disaster. The details about responsibilities of DEOC at the time of exigency are listed in chapter 1 at Table 1. The roles and responsibilities of different Steholders at the time of any exigency is listed here in Table 12.4.

Table 12.19: Roles and Responsibilities of different Stakeholders at the time of Exigency

Actions / Responsibilities	Responsible Stakeholder
<ul style="list-style-type: none"> <li>➤ Activation of the Emergency Operation Centres &amp; Operating Rescue Teams available in the district.</li> <li>➤ Notify about the disaster event to DDMA chairman &amp; its members/ SDMs/ Other stakeholders of Disaster Management.</li> <li>➤ Hold meeting to assess situation and make a decision whether to evacuate specific communities/ population.</li> <li>➤ Communicate decision regarding evacuation to concerned Revenue and Police officers.</li> <li>➤ Establish routes, shelters and other logistics arrangements.</li> <li>➤ Establish Information desk, helpline, etc</li> </ul>	DDMA - Anantnag
<ul style="list-style-type: none"> <li>➤ Corresponding with the State Emergency Operation Center (SEOC) for information sharing so that the decision makers at the state level are well aware of the situation and help in further resource mobilization.</li> <li>➤ Monitor emergency operations.</li> <li>➤ Facilitate coordination among primary and secondary Emergency Support Functionaries (ESF)/ Departments/ Agencies.</li> <li>➤ Requisitioning additional resources during the disaster</li> </ul>	DEOC – Anantnag (However, presently it is looked by DDMA – Anantnag)

phase.	
<ul style="list-style-type: none"> <li>➤ To help in maintaining Law and Order.</li> <li>➤ Carry out search and Rescue Operations.</li> <li>➤ Facilitate administration with the key resources.</li> </ul>	State Disaster Response Force (SDRF)
<ul style="list-style-type: none"> <li>➤ Provide manpower and other resources to support local Evacuation, Search and Rescue efforts.</li> </ul>	Fire & Emergency Services
<ul style="list-style-type: none"> <li>➤ Provide manpower and other resources to support local Evacuation, Search and Rescue efforts.</li> <li>➤ Assure the execution of Law and Order.</li> </ul>	JK Police
<ul style="list-style-type: none"> <li>➤ Provide materials and supplies to ensure temporary shelter for disaster affected people.</li> </ul>	Public Works Department (R&B)
<ul style="list-style-type: none"> <li>➤ Provide sufficient portable water for human and animal consumption.</li> </ul>	Hydraulics Deptt.
<ul style="list-style-type: none"> <li>➤ Provide basic food and other relief materials.</li> </ul>	Food, Civil Supplies & Consumer Affairs Deptt.
<ul style="list-style-type: none"> <li>➤ Provide manpower and other resources.</li> </ul>	Public Health (CMO, Red Cross)
<ul style="list-style-type: none"> <li>➤ Provide health and other care to affected animals.</li> </ul>	Office of the Chief Animal Husbandry & Office of the District Sheep Husbandry Officer
<ul style="list-style-type: none"> <li>➤ Provide Air, Water &amp; Land transport for evacuation and delivering of relief supplies</li> </ul>	ARTO Office
<ul style="list-style-type: none"> <li>➤ To provide fuel wood and make arrangements for distribution thereof.</li> </ul>	Office of the District Forest Officer
<ul style="list-style-type: none"> <li>➤ To ensure, support and disseminate updates and directions to public for early warning or post disaster operations.</li> </ul>	Department Of Public Relations Officer & Office Of The District Informatics Officer
<ul style="list-style-type: none"> <li>➤ Converting schools/colleges into shelters for safe keeping of disaster affected people.</li> </ul>	Education Department

## 12.4 Information Management & Dissemination Strategy

For making District Anantnag disaster resilient, Information Management and Dissemination Strategy is most vital function for DDMA-Anantnag to undertake on priority basis. In District Anantnag, the collection and dissemination of warnings of potential disasters is carried by following stakeholders of DDMA –Anantnag, under the supervision of CEO – DDMA.

- District Information Officer,
- Executive Engineer Irrigation & Flood Control, &
- Police Control Room.

The main points that DDMA and the concerned stakeholders must consider on priority basis are:

- To provide and collect reliable information on the status of the disaster and disaster victims for effective coordination.
- Coordinate with all TV and radio networks to send news flashes for specific do's, don'ts & needs.
- To disseminate the updates and directions to public through radio broadcasting.
- Respect the socio-cultural and emotional state of the disaster victims while collecting information for dissemination.

Table 12.20: Actions and Responsible Deptt./Officer for Information &amp; Media Management:

Actions	Responsible Deptt./Officer
Designate Official Spokes Person	Chairman or CEO of DDMA
Establish a media centre at Deputy Commissioner's office	District Public Relations Officer/District Informatics Officer
Prepare Press releases	
Decide on the time of press releases	
Arrange for press conferences at the designated place and time	
Set up interaction times of media with senior officers	
Provide logistics support to the media during their visits to the disaster sites	
Scan media reports on disaster response and take necessary action	

## 12.5 Media Management Strategy during Emergency Response

At the time of any Exigency following guidelines should be taken for Media Management:

- Flash warning signals on all television and radio networks.
- Coordinate, collect, process, report and display essential elements of disaster-related information.
- Update and feed information to key government agencies.
- Provide accurate information through print and electronic media as well as its website for easy availability and appropriate access to the members of public.
- Provide situation updates to all television and radio networks at regular intervals.
- Keep the public updated and well informed about the status of the disaster.
- Develop appropriate graphics and pictures to disseminate useful information among all participating agencies as well as the people.
- Provide ready formats to collect information on different aspects of the disaster from the concerned state/district to facilitate accurate communication.
- Document all response/relief and recovery measures.
- Prepare situation reports every 3-4 hours during the initial response phase of a disaster and thereafter twice or once daily.

## 12.6 Requests for State Government Assistance

DDMA -Anantnag seeks financial help from SDMA or state Govt. if the funds available in possession of DDMA is not sufficient to meet the expenditure for providing immediate relief to the victims of cyclone drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloud burst, pest attack and frost & cold wave or for carrying pre or post-disaster management and preparedness programmes. Following points must be considered before requesting the State Govt. or other Agency for funding assistance.

- Estimation of funds required based on detailed damage assessment reports and consolidation of the same under sectoral and regional heads;
- Contracting with funding agencies and evolving detailed operating procedures for fund flow and corresponding agreements and activities.

The DistrictCollector/DC, in conjunction with relevant agencies, shall monitor disbursement of funds by:

- Prioritizing resource allocation across approved projects;
- Establishing mechanisms (like a chain of banks, collection centres, nature of accounts, spread etc) for collection of funds;

- Ongoing monitoring and control of fund usage throughout actual project implementation.

## **12.7 Relief & Rehabilitation Norms/Guidelines**

Providing Relief to the Disaster affected people on immediate basis, Relief camps are settled at safer places after the receipt of report from Revenue officials, the Chairman/CEO of DDMA gives the permission for setting up a relief camp at pre decided location as per DDMP – Anantnag. In case new location is to be selected for the camp due to unavoidable circumstances, following points should be considered for arriving at a decision.

### **12.7.1 Guidelines for setting and running the Relief Camps:**

- Camp should preferably be set up in an existing built up accommodation like a community hall.
- It should be located at a safe place which are not vulnerable to landslides, flood etc. It should be accessible by motor vehicles, if possible.
- Adequate space for roads, parkings, drainage should also be there.
- The area should not be prone to endemic disease like malaria.
- Wide publicity should be given about the location of the camp and affected people should be evacuated and brought to the camp directly.
- Emergency relief materials which include drinking water, food, bedding (mattresses, sheets & blankets), baby food, mosquito repellents etc. should be arranged as early as possible.
- Control room/ help desk should be setup in the relief camp immediately.

### **12.7.2 Guidelines for Settling the Shelter:**

- The shelter should be such that people have sufficient space for protection from adverse effects of the climate.
- Ensure sufficient warmth, fresh air, security and privacy for their health and wellbeing.
- Tents should not be constructed too closely together and reasonable distance should be kept between the camps to provide some form of privacy.
- Priority should be given to widows and women headed households, disabled and elderly people in tent/room distribution.

### **12.7.3 Basic Facilities that must be provided at Relief Camp:**

#### **Lighting Arrangement and Generator Set**

- A technical person, preferably from electricity or PWD (E) department should be detailed to supervise the proper lighting arrangement in and around the camp and operation and maintenance of the generator set.
- One big candle and one match box should be provided in every room/tent.
- Petromax or emergency light should be arranged in sufficient numbers in the camp.
- Approach to toilet and water source should properly be illuminated.



### **Water Facilities**

- Total requirement of drinking water, water for toilets, bath & washing of clothes and Utensils should be assessed and proper arrangement should be made accordingly.
- One Sr. Officer of IPH Deptt. should be directed for maintaining water supply in the camp.
- Separate bathing units must be constructed for male & female.

### **Food- Storage & Distribution**

- As far as practicable and as per available space, cooked food may be served in hall or at one place for convenience of cleaning, hygiene, disposal of waste and smooth arrangement.
- Food should be culture specific and as per food habits of the community. People of rural area may not like bread & butter.
- Packed food like biscuit, tinned food, ready to eat meals, noodles etc. should be properly checked that they are not expired before distribution.
- Separate queue may be allowed for women infirm & elderly people to collect relief aid.

### **Clothing**

- People in the camp should be provided sufficient clothing to protect themselves from the adverse effects of the climate.
- Culturally appropriate clothing should be made available.
- Women and girls should be provided necessary sanitary protection

### **Medical Facilities & Psycho-social Support**

- One Doctor along with team of paramedical staff should be detailed on roster system around the clock in the camp.
- A separate room or tent should be made available for the medical team.
- A rapid health assessment of all the inhabitants in the camp should be done on weekly basis.
- Cases of snake bites are also reported from relief camp. Necessary arrangement should be made in nearest health institution for adequate stock of anti-venom injection.
- Psychological support is best obtained from the family. Therefore, even in abnormal conditions, family should be kept together.

### **Special Arrangement for women, Children, and Physically Challenged and Elderly persons**

- Since women are more vulnerable during disaster, their specific needs must be identified and taken care of.
- Female gynaecologist and obstetrician should be available at hand to take care of maternity and child related health concern.
- Ensure that children inoculated against childhood disease within the stipulated time period.
- For safety and security of the women and children vigilance committees should be formed consisting of women.

- Women Police Officer should be stationed within the camp to record and redress any complaints made by women.
- Security measures should be taken in the camps to prevent abduction of women, girls and children.

#### **Vermin control**

- Insect and rodents are the unavoidable pests in the relief camp. They spread diseases, spoil foods and other material.
- Fogging may be arranged to prevent mosquitoes and other flying insects.
- Waste segregation should be promoted and collected on daily basis.

#### **Security**

- Security, peace and order must be maintained in the relief camp. The youths in the camp may be involved for providing better security environment.
- Police personnel should be detailed on roster basis.
- Adequate employment of force should be ensured on the boundary and gate of the camp.

#### **Sanitation, Food- Storage & Distribution, Clothing**

- Toilet should be minimum 10 mtrs and maximum 50 mtrs away from shelter/tent/room sufficient stock of bleaching powder, harpic and others item should be maintained.

#### **Entertainment, Recreation & IEC Programme**

- Literary clubs/ Organizations may be promoted to arrange books & magazines for camp populations.
- Camp population may be kept engaged by providing entertainment & recreational facilities to them.
- Temporary Anganwadi centres may be opened in the camp with the help of ICDS project officers for small children.
- Temporary schools may be setup in the camp involving volunteers from the camp inhabitants. SSA may provide free textbook, stationery etc.
- Reputed NGOs may also be allowed to run temporary schools in the camp.

#### **General Administration of the Camp**

- One responsible officer preferably CO/ASO should be designated as Camp Officer by the DC/SDO(C) who will ultimately be responsible for general management of the Relief Camp. He/She will coordinate & supervise the works of other officers in the camp.
- One help desk/ control room/ officer room should be designated where inhabitants can register their complaints.

## **12.8 Humanitarian Relief & Assistance**

*Table 12.20 Relief Management: Actions and Responsibilities*

<b>Actions</b>	<b>Responsible Department/Officer</b>
➤ Undertake sub division wise / block wise / tehsil wise relief needs assessment in terms of food, water, shelter, sanitation, clothing, utensils, medical and other critical	CEO of DDMA, Sub Divisional Magistrate (SDM)

<ul style="list-style-type: none"> <li>items.</li> <li>➤ Provide essential items lost due to disasters such as utensils.</li> </ul>	
<ul style="list-style-type: none"> <li>➤ Identify suitable and safe facilities and establish relief camps.</li> <li>➤ Make required shelter arrangements including temporary camps.</li> <li>➤ Involve and coordinate NGO participation.</li> <li>➤ Put in place grievance handling mechanism to prevent discrimination.</li> <li>➤ Maintain proper records and documents of beneficiaries and relief distribution.</li> <li>➤ Record and maintain documents of ex-gratia payments.</li> </ul>	CEO of DDMA, SDM, Tehsildar
<ul style="list-style-type: none"> <li>➤ Establish adequate lighting arrangement at the relief camps</li> </ul>	PDD
<ul style="list-style-type: none"> <li>➤ Ensure adequate security arrangement at the relief camps and for the affected communities</li> </ul>	District Superintendent of Police
<ul style="list-style-type: none"> <li>➤ Ensure adequate water and sanitation facilities in relief camps and other affected communities.</li> <li>➤ Set up RO plants / water purification plants or other suitable facilities for immediate water supply.</li> <li>➤ Supply, procure and provide water to the affected communities</li> </ul>	PHE Department
<ul style="list-style-type: none"> <li>➤ Supply, procure and provide food to the affected communities</li> </ul>	District Food and Supplies Officer
<ul style="list-style-type: none"> <li>➤ Establish medical facilities at relief camps and at communities.</li> <li>➤ Ensure suitable vaccination to prevent disease outbreak.</li> <li>➤ Arrange for psychosocial support for victims at the camps.</li> </ul>	CMO – Anantnag, Red Cross Society – Anantnag & Related NGOs
<ul style="list-style-type: none"> <li>➤ Ensure child friendly food for the children in the camp.</li> <li>➤ Ensure nutritious food for pregnant and lactating mothers in the camps</li> </ul>	District Social Officer (DSO)
<ul style="list-style-type: none"> <li>➤ Ensure medical care facility for pregnant women for safe delivery.</li> </ul>	Chief Medical Officer (CMO) - Anantnag
<ul style="list-style-type: none"> <li>➤ Provide adequate, appropriate clothing to the affected communities and especially address the needs of women, children, aged and physically challenged according to weather.</li> </ul>	CEO of DDMA, SDM, District Social Officer
<ul style="list-style-type: none"> <li>➤ Ensure adequate transportation facility to transport relief items.</li> </ul>	Regional Transport Officer (RTO)
<ul style="list-style-type: none"> <li>➤ Ensure adequate and appropriate heating facilities depending on the weather situation.</li> </ul>	District Forest Officer (DFO)
<ul style="list-style-type: none"> <li>➤ Supply fire wood, cooking gas, POL for the kitchen</li> </ul>	DSO / DFO
<ul style="list-style-type: none"> <li>➤ Provide first aid and medical treatment to the injured animals.</li> </ul>	Veterinary Officer
<ul style="list-style-type: none"> <li>➤ Establish animal shelters wherever required.</li> <li>➤ Arrange fodder for animals.</li> <li>➤ Wherever required involve Animal Welfare Board and the Civil Society Organisations.</li> </ul>	District Animal Husbandry Hospital

*ANNEXURE*  
*to this DDMP is compiled*  
*in a separate Volume*