

CHHINDWARA DISASTER MANAGEMENT PLAN

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Structure of District Disaster Management Plan (DDMP)

A . GENERAL

A 1 Overview

A 1.1 District Profile

Lush green forests, colourful tribal communities, herbal plants and attractive tourist spots make the Chhindwara District of Madhya Pradesh an alluring proposition. Situated in the Satpuda Hills range, Chhindwara's economy is fueled by its vast coal reserves and the many industrial giants that it houses. This section will provide an overview of Chhindwara in terms of its geography, and topography (temperatures, rainfall, geographical area, landholding pattern, cropping pattern, rivers, livelihood details, major drinking water sources, critical establishments etc), demography (literacy rate, poverty, economy, per capita income, main occupation of the people), climate and weather, rivers, roads, housing, communications, education, health (hospitals), and other critical infrastructure such as industrial establishments etc. Map of the district will also be enclosed. The additional information will be provided in the Annexure.

A 1.1.1 Location and administrative divisions

Chhindwara is situated on the Maharashtra – Madhya Pradesh border, nearly 130 km away from the city of Nagpur. The details about the location and administration put here in the table are according to the provisional data of 2011 census and the latest figures for number of blocks; sub divisions etc have been mentioned. Chhindwara occupies 3.85% area of the total area of Madhya Pradesh.

Table A 1.1.1

Location (in degrees) -	Latitude – 21.28” to 22.49” North latitude Longitude – 78.40” to 79.24” East Longitude
District Area (in sq. kms.) -	11815
No. of sub divisions:	7
No. of Tehsils:	13 (Chhindwara, Parasia, Junnardeo, Tamia, Amarwada, Chourai, Bichhua, Sausar, Padhurna, Harrai, Mohkhed, Chand, Umred)
No. of Municipal Boards	16
No. of Blocks:	11 (Chhindwara, Mohkhed, Tamia, Junnardeo, Parasia, Amarwada, Harrai, Chourai, Sausar, Bichhua, Padhurna)

No. of Gram Panchayats:	803
No. of Villages:	2008
No. of Police Stations, Police Chowkees (Block wise):	Chhindwara -7 Parasia – 6 Amarwada – 8 Sausar – 10 Junnardeo - 10
No. of Post Offices(Block wise):	Head Post Office – 1 Up daak ghar - 28 Branch Post Office - 240
Year of district formation:	1956
Name of adjacent districts:	Hoshangabad, Narsinghpur, Betul, Seoni, Nagpur

A 1.1.2 Geography and Topography

Information about rivers, lakes, dams, embankments, existing mountains, forest cover details etc. covered in the table. The rivers in the district do not cause flood in fact situation of drought arises in the months of April, May and June.

Rivers like Kahnan, Pench, Jaam, Kulbahera and Doodhi are perennial rivers which may lead to a situation of floods during monsoon where as their flow reduces drastically in the summers.

Harrai and Tamia blocks have the maximum dense forest cover in the district with 52% and 63% land under forest cover. Other such blocks are Chourai, Amarwada, Mohkhed and Chhindwara though with very little area under forest compared to the other two blocks.

Table A 1.1.2

Name of rivers and lakes:	Kanhan, Pench, Jaam, Kulbahera, Shakkar, Doodhi, Denva
No. of dams, embankments:	141 (Medium Dams- 2, Minor -139) completed. Under-construction 24 + 1 major project. Water User's association- 79
Name of existing mountains:	Satpuda Range
Highest elevation (in meters):	1164 meters
Forest cover in the district:	4212.556 sq km

A 1.1.3 Demographic and socio economics

Details of Population, Population density, APL & BPL families, per capita income, and main occupation of the people are captured in the table below. It is one of the highly populated districts of Madhya Pradesh.

Table A 1.1.3

Total household:	4,32,710
Total population:	20,90,306
Male:	10,63,302
Female:	10,27,004
Population density:	177/ sq km
Total APL, BPL families:	130579 BPL families 252047 APL families 50084 AAY families
Occupation -	
Main occupation of people:	Agriculture is the major occupation of the people
Secondary occupation of people:	People also work as Service allied and labours.

A 1.1.4 Climate and weather

Chhindwara has a pleasant weather. The winter season stretches from November to January while the summers are there from March to June with the maximum temperature reaching around 40 degree Celsius. There is a tendency of heavy rainfall every alternate year, where the forest laden Tamia registers the highest rainfall in Chhindwara District.

Table A 1.1.4

Total annual rainfall of last year:	1287.1 mm												
Average rainfall (last 10 years):	1030.4 mm												
	<table border="1"> <thead> <tr> <th>Year</th> <th>Rainfall</th> </tr> </thead> <tbody> <tr> <td>2011</td> <td>1287.1 mm</td> </tr> <tr> <td>2010</td> <td>1087.1 mm</td> </tr> <tr> <td>2009</td> <td>1137.2 mm</td> </tr> <tr> <td>2008</td> <td>707.4 mm</td> </tr> <tr> <td>2007</td> <td>1030.4 mm</td> </tr> </tbody> </table>	Year	Rainfall	2011	1287.1 mm	2010	1087.1 mm	2009	1137.2 mm	2008	707.4 mm	2007	1030.4 mm
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	2006	1034.3 mm
	2005	978.2 mm
	2004	1029.3 mm
	2003	995.8 mm
Average Maximum Temperature:	39.38 degree Celsius (May)	
Average Minimum Temperature:	9.90 degree Celsius (Jan)	
Months of excess rainfall, leading to flood situation:	July August September(No situation of flood though)	
Months of water scarcity, leading to drought situation:	April May	

A 1.1.5 Health (Medical)

Chhindwara has a well organized network of PHC, CHC and SHC in addition to hospitals in few blocks. One thing that we can make out from the available stats is the scarcity of Medical Officers in Tamia and Harrai regions lead to widespread diseases in these regions. There is a provision of medical facilities in all the blocks. The Block Medical Officer of each block reports for the ailments recorded in a week to the district CMHO office, where a track of diseases affecting the people is kept and in case there is a rise in the number of people affected preventive measures are started being taken before the condition goes out of control. First Aid Kits available with ASHA workers and Block Medical officers of each block.

The detailed list will be attached in the annexure.

Number of beds in PHC: 6

Number of Beds in CHC: 30

No. of beds in Civil Hospital: 100

Table A 1.1.5

Chhindwara Block	No. of Hospitals: 18	No. of medical officers: 47 No. of nurses, compounders: 183 No. of beds: 600
	No. of Primary Health Centers (PHCs):5	No. of medical officers: 5 No. of nurses, compounders: 9
	No. of Community Health Centers (CHCs): 1	No. of medical officers: 2 No. of nurses, compounders:5
	Number of Sub Health Centers: 20	

Amarwara Block	Number of- Civil Hospitals: 1 CHCs: 2 PHCs: 5 SHCs: 18	No. of medical officers: 4 No. of nurses, compounders: 7 No. of medical officers: 2 No. of nurses, compounders: 3 No. of medical officers: 2 No. of nurses, compounders: 4
Harrai Block	Hospitals:0 CHC:2 PHC:4 SHC:28	No. of medical officers:0 No. of nurses, compounders:9 No. of medical officers:0 No. of nurses, compounders:5
Tamia	PHC:4 CHC: 1 SHC:30	No. of medical officers: 1 No. of nurses, compounders: 3 No. of medical officers:1 No. of nurses, compounders: 10
Junnardeo	CHC: 2 PHC: 9 SHC: 52	No. of medical officers: 5 No. of nurses, compounders: 12 No. of medical officers:5 No. of nurses, compounders: 14
Chourai	CHC:1 PHC:5 SHC: 24	No. of medical officers:2 No. of nurses, compounders:5 No. of medical officers:1 No. of nurses, compounders: 4
Bichhua	CHC:1 PHC:4	No. of medical officers:1 No. of nurses, compounders: 4 No. of medical officers: 3 No. of nurses, compounders: 9

	SHC:25	
Padhurna	CHC:2	No. of medical officers:4 No. of nurses, compounders: 10
	PHC:10	No. of medical officers:7 No. of nurses, compounders: 18
	SHC:28	
Sausar	CHC: 1	No. of medical officers:5 No. of nurses, compounders:9
	PHC:12	No. of medical officers:6 No. of nurses, compounders:26
	SHC:26	
Mohkhed	CHC:1	No. of medical officers: 2 No. of nurses, compounders: 7
	PHC:5	No. of medical officers:3 No. of nurses, compounders: 6
	SHC:27	
Parasia	Hospital:1	No. of medical officers:2 No. of nurses, compounders:8 No. of beds: 100
	CHC:1	No. of medical officers:3 No. of nurses, compounders:7
	PHC:10	No. of medical officers:6 No. of nurses, compounders:9
	SHC:35	

A 1.1.6 Education

Chhindwara has become an educational hub catering to students in the nearby towns and villages. It has 12 government colleges and 2 para medical colleges, however there are no engineering colleges. Details of strength of students in schools and colleges in the district have been collected from DPE and SSA offices in the region. The strength of staff also has been obtained and mentioned in the table.

Table A 1.1.6

Literacy rate:	72.26%
Total Male:	80.80%
Total Female:	63.4%
No. of Secondary schools:	(Govt. + Private entities) 97+61
No. of High schools:	213+54
No. of Middle/Primary schools:	3603+ 528
No. of Engineering colleges:	None
No. of Medical colleges:	2 (para medical colleges)
No. of Other colleges:	38
Total (Aprox.) Students Strength in all the educational institutions:	414071
Total (Aprox.) Staff Strength in all the educational institutions:	12071 (staff details of private colleges can't be made available)

A 1.1.7 Agriculture and Land use

Since agriculture is the major occupation of people hence there is a whole range of crops grown in the district. The detail under this section is obtained from land use and agriculture department. This gives an overview of the crops grown, the agricultural seasons and the break-up of the land use pattern in the district. The major crops grown are Wheat, Gram, Maize, sugarcane, Pulses etc

Out of the different types of soils present, black soil is generally found in Sausar and Padhurna blocks. Tamia and Junnardeo are places where there is predominance of barren and unproductive lands.

Table A 1.1.7

Cropping pattern - Type of major crops:	Wheat, Gram, Maize, Sugarcane, Pulses, Paddy, Barley, Oilseeds etc
--	--

Cropping seasons:	Kharif and Rabi
Land classifications-	
Forest land:	200244 hectare
Barren & Uncultivated land:	20015 hectare
Cultivated land:	655692 hectare
Pasture land:	53865 hectare
Soil classifications	Black Cotton Soil, Sandy Loam Soil and Clayey Loam soil

A 1.1.8 Housing Pattern:

This section gives an overview of type of housing construction, material used in housing, types of flooring etc. which is useful in doing the risk analysis in case of occurrence of earthquake.

There is a predominance of walls made out of mud in the rural areas of the district, followed by the walls made out of burnt bricks. Concrete stone and wood wall structures are very less in comparison to others, hence it can be said that the houses are weak and prone to damage in case of disasters like earthquake. Heavy weight sloping roofs are there in maximum rural and urban houses. For details please refer to vulnerability atlas in the annexure.

Table A 1.8

Housing pattern-	
Type of housing construction:	Kuccha/ pucca houses
Type of material used:	RCC / Brick/ mud / bamboo
Flooring types: (Ground and above)	G, G+1 majorly in villages G+2 and G+3 in cities and towns though rarely

A 1.1.9 Industrial set ups

Chhindwara has approximately 25 industries out of which maximum are situated in the Sausar block. HUL, raymonds and Bhansali Polymers are three major industries which are marked as Hazard prone and Polluting units. HUL is located in Chhindwara block, 10km away from the town of Chhindwara. This section gives an account of total no. of industries (Govt., Semi Govt. and Pvt), details of the industrial establishments, total work force involved, no. of major accident hazard/ industrial units and polluting industries.

Table A 1.1.9

Total no. of industries (Govt., Semi Govt. and Pvt), Block wise	List Obtained as a hardcopy
a) No. of Major Accident Hazard Units/ Polluting industries/ Industrial Areas:	3
Total workforce involved in these industrial units:	4000

List of Industries to be enclosed in Annexure.

A 1.1.10 Transport and communication network

This section captures block connectivity by road, rail, air network, conditions of road and rail network in the district. It also throws light on availability of post offices, telephone services and mobile networks in the district, till block level, mobile/ telephone network density.

Table A 1.1.10

1) Transport Connectivity of each block w.r.t. following networks:	
a) By Road	National Highway : 62.80 km Major District Road: 668.50km Other District Road: 166.30 km Rural Roads: 816.80 km
b) c) By Rail	Connected with cities like Bhopal, Jabalpur, Jhansi, Gwalior, Delhi and Nagpur. 234 km railway line
d) By Air	The nearest Airport is in Nagpur, 130 km from Chhindwara.
2) Communication network	
i) No. of wireless stations in the respective blocks	41 (total)
ii) Availability of telephone, mobile services in each block	Landline Phones Amarwada - 430 Batkakhapa - 68 Chhindwara - 9928 Chourai - 726 Harrai - 117 Junnardeo - 2380

	Padhurna - 1298 Parasia - 2399 Sausar - 1728 Tamia - 244 Total – 19381 Mobile: BSNL 178978 Rural- 62701 Urban -116277
iii) Availability of internet facility in the blocks	Amarwada -119 Bichhua - 58 Chhindwara - 1774 Chourai - 22 Harrai - 86 Junnardeo – 315 Mohkhed – 156 Padhurna - 203 Parasia - 490 Sausar - 266 Tamia – 60

Major road and rail network to be showed in the detailed map enclosed in Annexure 8.6

A 1.1.11 Power stations and electricity installations

There are no power generating stations in Chhindwara district and all the electricity used is generated in the adjoining Seoni District. Therefore there is a list of power transmission stations in the table.

Table A 1.1.11

List of power stations in the district:	132KV S/S Chhindwara 220KV S/S Chhindwara 132KV S/S Padhurna 132KV S/S Boragaon 132KV S/S Khapaswami 132KV S/S Chourai 132KV S/S Amarwada
Electricity Consumption in district	105337.9 Mwh per month

A 1.1.12 Major historical, religious places, tourist spots

There are few renowned places in the district with historical and religious importance that attract visitors at a greater rate. Places like Deogarh Pataalkot and Tamia have heavy footfalls throughout the year with tourists visiting from all over the country. Apart from this several religious fairs take place in the district at different places in different seasons which also record heavy footfalls and might lead to a case of stampede or violence. The Gotermal fair is one of its kinds where stone pelting is a part of the tradition. This also is a dangerous custom and leads to casualty at times.

A 1.2 Scope and Ownership of District Disaster Management Plan

Any type of disaster, be it natural or manmade, leads to immense loss of life, and also causes damage to the property and the surrounding environment, to such an extent that the normal social and economic mechanism available to the society, gets disturbed.

The Govt. of India, recognized the need to of a proactive, comprehensive, and sustained approach to disaster management to reduce detrimental effects of disasters on overall socio-economic development of country, and came out with Disaster Management (DM) Act 2005, and highlighted the role and importance of District Disaster Management Plan. The Govt. of Madhya Pradesh (GoMP) also believes that there is a need for a Disaster Management Plan in every district that articulates its vision and strategy for disaster management in the state. In this context the Madhya Pradesh State Disaster Management Authority (MPSDMA) provides guidelines to various entities involved in disaster management in the state to discharge their responsibilities more effectively.

Further, as per the DM Act, the District Disaster Management Authority to be formed in each district and it will be the nodal agency for preparation, functioning and review of the District Disaster Management Plan (DDMP).

The scope of district disaster management plan is very wide, and it is applicable in all the stages of disasters (before, during, after & non disaster time). The DDMPs can help officials in taking important decisions and also provide guidance to direct subordinates in emergency. The DDMP helps in saving the precious time, which might be lost in the consultations, and getting approval from authorities.

It will be the responsibility of the District Disaster Management Authority members to look after the district and sub district level institutionalization activities pertaining to the disaster management, including the periodic review of district disaster management plan and allied functions.

DDMP is an operational module for district administration (owned by the DDMA) and it helps to effectively mitigate the different types of disasters with locally available persons and resources. It also ensures a checklist for all the stakeholders for an action oriented response structure and to study their preparedness level.

A 1.2 Purpose of the Plan

To make the district safer, and respond promptly in a coordinated manner in a disaster situation, mitigate potential impact of disasters in order to save lives of people and property of the respective district.

A 1.3 Key Objectives

Complying with the DM Act 2005, the objectives guiding the formulation of the plan are:

- Assess all risks and vulnerabilities associated with various disasters in the district
- Promoting prevention and preparedness by ensuring that Disaster Management (DM) receives the highest priority at all levels in the district.
- Prevention and minimization of loss of human lives and property by gearing up preparedness, prevention & mitigation of disasters
- To provide clarity on roles and responsibilities for all stakeholders concerned with disaster management so that disasters can be managed more effectively
- Assisting the line departments, Block administration, urban bodies and community in developing coping skills for disaster management & Ensuring that community is the most important stakeholder in the DM process.
- To strengthen the capacities of the community and establish and maintain effective systems for responding to disasters
- Developing convergence of action in addressing, preventing and mitigating disasters and to equip with maximum possible relief measures and to resort to pre-disaster, during and post-disaster steps.
- To establish and maintain a proactive programme of risk reduction, this programme being implemented through existing sectoral and inter-sectoral development programmes and
- Mainstreaming DM concerns into the developmental planning process.
- Encouraging mitigation measures based on state-of-the-art technology and environmental sustainability.
- To address gender issues in disaster management with special thrust on empowerment of women towards long term disaster mitigation
- Developing contemporary forecasting and early warning systems backed by responsive and fail-safe communications and Information Technology support.
- Encourage training and create awareness, rehearsals, dissemination of knowledge, and information on DM among all the citizens living in the district.
- Ensuring relief/assistance to the affected with care, without any discrimination of caste, creed, community or sex

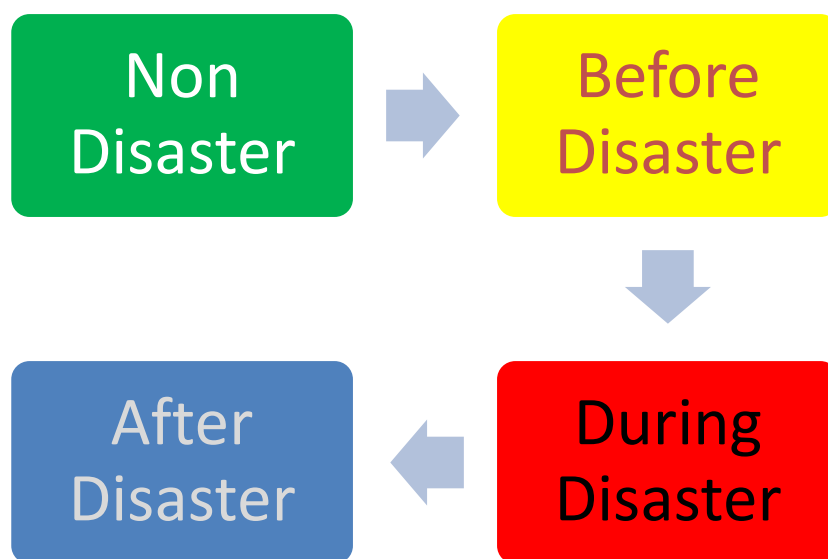
- Undertaking reconstruction as an opportunity to build disaster resilient structures and habitat.
- Undertaking recovery to bring back the community to a better and safer level than the pre-disaster stage
- To develop disaster management as a distinct management discipline and creation of a systematic and streamlined disaster management cadre

A 1.4 District Plan Approach

The aim of the plan is to establish necessary systems, structures, programs, resources, capabilities and guiding principles for reducing disaster risks and preparing for and responding to disasters and threats of disasters in respective district, in order to save lives and property, avoid disruption of economic activity and damage to environment and to ensure the continuity and sustainability of development.

The district disaster management plan has a holistic and integrated approach with emphasis on prevention, mitigation and preparedness by ensuring that Disaster Management receives the highest priority at all levels in the district. It has a paradigm shift, similar to the lines of national and state level, from reactive and relief centric approach to disasters. The approach is aimed to conserve developmental gains and also minimize losses to lives, livelihood and property.

For efficient execution of the District Disaster Management Plan, the Plan has been organized as per these four stages of the Disaster Cycle.



Non disaster stage: Activities include disaster mitigation, leading to prevention & risk reduction.

Before disaster stage: Activities include preparedness to face likely disasters, dissemination of early warnings.

During disaster stage: Activities include quick response, relief, mobilization of search & rescue, damage assessment.

After disaster stage: Activities include recovery & rehabilitation programs in disaster affected areas.

A 2. Institutional Arrangements

This section will cover the basic structure for institutional arrangements, as mandated by the DM Act 2005, including the broad functions of DDMA, DEOC, DDMAC/ DDMC/ BDMC/ GPDMC etc and its inter linkages with upward and downward (state level and Block level). The section will also throw light on the role of the key entities pertaining to the emergency response functions, and will also address the modalities part, as mandated by Madhya Pradesh State Disaster Management Policy 2011.

A 2.1 District Disaster Management Authority (DDMA)

Table A 2.1

Date of inception of DDMA	5/9/2007
Members of DDMA, their name, along with actual designations, and current position in DDMA like Chairman, Secretary or Member etc	.Collector and District Magistrate (Chairman) . Zila Panchayat President (Vice Chairman) .Executive Engineer PWD (Member) .Superintendent of Police (Member) .Chief Executive Officer (Member) Additional Collector

Roles and Responsibilities of DDMA

- Ensuring that prevention, mitigation and preparedness activities are carried out in accordance with the appropriate guidelines.
- Providing inputs to MPSDMA relating to various aspect of disaster management including early warnings, status of preparedness etc.
- Ensuring that relevant officials in the district possess the knowledge to deal with disaster management issues.
- Developing an appropriate relief implementation strategy for the district taking into account the unique circumstances of the district and prevailing gaps in institutional capacity and resources of the district.
- Facilitating and coordinating with local govt bodies to ensure that pre disaster DM activities in the district are carried out optimally.
- Facilitating community training, awareness programs and the installation of emergency facilities with the support of local administration, NGOs and the private sector.
- Establishing adequate interdepartmental coordination on issues related to disaster management.

- Reviewing emergency plans and guidelines.
- Involving the community in the planning and development process.
- Ensuring that local authorities including municipal corporation, gram panchayats etc in the district are involved in developing their own mitigation strategies.
- Ensuring appropriate linkage between DM activities and planning activities.
- Revisiting or re assessing contingency plans related to disaster management.
- Ensuring that proper communication systems are in place and contingency plans maximize the involvement of local agencies.

A 2.2 District Disaster Management Committee

Table A 2.2

Functionaries	Designation	Names of Officers	Office contact Code: 07162	Residence contact
DM / DC	Chairman, DDMC	Mr Mahesh Chand Chaudhary	242302	242303 M:9425802003
CEO Zila Panchayat	Member Secretary, DDMA	Mr Srinivas Sharma	244369	9424450444
SDM	Members, DDMA	Mr K.D.Tripathi	243403	M:9425172776
CMHO		Mr J.S Gogiya	242850	M:9827062842
ADM		Mr Srinivas Sharma	243402	M:9424450444
SP		Mr Ashish Kumar	242304	M:9424437743

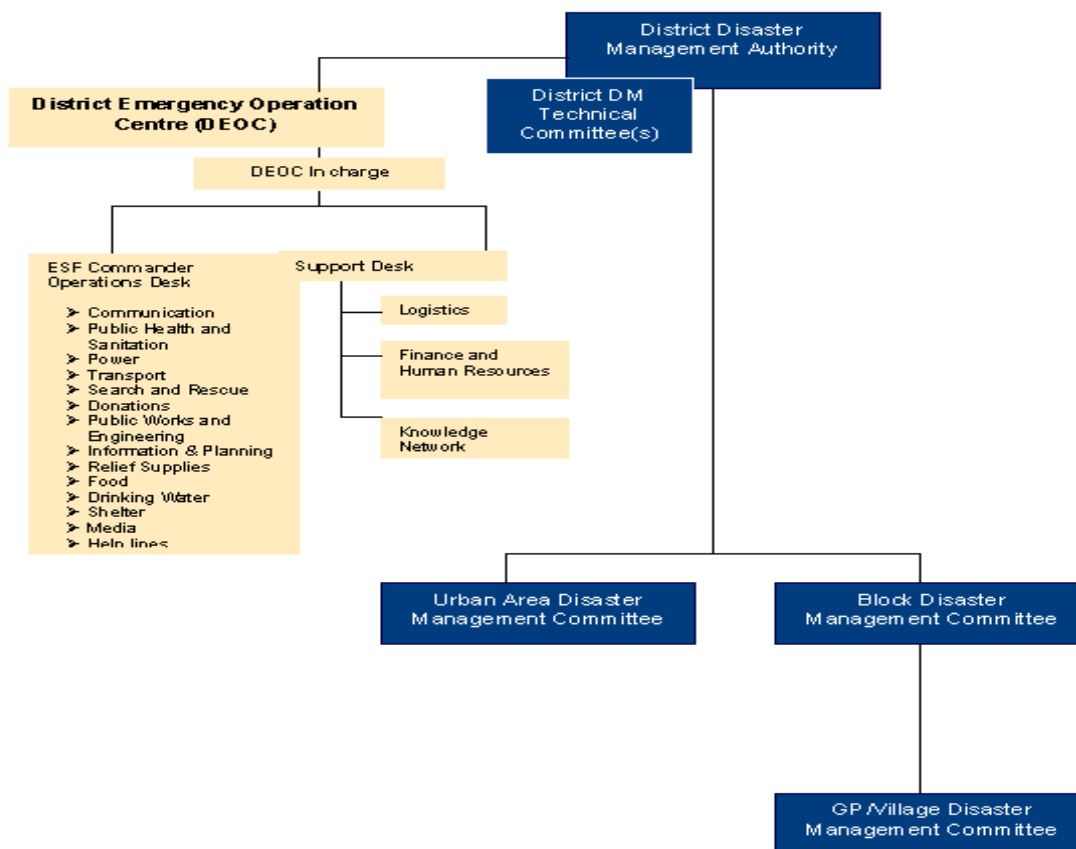
A 2.3 District Control Room (DCR)

This table captures the detail of existing DCR in terms of location and the operational and support functions, roles & responsibilities of nodal officers. The DCR involves the working of Police Department and Home Guards in tandem with each other at the time of disaster. There are various other organizations which work with the DCR at block and village level during the time of disasters making the local operations easier. The members of these organizations are chosen from amongst the villagers and other citizens who volunteer and who have the capability to deliver at the time of emergency.

Table A 2.3

Location of the DCR:	Police Line, Near Bus Stand, In front of Shaheed Major Amit Thele Statue
Involved agencies in DEOC / DCR, Roles and responsibilities of the officials / nodal persons (phase wise):	Fisheries Society working with Fisheries Department during Floods, Gram Rakhsha Samiti, Nagar Raksha Samiti, Home Guard Staff during all emergencies.

A 2.4 District Disaster Information Management System



A 2.5 Urban Area Disaster Management Committee

An Urban DMC is proposed to be formed in Chhindwara under the Chairmanship of the Nagar Palika Chairman, which will work towards maintaining the capacity of the committee so that rescue and relief operations can be carried out at all levels itself rather than wait for help from the headquarters in case of an emergency. It will also be responsible for providing the required support to the Block DMC and Village DMC as and when required.

Table A 2.5

Date of inception of Urban DDMC, Location	Proposed to be formed.
Members of Urban DDMC, their name, along with actual designations, and current position in DDMC like Chairman, Secretary or Member etc	Nagar Palika Chairman (Chairman) Nagar Palika Dy Chairman (Dy Chairman) Mukhya Nagarpalika Officer (Secretary) CMHO

A 2.6 Block Level Disaster Management Committee

Table A 2.6

A Block Level DMC will be set up in the district under the Chairmanship of the BDO in each block, which will work towards maintaining the capacity of the Block level committee so that rescue and relief operations can be carried out at the block level itself rather than wait for help from the headquarters in case of an emergency.

Date of inception of Block level DMC, Location	Proposed to be formed
Members of Block level DDMC, their name, along with the actual designations, and current position in Block DMC like Chairman, Secretary or Member etc	Block Development Officer SHO, Police Station Chairman, Panchayat Samiti Block Medical Officer Incharge, Dispensary/ SHC Assistant Engineer PWD Assistant Engineer, MPEB

A 2.7 Gram Panchayat Disaster Management Committee

A Village Disaster Management Committee will be set up in the district under the Chairmanship of the Gram Sarpanch of each GP, which will work towards maintaining the capacity of the Panchayat level committee so that rescue and relief operations can be carried out at the block level itself rather than wait for help from the headquarters in case of an emergency. Disaster management plans of 25 villages of the district have been made, each specific to a village with thorough plans for coping disasters. This operation of making DM plans for villages is still under progress for certain other villages.

Table A 2.7

Date of inception of Gram Panchayat level DMC, Location	Committee to be set up
Members of Gram Panchayat level DMC, their name, along with actual designations, and current position in GP level DMC like Chairman, Secretary or Member etc	. Gram Sarpanch .Up Sarpanch .Secretary - Panchayat . Patwari . Head Teacher, Primary School

B. HAZARD, VULNERABILITY ASSESSMENT AND RISK PROFILING (HVRC)

B 1. Hazard Assessment

Table B.1.1 History of past disasters

The following is the history of past disasters:

A. Floods

There was a critical situation in some parts of the district in the past due to floods. Most of the rivers were overflowing and there was a loss of life and property. The river water entered the standing crops and the farmers suffered a huge loss. Most of the livestock also was flown away in this flood. Some people were shifted to safe shelters but there was very less rehabilitation. However there are no such cases of floods arising in the past few years, however sometimes chances of floods come up during monsoons at times.

B. Road and Rail Accidents

There is a good network of pucca and kaccha road in the district. There haven't been any Rail accidents so far however road accidents are being reported very frequently in the past few years and have now gone upto an alarming state. The ongoing construction of roads might further aggravate the problem hence there is a need of taking a control of the situation.

C. Landslides

Some minor incidences of rockslides have been known in some hilly regions of the district with no damage to the region. Patakot in Tamia is one such region. This resulted in blockage of rail traffic.

D. Drought

Chhindwara is prone to droughts and every year Tamia, Harrai and nearby regions are declared drought affected.

Chhindwara's Drought Resilience index was 367 districts based on vulnerability (Source: Evaluation of UNICEF's Drought Mitigation Project in Madhya Pradesh, 2001-2003 Report, published 2005)

E. Epidemics

There are several areas in Chhindwara where certain diseases are in prevalence. Sausar and Padhurna are affected by Filariasis where as Malaria is common in Tamia and Harrai. Absence of medical officers in Tamia and Harrai leads to further aggravation of the problem.

F. Earthquake:

Chhindwara lies in Zone II and Zone III. There were tremors felt in Amarwada, Kopakheda, Mehlon and Ghogri regions of the district at the time of Jabalpur Earthquake in 1996. Earthquakes of magnitude 3-4 have occurred in Chhindwara district however there were no losses caused to any person, cattle or infrastructure. Moreover keeping in view the housing structures preparedness for earthquake is nil. Therefore PWD should be the nodal agency that will work towards making the houses earthquake prone in order to minimize the mishap.

G. FIRE: Chhindwara is vulnerable to fire hazards. Also there is need to develop techniques to overcome the fire hazard for multi-storied buildings. LPG, propane, motor spirit, high speed diesel and superior kerosene are major chemicals to create emergency situations in the district. Based upon the physical and chemical properties of these chemicals, it has been identified that following hazards should be considered for the on-site and off-site emergency planning:

Fire: Pool fire, Jet fire, flash fire liquid

Explosions: Vapour cloud explosions(VCE), Boiling Expanding Vapour Explosions (BLEVE)

H. Hailstorm: Chhindwara also faces severe problems because of sudden hailstorms which lead to destruction of crops in the district. The past records state that there was a Hailstorm in 2005-06 in

Chhindwara block causing great damage to crops, however no cattle or human beings were affected.

Type of hazard	Year of occurrence	Area affected	Impact on life	Livelihood	Livestock	Hazard prone zone in district
Mine accidents	1993-2012	Parasia	37 dead 326 injured	-	-	Tamia and parasia

Detailed List attached in annexure

Table B.1.2 Major applicable hazards

Type of applicable hazards	Hazard prone blocks
Earthquake, Drought, hailstorm, fire, industrial & chemical disasters, rail/ road accidents, epidemic, landslide, mining blasts	Amarwada, Tamia, Junnardeo and Parasia lie in Zone II while rest of the blocks in Zone III Tamia, Harrai, Mohked, Amarwada, Bichhua, Sausar and Padhurna blocks majorly affected. All blocks are prone Parasia, Jamai, Harrai prone to forest fire All blocks are slightly prone No Rail Accidents, Road accidents majorly in Chhindwara Block Sangakheda, Filaria and Leprosy in Sausar, Padhurna Malaria in Tamia Harrai Patalkot, Tultula Mountain near Tamia Pench area

Table B.1.3 Seasonality of hazards

Hazard	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Hailstorm	Yes							Yes				
Landslide								Yes	Yes			
Drought	Yes				Yes	Yes						Yes

B 2 Vulnerability Analysis

- Physical vulnerability (Ex: roads, bridges, hospitals, houses embankments)
- Social Vulnerability (Ex: population, inclusion)
- Economic vulnerability (Ex: poverty, agriculture, and livelihood)
- Environmental vulnerability (Ex: rivers, canals, animals, minerals)

- Institutional vulnerability (Ex; lack of institutional support, absence of DDMCs etc)

Table B.2

Name of Hazard	Affected vulnerabilities (Physical, social, economic, natural and institutional)	Hazard prone Block, GPs
Drought	Population, Livestock Poverty	Tamia, Harrai, Mohked, Amarwada, Bichhua, Sausar and Padhurna
Fire	Forests, Infrastructure, Population, Livestock	All Parasia, Jamai and Harrai [prone to forest fire
Accidents	Roads, Population and Livestock	All blocks prone

B 3. Capacity Analysis

Table B 3.1 Resource inventory

Resource Type	Details	Number	Govt, Private	Contact no. of nodal person/s
Temporary shelters, camps	Schools will be made Shelters		Both	
Emergency Search lights	Available	10	Govt, Homeguard	9425810810
Trained manpower, professionals available in specific domain like S&R ,First Aid, Response Warning, Swimming etc.	List of all trained staff to be enclosed in the Annexure 8.6, with all contact numbers	13	With Homeguard	9425810810
First Aid / Medical emergency requirements, equipments to be used	Available in each block	-	Govt, IDSP official	9425461745
Location of key hospitals, blood banks, Doctors, medical stores	Obtained as a hard copy		Govt bodes with private hospitals	9425461745
Availability of equipments like Bulldozers, Hydra, Crane, for clearance, JCB	Around 250 with 40 each (approx)		Government	
Transportation(Fit Vehicles available with nodal agencies, in	Buses – 461 Other vehicles –		Govt	07162-243403

emergency)	3868			
Total no. of boats (with info about capacity, size, contacts of Orgn./owner etc)			Govt	9425810810
Availability of fire fighting equipments, Fire tenders (List attached in annexure)	Fire Brigade	3	Govt, Nagar Nigam	9425184018
List of PDS Shops	Obtained			
List of NGOs / CBOs	Obtained			
Veterinary Hospitals	Hospitals Dispensaries Mobile Units	21 76 4	Govt	9407010749
List of petrol pumps (if possible)	Obtained as Hard Copy			

B 4. Risks Assessment

Table B.4.1 Potential impact of applicable hazards and existing vulnerabilities

Type of hazard	Vulnerable areas *	Vulnerability	Potential Impact	Identified safer places *
Flood	None	population at risk, communication failure, drinking water problem, livestock safety issues	Loss of crop, so as livelihood and houses	No such problem of flood reported in past years.
earthquake,	North Chhindwara	Population, Communication troubles.	Loss of livelihoods and Shelters and Buildings	No damage done
drought,	Tamia, Harrai, Mohkhed	Population, livestock and Livelihoods	Loss of Livelihood	Chhindwara, Parasia, Sausar
hailstorm,	All	Population	Loss of Crop	-
fire,	All	Population, Infrastructure	Loss of Livelihood	-
industrial disaster,	Sausar	Population, Infrastructure, Environmental Problems	Loss of life and Livelihood,	-

B 4.2 Risk profiling of the district

The district Chhindwara is prone to a number of risks, which can occur in one block or the other. The major ones out of the same are drought, road accidents, forest and industrial fire, mine accidents, hail storm, lightening strikes and epidemics. Though there is no great history of disasters in the past, but still preparedness is quintessential to combat them in case of their occurrence. The Disaster Management Plan of Chhindwara follows below which encompasses all the district machinery and focuses on inter and intra district co-ordination in order to combat disasters.

C . DISTRICT LEVEL DISASTER MANAGEMENT PLANNING

C 1 District Action Plans

C 1.1 Mitigation Plan

The mitigation plans will be specific for different kinds of hazards identified in HRVC section. Mitigation plans will be sector specific, and will deal with both aspects, structural & non-structural. The Identification of various departments, along with nodal officers, to coordinate the mitigation activities, including PRI and ULBs for implementing mitigation strategies will be the key. Community mitigation measures will be identified and implementation modalities formulated. A Training Strategy will be formulated for training major government and non-governmental cadres in the state who can aid in disaster management.

C 1.1.1 Scope of Integrating Risk Reduction in Development Schemes

Issues faced regarding constructions:

- Constructions taking place at individual level do not conform to the established construction norms.
- Norms aren't percolated to every level of construction.
- Infrastructure development should pass through all the stages in safety assurance.

Issues faced regarding infrastructure, repair & maintenance

- Regular monitoring and evaluation of buildings and other constructions should be ensured
- Repairs should be done according to the need.

Issues regarding transport

- Regular checking of vehicles and whether they are in proper working condition and repair of the vehicles when necessary and cancellation of license of bad conditioned vehicles.

Structural: Structural Mitigation Measures

- Retrofitting of Buildings: In Chhindwara region maximum buildings are non-engineered or kuchcha, having lower seismic resistant capacity. There are mainly four major types of constructions:

Category A: Adobe, fieldstone Masonry Buildings

Category B: Brick Construction Masonry Buildings

Category C: R. C. C. Construction

Category X: Traditional & Conventional Construction

The buildings of Category A are very weak and may get damaged even due to a lower intensity earthquake. There is a need for detailed assessment of buildings, which are vulnerable and may cause losses to life. Assessment of these buildings will help to evolve a strategy for their retrofitting.

.After assessment of vulnerability of buildings the priority for structural mitigation has to be defined. Generally public buildings are given first priority because they are lesser in number and at the time of disaster people can take shelter in these public buildings. Some examples of important buildings are hospitals, clinics, communication buildings, fire and police stations, water supply, cinema halls, meeting halls, schools and cultural buildings such as museums, monuments and temples. The second priority goes to other type of buildings like housing, hostels, offices, warehouses and factories.

- Construction control: The best protection against earthquake is a strong built environment. The quality of buildings, measured by their seismic resistance is of fundamental importance. Minimum design and construction standards for earthquake and flood resistant structures legislated nationally, are an important step in establishing future minimum levels of protection for important structures. India now has building codes and regulations for seismic and flood resistant design. These codes are in constant review by the experts. The below mentioned building codes are generally practiced in India:

- IS: 1893, 1984 - Criteria for earthquake resistance design of structures
- IS: 13828, 1993 - Guidelines for improving low strength earthquake resistant masonry buildings
- IS: 13920, 1993 - Ductile detailing of reinforced concrete structures subjected to seismic forces- code of practice
- IS: 13827, 1993 - Guidelines for improving earthquake resistance of earthen buildings
- IS: 13935, 1993 - Guidelines for repairing & seismic strengthening of buildings

NON STRUCTURAL:

Land use planning: Damage to a building depends primarily upon the soil conditions and topology of the area. Chhindwara district comes under moderate risk zone in terms of earthquake (Zone 3) and drought disaster. Drought is majorly prevalent in Tamia, Harrai, Mohkhed and nearby blocks. Training and awareness programs: Mitigation also includes training of people for making the houses safe from earthquake. Training modules have to be prepared for different target groups viz. engineers and masons about safe building practices and general 'do's and don'ts' for general public.

Mitigation strategies

The mitigation strategy for Chhindwara district involves the following elements:

- Further growth of human settlements in the low lying areas of near PENCH and Kanhan basins should be checked through land-use planning. Such areas are vulnerable not only from flood hazards but are also vulnerable to earthquake liquefaction, which may increase the damage manifold. The department of Town and Country Planning will take care of seismic hazards while preparing the development plans for the district;
- Appropriate building codes will be made applicable for new engineered & non engineered constructions, and should be strictly enforced by local body. The Municipal Corporation of local area will ensure the construction as per Indian Standard Building Codes;
- Infrastructure department will do the retrofitting of public buildings under their maintenance charge. Generally PWD, Rural Engineering Services and Housing Board maintain the public buildings. The expenditure for such retrofitting will be taken care under maintenance head.
- Community awareness will be raised regarding seismic resistant building construction techniques and seismic retrofitting of existing buildings. Housing Board will be the nodal agency to provide training through workshops and demonstrations. PWD and RES will support MPHB in these efforts;
- Community awareness will be raised regarding 'do's and don'ts' in the event of an earthquake with the involvement of Panchayati Raj institutions and CBOs. Revenue department will be the nodal agency for this activity.

Development schemes:

NREGS:

1. Tubewells
2. Roads for places which are not connected
3. Leveling of low lying areas during flood to a higher level
4. Construction of check dams and embankments and drainage systems.

IAY :

1. Rehabilitation: It can start constructions in the villages which are affected.

Sarva sikshya abhiyan:

Create awareness about mitigation and preparedness about accidents that are in control of man, in collaboration with educational institutions. The curriculum of Disaster Management has been added to the syllabus of school students which will enable them to prepare themselves technically and morally to combat disasters.

NRHM:

- Facilitate First Aid Volunteers to aid during disaster.
- Involve NGOs as resource organizations and improve Health Information System.
- Support required at all levels: National, State, District and sub-district.
- Mission would require two distinct support mechanisms – Program Management Support Centre and Health Trust of India.

Mukhyamantri Avas yojana:

Facilitate in rehabilitation programs in affected villages. There is a provision for various grants announced by various departments like Relief Department and Rural Development Board which helps in construction of houses.

Jal Abhishekh Abhiyan:

Provide for clean drinking water during response and relief period, can work in collaboration with sanitation systems during relief period.

C 1.1.2 Training & Capacity Building

The capacity of a community to withstand disasters is a function of-

- Awareness of the risks associated with disasters
- Understanding of appropriate responses to disasters
- Possessing the capacity to respond (training, research, availability of resources, skilled cadres)
- Setting up emergency response mechanism that mobilize and deploy these trained resources in a quick, efficient and systematic manner.

The above can be achieved with the help of MPSDMA and the relevant government departments. They can ensure that personnel in specialized areas (medical care, relief, etc) are adequately trained and available for deployment in emergency situations. The basic concepts relating to disaster management and the role of the community therein shall be included in the curriculum of schools. All this shall have a special thrust on empowering women towards long term disaster mitigation. It should enhance the existing capacity to limit damage by improving surveillance and early warning system. MPSDMA should stimulate the active involvement of the community, local groups, women and disabled people in disaster management programs with a view to facilitating the capacity of the community to deal with disasters. Promote and support research, development and the use of local knowledge in measures that are aimed at supporting risk reduction and relate to disaster management activities.

C 1.1.3 Community Initiatives

Communities are always the first responders and hence the DDMA / Distt. Authority will ensure Community participation through initiatives like Community Based Disaster Management (CBDM) to promote local ownership, address local needs, and promote volunteerism.

Aim of CBDRM is to reduce vulnerabilities, and increase capacities of households and communities to withstand damaging effects of any disaster. It enhances people's participation and empowers them in achieving sustainable development and sharing its benefits. With the help of outsiders they can address issues of situational analysis, planning and implementation of risk reduction and preparedness measures. Through a thorough assessment of communities' hazard exposure and analysis of specifics of the vulnerabilities as well as capacities, CBDRM forms the basis for activities, project and programs required to reduce disaster risk. Since they are one of the primary actors and should be actively involved in the preparation of plan.

C 1.1.4 Risk Management Funding

Short term provisions are expected to cover the immediate loss, incurred due to disasters. Whereas long term provisions include the set up of fire stations, watershed management, planting trees along the river etc.

Insurance schemes are important source of funds for restoration of private business enterprises. The Collector will coordinate with Insurance Companies to speed up settlement of insurance claims. It will help in restoration of private business enterprises. He will also coordinate with commercial banks for ensuring smooth flow of financial assistance from commercial banks for restoration of private business enterprises.

Agriculture department shall provide seeds and the required finance as loans through local banks for the resumption of agriculture activities. The district administration shall elicit the support funding of agencies like Care, CRS etc. for the resumption of agriculture and livelihood activities.

Revenue/Book Circulars contains standing instructions of the Government for distribution of ex-gratia payments to poor families, who suffer from disasters to initiate their recovery process. This assistance will be provided very promptly to the poor families by the functionaries of the Revenue Department.

Short term funding: RBC again.

Long term: Fire equipments should be purchased as required and as per new technology. For eg: multistoried buildings (masks aren't available), equipments for fire extinguishing in slum areas where fire brigade cannot enter. Only 3 fire brigades are available in the district that too in Chhindwara which might pose a problem in case of incidence of fire in distant places.

Eco friendly watershed interventions to deal with drought situations, check dams for mitigating soil erosion should be established.

Planting trees on banks of rivers to prevent soil erosion and act as shelter belts.

C 1.2 Preparedness Plan

C.1.2.1 Preparedness before response

Brief steps about the preparedness plans of respective departments, including Home, Health, R&R, Police, Civil Defense, Municipal Board etc.

C.1.2.2 Pre-Disaster Warning, Alerts

An effective flood forecasting system provides some lead-time to warn the communities, which are likely to get affected. It will be the responsibility of the revenue department to communicate the emergency warning in the rural areas and police department will be responsible for communicating warning in urban areas.

The district is affected by earthquake. Since there is no scientific warning system for earthquakes, Emergency Warning System is confined to the case of flood only. An effective flood warning system provides some lead-time to the community likely to be affected to respond. The system should integrate flood prediction, dissemination of warning information, response of agencies and the public in the threatened community. The purpose of warning about impending flood is to enable and

persuade people and organizations to take action to increase safety and reduce the adverse impact of flooding.

The Chief Engineer (CE) maintains wireless communication with the dam authorities of the dams about the release of upstream water. Therefore, CE will maintain a control room to obtain the information about the release of water from the dams upstream and provide flood forecast/warning to District Collector during the rainy season.

The district Collector, and in his absence, OIC, DECR will authorize the issue of warning to the community likely to be affected and to the concerned response agencies.

Warning messages should use plain language and avoid technical terms and jargon. It should be direct and personalized as much as possible by focusing on what it means to YOU and what YOU can do about it.

Along with the general dissemination modes of warning viz. Radio, Television, Scheduled News bulletins, Local/Regional newspapers, and public address system should be thoroughly adapted for better results. Once a warning is issued, it should be followed up by subsequent warnings in order to keep the people informed of the latest situations.

Table C. 1.2.2

The table below is for reference purpose; please make the appropriate one, according to your district.

Hazards	Prediction agencies
Ex:	
Flood	CWC, IMD, PHE, Irrigation, Flood and Relief Cell
Drought	IMD
Industrial	SPCB, Department. of Industry
Rail and Road Accidents	RTO, Police Line
Epidemics	Health Department, Agriculture Department and Veterinary division
Landslides	Mining Department

C.1.2.3 Evacuation preparedness

Evacuation is a risk management strategy, which may be used as a means of mitigating the effects of an emergency or disaster on a community. It involves the movement of people to a safer

location. However, to be effective, it must be correctly planned and executed. The process of evacuation is usually considered to include the return of the affected community.

Shelter provides for the temporary respite to evacuees. It may be limited in facilities, but must provide protection from the elements as well as accommodate the basic personal needs, which arise at an individual level in an emergency.

The plan must allocate 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 may need consideration:

- Identification of appropriate shelter areas based on safety, availability of facilities, capacity and number of victims.
- Approaches to the shelter location in light of disruption due to hazard impact and traffic blockades.
- Temporary accommodation
- Provision of essential facilities like drinking water, food, clothing, communication, medical, electrical and feeding arrangements, etc.
- Security
- Financial and immediate assistance
- First-aid and counseling

Types of evacuation

For the purpose of planning, all evacuations may be considered to be one of two generic types:

- (a) Immediate evacuation, which allows little or no warning and limited preparation time as in the case of earthquakes and air accident.
- (b) Pre-warned evacuation resulting from an event that provides adequate warning and does not unduly limit preparation time as in the case of flood and cyclones.

Principles of Evacuation Planning

- Establishment of a management structure for organization, implementation, coordination and monitoring of the plan.
- Determination of legal or other authority to evacuate.
- Clear definition of rules and responsibilities.
- Development of appropriate and flexible plans.
- Effective warning and information system.
- Promoting awareness and encouraging self-evacuation.
- Assurance of movement capability.
- Building confidence measures and seeking cooperation of the affected community.
- Availability of space for establishment of relief camps having requisite capacity and facilities.
- Priority in evacuation to be accorded to special need groups like women, old and sick, handicapped and children.
- For effective evacuation, organization and running of relief centres, cooperation and involvement of all agencies viz. Community, volunteers, NGOs, NCC / NSS, Homeguards and civil defense, district and village bodies be ensured.
- Security arrangement and protection of lives and property.
- Preparation and updating of resource inventories.

- Appropriate welfare measures throughout all stages
- Test exercise of prepared plans and recording of lessons learnt
- Documentation.

Stages of Evacuation

There are five stages of evacuation as under:

- Decision of authorities to evacuate victims
- Issue of warning and awareness
- Ensuring smooth movement of victims to designated relief camps
- Ensuring provision of all requisite facilities like security, safe-housing, feeding, drinking-water, sanitation, medical and allied facilities
- Safe return of personnel on return of normalcy

Decision to Evacuate

Vulnerability analysis may indicate that for certain hazards and under certain conditions, sheltering in place could well be the best protection. Available lead-time may influence the decision to evacuate the public before the impact of emergency (e.g. floods) and reducing the risk to lives and property. Decision would also be dependent on factors like ready availability of suitable accommodation, climatic condition, severity of likely hazard and time of the day.

The Collector would be the authoritative body to issue directions for evacuation. The OIC of DECR would convey directions to Desk Officers of concerned agencies, which are responsible to execute evacuation.

Basic consideration for Evacuation

The DCG will define area to be evacuated as also the probable duration of evacuation on the basis of meteorological observations and intimations by the concerned forecasting agencies. It should also identify number of people for evacuation, destination of evacuees, lead-time available, welfare requirements of evacuees as also identify resources to meet the needs of victims, viz. manpower, transport, supplies equipments, communications and security of the evacuated area.

The evacuating agency should set priorities for evacuation in terms of areas likely to be affected and methodology to execute evacuation:

- Delivery of warning
- Transport arrangement
- Control and timing of movement
- Fulfill welfare needs including medical treatment
- Registration of evacuees

All agencies involved in evacuation operation like Homeguards, Police, PWD, PHED, etc. will coordinate in field. They will remain in touch with the Desk officials in the DECR for issuing warning, information and advise the public.

Evacuation Warning

An evacuation warning must be structured to provide timely and effective information. Factors, which may influence the quality and effectiveness of warning, include time, distance, visual

evidence, threat characteristic and sense of urgency e.g. the more immediate the threat, the greater the resilience of people to accept and appropriately react to the warning.

The warning should be clear and target specific. The warning statement issued to the community should be conveyed in a simple language. The statement should mentioned:

- The issuing authority, date and time of issue
- An accurate description of likely hazard and what is expected
- Possible impact on population, area to be in undated or affected due to earthquake
- Need to activate evacuation plan
- Do's and Don'ts to ensure appropriate response
- Advise to the people about further warnings to be issued, if any

Movement of Victims to Shelter / Relief Camp

As a large number of people would be rendered homeless and most of their properties may get destroyed during the flood or earthquake, a number of relief camps would be established to look after the people. RTO will be responsible for mustering adequate transport for movement of victims to shelters / relief camps and also stores and equipments. In order to cater to the needs of the affected people housed in the relief camps, arrangements for food, clothing, drinking water and medicines would be made. The Revenue and the Food Supplies Departments would make provision of food and clothing. Community kitchen should be run with the help of NGOs to provide foods to the victims. Adequate clothing and blankets as per weather conditions should be provided to the victims free of cost. The voluntary agencies can play very important role in this regard and their services should be adequately utilized. All measures will be taken to control outbreak of epidemics. The cleanliness of bathing areas and deep-trenched latrines should be ensured.

Evacuation procedure:

Earthquake cannot be predicted; hence warning for evacuation is not possible. In case of flood warning, the need to evacuate the population from low-lying areas should be decided keeping in view the lead-time before an area gets inundated. The District Collector in consultation with the DCG members would decide for evacuation on receipt of flood warning from the concerned forecasting agencies. The Collector would be the authoritative body to issue direction for evacuation. The OIC of DECR would convey the directions to Desk Officers of concerned agencies, which are responsible to execute evacuation.

Basic consideration for evacuation:

- The DCG will define area to be evacuated
- DCG will decide the probable duration of evacuation on the basis of meteorological observations and intimation by the concerned forecasting agencies.
- The evacuating agency should identify number of people for evacuation, destination of evacuees, lead time available and welfare requirements of evacuees.
- Identify resources to meet the needs for evacuation viz. manpower, transport, supplies, equipment, communications and security of the evacuated area.
- The evacuating agency should check availability, capability and durability of the required resources.
- The evacuating agency should set priorities for evacuation in terms of areas likely to be flooded.
- The evacuating agency should decide how to execute evacuation viz.
 - Delivery of warning

- Transport arrangement
- Control and timing of movement
- Fulfill welfare needs
- Registration of evacuees
- All agencies involved in evacuation operation will coordinate in field.
- Be in touch with the OIC to pass warnings, advice and information to the public. The OIC will convey the message through the District Information Officer / Public Relations Officer.
- Organize movement of evacuees
- Identify evacuation routes
- Traffic control
- Identify officer to control evacuation in field
- Allocation of responsibilities
- Communication facility
- Post-evacuation operations will include organize return of evacuees.

C.1.2.3 Organizing mock drills

Mock drill is an integral part of the disaster management plan, as it is a preparedness drill to keep the community alert, activate DM Teams across the district and review & modification of DM plan. Mock drills are advised to conduct once in 6 months and DDMA holds the responsibility to conduct the same.

C 1.3 Response Plan

C 1.3.1 Disaster Emergency Response Force

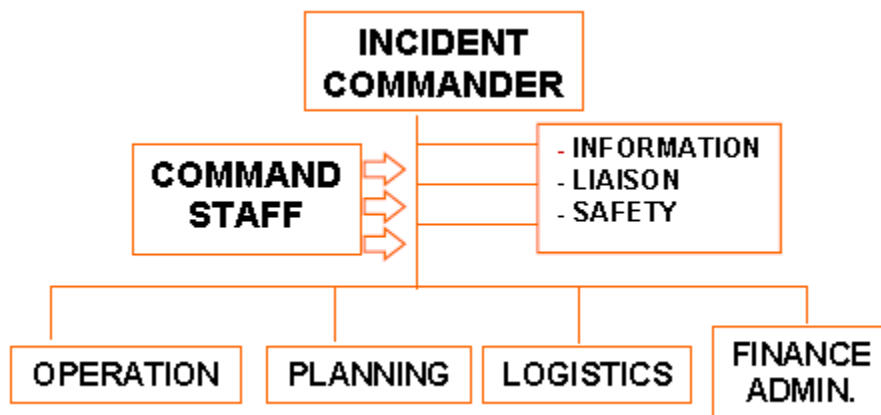
The State is expected to create response capabilities from its existing resources by equipping and training at least one battalion equivalent force for effective management of disasters and necessary training arrangement aligned with disaster management skills in consultation with the National Disaster Response Force. The District Commandants, Home Guards will be in charge of the force at the district level.

C 1.3.2 Crisis management direction & coordination

Ask DC Office and Police Department to share the structured coordination mechanism through using process flowcharts etc. These departments are expected to prepare & adhere the operational guidelines from crisis management coordination point of view.

C 1.3.3 Incident Command System (ICS)

A traditional command structure exists in the administrative hierarchy which manages disasters in India. It has been planned to strengthen and professionalize the same by drawing upon the principles of the ICS with suitable modifications. The ICS is essentially a management system to organize various emergency functions in a standardized manner while responding to any disaster. It will provide for specialist incident management teams with an incident commander and officers trained in different aspects of incident management, such as logistics, operations, etc.



All 5 major command functions in Incident command system are to be followed:

- a) Incident command: The Incident Commander is responsible for all incident activity. Although other functions may be left unfilled, there will always be an Incident Commander.
- b) Planning section: It is responsible for the collection, evaluation, and display of incident information, maintaining status of resources, and preparing the Incident Action Plan and incident related documentation.
- c) Operations section: Develops tactical organization and directs all the resources to carry out the Incident Action Plan.
- d) Logistics section: It provides resources and all other services needed to support the organization.
- e) Finance/ Admin section: Monitors costs related to the incident, provides accounting, procurement, time recording, cost analysis, and overall fiscal guidance.

C 1.3.4 Rapid damage assessment & reporting

Rapid Damage Assessment Team to be set up immediately after disaster. It should include Z.P. members, agricultural officer to assess the crop damage, executive engineer of PWD to assess the damaged houses, S.P to maintain the law and order situation, NGOs and volunteer organizations, Tahsildar, etc.

This team may immediately assess the damage undergone due to disaster and report it to the concerned department to get the immediate relief material from the government and also the foreign aid. Damage assessment procedures are required to avoid litigations and delays in gratuitous relief and compensation, including insurance.

Table C 1.3.4

INITIAL ASSESSMENT REPORT											
1	NATURE OF DISASTER:										
2	DATE OF OCCURRENCE:							TIME:			
3	DAMAGE AND LOSS ESTIMATES										
	Name of the Site (Village, Block, Tehsil)	Total Population Affected	People missing	People injured	Severity		Immediate needs	Houses Damaged			Action taken
					H	L		L	M	H	
4	INFRASTRUCTURE DAMAGE										
	Name of the Site (Village, Block, Tehsil)	Housing	Agriculture	Animals	Water source	Road and bridge	Power	Communication	Govt Building	Others	
5	NEED ESTIMATES										
	Name of the Site (Village, Block, Tehsil)	Medical Needs	Population requiring shelter	Clothes	Food	Water	Sanitation	Any Other			
6	ANY OTHER VITAL INFORMATION										
7	SPECIFY IMMEDIATE NEEDS: (With quantity)										
	Food										
	First aid										
	Machinery										
8	Possible Secondary Affects:										
9	NAME THE CONTACT PERSON:										
10	AGENCY/ADDRESS: TELEPHONE NUMBER										
	DATE:							SIGNATURE:			

FOR OFFICE PURPOSE:		REPORT NO.:
ACTION TAKEN:		

C 1.3.5 Distt. Search & rescue Team

Dedicated teams are formed to lead the search and rescue operations. Team members have to be periodically trained, retrained on the elements of collapsed structure, confined space search & rescue, and rope rescue etc.

Table C.1.3.5

S.No.	Name and designation of trained S&R Team member	Contact nos.
1	Shri A.Satyanarayana – ASO	9407803630
2	B. Shivkumar - Officer I/C	9425817420
3	Shri Q.M.Siddiqui	9425461864

C 1.3.6 Medical response

The specialized medical care shall be required to help the affected population. The preventive medication may have to be taken to prevent the outbreak of diseases.

Further, at the district level, dedicated medical teams will be activated at the time of emergency, which will consist of the doctors, nurses, pathologists, etc. Mobile Medical Vans, equipped with emergency requirements, also to be identified.

Members of the medical emergency team to be well trained, retrained on triage, advance life support, well versed with golden hour-platinum minutes concept, quick steps of first aid response etc.

Table C.1.3.6

S.No.	Name of team member	Designation	Contact no (off.)	Contact no (Res.)
1	Dr Ajay Mohan Verma	Medical specialist	07162-244886	9826245350
2	Dr Ranjana Khandekar	Pathologist	07162-243830	9425832530
3	Gulab Khatarkar	Epidemiologist	07162-242486	9826267480

C 1.3.7 Logistic arrangements

For an effective response from the relief team proper arrangements of the logistics are must. During the response phase, lots of resources are mobilized in terms of manpower, equipments and material. The relief workers and officials from outside the disaster area require transport, accommodation, food, etc. so that they can effectively perform the relief operations. Lot of equipments and materials has to be transported to the disaster site. All this requires logistic arrangements and coordination with different agencies.

In situation like Earthquake or Super Cyclone, the local transport infrastructure get crippled and immobilized. In such a situation, the local administration will try to mobilize the transport from outside. The drivers, cleaners and loaders etc. are required to work overtime and need proper care from the administration in terms of food, a place to park the vehicle and take rest. The team responsible for transport arrangement will try to take care of these basic requirements of the transport fleet. For running the transport fleet, petrol and diesel will be required and for this, appropriate arrangements will have to be made with the assistance of local oil companies, and dealers.

In a situation like Earthquake or Super Cyclone, the local infrastructure, which can be depended for arranging food, gets damaged. In such situation one needs to look for NGOs and caterers, who can organize emergency food on a really big scale. Such agencies needs to be identified in advance and requested during the emergency to organize the emergency food for relief teams and disaster victims. The relief officials and the disaster victims require food, even during the response phase. It will be the responsibility of the Food and Civil Supplies Department to arrange the food for the relief teams and disaster victims. The food can be provided to the relief teams and disaster victims, using the assistance of the local volunteers or the relief agencies themselves.

C 1.3.8 Communications

On the basis of reports from the possible disaster site, or on the warning from the agencies competent to issue such a warning, or on the receipt of warning or alert from Emergency Operations Center, the Collector will exercise the powers and responsibilities of the District Disaster Manager.

The list of the agencies competent for issuing warning or alert is given below:

The warning or occurrence of disaster will be communicated to

- ◆ Chief Secretary, Relief Commissioner, Emergency Operation Center
- ◆ Office of Divisional Commissioner
- ◆ All district level officials, Municipal Councils
- ◆ The Officials of central government located within the district
- ◆ Non-officials viz; Guardian Minister of the district, Mayor, ZP President, MPs, Local units of the Defense Services.

Communications and Information Technology (IT) Support

The basic communications and IT support requirements for disaster management correspond to the following three levels:

- Decision makers and disaster managers at all levels.
- Real time dissemination of advance warnings and information to the concerned authorities at various levels and threatened community. For dissemination of advance warning and information through broadcasting mediums such as television and radio shall be used significantly as it has higher geographical reach.
- Last mile connectivity at the disaster site for control and conduct of rescue and relief operations.

Communication and sharing of upto-date information using state-of the art IT infrastructure remain at the heart of effective implementation of the disaster management strategy. Reliable, up-to-date and faster sharing of geo-spatial information acquired from the field or the affected areas is a pre-requisite for effective implementation of disaster management strategies. Efforts should be made for setting up IT infrastructures consisting of required IT processes, architecture and skills for quick up-gradation and updation of data sets from the Panchayati Raj Institutions or the Urban Local Bodies. A National Emergency Communication Network, involving the contemporary space and terrestrial-based technologies in a highly synergistic configuration and with considerable redundancy, will be developed. This Network will ensure real time dissemination of warnings and information up to the affected community and local authorities.

C 1.3.9 Temporary shelter management

List in the annexure

C 1.3.10 Water and Sanitation (WATSAN)

WATSAN is also a very important element, which needs to be addressed on the top priority, as it is directly related to the basic needs, especially in case of the affected population. The Required provisions to be made by respective municipalities, for supply of pure drinking water, and to meet the other needs of water as well as timely addressal of sanitation requirements. This also includes the maintenance of hygiene, in & around emergency shelters, periodic monitoring and inspection of storm water drainage, nallah, adherence of the cleaning schedule of the camps and other places.

C 1.3.11 Law & order

Recent experiences of disaster management in Chhindwara show that law and order in the affected area is a must to be maintained properly and should be given priority in the scheme of things. It shall be the responsibility of the police to maintain the same. In case of the disaster being one of a high magnitude, the district administration shall seek the help of the army for maintaining the law and order.

C 1.3.12 Public grievances/missing persons search/media management

Since the disaster management involves fast communication of information to the community relating to warning of a likely event and the arrangements for emergency response. The administration must utilize the local media resources for communicating with the local community. In a disaster situation, not only the people directly affected but their relatives and friends are also

anxious to know about the welfare of their acquaintances. In such a situation, the media is able to inform the people about the welfare of the people. This plan has recognized the power of the media in keeping the people and the administration informed and seeks to utilize the media for the following purposes:

- The nature of the likely hazards, which may affect the lives of the people of the district and the ways to protect their lives and properties from the hazard;
- Increasing community awareness about the mitigation measures that can protect the lives and properties from the hazards;
- Communicating an advance warning of impending disaster to the people in order to give them time to take any protective action required;
- Identity of the people affected by the disaster and the nature of the effect;
- Arrangements made by the administration for the relief to disaster victims;
- Raising the awareness of the community to include mitigating measures for the recovery process;
- Keeping a watch over the relief operations and to keep the Government and the people informed about the same.

Thus, this plan provides for using the reach of the media with the people through all the four phases of disaster management. In Madhya Pradesh, District Collector interacts with the media through Public Relations Officer. The same arrangement will work even in relation to disaster management. In the absence of the Collector, Officer-in-charge of DECR will issue the press release through PRO.

There are certain cares and measures that must be taken while dealing with the media:

Principles of media

- The media should be managed rather than controlled
- Cooperation with the media is preferable to confrontation.
- Avoid public disputes within your organisation / agency and with others.
- The media is a communication medium to, and between, parts of the community.
- They can help to control convergence and rumour.
- They can list victim entitlements and promote self-help principles

How can media help:

- Provide information to disaster affected people about the nature of common reactions and the services / assistance available
- Educate the wider community about the experiences and needs of the affected people
- Provide feedback to the affected community about the support available from the remainder of the community.
- Provide opportunities for reflection, evaluation, comparison etc through talkback and anecdotes.

Media management:

- Talk to the interviewer (not to camera)
- Talk in short, simple chunks of information. One thought per sentence.
- Keep to the facts - avoid grey areas.

- If you are unclear then say so.
- Relate to your audience.
- Be prepared - have a statement ready.
- Stick to the facts - do not be led into “hypotheticals”
- If you promise to come back with more information then do so
- Never push the media away or lose your composure
- Never say something “off the record”.
- Avoid “NO COMMENT”.
- Material will be edited. Avoid dependent sentences.
- Avoid YES or NO answers.
- Change negatives into positives.
- Adjectives aren’t really necessary.
- In a media release get the key points in first.
- Approximate large numbers.

C 1.3.13 Animal care

During an earthquake and flood, not only the human beings but also the domestic cattle / animals are also affected and need to be taken care of simultaneously. The Animal Husbandry Department will organize special animal relief camps in coordination with Revenue Department, Nagar Nigam and allied support work services. The following services will be provided in the camps:

- To provide shelter to the affected animals by erecting temporary sheds
- To provide feed, fodder and potable drinking water
- Treatment of injured and sick animals by establishing a Veterinary Treatment Post to ensure effective treatment of animals
- List of animals would be prepared with details of their owners and distinguished marking will be made
- Arrangement for proper disposal of animals excreta
- Disposal of carcasses from the affected area shall be done immediately
- To prepare a list of dead animals
- Arrangements for grazing and milking of cows will be undertaken as per existing regulations
- To provide adequate veterinary cover, mobile and static hospitals will be established
- Pre monsoon vaccinations can be administered to prevent diseases and hence outbreak of epidemics.

C 1.3.14 Management of deceased

When the toll on animal life takes place at a small scale, the localites themselves carry the carcasses and dump them in a common place and sprinkle salt to disinfect it and ensure that infection is not spread. But when the animals die in a larger scale, the carcass disposal team comes into picture. They with the help of JCBs remove the carcasses and dump them in a common dug trench or pit and sprinkle salt to disinfect them.

C 1.3.15 Civil Defense and Home Guards

The Civil Defense and the Home Guards will be deployed for emergency response, community preparedness and public awareness. At district level, a culture of voluntary reporting to duty stations in the event of any disasters will be promoted.

C 1.3.16 Role of Private Security

As per the recent private security bill introduced by the State Govt, the private guards and security agencies have to play a very vital role in disaster management, and especially in the disaster response stage.

C 1.3.17 NGOs & Voluntary organizations

It has been the experience that many NGOs and voluntary agencies tend to provide relief on their own, without having any coordination or contact with the District Collector, who coordinates the response of Government agencies. It has also been observed that the relief provided by so many agencies tends to get targeted on the habitations on the main highways and roads or the main administrative towns. Consequently the victims living in interior villages and localities have to wait to get relief, while victims of habitations located on the main roads get far in excess of what they actually need. Therefore, there is a need of coordinating the relief efforts of NGOs and voluntary agencies also so that the relief reaches all the victims as per their needs. This coordination will be achieved through a working group, having representatives of important NGOs and some representatives from the local administration. This working group will try to coordinate the relief efforts of NGOs and voluntary agencies so that the NGOs and the voluntary agencies know the locations where their services are most required. Since most of relief through NGOs comes from outside the districts, it will be desirable to have a similar arrangement at the State level to advise the NGOs and voluntary agencies about the type of relief and the place where the relief is urgently required.

NGOs and CBOs have responded promptly and effectively in most of the emergencies both during the immediate response and in the recovery phases. Even the NGOs located far away from the disaster affected area have rushed their relief teams in. There is a need to coordinate the activities of a large number of NGOs and CBOs. This will be achieved by designating one of the local NGOs as the coordinator for activities and relief materials being arranged by other NGOs. The designated local NGO will provide the interface between the large number of NGOs and the district administration.

List of NGOs enclosed in the annexure

C 1.3.18 Relief management planning

Responsibilities and functions of Infrastructure desk

- Organize and coordinate clearance of debris
- Temporary Repairs to damaged infrastructure

This would be the responsibility of the vital services desks viz. PWD, Public Health & Engineering Department (PHED), Water Resource Department and works department of Municipal Corporation. The Desk Officers would be the nodal officer in-charge to coordinate and monitor the restoration activities done by their respective departments.

- Power

- Water
- Transport
- Telecommunication
- Roads
- Bridges
- Canals
- Public buildings

Construction of facilities

- Shelters with sanitation and recreation facilities as per the standards
- Provision of hand-pumps and borewells
- Temporary structures for storage
- Educational facilities
- Medical facilities
- Postal facility
- Helipads

Responsibilities and functions of health desk

A. Organize and maintain records on

Coordination and monitoring of these activities would be the responsibility of health desk headed by Chief Medical and Health Officer (CMHO).

- Treatment of the injured and sick
- Disposal of dead bodies
- Disposal of carcasses
- Preventive medicine and anti-epidemic actions
- Reports on food, water supplies, sanitation and disposal of waste

B. Assess, supply and supervise

- Medical relief for the injured
- Number of ambulances required and hospitals where they could be sent, (public and private);
- Medical equipment and medicines required
- Special information required regarding treatment as for epidemics etc.

C. Supervision of maintenance of standards

- Identification of source for supply of drinking water through tankers and other means of transport
- Transit and relief camps for cooking arrangements, sanitation, water supply, disposal of waste, water stagnation and health services.
- Communities for storage of rations, sanitation, water supply, disposal of waste, water stagnation and health services.
- Standards in cattle camps with arrangements for water, fodder disposal of solid waste, veterinary services.

Responsibilities and functions of logistics desk

A. General

The Additional District Magistrate (ADM) would be the incharge of logistics desk. However, the activities mentioned below would also require assistance of police desk. It is proposed that the logistics and police desks work in close coordination for efficient execution of activities in the field.

- Assessment of reinforcement needs including manpower and deployment of resources as per information
- Requirement, availability and location of depots, and transportation of wood to the locations for mass cremation
- Identification of location where mass cremation/burial can be carried out and Manpower and transport that would be required for this work;
- Identification of location where carcasses can be disposed of and Manpower and transport that would be required for this work;
- Requesting for additional resources from other district / divisional headquarters / EOC. Arrangements with petrol pumps for supply of fuel for authorized relief vehicles against credit coupons
- Coordinating and supervising issuing of Village relief tickets to affected families
- Ensuring safe storage, and transport of relief Supplies
- Coordinate supplies distributed directly by NGOs and other organisations including private donors
- Ensure proper maintenance of vehicles and equipment

B. Coordination of Transport - with

- Railways
- MSRTC
- Private transporters
- Boat Operators
- State Government Aircraft
- State Government Helicopters

C. Organizing Transport for

- Rescue parties
- Relief Personnel
- Marooned persons
- Water, medicines, first aid and cooked food for marooned persons and Volunteers
- Relief Materials
- Seriously injured and Sick

C 1.3.19 Media Management

Media is an important source of information for the general public, especially in a disaster situation. Even the Government officials get a lot of useful information about the field situation from the media reports. Since the disaster management involves fast communication of information to the community relating to warning of a likely event and the arrangements for emergency response. The administration must utilize the local media resources for communicating with the local community. In a disaster situation, not only the people directly affected but their relatives and friends are also anxious to know about the welfare of their acquaintances. In such a situation, the media is able to inform the people about the welfare of the people. This plan has recognized the power of the media

in keeping the people and the administration informed and seeks to utilize the media for the following purposes:

- The nature of the likely hazards, which may affect the lives of the people of the district and the ways to protect their lives and properties from the hazard;
- Increasing community awareness about the mitigation measures that can protect the lives and properties from the hazards;
- Communicating an advance warning of impending disaster to the people in order to give them time to take any protective action required;
- Identity of the people affected by the disaster and the nature of the effect;
- Arrangements made by the administration for the relief to disaster victims;
- Raising the awareness of the community to include mitigating measures for the recovery process;
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Thus, this plan provides for using the reach of the media with the people through all the four phases of disaster management. In Madhya Pradesh, District Collector interacts with the media through Public Relations Officer. The same arrangement will work even in relation to disaster management. In the absence of the Collector, Officer-in-charge of DECR will issue the press release through PRO.

Communication with media will require skilled liaison and a system for the authorized release of current information. Planning should include identification of any agency media responsibilities in accordance with the District / State arrangements. A media strategy should be developed and be in place, prior to activation of evacuation plans. An officer-in-charge, Public Relations functioning in the DECR will be made responsible for briefing the media everyday once in the morning and evening. The media can play a very responsible role in respect of the following:

- Information and awareness
- Dissemination of warning
- Preparing community to compact disasters
- Do's and Don'ts and action to be taken by the community in case of evacuation
- Emergency measures in case of floods and earthquake including landuse planning
- Rescue and relief plan of the Government
- Location of relief camps, modes of transportation provided by the State, approach routes, arrangements for live stocks, provision of facilities in the relief camps and security arrangements.

C 1.3.20 Fire Services

The fire services are called as the fourth line of National defense. The Govt. of India has nomenclature the fire services as "Fire & Emergency Services" and designated as the first responders in case of any emergency. As per the National Disaster Management Act 2005, which is adopted by various states, the strengthening of fire services is under taken by many states so that they can respond to any Manmade or Natural Disaster. The main role of fire service is divided into two parts one is Fire Prevention and another is Fire Protection. The Fire Prevention is achieved by implementing fire prevention engineering at the planning stage of any building. This includes the selection of plot or location of building, approach roads for the plot, surrounding activities of the plot to limit the exposure hazards. Then building planning such as type of occupancy, fire rating of construction, travel distance, occupant load, number of exits, refuge area, width of passages and

staircases, pressurization of lifts, Lift lobbies and staircases, use of material for carrying out interiors of the building, fire doors, fire dampers in artificial ventilation, natural cut out for ventilation etc. The Fire Protection comprise alerting the management and occupant of the building also it will helps to fight the fire before arrival of fire service. This includes smoke detection, fire alarm system, fire extinguishers, hose reel hoses, fire hydrant system, sprinkler systems, flooding System, dedicated underground water storage tanks for fire service and terrace level fire tanks with pumping arrangements. The mock drill or fire drill is also important exercise which plays vital role in safe evacuation of occupants in case of emergency. These methods will help to minimize loss of precious human life and salvaging National Property.

C 1.4 Recovery and Reconstruction Plan

Recovery is the final phase of the emergency management cycle. Recovery continues until all systems return to normal, or near normal. Short-term recovery returns vital life support systems to minimum operating standards. Long-term recovery from a disaster may go on for years until the entire disaster area is completely redeveloped, either as it was in the past or for entirely new purposes that are less disaster-prone.

Recovery Phase may involve one or more of the following components:

- Restoration of the basic infrastructure
- Reconstruction / repairs of community facilities/social infrastructure
- Reconstruction / repairs of the private residential buildings
- Restoration of private business enterprises including farming activities
- Medical rehabilitation of the people physically affected by the disaster
- Psychological rehabilitation of the families who have lost near and dear ones

The operational direction and coordination of recovery efforts is much simpler in comparison with the problem of operational direction and coordination of response functions. Therefore, it is presumed that the normal arrangements for coordination in the district will take care of requirements of operational direction and coordination of recovery efforts. However, it is proposed that a Committee chaired by the District Collector be set up for the coordination of all the restoration and rehabilitation related activities. The Committee should have members like the Deputy Director, Panchayat and Social Welfare, Lead Bank Officer, District Women and Child Development Officer, GM, Industries, District Manager, NABARD, Deputy Director, Agriculture, the General Manager, Industries, one or more than one identified NGOs, the CEO, Zila Panchayat, the Public Works Department, E.E. industry and business organization's representatives and other interested eminent persons in the area of disaster management.

The basic infrastructure departments will do a quick damage assessment exercise in respect of the infrastructure facilities under their charge immediately after the disaster and submit a report to the Government and the Collector. These departments will initiate action for restoration of the damaged infrastructure facilities using departmental funds.

They can submit demands to Government for additional funds or relaxation of departmental regulations for speeding up restoration efforts.

Funds are generally available from the Rural Development Department for the construction and maintenance of community facilities in the rural areas. These funds will be utilized by the Panchayats for reconstruction or repairs of the damaged community facilities. They can also submit demands to the Government for additional funds or relaxation of departmental regulations for speeding up reconstruction and repair efforts.

They will also try to mobilize additional funds for this purpose through donations from the local community or donor agencies. The Collector will coordinate the mobilization of funds from the agencies.

Insurance schemes are an important source of funds for reconstruction and repairs of private residential buildings damaged from the disaster. The community needs to be motivated through community awareness programmes to insure their properties. HUDCO and commercial banks also provide financial assistance for reconstruction and major repairs of private residential buildings damaged from disasters. The house owners will be motivated to obtain financial assistance from commercial banks for this purpose.

NGOs and donor agencies also provide financial assistance for reconstruction / repair of private houses, particularly to the poor families, who cannot afford to avail financial assistance from commercial banks at normal terms. The Collector will coordinate with NGOs and donor agencies to ensure that the concessional assistance gets targeted to the really poor and needy families.

Housing Board in collaboration with PWD, RES will organize technology demonstration camps in the affected areas to inform the people about seismically appropriate building techniques so that new constructions are not vulnerable to the identified hazards.

Insurance schemes are important source of funds for restoration of private business enterprises. The Collector will coordinate with Insurance Companies to speed up settlement of insurance claims. It will help in restoration of private business enterprises. He will also coordinate with commercial banks for ensuring smooth flow of financial assistance from commercial banks for restoration of private business enterprises.

Revenue, Book Circulars contains standing instructions of the Government for distribution of ex-gratia payments to poor families, who suffer from disasters to initiate their recovery process. This assistance will be provided very promptly to the poor families by the functionaries of the Revenue Department.

C 1.4.1 Restoration of basic infrastructure

Insurance schemes are an important source of funds for reconstruction and repairs of private residential buildings damaged from the disaster. The community needs to be motivated through community awareness programmes to insure their properties. Commercial banks also provide financial assistance for reconstruction and major repairs of private residential buildings damaged from disasters. The house owners will be motivated to obtain financial assistance from commercial banks for this purpose.

C 1.4.2 Reconstruction of damaged buildings/social infrastructure

Funds are generally available from the Rural Development Department for the construction and maintenance of community facilities in the rural areas. These funds will be utilized by the Panchayats for reconstruction or repairs of the damaged community facilities. They can also submit demands to the Government for additional funds or relaxation of departmental regulations for speeding up reconstruction and repair efforts.

It shall be the responsibility of the local-self-government to reconstruct the community facilities. They will also try to mobilize additional funds for this purpose through donations from the local community or donor agencies. The Collector will coordinate the mobilization of funds from the agencies.

C 1.4.3 Restoration of livelihoods

Restoration of livelihoods through Grants, outside assistance and by other means, the list of potential sources will be mentioned here.

C 1.4.4 Psycho-social interventions

Medical Rehabilitation.

In case of earthquake, the injury may be reported in terms of amputation of organs and bone fractures, which requires months to be normal. In that case, it is the responsibility of Health Department to take care of injured. For the handicapped, the State Government's Social Welfare and Women and Child Welfare Department provide funds for getting them functional.

Psychological Rehabilitation

The need of psychological Rehabilitation is important aspect of recovery management. The women who are widowed and children, who get orphaned, require psychological treatment to restart their normal life. This process is very gradual and requires patience. The local volunteers and non-government organizations will organize camps on regular basis for such rehabilitation. Apart from this, Social Welfare Department will conduct psychotherapy sessions on regular basis. The Social Welfare department with the help of the NGOs and other professional bodies shall establish counseling centers for the psychological rehabilitation of the persons affected by the disasters. These centers shall work on similar lines of family counseling centers, which are being run under the Central Social Welfare Board.

The district administration shall accord priority for the recovery and rehabilitation of the weaker sections of the society like the Scheduled Castes and Scheduled Tribes as they normally take more time and efforts to recover from the disasters because of the economic and sociological reasons

C 1.5 Cross cutting elements

C 1.5.1 Community Based Disaster Management

The role and importance of community, under the leadership of the local authorities, Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs), being the bedrock of the process of disaster response, is well recognized. For their immediate support, there are other important first responders like the police, State Disaster Response Force (SDRFs), Fire and Medical Services. The NDRF will provide specialist response training whenever required. In serious situations, the resources of all NDRF battalions (18 teams per battalion), on an as required basis, will be concentrated in the shortest possible time in the disaster affected areas. Other important responders will be the Civil Defense, Home Guards and youth organizations such as NCC, NSS and NYKS. The deployment of the armed forces will also be organized on as required basis. Establishment/ raising of NDRF should progressively reduce deployment of the Armed Forces. However, Armed Forces would be deployed only when the situation is beyond the coping capacity of State Government and NDRF.

C 1.5.2 Needs of the Special vulnerability Groups

In preparedness plan, vaccinations for children and pregnant women should be given so that they are immune to any kind of epidemics that might break out after the disaster.

Special workforce should be trained to help old people evacuate their homes after the disaster. Awareness and sensitization among the men of the community should be done to evacuate the old people, disabled and women and children first and then evacuate themselves. First aid must be catered to the vulnerable groups and then to the others. Special Medical equipments required by the disabled people should be kept at disposal when and where required.

C 1.5.3 Addressing climate induced anthropogenic issues

Because of the change in climatic dynamics due to Global warming, etc the demarcation of seasons is not proper and rainy season which should have started from 15th of June, is starting from June 1st itself. Because of this the flood preparedness should change with respect to the change of this climatic change.

The changing monsoon pattern and intensity of rains should bring in resistant varieties of crops which can withstand these changes. Awareness regarding these crops should be brought in farmer community.

Since some disasters like hailstorms cannot be predicted, crop insurance should be ensured for all the farmers.

C 2 Standard Operating Procedures (and Checklists)

- **Non Disaster Stage– Mitigation:** To identify the existing and potential risks and to reduce potential casualties and damage from disasters.
- **Before Disaster Stage– Preparedness:** To build the capacities of local communities in order to safeguard their lives an assets by taking appropriate action in the face of any disaster and to ensure response agencies are able to reach out to potential damage zones in a prompt and coordinated manner.
- **During Disaster Stage-Response:** To attend the immediate need of the affected population in the minimum time possible.
- **After Disaster Stage- Recovery and Rehabilitation:** To build back better.

C 2.1 SOPs for all concerned Line Departments

Department of Revenue & Relief

The Department of Revenue & Relief plays a critical role in the implementation of the disaster management action plans. The department will be the nodal agency for the activities of the DEOC and also the primary agency in the case of Information and Planning, Relief supplies, Shelter, Help lines and donations emergency support functions.

Preparedness function

1. To appoint a nodal officer in the DEOC.
2. Establish infrastructure for DEOC and maintain in state of readiness with all equipment in working order and all inventories updated.
3. Train personnel on operations of DEOC.
4. Ensure basic facilities for personnel who will work at district level for disaster response.
5. To coordinate the preparedness functions of all line departments.
6. Establish disaster management funding mechanisms to ensure adequate resources for preparedness work, and quick availability of resources for relief and rehabilitation when required.
7. Ensure that all the gram panchayats, urban bodies and blocks prepare their disaster management plan.
8. Coordinate with other state departments of state and centre for their disaster management plan at the district level and synchronize the same with the district disaster management plan.
9. Help District Administrators with additional resources for disaster preparedness, if necessary.
10. On annual basis report to the SEC of the preparedness activities.

Mitigation

1. To ensure that funds are being allocated under the District Disaster Mitigation Fund.
2. To ensure that structural and non-structural mitigation measures are taken by all its department offices.

Alert and Warning Stage

1. Maintain contact with forecasting agencies and gather all possible information regarding the alert.
2. Ensure activation of District EOC in standby mode.
3. Instruct all ESFs remain in readiness for responding to the emergency.
4. Advise concerned District collectors to carry out evacuations where required, and to keep transport, relief and medical teams ready to move to the affected areas at a short notice.
5. Dispatch field assessment teams, if required.
6. Provide assessment report to the DDMA.

Response

1. Activate DEOC in full form
2. To coordinate and plan all activities with the ESFs
3. Conduct Rapid Assessment and launch Quick Response.
4. Conduct survey in affected areas and assess requirements of relief
5. Distribute emergency relief material to affected population.
6. Coordinate all activities involved with emergency provisions of temporary shelters, emergency mass feeding, and bulk distribution of coordinated relief supplies for victims of disasters.
7. Coordinate NGO, INGO and international agencies interventions/support.

Recovery and Rehabilitation

1. Organize initial and subsequent technical assessments of disaster affected areas and determine the extent of loss and damage and volume and nature of relief required.
2. Keep the DDMA informed of the situation.
3. Ensure supply of food, drinking water, medical supplies and other emergency items to the affected population.
4. Visit and coordinate the implement of various rehabilitation programmes.
5. Coordinate the activities of NGOs in relief and rehabilitation programmes.
6. Allocate funds for the repair, reconstruction of damaged infrastructure after considering their overall loss and damage.

Department of Home

Department of Home has an important role of providing security, logistics, and if necessary, assistance in distribution of relief items and provision of equipment for emergency response. It is also the primary agency for Search and rescue.

Preparedness function

1. Designate one Liaison Officer in the department as the Disaster Preparedness Focal Point.
2. Designate one officer for the DEOC.
3. Prepare an operational Plan for responding to any type of disaster.
4. Establish, maintain and train district level search and rescue response team.
5. Impart training to the members of Police Force in first aid, evacuation, rescue and relief operations.
6. To conduct Search and Rescue training to gram panchayat task forces.
7. Prepare an inventory of all man power and equipment available.
8. To prepare an inventory of volunteers who have already completed training courses successfully and can be utilized in the search and rescue operations.
9. Identify the 'High Risk' and 'Risk' areas for different disasters and instruct the existing police installations located in those areas for keeping themselves in readiness for undertaking emergency rescue, evacuation relief operations.
10. Maintain and operate the DEOC throughout the year in preparedness mode during no-disaster times and in emergency mode during disaster times.
11. Arrange drills for fire extinguishing, rescue, evacuation and transportation of injured persons and prepare coordinated Action Plans in cooperation with District administration and concerned local agencies
12. Hold annual drills on disaster preparedness and response.

Mitigation

1. Make departmental mitigation plan and ensure its implementation.
2. Organize road safety and fire and festival safety awareness programs for schools and community.

Alert and Warning Stage

1. Depute one liaison officer for disaster management within the department.
2. Representative to be positioned at the DEOC.
3. Maintain communications with the police installations in the areas likely to be affected by disaster.

Indian Red Cross and NGOs

The Indian Red Cross would perform the following duties within the ambit of its own rules and regulations and organizational structure, in association with DEOC. Similarly other state, district or local level NGO's will coordinate with the DEOC and ICP's during disaster times.

Non Disaster Time – Preparedness

1. Take steps for preparing community based disaster management plans with facilitation from DDMA.
2. Identify volunteers in disaster prone areas and arrange for their training.
3. Awareness raising programs, seminars and meetings with the people for improving their capacity to face disasters.
4. Maintain contacts with District Administrators on its activities.
5. Ensure road communication and pre-positioning of relief material as close as possible to disaster prone communities.

Alert and Warning Stage

1. Issue warning notice to all concerned including the preparedness programs Designate a liaison officer for maintaining link with the DEOC of the District.
2. Keep the survey and relief team of head quarters on stand-by in readiness with required transport and equipment.
3. Mobilize volunteers and issue instructions for sending them to potential disaster affected areas.
4. Take part in evacuation program of population with close cooperation of volunteers
5. Coordinate with pre identified NGOs for possible joint operations.

During Disaster

1. Ensure survey of loss and damage in affected areas and dispatch of relief teams from concerned Red Crescent Society Units.
2. Assist the Province Government to determine loss, damage and needs related information.
3. Give emergency assistance to disaster affected people especially in the following cases:
4. Help in rescue and evacuation work, temporary shelter, first aid, food and clothing,
5. Arrange for distribution of relief material received from Red Crescent Unit of areas not affected by disaster and from headquarters.
6. Send request for requirement of relief and rehabilitation to the International Federation of Red Cross and Crescent Societies (IFRC) after informing about loss and damage due to disaster.

After Disaster

1. Participate in reconstruction and rehabilitation programmes in special circumstances.
2. Take steps for correct and effective evaluation of preparedness work and for correcting errors/weakness in such work.
3. Extend Cooperation to the district EOC for disaster documentation.

Department of Food, civil supplies and consumer affairs

The department will be responsible for identifying the basic needs of food in the aftermath of a disaster or emergency, to obtain appropriate supplies and transporting such supplies to the disaster area. It is the primary agency for Food emergency support function for DEOC.

Non Disaster Time – Preparedness

1. Develop a district disaster management plan for the department & update it annually.
2. Develop a plan that will ensure timely distribution of food to the affected population.
3. Maintain a stock of food relief items for any emergency.

Non Disaster Time – Mitigation

1. Prepare & implement department's mitigation plan.

Alert and Warning Stage

1. Catalogue of available resources of food.

During Disaster

1. Determine the critical need of food for the affected area in coordination with DEOC and ICP's
2. Coordinate with local authorities and other ESFs to determine requirements of food for affected population.
3. Mobilize and coordinate with other ESFs for air dropping of food to affected site.
4. Prepare separate food packs for relief camps as well as large quantity containers.
5. Ensure that food distributed is fit for human consumption
6. Ensure quality and control the type of food.
7. Allocate food in different packs that can be given to families on a taken home basis while others that can be distributed in relief camps
8. Control the quality and quantity of food that is distributed to the affected population.
9. Ensure that special care in food distribution is taken for women with infants, pregnant women and children.

After Disaster

1. Establishment of PDS points as per the changed scenario/resettlements (If any)
2. Issuing of duplicate ration cards to the disaster victims, who lost their papers.

Department of Panchayati Raj

Non Disaster Time – Preparedness

1. Develop a disaster management plan for the department at district level & update it annually.
2. Analyze the training needs of the department's personnel, which include its officials and elected representatives of Gram panchayat, panchayat samiti's and zila panchayat and organize trainings with the help of HIDM or other agencies.
3. Conduct gram panchayat level mock drills as part of preparedness.

Non Disaster Time – Mitigation

1. Prepare & implement department's mitigation plan
2. Ensure that all the development schemes of the department have a mitigation component as an integral part.

During Disaster

1. Coordinate with local authorities and support the response efforts.
2. Coordinate the support from unaffected gram panchayats.

After Disaster

1. Ensure proper distribution of reconstruction schemes and monitoring of the same during Block development committee and zila parishad meetings.

Department of Urban Development

Department is a secondary agency for Public health & sanitation, Power, public works & engineering, information & planning, food, drinking water and shelter emergency support function for DEOC, especially for the urban areas.

Preparedness function

1. Designate one Liaison Officer in the department at district level as the Disaster management Focal Point.
2. Develop a disaster management plan for the department, including the identification of location of camps for different type of disasters, existing locations that can be used as shelters, inventories of agencies that can be used for tent establishment.
3. To conduct regular training the staff on minimum standards for shelter, relief camps and tent structures.
4. Prepare department's disaster management plan.
5. Develop alternative arrangements for population living in structures that might be affected after the disaster.

Mitigation

1. Designate one Liaison Officer in the department as focal point for the mitigation activities.
2. Coordinate with the DDMA for implementation of mitigation activities in the urban areas.
3. Prepare & implement department's mitigation plan

Alert and Warning Stage

1. In case of damage to offices, assist local authorities to establish and house important telecom equipment and officials at the earliest
2. Setting up water point in key locations and in relief camps

Response

1. Quick assessment of damaged areas and areas that can be used for relief camps for the displaced population
2. Locate adequate relief camps based on survey of damage
3. Clear areas for setting up relief camps
4. Locate relief camps close to open traffic and transport links
5. Set up relief camps and tents using innovative methods that save time
6. Provide adequate and appropriate shelter to the entire population
7. Coordinate with other ESFs in equipping shelter and relief sites with basic needs of communication and sanitation.

8. Maintaining and providing clean water
9. Procurement of clean drinking water.
10. Coordinate with DEOC & ICP's for proper disposal of dead bodies in the urban areas.

Recovery and rehabilitation

1. Implement recovery & rehabilitation schemes through municipalities for urban areas.

Department of Rural Development

Department of Rural development is one of the main departments that have the mandate to implement vulnerability reduction projects to alleviate poverty and improve people's livelihoods. It is also the secondary agency for Public works and engineering, Information and planning, relief supplies, food and drinking water emergency support functions for the DEOC. At the block level, it is the main agency for preparation of block disaster management plan, especially, the mitigation plan for the block, which will highlight the locale specific needs of Gram Panchayats and hence will feed the information on local priorities to the district disaster management plan.

Non Disaster time – Preparedness

1. Designate one Liaison Officer in the department and the district as the Disaster Management Focal Point.
2. Develop a district disaster management plan for the department.
3. Prepare maps showing population concentration and distribution of resources.
4. Encourage disaster resistant technological practices in buildings and infrastructure.
5. Encourage the people in earthquake prone areas to adopt earthquake resistant technologies.
6. Report activities in periodic meetings of the district disaster management advisory committee and to DDMA.
7. In coordination with PWD conduct regular training to the engineers of the department.

Non Disaster time – Mitigation

1. Appoint one officer as focal point for mitigation activities
2. On the basis of its developmental responsibility, liaise with other line departments and agencies for a coordinated mitigation approach.
3. In coordination with the DDMA, conduct building assessments, identification of structural and non structural mitigation activities.
4. Organise awareness programmes for BDO's, Panchayat secretaries and gram pradhans on structural and no-structural mitigation activities.

Alert and Warning Stage

1. Focal Point in department to keep in touch with the DEOC.
2. Alert all concerned about impending disaster.
3. Ensure safety of establishments, structures and equipment in the field
4. Ensure formation of committee for rescue, relief and rehabilitation work and local volunteer teams

During the Disaster – Response

1. Ensure information flow from affected gram panchayats and maintain regular contact with DEOC (24 hrs).

2. Support revenue department in establishing ICP's in the affected areas
3. Ensure availability of drinking water at times of need.
4. Provide necessary infrastructure to carry out relief works
5. Assess initial damage

After Disaster - Recovery and Rehabilitation

1. Quantify the loss/damage
2. Organize reconstruction of damaged houses on self help basis with local assets and materials received from the government.
3. Take up repair/reconstruction work of infrastructure damaged by disaster

Police Department

A. Preparedness

The Superintendent of Police will co-ordinate the work of disaster management as nodal officer.

1. He will prepare a separate and comprehensive plan of district regarding the department of police.
2. Prepare details of resources as a part of DDMP. He will consider the following in it.
 - Details of contacts of all the staff members under the district.
 - Maps and statistical data of district areas.
 - Resources and human resources useful at the time of disaster.
 - Details of police staff and retired officers/staff of the police and the control room.
 - Details of functions of staff of the district control room.
 - Appointment of the nodal officer in the control room.
 - Traffic arrangements towards the disaster affected areas.
 - Details of anti social elements.
 - Security arrangements at relief camps and food storages.
 - Security for the transportation of the relief material.
 - Immediate police procedures for human death.
 - To assist the authorities for the evacuation of people from disaster affected areas.
 - Adequate equipments for communication.
 - List of swimmers.
 - Wireless stations in the district and communication network.
3. To update the related details of Disaster Management Plan.

B. Alert and warning

1. Will contact the district collector.
2. Make advance preparation to implement the action plan for search and rescue.
3. Will prepare a plan for police personnel for search and rescue.
4. Will arrange to communicate the messages through all the equipments of communication and vehicles as per the necessity.
5. Will requisite vehicles after obtaining the orders for the same from the district authorities.

C. Mitigation and after disaster activities

1. Will arrange law and order against theft in the disaster affected area.
2. Will co-ordinate the search and rescue operation through NCC/VTF/NGO.
3. Will arrange for security at the relief camps/relief materials storages.
4. Will see the law and order is maintained at the time of distribution of relief material.
5. Will assist the authorities for evacuation of people to the safer places.
6. Will make due arrangements for post mortem of dead persons, and legal procedure for speedy disposal.

Health Department

A. Preparedness

While preparing the DDMP / updating the same, the health department shall take care to include the following particulars carefully.

- A separate plan for disaster management regarding health.
- Arrangements for exchange of information in the control room.
- Appointment of nodal officer.
- Advance arrangements for life saving medicines, insecticides and vaccines.
- Maintenance of vehicles such as ambulance, jeep and other equipments such as generators etc.
- Distribution of work by forming groups of staff during emergency.
- List of private practicing doctors / medical facilities.
- Arrangement for survey of disaster.
- Mobile dispensary units.
- Information regarding proper places for on the spot medical services in various village during disaster.
- Dissemination of information among the people regarding the death, injury.
- Primary information of disaster related relief activities to all the staff members.
- Training to PHC / Community Health Centre staff to prevent spreading of diseases among the people, animals, and advance planning for the same.
- Blood group wise list of blood donors with contact telephone numbers and addresses.
- Training of DMTs regarding first aid.
- To prepare an action plan for the availability of equipments to be useful at the time of disaster management for medical treatment.
- Co-ordination with various government agencies – schemes to meet the necessity of equipments in emergency.
- To see that all vehicles like ambulance, jeep and equipments like generators and equipments essential for health care are in working condition.

B. Alert and warning

- Will ensure the availability of important medicines, life saving medicines, insecticides and if necessary contact for additional supply.
- Round the clock control room at the district level.
- Will send the health staff for duty in their areas as per the plan of disaster management.
- Activate the mobile health units for the post disaster situation.
- Will organize in advance to mobilize the local doctors and local voluntary agency for emergency work.
- Will contact the blood donors for blood donation, on the basis of lists prepared.

C. Mitigation and Post Disaster Activities

- Provide first aid to the injured and shifting of seriously injured people to the nearby hospital.
- Send sufficient stock of medicines to the affected areas immediately.

- Will make arrangements for the available additional health staff in the affected areas deputed by the state authority.
- Will organize to get the insecticides to prevent spreading of diseases.
- Will ensure the purity of drinking water by testing the sources of water.
- Will depute the mobile units for first aid.
- Distribution of chlorine tablets and other necessary medicines from house to house.
- Will shift the seriously injured people to the hospital.
- Will immediately start the procedure for post mortem of the dead persons as per the rules.

Water Supply Department

Preparedness

The water supply dept. shall ensure the following to be included in the DDMP:-

- Setting up of control room and arrangement for the control room operator.
- Assign the responsibility as nodal officer to the Executive Engineer or any other officer.
- Prepare an alternative contingency plan to provide drinking water in case of failure of regular water distribution system during disaster.
- Detailed information of available water resources throughout the district.
- Arrangement of Govt. or private tankers to provide water temporary and immediately.
- Preventive measures for water borne diseases and chlorination of water.
- Availability of safe drinking water in the affected areas.
- Inform the staff about the disaster.

B. Alert and warning.

- Organize the teams to check the sources of water / drinking water.
- Standby arrangements of tankers for drinking water through tankers or any other available source.
- Will make available chlorine tablets in sufficient quantity and arrange to distribute through DMTs.

C. Mitigation and Post disaster work.

- Implement the alternative contingency plan to provide drinking water in case of failure of regular water distribution systems during disaster.
- Will start work for immediate repairing of water pipes in case of damage.
- Will arrange to check the water tanks, overhead tanks, and pumps, reservoirs and other water resources.
- Will contact the electricity authorities to re-establish the electric supply in case of failure.
- Will provide chlorinated water either by activating group water supply schemes individual schemes or through tankers.
- Will provide drinking water to the relief camps / relief kitchens, shelters etc. through available resources.

Irrigation Department

A. Preparedness

The irrigation department shall carefully include the following particulars while preparing / updating the DDMP:-

- Contact address and phone numbers of all the staff / officers, vehicles and swimmers of the District.
- Details of irrigation related factors in the district such as rivers, pools canals, large and medium dams, etc.
- Control room arrangements and appointment of Nodal Officer.
- Details of damage prone areas.
- Location of water level gauge station for flood situation.
- To disseminate information /warning to the damage prone areas in case of flood situation.
- Details of immediate action to be taken in case of leakage in large water storage reservoirs.
- Supervision over major storage / reservoirs.
- Very clear explanation of disaster and priorities during disasters to all the staff.
- Effective working of control room at every major dam.
- Enough and ultra modern equipments for communication.
- Periodical checking of Dam /Waste veer, canal –tunnel, roads leading to Dams etc. for maintenance during normal time.

A. Alert and warning

- Ensure that communication equipments like telephone, mobile phone, wireless set and siren etc. are in working conditions.
- Keep the technical and non-technical staff under control, ready and alert.
- Get status report of ponds, dam, canal and small dams through technical persons.
- Will take decision to release the water in consultation with the competent authority and immediately warn the people living in low lying areas in case of increasing flow of water or overflow.
- Keep the alternative arrangements ready in case of damage to the structure of dam / check dam to leakage or overflow in the reservoirs.
- Make due arrangements to disseminate the information about the increasing and decreasing water level whatever it may be to the community, media etc.
- A senior office will remain and work accordingly at large storage reservoirs.
- Will arrange to provide the dewatering pumps, generators, trucks and bulldozers, excavator, boats for search and rescue operations wherever required.

B. Mitigation and Post disaster work.

- Will obtain the clear picture of the condition of all the reservoirs through teams of technical officers.
- Ensure about no overflow or no leakage.
- If overflow or leakage is found, start immediate action to avoid adverse effect to the reservoir as per the action plan.
- If there is no possibility and risk, keep the people and media informed about “everything is safe”.

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- If overflow or any leakage is found, he will immediately warn the people living in the low lying areas.

- Will take due care for the transportation of drinking water if drinking water is provided through irrigation scheme.
- Will assist the local administration to use boats, dewatering pumps, etc. search and rescue operations.

Agriculture Department

Preparedness

- All the details of his subordinate staff with addresses and phone numbers and resources of irrigation for agriculture in all the villages.
- Details of buildings, vehicles and equipments under his control and list of contractors with vehicles and equipments used by them.
- Maps showing details of agricultural resource laboratory, seed center, agriculture training school with statistical data.
- Details regarding agricultural production, extension, seed growth centers, agriculture university campus, training centers etc;
- Action plan regarding the repair/alternative arrangement in case of agricultural production related facilities are disrupted.
- Will prepare the action plans to avail the technical, semi technical and administrative employees along with vehicles from near by district and taluka offices.
- Will inspect the sub-ordinate offices, other centers and sub-centers under his control, which are damage prone.
- Will prepare a sub-plan for timely and speedy availability of machines and equipments to restoration of the economic activities in case of loss of properties as well as crops.
- Will maintain the departmental equipments such as diesel generators, dumpers, generator, cutters, tree cutters, ladders, ropes, flood lights, shovels, axes, hammers, RCC cutters, cable wires, fire equipments, de-dusting equipments etc; which can be used during emergency and ensure every 3 months those are in working condition.
- Will prepare a list of public properties related to agriculture in the damage prone areas and will in advance make arrangements to lessen the damage.
- Will take due care to see that the emergency services at hospital, shelters, with special reference to agriculture are not disrupted.

B. Alert and warning

- Will immediately contact the District Control Room and will assist in the work assigned to him as a part of his duty.
- Will ensure that the staff under this control is on duty at the headquarters.
- Will assign the work to his subordinate officers and staff the work to be done regarding agriculture under DDMP and will send them to their sites.
- Will receive instruction from the district liaison officer and will take necessary action.
- Will ensure the availability of resources included in the DDMP and will make due arrangement to get those during emergency.
- Will make groups having vehicles for emergency work and will assign the areas

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to them.

- Will set up a temporary Control Room for the dissemination of information for emergency work and will appoint a nodal officer.

C. Mitigation and Post Disaster Activities

- Will follow the instruction of the District Liaison Officer.
- Will carry out the duty assigned to him for search and rescue work.
- Will deploy the resources and manpower available to manage the disaster.
- Will review the matters regarding discontinuation of movement for safety measures and will see that it is restarted very soon.
- Will send DMTs with necessary equipments in case the crop is washed away, and if there is water logging in a very large amount.
- Will act in such a way that the human life is restored again speedily and timely in the priority areas.
- Will contact the circle office or central control room if machines equipments, vehicles, man power, technical personnel are required to restore the agricultural activities.
- Will make arrangement to avail the external helps to manage to disaster.
- Will collect the details of loss of crops to send it to the district administration.
- Should have the details of village wise various crops in the district.
- Will prepare a primary survey report of crop damage in the area and will send the same to district control room and also to the administrative head
- Will immediately put the action plan in real action during the emergency.

POWER

A. Preparedness

While preparing a separate plan regarding M.S.E.D.C /Energy Department will prepare the list of available resource as a part of DDMP. It will include the following:

- Details of the staff members with their contact addresses and telephone numbers.
- Maps showing the power stations, sub-stations, Diversification of Power units (DPs), transformers and major electric lines with detail information.
- Other important details like water supply scheme depending on electricity, drainage systems, railway stations, bus-depots, ports, strategically important places, army, air force, navy camps, light houses, major hospitals and for that he will check and ensure of electric supply during emergency.
- Prepare an action plan for repairs I alternative arrangement in the case of electricity disruption as a part of DDMP.
- Inspect at every 3 months the power stations. Sub-stations etc; which are damage prone.
- The, plan should include for timely supply of electric poles, D.Ps, transformers etc; at the time of line disruption.
- To prepare an action plan for immediate procurement of the required tools and equipments for restoration of electric supply on temporary bases.
- To prepare a list of public properties related to M.S.E.D.C, which are in the damage prone areas and will make advance arrangements to minimize the damage.

B. Alert and warning

- To contact the District Control Room and assist in their work.
- To ensure that all the employees remain present on duty at the taluka head quarter.
- To assign work to all officers/employees related to M.S.E.D.C.
- Will ensure to make available the resources available and will establish contacts for the same to deploy those at the time of emergency, which are included in the DDMP.
- To consult the District Liaison Officer to discontinue the supply in case of damage in the line or for the safety of the people and property.
- To make groups having vehicles for the emergency work and will assign the areas.
- To immediately set up a temporary control room in the office for dissemination of information during the disaster and will appoint a nodal officer from MSEDG for this work.

C. Mitigation and Post Disaster Activities

- To follow the instructions of the district liaison officer.
- To perform the duties assigned for the search and rescue work.
- To deploy the resources and manpower required for the disaster management.
- To dispatch the task forces with necessary equipments to the place where the electric supply is disrupted and ensures that the same is restarted at the earliest.
- Contact the circle office or the Central Control Room of MSEDG to procure the machines and equipments, vehicles, manpower, technical {personnel for restoration of the electric supply.
- To utilize the external resources and manpower allotted to him in a planned manner for disaster management.
- To immediately undertake the emergency repairing work as mentioned in the action plan.
- To prepare a primary survey report regarding damage in the area and send the same to the district control room and to the own administrative head immediately.
- To make temporary arrangement for electric supply to the places like hospitals, shelter, jail, police stations, bus depots etc; with D.G. sets in.

Public Works Department

A. Preparedness

- Details of the staff members with their contact addresses and telephone numbers.
- Details of buildings, vehicles and equipment as well as the names of contractors and the vehicles & equipment used by them.
- Maps of the areas in the district with the statistical data related to available resources.
- The position of approach roads and other road of all the villages including bridges, railway crossing etc.

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- To strictly observe the rules during the constructions regarding earthquake and cyclone proof materials.
- The PWD will inspect periodically the buildings, residences, high rise buildings under their control.
- Damage prone road bridges and arrangement for their inspections

- Action plan for emergency repairs.
- Will appoint an officer of the rank of Assistant Engineer to coordinate during emergency at the District Control Room.
- Will maintain the departmental equipments such as bulldozers, tractors, water tankers, dumpers, earthmovers excavator, de-watering pumps, generators, cutters, tree cutters, ladders, ropes, flood lights, shovels, axes, hammers, RCC cutters etc; which can be used during emergency and will quarterly check up these to ensure in working condition.

B. Alert and warning

- Will immediately contact the District Control Room for assistance.
- Will ensure that all the staff members remain on duty at the headquarters.
- Will send the officers and the staff assigning them specific duties for the DDMP
- Undertake all the action for the disaster management required to be done by the PWD after receiving instructions from district liaison officer.

C. Mitigation and Post Disaster Activities

- Will follow the instructions of the District Liaison Officer
- Will remain active for search and rescue activities
- Will provide all the available resources and manpower for disaster management.
- Will mobilize the service of technical personnel for the damage survey work to help the district administration
- Will prepare a primary report of damage in the affected area within 12 hrs / 24 hrs looking to the emerging situation
- Will make arrangements for electricity, water, and latrines in the temporary shelters. Will also inspect the approach roads leading to the temporary shelter and repair the same if so required.

Telephone Department

A. Preparedness

- Details of the staff members with their contact addresses and telephone numbers.
- Details of buildings, vehicles and equipments including the contractors and the vehicles and equipments used by them.
- Maps showing the details of telephone exchanges, D.Ps, important telephone lines, hot lines, telex lines, microwave towers with statistical data.
- Details of telephone numbers of water supplies, Control Room, hospitals, drainage system, railway stations, bus depots, strategically important places, ports, Army, Air force, Navy camps, Jail, Police Station and other sensitive places, light houses, major industrial units, and other communication channels which can be used during emergency.
- Action plan for repairs/alternative arrangement in case of disruption of telephone line and microwave towers.
- Inspect the telephone exchanges/sub-exchanges in the damage prone area at every 3 months.
- To appoint an officer not below the rank of telephone inspector to coordinate the district control room during emergency.
- To maintain the equipments such as diesel generators, dumpers, generator,

cutters, tree cutters, ladder &, ropes, flood lights, shovels, axes, hammers, RCC cutters, cable wires, fire equipments, etc; which can be used during emergency and ensure every month that these are in working condition.

- To ensure that the telephone lines at the shelters, emergency hospitals, police stations, control room and other places of emergency services, which can be used during disaster, are not disrupted.
- To prepare a list of public properties related to the telephone department which are in damage prone areas and will make arrangements to lessen the damage.

B. Alert and warning

- ◆ To contact the District Control Room and assist in the work.
- ◆ To ensure that the staff are on duty at the headquarters.
- ◆ To assign work to the subordinate officers as per the DDMP and send them to the sites.
- ◆ To receive the instructions from the District Liaison Officer and to do the needful.
- ◆ To ensure availability of resources included in the DDMP and establish contacts for the same during emergency.
- ◆ To setup a temporary control room for the exchange of information for emergency work and will appoint a nodal officer.

C. Mitigation and Post Disaster Activities

- ◆ To follow the instructions of District Liaison Officer.
- ◆ To perform the duties assigned for search and rescue work.
- ◆ To deploy the resources and manpower available to manage the disaster.
- ◆ To review the situation regarding disconnected telephone lines due to safety measures and reestablish the communication network as soon as possible.
- ◆ To send the Disaster Management Teams with the necessary equipments for restoration of the telephone lines speedily where the lines are disrupted and to such places, which are strategically important.
- ◆ To make arrangements to obtain external help to manage the disaster.
- ◆ To prepare a primary survey report of damage and to send the same to the District Control Room and also to the administrative head within 6 hours.
- ◆ To arrange for temporary hotline services or temporary telephone connections at the District Control Room, hospitals, shelters, ports, jails, police station, bus depots, etc.
- ◆ To immediately undertake the emergency repairing work.
- To make an action plan to avail immediately and timely, telephone poles, D.Ps, transformer to the established the communication system.
- To prepare an action plan to avail temporarily, technical personnel from the near by district, staff and vehicles from the district office which are not affected in consultation with the district authority.

Animal Husbandry

A. Preparedness

- ◆ Addresses of members with telephone numbers.
- ◆ Details of veterinary centers, artificial insemination centers, veterinary dispensary, veterinary colleges' buildings, vehicles, mobile dispensaries and

- ◆ equipments and also the details of vehicles and equipments used often by out source.
- ◆ Maps showing the details of animal breeding laboratories, animal vaccination centers, animal husbandry training school with statistical data.
- ◆ Details of essential facilities to be provided at sensitive place such as important animal husbandry centers, veterinary college campus, training center etc;
- ◆ Arrangement of repairs/alternative arrangements in case the facilities related to animal husbandry and veterinary services are disrupted.
- ◆ To make arrangements to necessary medicines, vaccines and other material, for treatment of animals.
- ◆ To collect the details of cattle in each village of the taluka, details of safe places for the treatment of animal, milk dairies, other private veterinary doctors and facilities related to it.
- ◆ To appoint an employee not below the rank of livestock inspector to coordinate the District Control Room during emergency.
- ◆ To maintain the equipments available such as stands to keep animals, sharp instruments, insecticides, diesel generators, dumpers, generator, cutters, tree cutters, ladders, ropes, flood lights, shovels, axes, hammers, RCC cutters, cable wires, fire equipments, de-dusting equipments etc; which can be used during emergency and will also ensure that they are in working condition.
- ◆ To see that essential services related to animal husbandry and Veterinary services are not disrupted at the time of emergencies.
- ◆ To prepare a list of public properties related to animal husbandry, which are damage prone areas and will make advance planning to lessen the damage.

B. Alert and Warning

- ◆ To immediately contact the District Control Room and will assist in the work.
- ◆ To ensure that the staff is on duty at the headquarters
- ◆ To assign the work to be done to the subordinate officers and staff and send them to their sites.
- ◆ To receive instructions from the district liaison officer and do the needful.
- ◆ To ensure the availability of resources included in the DDMP and will make necessary arrangements to obtain those during emergency.
- ◆ To consult the Liaison Officer to prevent the probable epidemic among the cattle and also for the safety measures.
- ◆ To make groups having vehicles for emergency work and will assign the areas to them.
- ◆ To set up a temporary control room for the exchange of information for emergency work and will appoint a nodal officer.

C. Mitigation and Post Disaster Activities

- ◆ To follow the instruction of the District Liaison Officer.
- ◆ To carry out the duty assigned to him for search and rescue work.
- ◆ To deploy the available resources and manpower to manage the disaster.
- ◆ To review the matters to restart the milk collection activity where it has been closed for security measures.
- ◆ To send DMTs with necessary equipments in case of cattle death are there in the affected areas for the disposal of carcass with a view to restoration of public life

and result oriented work. To arrange to treat the injured cattle.

◆ To contact the State Director of A.H. if additional equipments vehicles, manpower, technical personnel etc; are required for restoration of the cattle related activities.

Transport

A. Preparedness

◆ Details of the staff with contact numbers, details of bus drivers, conductors, mechanical and supervisory staff.

◆ Details of location of buses in all the areas of the district available round the clock.

◆ Details of fuel arrangements for buses for emergency work.

◆ Do's and Don'ts to be observed strictly during emergencies and details of priorities should be given to the staff.

◆ Arrangement for additional buses for evacuation of people from the affected areas.

◆ Details of buildings, vehicles and equipments under his control and list of contractors with vehicles and equipments used by them.

◆ Map showing S.T. depots, pick up stand, control point, S.T. garages and important routes with equipments of communication, telephone line, telex lines, megaphone, amplifiers with statistical data.

◆ Details of important telephone numbers of water supply schemes, control room hospitals, drainage system, railway stations, bus depots, strategically important places, ports, Army Air force Navy camps and other sensitive places, light houses, major industrial units, and other communication channels which can be used during emergency/calamity.

◆ Action plan regarding repairs/alternative arrangement in case of disruption of transport services.

◆ Alternative routes for the transportation and road network.

◆ To inspect the damage prone S. T. Depots, pick up stand, control points, garages etc; at the frequency of every three months.

◆ To plan out for restoration of goods transportation in case of damages observed, to the buses & parcel van.

◆ To prepare an action plan to procure temporary buses, the technical personnel from the near by district which are not affected.

□ To maintain the equipments available such as cranes, diesel generator, earth over machines, de-dusting pumps, cutters, tree cutters, ladders, ropes, flood lights, shovels, axes, hammers, RCC cutters, etc. which can be used during emergency and will ensure that those are in the working conditions.

□ To take due care to see that the transportation at shelters and emergency hospital is not disrupted during calamities.

□ To prepare a list of public properties related to transport department, which are in the damage prone area and will arrange in advance to minimize the damage.

B. Alert and warning

◆ To set up a temporary special control room and information center at the main bus station.

◆ To immediately contact the district control room and will assist in the work.

- ◆ To ensure that the staff at the headquarter is on duty.
 - ◆ To assign the work to be done by the subordinate officers and staff regarding transportation under DDMP and to send them to their sites.
- 90
- ◆ To receive instructions from the district liaison officer and will do the needful. To ensure for not allowing passenger buses to move out of the S.T. Depots during final warnings of cyclone, flood etc; to take safety measures for passengers who cannot return back to their home.
 - ◆ To ensure the availability of resources included in the DDMP and will make due arrangements to get those during emergency.
 - ◆ To consult the Liaison Officer to close the transportation in the damage prone areas for the safety of the people and the property.
 - ◆ To make groups having vehicles for emergency work and will assign the areas to them.
 - ◆ To set up a temporary control room for the dissemination of information for emergency work and will appoint a nodal officer.
 - ◆ To make available the sufficient number of S.T. buses to the state administration for the evacuation of the people to safe places from the disaster prone areas.
 - ◆ To assist the administration to send the messages of warning to the remote areas through the drivers/conductors on transport routes.

C. Mitigation and Post Disaster Activities

- To follow the instructions of District Liaison Officer.
- To carry out the duty assigned for search and rescue work
- ◆ To engage the resources and manpower available to manage the disaster.
- ◆ To review the matter regarding closing of movement of buses for safety reason and see that those are restarted very soon.
- ◆ To send DMTs with necessary equipments if the transportation is disrupted.
- ◆ To contact the District Control Room if additional equipments, vehicles, manpower, technical personnel, which are required to restore the transportation related activities.
- ◆ To prepare a primary survey report on damage in the area and will send it to the district control room and also to the administrative head within 6 hours.
- ◆ To make temporary arrangement of transportation for control rooms, hospitals, shelters, bus depots etc.
- ◆ To immediately undertake repairs needed at the bus stations.
- ◆ To collect the details of roads, damaged and will get them repaired in co-ordination with competent authority and will restore the bus services.

Forest Department

A. Preparedness

- Addresses of members with telephone numbers.
- Details of veterinary centers, artificial insemination centers, veterinary dispensary, veterinary colleges' buildings, vehicles, mobile dispensaries and equipments under his control and also the details of vehicles and equipments used often by out source.
- Maps showing the details of area with statistical data.
- Approach roads under forest department and their condition including bridges,

- causeways, railway crossing etc.
- Inspection of damage prone roads, bridges, check dams, causeways, under forest department
- To inspect periodically the buildings, residencies, high causeways under forest department
- To maintain the equipments available such as sharp instruments, insecticides, diesel generators, dumpers, generator, cutters, tree cutters, ladders, ropes, flood lights, shovels, axes, hammers, RCC cutters, cable wires, fire equipments, dedusting equipments etc; which can be used during emergency and will also ensure that they are in working condition.
- To take care of public shelters, other places to be used for evacuation with primary facilities like water
- To prepare a list of public properties in the damage prone forest areas and will make advance arrangements to lessen the damage.

B. Alert and Warning

- To immediately contact the district control room and will assist in the work.
- To ensure that the staff at the headquarter is on duty.
- To assign the work to be done by the subordinate officers and staff regarding Transportation under DDMP and to send them to their sites.
- To arrange for wireless, telephones, manpower, forest guard in advance to disseminate information of the disaster in the damage prone areas and will play a key role with the district administration to warn the public.
- To make in advance arrangement for fuel wood and bamboos for priority areas.

C. Mitigation and Post Disaster Activities

- To follow the instructions of District Liaison Officer
- To carry out the duty assigned for search and rescue work.
- To engage the resources and manpower available to manage the disaster.
- To prepare a primary report of damage for the affected areas.
- To take actions to provide electricity, water and latrine to the temporary shelters in the forest areas.
- To send task forces with vehicles, tree cutters, ropes, flood light, generator in case of closure of roads due to felling of trees.

C 2.2 Hazard specific SOPs for designated Departments and Teams

FIRE:

POWER DEPARTMENT: As electricity is one of the reasons because of which the crops and fields of the people catch fire during summers due to some electricity fault.

- To ensure that the wires hanging from the pole are not loose,
- People should not be allowed to connect the wires themselves it should be declared as unauthorized.

POLICE DEPARTMENT:

They need to ensure that anti social elements are not present in the village who can indulge in any kind of notorious activities which might lead to fire accidents.

GRAM PANCHAYAT:

Along with the water tankers the gram panchayat must also be equipped with fire fighters.

EARTHQUAKE:

MUNICIPALITY

- Old buildings in the district must be identified and demolished for reconstruction so as to avoid any major damages during an earthquake.
- New buildings must be constructed keeping in mind the new norms set for construction and the degree of damage and its estimated amount should be calculated to be submitted with the district headquarters.

DROUGHT:

The following activities shall be carried out in order to prevent the situation of draught.

MUNICIPALITY

- In order to store and use the Monsoon water stop dam, check dam and reservoirs must be constructed
- To reserve water in the main water body newer manmade lakes must be constructed and maintained so that the water from monsoon can be collected and used.
- Rain water harvesting should be taken up so as to prevent wastage of the monsoon water making its recollection possible and also for maintaining the ground water levels.

AGRICULTURE DEPARTMENT

- Awareness regarding draught resistant crops should be created among the farmers by the district agriculture officer and the committee formed in this regard will keep them informed about the draught related activities to be taken care of.

FLOODS:

POLICE/ HOME GUARDS/ CIVIL DEFENSE:

- To have a search and rescue team to help people evacuate the affected area.
- Training sessions should be conducted for such teams in order to develop a better understanding that can help in action during the time of emergency.
- The teams should go through mock drills to be able to deal with any kind of disaster so that they can successfully save both life and property.
- These teams should be provided with the required resource inventory (JCB, Motor Boat etc.) that can help them in search and rescue.

HEALTH DEPARTMENT

- The doctors and the paramedical staff of district hospital and the other primary health centers should be trained in first aid and allied activities.
- A medical emergency team should be formed which can deal with any kind of serious consequences that may occur during a disaster.
- In case of extreme conditions the medical department should have a plan to establish a temporary PMC.
- The health department should have a plan setup to bring down doctors from outside when and where necessary.

ROAD ACCIDENTS:

- Identifying the spots where the accidents took place in the past, sign boards with fluorescent paint should be put up at those places.
- At those places where the probability of occurrence of accidents is more, there speed breakers can be built in order to make the vehicles reduce the speed.
- The residents of the habitation proximate to the national highway or any such big roads have to be made aware of the possibilities of such accidents and have to be warned.
- Strict rules must be passed for ensuring people to wear helmets if on 2 wheelers and seat belts if on 4 wheelers. Also police to check if people are consuming alcohol while driving, should be stationed at few places.
- A constant patrolling on the National highways and state highways should be ensured and followed rigorously.
- It should be ensured that traffic rules are obeyed by everyone.
- It should be ensured that the vehicles that are used are in proper working condition and the drivers are licensed.
- The tollgate has an ambulance available all day and night. So immediately when the accident takes place it has to be called and summoned to the place of accident.
- Whenever required the ambulances from the district hospital can be summoned depending upon the need of the time.
- There is an emergency ward in the district hospital for 24*7. So this service is availed to rescue the lives of the patients.
- At the same time, the nearest police chowki should be informed about the mishap and the family members of the injured or the dead should be summoned to the place where the victims are taken.

C 3 Financial Provisions for Disaster Management

C 3.1 District Disaster Response Fund will basically cover the disaster response, relief, and rehabilitation part.

C 3.2 District Disaster Mitigation Fund will basically cover the disaster mitigation and preparedness activities

The State Disaster Response Fund (SDRF) and Chief Minister's Relief Funds are also available to meet any emergency requirement, at the district level.

Reconstruction and rehabilitation projects are resource intensive. These projects have been financed in the past primarily through the state exchequer. In the recent past funds have also been

raised from international agencies. Government of MP shall finalize the fund generation mechanism, including the covenants and measures that govern fund inflow and disbursement and usage. This includes:

1. Estimation of funds required based on detailed damage assessment report and consolidation of the same and the sectoral and regional heads.
2. Contracting with funding agencies and evolving detailed operating procedures for fund flow and corresponding covenants.

FUND DISBURSEMENT AND AUDIT:

The funds raised from funding agencies are usually accompanied by stringent disbursement and usage restrictions. It is therefore important to monitor the disbursement of such funds to ensure that none of the covenants are breached. MPSDMA in conjunction with relevant agencies shall monitor disbursement of funds to avoid duplication the funds and relief/ rehabilitation activities to be routed through the SDMA executive committee / DDMA only.

C 4 Coordination mechanisms with other stakeholders

C 4.1 Mapping of stakeholders in the District

C 4.1.1 Private and Public Sectors:

Many private and public sector units have equipments and skilled human resource, which could be used during response and recovery phase. A list of the major public and private sector units with facilities available with them is very useful during emergencies, which will be provided here in this section. Further, there are many private vendors within district, who can readily supply different relief materials within short notice.

Historically, corporate sectors have been supporting the disaster relief and rehabilitation activities. However, the involvement of corporate entities in disaster risk reduction activities is not significant. Corporate entities should redefine their business community plan to factor in hazards, risks and vulnerabilities. They should also create value in innovative social investments in the community. Public Private Partnership between the Government and private sector would also be encouraged to leverage the strengths of the latter in disaster management. The NDMA and SDMAs need to network with the corporate entities to strengthen and formalize their role in the DM process for ensuring safety of the communities.

C 4.1.2 Non Governmental Organizations and Community Based Organisations:

It has also been observed that the relief provided by so many agencies tends to get targeted on the habitations on the main highways and roads or the main administrative towns. Consequently the victims living in interior villages and localities have to wait to get relief, while victims of habitations located on the main roads get far in excess of what they actually need. Therefore, there is a need of coordinating the relief efforts of NGOs and voluntary agencies also so that the relief reaches all the victims as per their needs. This coordination will be achieved through a working group, having representatives of important NGOs and some representatives from the local administration. This

working group will try to coordinate the relief efforts of NGOs and voluntary agencies so that the NGOs and the voluntary agencies know the locations where their services are most required. Since most of relief through NGOs comes from outside the districts, it will be desirable to have a similar arrangement at the State level to advise the NGOs and voluntary agencies about the type of relief and the place where the relief is urgently required.

NGOs and CBOs have responded promptly and effectively in most of the emergencies both during the immediate response and in the recovery phases. Even the NGOs located far away from the disaster affected area have rushed their relief teams in. There is a need to coordinate the activities of a large number of NGOs and CBOs. This will be achieved by designating one of the local NGOs as the coordinator for activities and relief materials being arranged by other NGOs. The designated local NGO will provide the interface between the large number of NGOs and the district administration.

C 4.1.3 Religious Institutions:

There are number of religious institutions with infrastructural facilities and committed work force. These facilities can be used as shelters during disasters and the work force could be used as volunteers during response and recovery activities. Details of all these institutions and allied information will be provided here.

C 4.1.4 Academic Institutions:

Academic institutions within the district and also outside the district could help with subject specific expertise for disaster management planning. This section will document all those relevant information which will be used as reference in future.

C 4.2 Responsibilities of the stakeholders

Community members: Community based initiatives for preparedness, mitigation, response and relief should be taken by the community members in a participative approach.

DDMA / DDMC team members:

DDMA roles:

- Ensuring that prevention, mitigation and preparedness activities are carried out in accordance with the appropriate guidelines.
- Providing inputs to MPDMDA relating to various aspect of disaster management including early warnings, status of preparedness etc
- Ensuring that relevant officials in the district possess the knowledge to deal with disaster management issues
- Developing an appropriate relief implementation strategy for the district taking into account the unique circumstances of the district and prevailing gaps in institutional capacity and resources of the district
- Facilitating and coordinating with local govt bodies to ensure that pre disaster DM activities in the district are carried out optimally

- Facilitating community training, awareness programs and the installation of emergency facilities with the support of local administration, NGOs and the private sector
- Establishing adequate interdepartmental coordination on issues related to disaster management
- Reviewing emergency plans and guidelines
- Involving the community in the planning and development process
- Ensuring that local authorities including municipal corporation, gram panchayatss etc in the district are involved in developing their own mitigation strategies
- Ensuring appropriate linkage between DM activities and planning activities
- Revisiting or re assessing contingency plans related to disaster management
- Ensuring that proper communication systems are in place and contingency plans maximize the involvement of local agencies

District Disaster Management Committee (DDMC)

Besides this, the Disaster Risk Management Programme also traced much to form committees at the three levels with plans and task forces. A Disaster Management Committee exists to assist the Collector in:

- Reviewing the threat of disasters
- Vulnerability of the district to such disasters
- Evaluating the preparedness
- Considering the suggestions for improvement of the response document DDMP

The Committee meets once a year under the chairmanship of the Collector

C 5 Inter- District Coordination Mechanisms – [Standard Operating Procedures / Protocols]

- If a district has dams, the neighboring districts should be warned when the dams are opened as the water flow from them might cause flood in the adjoining rivers. This requires proper coordination among the districts by the help of officials of reservoirs by informing district authorities about when and how much water is being released so that these authorities can share this information with the CWC who can then help in predicting or forecasting which all areas are likely to be affected.
- During the time of disaster if the district is unable to cater to the requirements of the situation, it can seek help from the nearby districts in terms of resources or man power like health department, home guard department, RTO, fire department, food and police.
- Every key department can do with a POC who can be equipped with powers to order forces to the districts in need immediately so that further losses can be minimized.
- The emergency team should have the updated checklists, contact numbers and information about all the districts.
- In case of earthquake affected districts, the neighboring districts should provide and help in coordinating for temporary shelters along with the line departments.

C 6 Intra- District Coordination Mechanisms – [with Block Headquarters]

This section will elaborate the mutual coordination, and clarity of role amongst intra district nodal agencies at the district, and sub district level (including Block level headquarters), with reference to disaster management functions.

District level

At district level, Collector acts as the focal point for all types of disaster response and recovery activities. At the district level, as there is no formal committee for ensuring a coordinated response, the Collector is responsible to ensure smooth functioning of a non-formal team of officials from different State government agencies. The power of sanction of relief is vested with officials of Revenue Department at different levels, depending upon the operational needs. The Collector is able to ensure participation of different State Government agencies in the response and recovery activities and provides the necessary financial support and sanctions from the funds available with him for relief and for rural development works. He also manages to get the support, both managerial and material, from the NGOs.

Structure for Flood Management in the District

➤ Sub-Divisional Committee for Flood Management

At sub-division level a committee has been constituted, which has the responsibility to do necessary arrangements for rescue, relief, safe drinking water and primary health care facilities in a flood situation. The members of the committee comprise of:

- i. Sub-divisional Magistrate
- ii. DFO
- iii. City Superintendent of Police
- iv. Executive Engineer.
- v. Executive Engineer, Water Resource Department
- vi. Commissioner, Municipal Corporation
- vii. District Food Officer/Assistant DFO/Food Inspector (City & Rural Area)
- viii. SDO, PWD, Building and Roads.
- ix. SDO, Telecommunication.
- x. SDO
- xi. Assistant Surgeon, Vet. Department.
- xii. CEO, Janpad panchayat
- xiii. Depot Manager, MP State Road Transport Corporation
- xiv. CMO
- xv. Assistant Engineer, MPEB (Concerned Sub-division)

➤ District Emergency Management Structure provided Under the Plan

The proposed organizational structure in this District Plan is based on the following three related concepts:

Plans work best within existing organizational structures, if they are currently responsive to non-emergency duties. That is, if a job is done well every day, it is best done by that organization in an emergency also.

- Crisis should be met at the lowest and most immediate level of government. Plans call for local response supplemented, if necessary, by the next higher jurisdiction.
- Voluntary response and involvement of the private sector (business, industry and the public) should be sought and emphasized. The emergency management partnership is important to all phases of natural and technological disasters.

➤ District Planning Committee (DPC)

District Planning Committee (DPC) created under the Madhya Pradesh Zila Yojana Samiti Adhiniyam, 1999 would be overall in-charge of emergency management planning. It will help ensuring partnership of the local community, NGOs and government agencies in the planning process.

Responsibilities of the Committee

- Evaluation, approval and updating of District Emergency Management Plan
- The committee will meet to review the overall mitigation and preparedness activities in the district.

The committee would review, at least once every year, the emergency planning in the district.

➤ District Crisis Group (DCG)

An effective Emergency Management strategy requires quick decision-making relating to issues of warning, conducting evacuation and rescue & relief operations in the event of a disaster. This requires a core team of senior decision-makers having administrative control over the key resource organizations. Therefore, this plan provides for constitution of a DCG (District Crisis Group) with District Collector as its leader.

The responsibility for dissemination of District Emergency Management Plan would be of DCG. In order to make emergency management process more effective in the district, it is important that District Emergency Management Plan should be disseminated at all levels: the district authority, government departments, non-government/private organizations and general public. Effective implementation of the DEMP would be done through training programmes and awareness activities organized for different levels of functionaries.

Composition of DCG

District Crisis Group will include:

- i. District Collector (Team leader)
- ii. Superintendent of Police
- iii. District Commandant , Homeguards

- iv. Executive Engineer, PWD.
- v. Divisional Engineer, MPEB
- vi. Chief Medical Officer , CMO
- vii. Municipal Commissioner
- viii. Chief Executive Officer , Zila Panchayat
- ix. Chief Engineer

District Crisis Group members may be required to reach the affected area for monitoring and coordination of the response functions at the site. District Emergency Control Room (DECR) will facilitate functioning of DCG even when its members may be in the affected area. The members of DCG will be provided with wireless facility for interaction with DECR.

Responsibilities of the DCG

- a. On the spot decision making
- b. Control and coordination of response and recovery activities in the district
- c. Resource mobilization and replenishment
- d. Monitoring of overall Mitigation, Preparedness Response & Recovery activities.
- e. Preparation of reports for submission to State Government through Relief Commissioner
 - District Emergency Control Room (DECR)

A single District Emergency Control Room (DECR) will function with desk arrangements for specific activities during an emergency. DECR will have senior representatives from the key resource organizations to facilitate a coordinated response. The DECR would be linked to Emergency Operation Centre (EOC) constituted at state level.

Site Operation Center (SOC)

A Site Operation Center (SOC) as a proposed complimentary unit to DECR, would operate close to the emergency site and would be directly, linked with the district level control room (DECR). The District Collector would appoint an Administrative officer to monitor & coordinate the activities of SOC and thus act as incident controller. All information would be conveyed to the Collector through the Administrative Officer appointed for SOC.

The Collector will appoint a senior administrative assistant as officer in-charge (OIC) of DECR. Desk Officers from key response organizations will support the officer in-charge of DECR. In the event of an emergency, additional staff will be deployed to assist in the functioning of DECR.

C 7 Dissemination of DM Plan

After the approval of plan by SDMA, the concerned DDMA will be responsible for dissemination of the plan.

The district disaster management plan must be disseminated at three levels;

- National disaster Management Authority (NDMA), multilateral agencies (aid agencies), SDMA/SEC, state line departments and defense services.
- To the district authorities, government departments, NGOs and other agencies and institutions within the district
- Through mass media to the general public.

This section will explain in detail, about the means of dissemination of district disaster management plan at the different levels.

C 7.1 Plan Evaluation

The purpose of monitoring & evaluation of DDMP is to determine the adequacy of resources, co-ordination between various agencies, community participation, partnership with NGOs and other entities, Post-disaster evaluation mechanism, Periodic uploading of plans at India Disaster Knowledge Network (IDKN) and resources on India Disaster Resource Network (IDRN), Conducting periodic mock drills, Checking whether all the personnel involved in execution of DDMP are trained and updated on the latest skills necessary in line with updated plans.

C 7.2 Plan Update

The frequency of updating the plan (DDMP) will be mentioned (it should be every year, as per DM Act). Apart from it, the plan will be updated when shortcomings are observed in Organizational structures; Technological changes, Response mechanism following reports on drills or periodic exercises, and specific assignments of state agencies.

C 8 Annexure

Linkage of Annexure with chapters to be mentioned in the respective chapters / sections as well.

The following Annexure must be included along with the plan. Additional Annexure can also be attached according to the specific Need.

C 8.1 District profile

Latest data on the geography, demography, agriculture, climate and weather, roads, railways etc that describes the district will be provided. However, adequate care will be taken to summarize the data so as to not make the plan document bulky.

C 8.2 Resources

- Hazard specific infrastructure and manpower will be covered here
- Usage of IDRN, IDKN, etc (updating them, latest update available etc)

C 8.3 Media and information management

A List of location based key news channels, journalists, cable network operators will be available along with contact details.

C 8.4 Important Contact numbers

Latest important contact numbers of District and Block level key officials AND agencies including EOC, DMTs, DDMOs (District Disaster Management Officers), DDMC members, DC Office, Revenue & Relief deptt, fire, irrigation and flood control, police, and other nodal authorities/ persons will be provided.

C 8.5 Do's and don'ts of all possible hazards

A comprehensive list of do's and don'ts for district administration and nodal agencies, in handling the disasters and at various other phases of disaster management will be provided. This list will not be the same as that of general do's and don'ts necessary for common man in managing disasters.

C 8.6 Detailed Maps

Detailed maps will be prepared in line with the applicable hazards, existing vulnerabilities, and available resources / potential capacities.

Annexure

List of Important Contact Numbers

S.No	NAME OF THE DEPARTMENT	PHONE No. (Chhindwara STD code: 07162)	Mobile:
1	Collector	242302, Fax:07162- 244467	9425802003
2	Deputy Collector	243425	9424366300
2	Supdt. Of Police	242304	9424437743
3	Additional Collector	243402	9424450444
4	Chief Executive Officer, Zilla Panchayat	244369	9424450444
5	Dist. Excise Office, Collectorate Campus	243407	9425154499
7	Dist. Treasury Office, Collectorate Campus	243418	9424073011
8	Dist. Planning Office, Collectorate Campus	243422	-
9	Dist. Women & Child Development Dept., Collectorate Campus	243421	-
10	Dist. Small Savings Office, Collectorate Campus	243416	-
11	Dist. Mining Office, Collectorate Campus	243411	-
12	Chief Executive Officer, Janpad Panchayat, Collectorate Campus	247188	-
13	Land Records Section, Collectorate Campus	243423	9425872426
14	Dep. Director, Panchayat & Social Welfare, Collectorate Campus	243426	-
15	Adult Education Dept., Collectorate Campus	243406	-
16	Dist. Statistical Office, Collectorate Campus	243417	-
17	Dist. Urban Development Authority, Collectorate	245296	-
18	Dist. Election Office, Collectorate Campus	244669	-
19	Asst. Commissioner, Tribal Welfare Dept., Collectorate Campus	243419	-
20	O/o Chief Executive Officer, Antyavasayi, Collectorate Campus	244661	-
21	O/o Executive Engineer, Rural Engineering Services - Div. I	244124	-
22	O/o Executive Engineer, Rural Engineering Services - Div. II	247182	-
23	O/o District Registrar	222770	-
24	O/o Asst. Director, Public Relations	247724, Fax : 07162-242454	8871698621
25	General Manager, Dist. Industries & Trade Centre	243412	-

26	EE PWD	246978	9425387635
27	SDM Chhindwara	243441	9425172776
28	SDM Parasia	222320	9826205166
29	SDM Junnardeo	231021	9425165803
30	SDM Amarwada	222235	9425637255
31	SDM Chourai	280756	9754016404
32	SDM Sausar	220024	9424950838
33	SDM Padhurna	220752	9301076462
34	City Magistrate	243403	9407125000
35	CMO Nagar Palika	222346	9425184018
36	SE MPEB	222876	9424425158

Table 2: Equipments with Rescue Room, Parasia (WCL)

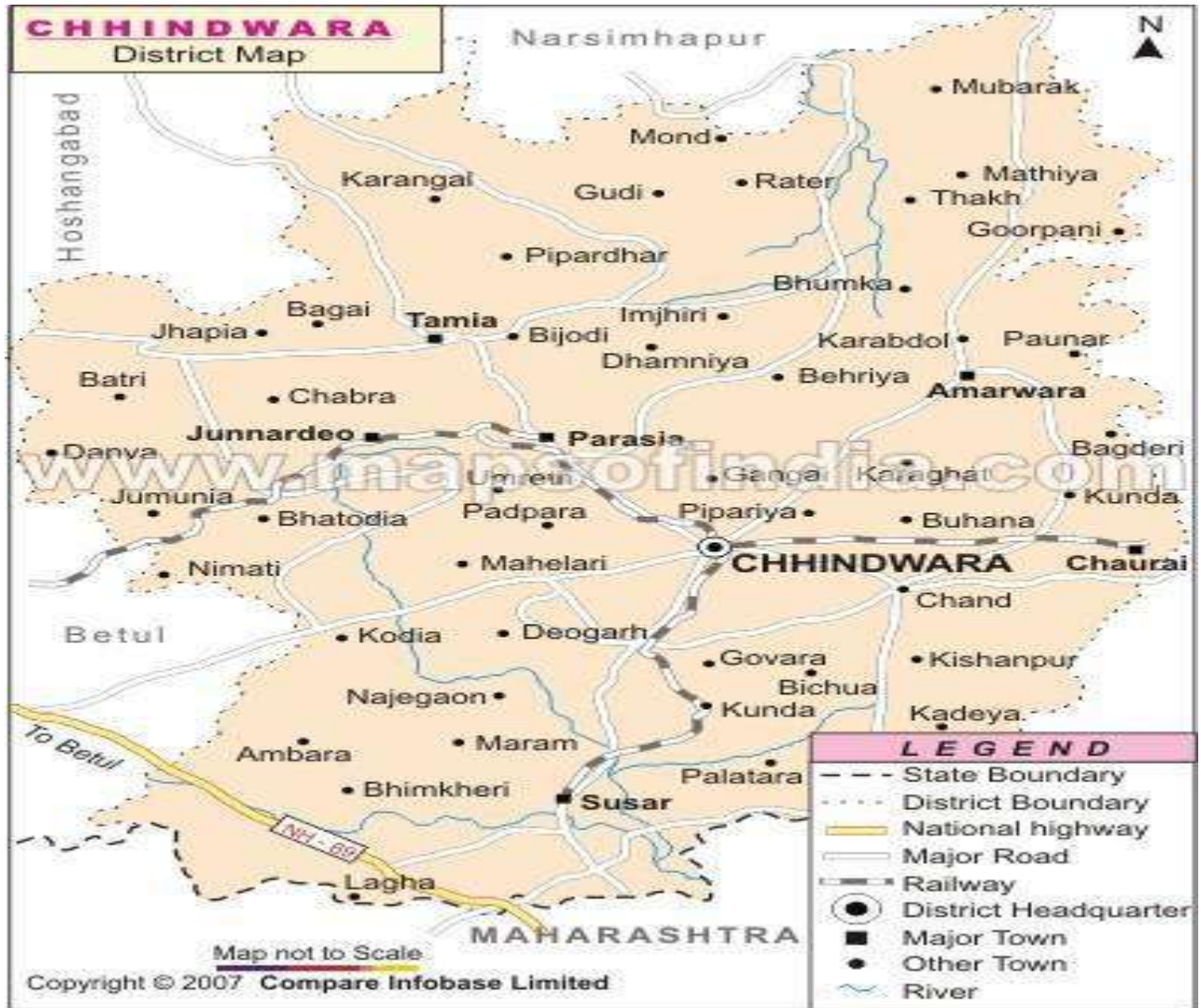
Name of Equipment	Required	Provided		Remarks
		In order	Not in order	
A. Breathing Apparatus				
1. Two hour self contained breathing apparatus.	30	27		Drager BG- 174
2. Short duration self contained breathing apparatus.		12		Drager BG-4
3. Absorbent charges.	2	2		Travox- 120
	50	60		Lisasorb Exp-Sep-2013
B. Resuscitating Apparatus				
1. Resuscitating apparatus	3	3		Maxaman – 2
2. Spare cylinders	3	3		Pulmotor -1
C. Tube Apparatus				
1. Pressure type with bellows	1	1		
2. Spare helmets	1	1		
3. Pressure type with fan	1	2		
D. Ancillary equipment				
1. Oxygen cylinders				

2. Oxygen pump (Hand driven)	3	13		11(220cft),2(110cft)
3. Bobin meter				
4. Universal tester	2	2		UH-2T
5. Pressure gauge testing device				
6. Apparatus testing tool kit	1	1		
7. Oxygen testing apparatus.	1	1		RZ-25 ARDJ-0080
	1	1		
	2	6		
	1	1		
E. Lamps				
1. Flame safety lamps with maintenance tool kits	4	4		GL- 7
2. Electric safety lamps				
a. Cap lamps with belts				
b. Charging rack for cap lamps with charger				
	20	20		
	1	1		
F. Gas detectors				
1. Methane detectors with battery charger if required	2	3		MSA D-6
2. CO- detectors				
3. CO tubes				
4. Multi gas detector	2	2		MSA
5. Multi gas detector tube for each of the noxious gases likely to be found in mines	10			
	1	1		DGMS approved Drager Miniwarn has been provided
	10			
G. Air and temperature measuring instrument				
	1	1		
1. Clinical thermometer				
2. IR thermometer		1		
3. Sling whirling hygrometer	1	2		

H. Telephone				
1. Genophone telephone set	1	1		
I. Safety and first aid equipment				
1. Safety helmets	20	20		
2. Safety belts				
3. First aid box	2	2		Full body harness.
4. Blankets	4	4		
5. Folding stretchers	4	4		
6. Self rescuers.	4	4		
	4	4		
	4	5		Drager Oxyboks

Table 3: Mine accidents in past few years

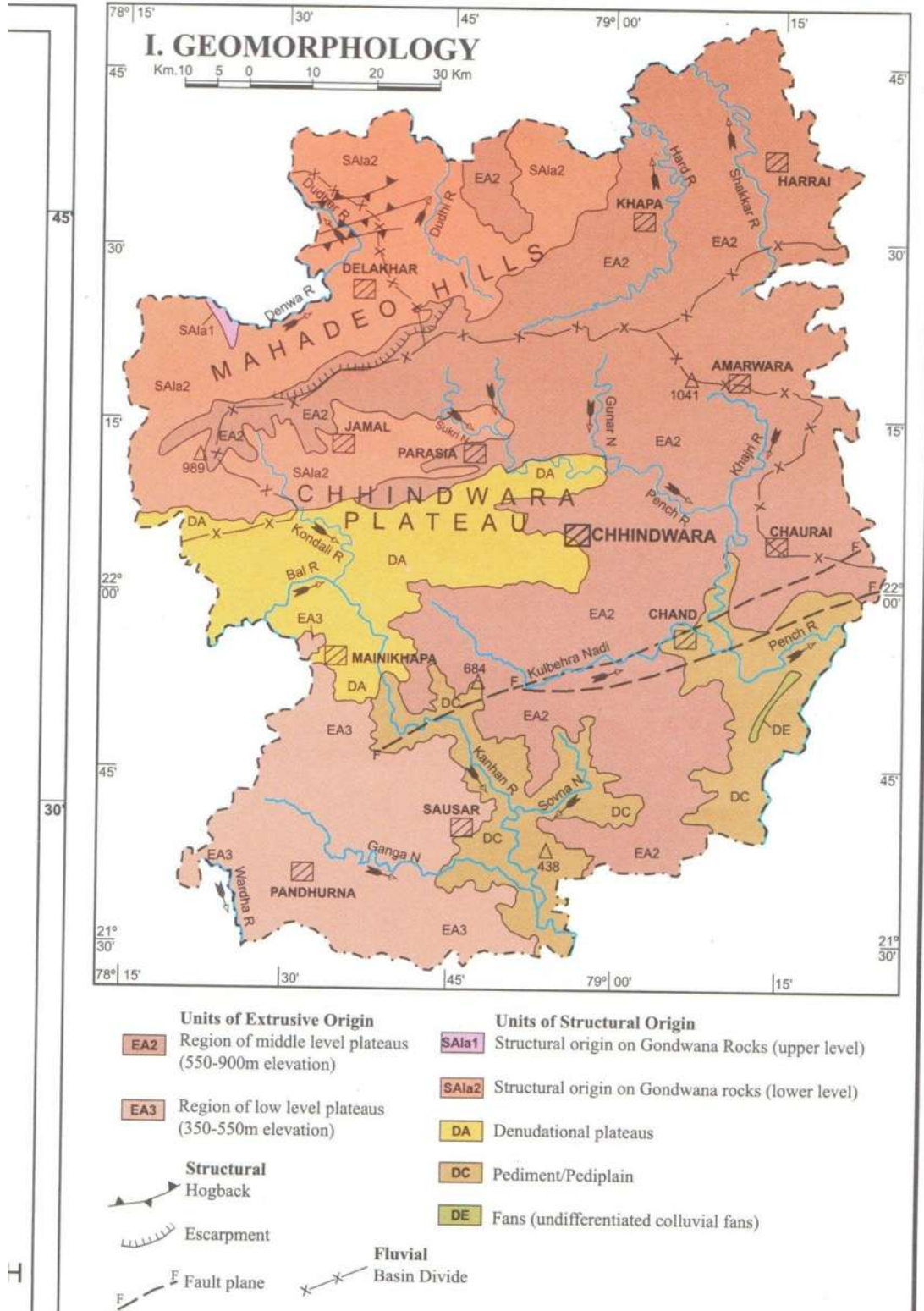
PENCH	Fatal accidents	Fatalities	Serious Injuries	Reportable Injuries
1993	-	2	31	796
1994	-	4	18	684
1995	-	3	78	632
1996	-	1	41	538
1997	-	3	34	560
1998	-	2	4	400
1999	-	1	2	264
2000	-	2	7	178
2001	-	1	16	169
2002	-	4	5	161
2003	-	2	9	168
2004	1	1	10	106
2005	2	2	6	91
2006	2	2	12	61
2007	0	0	12	65
2008	2	4	6	56
2009	2	2	12	47
2010	1	1	8	41
2011	0	0	10	50
2012			5	8

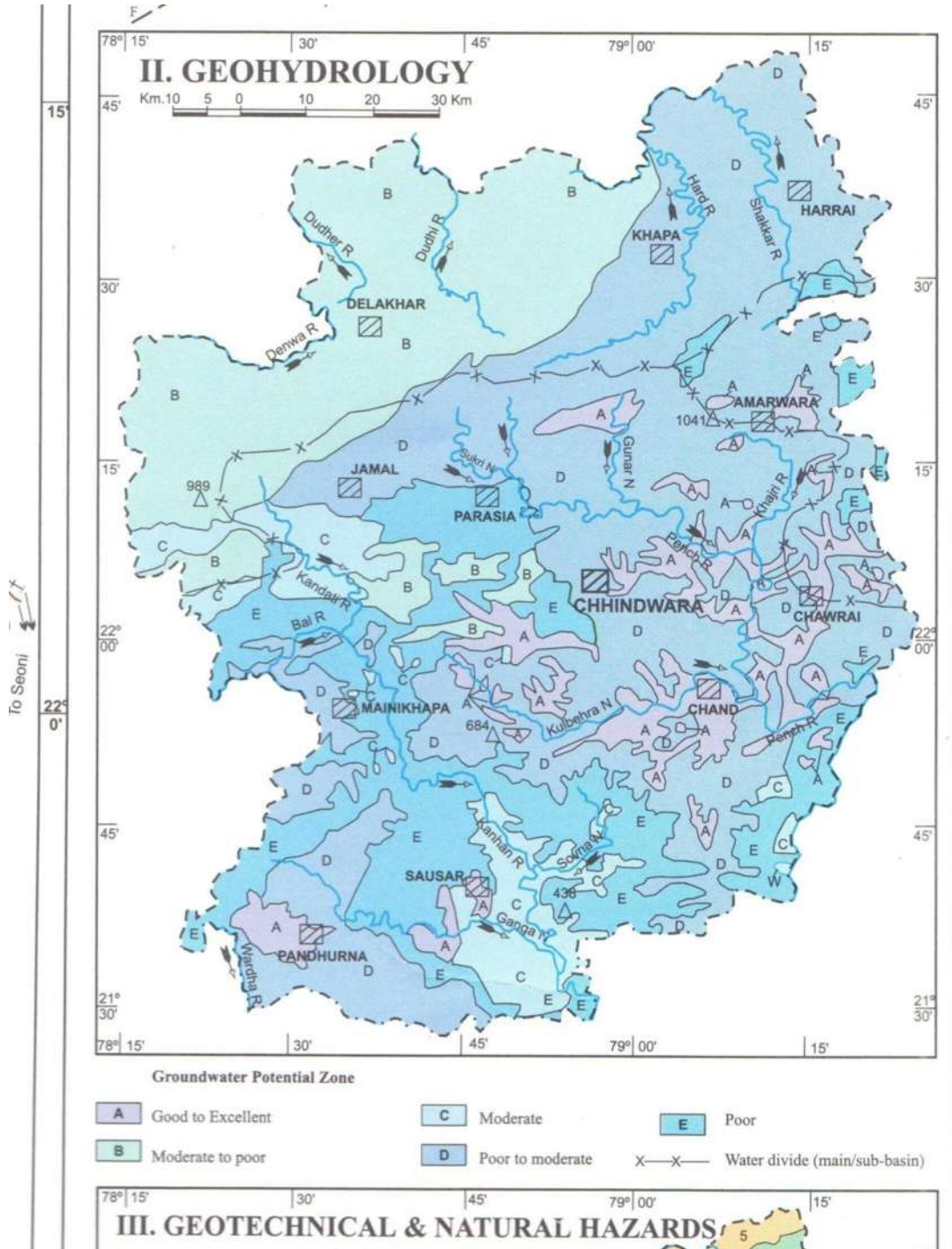


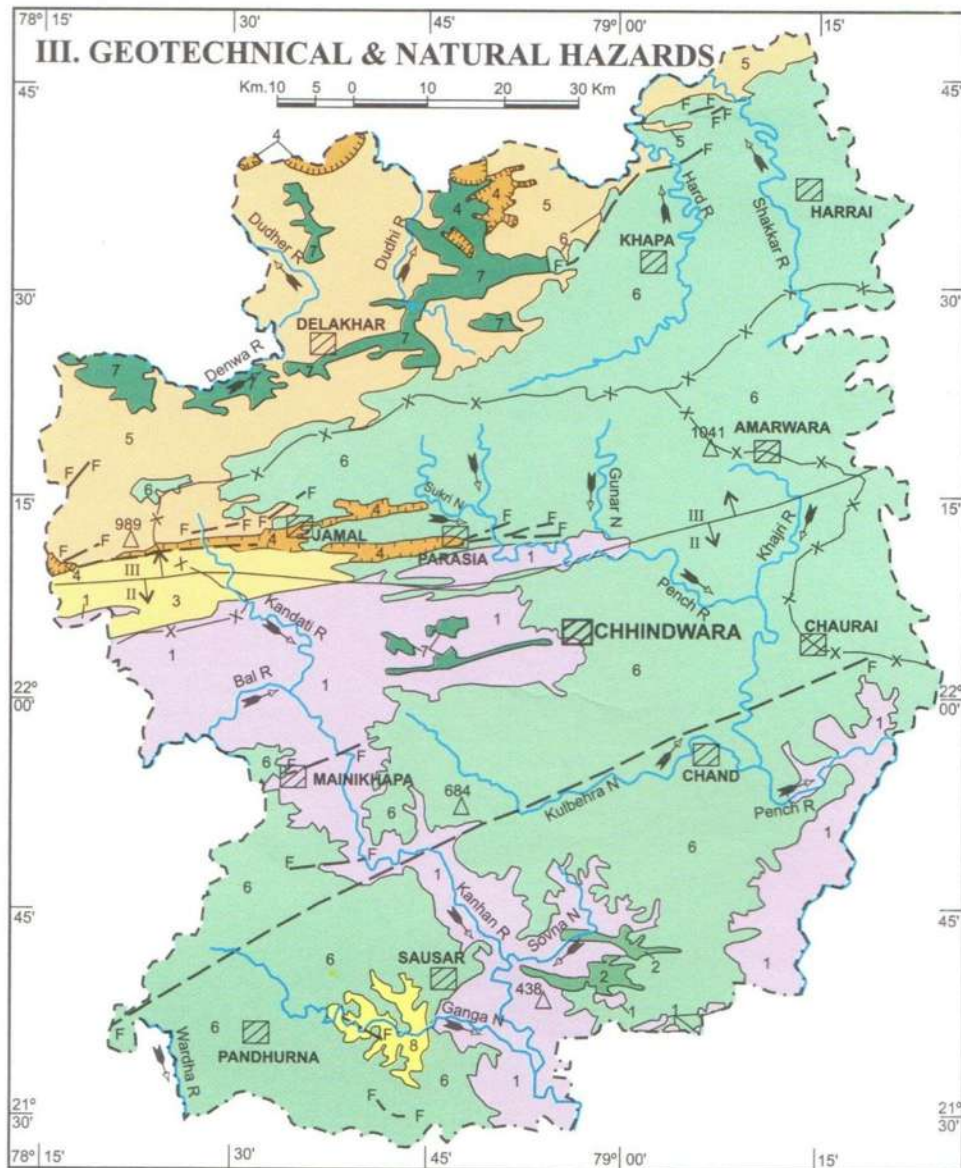


Railway Route Map of Chhindwara

ARA DISTRICT, MADHYA PRADESH

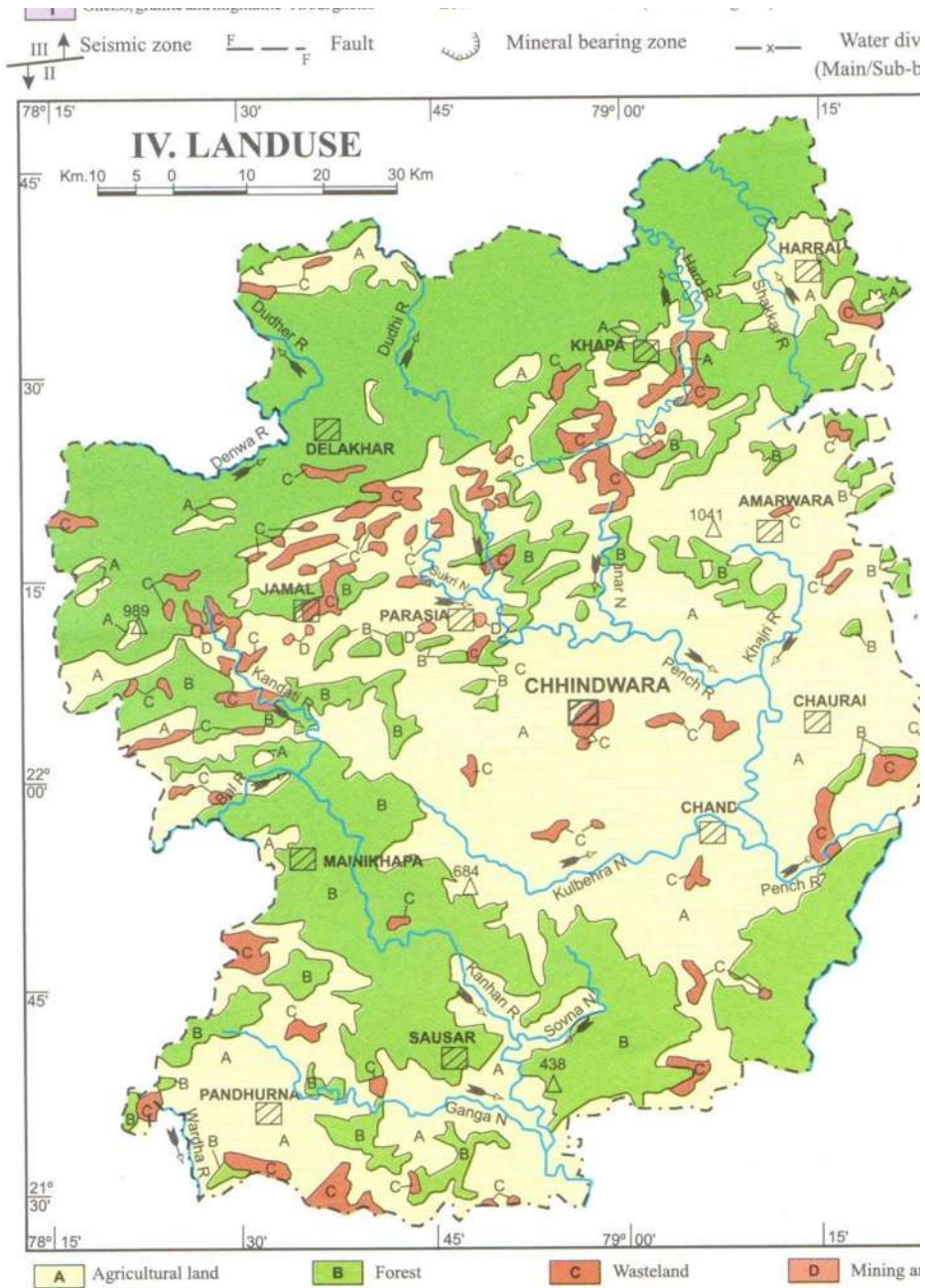






	Permeability	Bearing Capacity/ Compressive Strength	Foundation Characteristics
8 Unconsolidated sand with or without clay, silt	Cumulative high	Low (1-2 kg/cm ²)	Poor
7 Basic intrusive	Low	Very high (1500-2900 kg/cm ²)	Excellent
6 Basic volcanic flows -Deccan Trap	Low	Very high (1500-2900 kg/cm ²)	Excellent
5 Sandstone, conglomerate, shale - Upper Gondwana sequence	Low to moderately high	Low to medium (150-500 kg/cm ²)	Fair
4 Sandstone, shale with coal seams - Lower Gondwana sequence -Barakar Formation	Low	Moderately high	Fair
3 Tillite, shale and sandstone - Lower Gondwana sequence -Talchir Formation.	Low to moderate	Low to medium (50-500 kg/cm ²)	Fair
2 Metasedimentaries -Sausar Group	Low	Moderately high	Good
1 Gneiss, granite and migmatite-Tirodi gneiss	Low	Low (within 500 kg/cm ²)	Good

III ↑ II ↓	Seismic zone	E — F	Fault	⤿	Mineral bearing zone	— x —	Water divide (Main/Sub-basin)
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Kolkata.