Madhya Pradesh

National Disaster Risk Reduction Portal
1. STATE PROFILE

1.1 General

The State of Madhya Pradesh is centrally located and is often called as the "Heart of India". The State is home to a rich cultural heritage and has practically everything; innumerable monuments, large plateau, spectacular mountain ranges, meandering rivers and miles and miles of dense forests offering a unique and exciting panorama of wildlife in sylvan surroundings.

In 1950, Madhya Pradesh was created from former British Central Provinces and Berar, princely states of Makarai and Chhattisgarh and Nagpur as the capital. The new states of Madhya Bharat, Vindhya Pradesh and Bhopal were formed out of Central India Agency. In 1956, as a result of reorganization of states, the states of Madhya Bharat, Vindhya Pradesh and Bhopal were merged into Madhya Pradesh.

In the year 1998, the number of districts became 61. Madhya Pradesh was originally the largest state in India until November 1, 2000 when the state of Chattisgarh was carved out.
Historically it is known as Malwa. In 1st November 2000, the south-eastern portion of the state was split to form a new State of Chhattisgarh. Thus, the present Madhya Pradesh State came into existence, the 2nd largest state in the country, spread over a geographical area of about 308 lakh Ha, which is about 9.38% of the total area of India. The state is a land locked.

It borders the states Uttar Pradesh, Chattisgarh, Maharashtra, Rajasthan and Gujarat. It comprises of 50 districts in the state, which are grouped into ten divisions.

**Districts under 10 divisions of Madhya Pradesh are tabulated below**³:

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Division name</th>
<th>Districts name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bhopal Division</td>
<td>Bhopal, Raisen, Rajgarh, Sehore, Vidisha</td>
</tr>
<tr>
<td>2.</td>
<td>Gwalior Division</td>
<td>Ashoknagar, Shivpuri, Datia, Guna, Gwalior</td>
</tr>
<tr>
<td>3.</td>
<td>Narmadapuram Division</td>
<td>Harda, Hoshangabad, Betul</td>
</tr>
<tr>
<td>4.</td>
<td>Chambal Division</td>
<td>Morena, Sheopur, Bhind</td>
</tr>
<tr>
<td>5.</td>
<td>Indore Division</td>
<td>Barwani, Burhanpur, Dhar, Indore, Jhabua, Khandwa, Khargone, Alirajpur</td>
</tr>
<tr>
<td>6.</td>
<td>Jabalpur Division</td>
<td>Balaghat, Chhindwara, Jabalpur, Katni, Mandla, Narsinghpur, Seoni</td>
</tr>
<tr>
<td>7.</td>
<td>Rewa Division</td>
<td>Rewa, Satna, Sidhi, Singroli</td>
</tr>
<tr>
<td>8.</td>
<td>Sagar Division</td>
<td>Chhatarpur, Damoh, Panna, Sagar, Tikamgarh</td>
</tr>
<tr>
<td>9.</td>
<td>Shahdol Division</td>
<td>Shahdol, Umaria, Dindori, Anup Pur</td>
</tr>
<tr>
<td>10.</td>
<td>Ujjain Division</td>
<td>Dewas, Mandsaur, Neemuch, Ratlam, Shajapur, Ujjain</td>
</tr>
</tbody>
</table>

**Madhya Pradesh at a glance**⁴,⁵

<table>
<thead>
<tr>
<th>Description</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>3,08,000 sq.km</td>
</tr>
<tr>
<td>Climate</td>
<td>The state, by and large, tends to have a pleasant moderate climate round the year, sometimes interspersed with extreme weather. Regions</td>
</tr>
<tr>
<td>Regions</td>
<td>Malwa, Nimar, Bundelkhand, Baghelkhand, Chambal and Mahakaushal.</td>
</tr>
<tr>
<td>Languages and Dialects</td>
<td>The main language of communication is Hindi. In and around the places viz., Bhopal, Sironj, Burhanpur, Kurwai etc., Urdu mixed with Hindi is commonly used. Different dialects in different regions are spoken like Bundeli in Bundelkhand, Malwi in Malwa, Nimari in Nimar, Bagheli in Baghelkhand and Bhili and Gondi in Tribal areas of Jhabua, Mandla, Dindori, Balaghat and Seoni districts.</td>
</tr>
<tr>
<td>Means of Livelihoods</td>
<td>Agriculture is the main source of livelihood of a large number of the people of the state. About 150.75 lakh hec. area is under cultivation and above 70% of total working population depends on agriculture sector.</td>
</tr>
<tr>
<td>Main Crops</td>
<td>Soybean, Wheat, Paddy, Jowar, Maize, Gram, Masur, Tuar, Mustard.</td>
</tr>
<tr>
<td>Rivers</td>
<td>Narmada, Chambal, Mahi, Tapti, Betwa, Sone, Banganga, Ken, Pench, Tawa and Shipra.</td>
</tr>
</tbody>
</table>
Forest Area

Madhya Pradesh takes pride in having the country's largest forest coverage of 94689.38 sq km. Out of 94689.38 sq.km., 61886.49 sq.km. is reserved forest, 31098 sq.km. is protected forest and 1705.85 sq.km. falls under unclassified forest.

<table>
<thead>
<tr>
<th>Total Division</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Districts</td>
<td>50</td>
</tr>
<tr>
<td>Number of Cities</td>
<td>476</td>
</tr>
<tr>
<td>Number of Tehsil</td>
<td>342</td>
</tr>
<tr>
<td>Number of Blocks</td>
<td>313</td>
</tr>
<tr>
<td>Total number of villages</td>
<td>54,903</td>
</tr>
</tbody>
</table>

1.2 Physiography

The state of Madhya Pradesh, lying in the heart of the country, is bound by latitudes N 21°04'30" to 26°49'30" and longitudes E 74°1'10" to 82°48'20". Madhya Pradesh, with an area of 3,08,000 sq.km. is the second largest state in India after Rajasthan. It is a part of peninsular plateau of India lying in north central part, whose boundary can be classified in the north by the plains of Ganga-Yamuna, in the west by the Aravali, east by the Chhattisgarh plain and in the south by the Tapti valley and the plateau of Maharashtra.

Most of the State lies on the tableland of Central India bounded by the Upper Gangetic plains in the north; the Godawari valley in the south; the plains of Gujarat in the West and plateau of Bundelkhand and Chhattisgarh in the east. The State is traversed by the Vindhya, Satpura and Maikal hill ranges running east west. The highest point is at Dhupgarh near Pachmarhi in Hoshangabad district, at 1,350 m. Most of the State has an elevation of between 305 to 610 m above MSL. Low-lying areas are in the narrow Narmada valley in the central southern parts. In general, the State stretches across a geographically elevated position.

Based on its topography, the state can be divided into the following natural regions:-

The Plateau of Malwa: Covering almost the entire western region of Madhya Pradesh, the plateau, formed by the Deccan trap rocks, starts north of the Narmada and Betwa rivers and found in Guna, Raigarh, Mandsaur, Jhabua, Dhar, Ratlam, Dewas, Ujjain, Sehore, Vidisha, Shajapur, Raisen and Sagar districts. Its average height is normally 350 to 450 m but some peaks have attained a height of even more than 800 m. Chambal, Mahi, Kshipra, Betwa and Parvati are the main rivers of this region.

The Plateau of Central India: This region covers the northern part of the lower basin of Chambal river. It is formed by the Vindhyan rock groups with the Deccan trap in the south and the Bundelkhand gneiss rocks in the east. The Bundi and Karauli hills form its western boundary. The region presents an amalgam of low land and upland topography. The area is marked by deep ravines of the Chambal, Kalisindh and Parvati rivers. This region spreads in Morena, Bhind, Gwalior, Shivpuri, Sheopur, Guna and Mandsaur districts. Maximum height of the region is 500 m., however, the plain situated to the north and north east has a height between 150 – 300 m.
The Plateau of Bundelkhand: It lies to the east of the Central India Plateau and is bound on the northeast by the Rewa – Panna plateau. The area consists of granite rocks of the Arabian era. Generally, the plateau is flat with marginal slopes and the topography is smooth and undulating. One third of the northern plain area is monotonously flat and is in strong contrast to the Vindhyan tableland which rises in three well – marked escarpments roughly delineated by the Betwa, Dhasan, Ken and Sindh rivers. This region in Madhya Pradesh is spread over in Tikamgarh, Chhatarpur, Datia, Gwalior and Shivpuri districts. The height of this region is between 150 to 450 m. Sidhababa hills (1172 m) constitute the highest peak.

The Plateau of Rewa and Panna: This is also known as Vindhyan plateau and lies to the northeast of the Bundelkhand plateau. The maximum height of the plateau is 750 m. The Bhander hills of the Vindhya State group and the Kymore ranges have a number of waterfalls with heights up to 450 m. The area is drained by the Ken, Sonar, Berma and Tons rivers. The covered area has most of its spread in Damoh, Panna, Satna and Rewa districts.

The Narmada-Sone Valley: It is drained by the Narmada and Sone rivers and extending from the northeast to west with an average height of 300m. It is bounded by the Vindhyan, Bhander and Kymore hills in north of the valley; the Satpura and the Maikal hills in the south; and the Baghelkhand highlands in the east. The valley is narrow, and the trap falls in the Narmada River do not allow much navigation. The districts included are Mandla, Jabalpur, Hoshangabad, Raisen, East Nimar, West Nimar, Barwani, Harda, Dhar and Dewas of Madhya Pradesh. Part of Rewa, Shahdol, Umaria and Sidhi districts form the part of Sone valley.

The Satpura and Maikal Region: The region south of Narmada Valley has an average height of only 300m though it contains the highest point in the State, the peak of Dhupgarh. The Satpura slope is sharp on the south face and gentle on the north. The region is drained by Tawa, Johila, Denwa, Wainganga and Vardhan rivers. The area includes Chhindwara, Betul, Seoni, Balaghat, Mandla and parts of Khandwa and Khargone districts.

The Eastern Plateau: This region has a spread in the eastern districts of Madhya Pradesh, which is called Baghelkhand Plateau in Sidhi district. In this region, the height of plateau varies from 400 to 1000m.
1.3 Climate

Madhya Pradesh also has three major seasons - Summer Monsoon and Winter. During summer (March-June), the temperature in the entire state ranges above 29.4°C. In general, the eastern parts of Madhya Pradesh are hotter than the western parts. The regions like Gwalior, Morena and Datia record temperature of over 42°C in the month of May. The humidity is relatively very low and the region usually experiences frequent mild dust storms. The south-west Monsoon usually breaks out in mid June and the entire state receive a major share of its rainfall between June and September. The south and south-east regions tend to experience a higher rainfall whereas the parts of north-west receive less. Mandla, Balaghat, Sidhi, Jabalpur and other extreme eastern parts receive more than 150 cm rainfall. The districts of western Madhya Pradesh receive less than 80 cm rainfall.

The winter season starts from the month of November. The temperature remains low in the northern parts of the state in comparison to the southern parts. The daily maximum temperature in most of the northern part in the month of January remains between 15 and 18°C. The climate is generally dry.

1.4 Agro-climatic zones

The state has broadly been divided into 11 Agro-climatic Zones (ACZ). Agriculturally, Malwa and Central Narmada Valley (CNV) are advanced ACZ. The cropping pattern shows a
significant presence of cash crops and horticultural crops in Malwa and CNV ACZ. The average productivity of land in these regions is also higher than that the state average. CNV ACZ has the higher percentage of irrigated land to net sown area while Malwa is third in the list. Bundelkhand ACZ due to large parts of the region under traditional tanks/ponds occupies the second position in the state. NHC ACZ has the lowest percentage of irrigated area to net sown area. It also shows the lowest productivity percentages of both kharif and rabi crops.

![Map showing agro-climatic zones in Madhya Pradesh](http://dolr.nic.in/dolr/downloads/spsp/Madhya%20Pradesh_SPSP.pdf)

### 1.5 Soil

The state of Madhya Pradesh has a variety of soils ranging from rich clayey to gravelly. The major groups of soils found in the state can be divided into 4 categories namely; alluvial, medium and deep black, shallow and medium black, mixed red and black.

<table>
<thead>
<tr>
<th>Type of soils</th>
<th>Area (m ha)</th>
<th>No. of districts</th>
<th>Name of Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shallow &amp; medium Black Soil</td>
<td>3.06 m ha.</td>
<td>3</td>
<td>Betul, Chhindwara and Seoni</td>
</tr>
<tr>
<td>Deep medium Black soil</td>
<td>16.21 m ha.</td>
<td>33</td>
<td>Narsinghpur, Hoshangabad, Harda, Shahdol, Damoh, Vidisha, Raisen, Bhopal, Sehore, Raigarh, Ujjain, Dewas, Shajapur, Mandsaur, Neemuch, Ratlam, Jhabua, Dhar, Indore, Khargone, Barwani, Khandwa, Guna (partly), Shrivpuri (partly), Datia (partly) and Sirhdi (partly), Anuppur, Ashoknagar, Burhanpur</td>
</tr>
<tr>
<td>Alluvial soil</td>
<td>3.35 m ha.</td>
<td>4</td>
<td>Gwalior, Morena, Sheopurkala, Bhind &amp; Shivpuri (partly)</td>
</tr>
<tr>
<td>Mixed Red &amp;</td>
<td>8.11 m ha.</td>
<td>8</td>
<td>Mandla, Dindori, Balaghat, Rewa, Satna,</td>
</tr>
</tbody>
</table>
Black soil (18.30%) Panna, Chhatarpur, Tikamgarh, Shivpuri (partly), Guna (partly), Datia (partly) and Sidhi (partly)

Map showing the distribution of soil in Madhya Pradesh State (Source: http://dolr.nic.in/dolr/downloads/spsp/Madhya%20Pradesh_SPSP.pdf)

1.6 Geology

The oldest group of rocks comprising of Archaeans and Proterozoic formation constitute nearly 45% area of the State. The next younger formation of Carboniferous to lower Cretaceous comprising Gondwana Super Group covers 10% area while the formation of Cretaceous to Paleocene comprising mostly of Deccan Trap basalt constitutes 38% area of the State.
1.7 Socio-Economic Profile

Madhya Pradesh, India's second largest state, which occupies 9.38% of the country's area, is also the second richest state in terms of its mineral resources. Primarily, it has an agricultural and pastoral economy. Industrial development is primarily concentrated in the more advance districts like Indore, Bhopal, Gwalior and Jabalpur.
Over 30% of the State's total area is enveloped by the forest. The eastern districts of Balaghat, Mandla, Shahdol, Sidhi have dense forest cover. The abundantly found trees include Teak, Sal, Bamboo and Tendu. Agriculture is the main occupation of villagers, Wheat, Soybean and Jowar (Sorghum) are the main Crops. Paddy and Coarse Millets are also sown in large parts. Pulses, Cereals and Groundnut are also grown. Important among the cash crops are Cotton, Sugarcane and Oil Seeds. Mandsaur is the largest opium producing district in the country.

The irrigation of land is mostly dependent on major rivers like Narmada, Chambal, Tapti, Betwa, Sone, Shipra, Kali Sindh and Tava.

**Socio Economic data at a glance**

<table>
<thead>
<tr>
<th>Sl_No</th>
<th>Description</th>
<th>Year -2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total population</td>
<td>72,626,809</td>
</tr>
<tr>
<td></td>
<td>Total Male population</td>
<td>37,612,306</td>
</tr>
<tr>
<td></td>
<td>Total Female population</td>
<td>35,014,503</td>
</tr>
<tr>
<td></td>
<td>Total rural population</td>
<td>52,557,404</td>
</tr>
<tr>
<td></td>
<td>Total rural population – Male</td>
<td>27,149,388</td>
</tr>
<tr>
<td></td>
<td>Total rural population – Female</td>
<td>25,408,016</td>
</tr>
<tr>
<td></td>
<td>Total urban population</td>
<td>20,069,405</td>
</tr>
<tr>
<td></td>
<td>Total urban population - Male</td>
<td>10,462,918</td>
</tr>
<tr>
<td></td>
<td>Total urban population - Female</td>
<td>9,606,487</td>
</tr>
<tr>
<td></td>
<td>Decadal Population growth rate</td>
<td>20.3%</td>
</tr>
<tr>
<td></td>
<td>2001-2011</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Population density (No of people per sq km)</td>
<td>236</td>
</tr>
<tr>
<td></td>
<td>Sex Ratio</td>
<td>931</td>
</tr>
<tr>
<td></td>
<td>Total literacy</td>
<td>69.3%</td>
</tr>
<tr>
<td></td>
<td>Male literacy</td>
<td>78.7%</td>
</tr>
<tr>
<td></td>
<td>Female literacy</td>
<td>59.2%</td>
</tr>
<tr>
<td></td>
<td>Total literacy (No.)</td>
<td>42,851,169</td>
</tr>
<tr>
<td></td>
<td>Total literacy – Male (No.)</td>
<td>25,174,328</td>
</tr>
<tr>
<td></td>
<td>Total literacy – Female (No.)</td>
<td>17,676,841</td>
</tr>
</tbody>
</table>

2. **DISASTER RISK PROFILE** 6, 9, 10, 11, 12

2.1 **Vulnerability of the State**

It has been observed during the last few decades that the State of Madhya Pradesh is prone to various kinds of disasters of recurrent nature. These disasters result in loss of life and property - public and private - and disrupt economic activity, besides causing immense misery and hardship to the affected population. It is felt that much of this is avoidable, or /and could be prevented and mitigated. A time has come to look at the disasters occurring in one or more parts of the State regularly, at more frequent intervals and to evolve a strategy for reducing their impact, and for giving assistance to the affected population. A timely and well-prepared action plan can save many lives and lots of property even at the time of sudden
occurrence of a disaster, as the entire administrative machinery, and the community can be geared to the execution of a well laid out plan of action.

Disasters are of many types. The High Powered Committee (HPC) constituted by the Central Government has identified thirty-one disasters and grouped them in five categories. On the basis of available, data disasters frequently occurring in the State are as follows:

- Drought
- Floods
- Earthquake
- Hailstorm
- Fire
- Industrial and chemical disasters
- Accidents
- Epidemic

Each disaster has a different character and therefore requires a different plan of action for prevention and mitigation. The management plan, similarly, calls for an event specific plan for preparedness, response and recovery, though there may be some commonalities.

a) **Droughts**

With its vast expanse, geographical features and varying climate conditions, different parts of the State have been perennially prone to drought conditions. Many districts of Madhya Pradesh have been facing a drought situation repeatedly every year. During 2007-08, 39 out of 50 districts (165 Tehsils and one cluster) of Madhya Pradesh have been declared as drought affected. The State has faced drought in the nine out of last ten years. Though irrigated area has increased substantially in the State, yet production in almost 70% agriculture area remains highly dependent on rainfall. Around 7 districts highly affected from drought.
b) **Floods**

In the year 2005, 10 districts and in year 2006 about 27 districts were affected by flood. In last 26 years there are 32 districts of the State affected from the flood.

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Map showing distribution of Drought in the State (Source: http://mpsdma.nic.in/imagescroll/Slide3.GIF)

Map showing flood affected district of the State (Source: http://mpsdma.nic.in/imagescroll/Slide2.GIF)

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c) **Earthquake**
Madhya Pradesh is vulnerable to various natural and manmade disasters. Looking towards the vulnerability it’s very important to address all in a holistic manner for sustainable development. There are 28 districts that come under Zone –III, having moderate seismic risk viz. Jabalpur, Khargaone, Indore, Khandwa, Dhar, Raisen, Dewas, Sehore, Betul, Sidhi, Shadol, Damoh, Narsinghpur, Hoshangabad, Badwani, Jhabua, Umaria, Chhindwara Harda, Burhanpur, Anuppur, Sagar, Seoni, Mandla, Dindori, Katni |Singhroli and Alirajpur and 22 districts come under Zone – II of Earthquake. The first urban India’s Earthquake took place in Jabalpur on 22nd May 1997.

![Earth Quake Zone in Madhya Pradesh](http://mpsdma.nic.in/imagescroll/Slide1.GIF)

**Map showing earthquake zone in the State**

Maps showing earthquake zone in the State

**d) Hailstorms**

Hailstorms occur rather frequently in M.P., but fortunately mostly in small pockets at a time. They happen in one or another part of M.P. almost every year. They damage the crops resulting in loss of income to the farmers. To mitigate the loss, farmers will be encouraged to rely on comprehensive crop insurance policies.

**e) Fire**

Accidental fires are common in rural areas especially during the post harvest season. In urban areas, fires are increasing phenomena in high rise buildings, and in industrial and commercial areas. Public places such as cinema halls, auditoriums, exhibition areas, pandals, schools etc. have, in recent years, witnessed serious fires resulting in huge loss of human life and property. Forest and mine fires are common in the state.

**f) Industrial & Chemical Disasters**
Other than the Natural disasters the State is also affected by the manmade disaster the Bhopal gas tragedy was one of the worst manmade disaster in history of the State. The tragedy took an immediate toll of about 3000 innocent lives and left thousands and thousands of innocent citizens physically impaired or affected in various degrees. There are around 400 factories are working in the State out of which around 256 are registered with Madhya Pradesh Pollution Control Board.

Map showing industrial Hazards in the State (Source: http://dit.mp.gov.in/documents/10180/a8e1ab88-54b2-4f5f-9706-71c93df9e38f)

g) Accidents

Unmanned railway crossings are a big hazard for the movement of various types of traffic, and are often the site of major rail-road accidents. The Madhya Pradesh is also one of the States where more peoples die in road accidents in the year ending December 2008 around 51054 people were injured and around 6670 pupils died.

2.2 Major disaster Events

i. **Bhopal gas tragedy** on the night of 2-3 December 1984 at the Union Carbide India Limited (UCIL) pesticide plant in Bhopal. Over 500,000 people were exposed to methyl isocyanate gas and other chemical. The government of Madhya Pradesh confirmed a total of 3,787 deaths related to the gas release.

ii. **Many dead in India temple stampede**: On 13 October 2013, during the Hindu festival of Navratri, a stampede broke out on a bridge near the Ratangarh Mata Temple in Datia district, Madhya Pradesh, India, killing 115 people and injuring more than 110.

iii. **Lightning strikes in Madhya Pradesh**: On 17 March 2013, at least twelve people have died in lightning strikes in Madhya Pradesh.

iv. **Hailstorms in Madhya Pradesh**: On 6 February 2013, hailstorms have killed one and damaged crops in 80 villages of Tikamgarh, Chhatarpur of Madhya Pradesh.
Pradesh, India. As per the report dated 20 March 2013, Businessline stated that Hailstorm in Madhya Pradesh damages crops worth Rs 893.93 cr. Around 2,44,615 ha of land in 3,190 villages of 31 districts has been affected with the recent hailstorm in Madhya Pradesh.

v. Impact of drought on cattle in Madhya Pradesh: On 19 May 2013, The Indian Express stated that Three years of successive drought in Sheopur district of Madhya Pradesh have caused the death of thousands of cattle belonging to the Sahariya tribals who themselves eke out a precarious existence.

3. INSTITUTIONAL SETUP

3.1 Madhya Pradesh State Disaster Management (MPSDMA)

As per sub-section (1) of section 14 of Disaster Management Act 2005, the Madhya Pradesh State Disaster Management Authority (MPSDMA) was setup and notified vide no. F 35-115-206-C-1 Dated September 5th, 2007. The Madhya Pradesh Disaster Management Authority is chaired by honorable Chief Minister of the State. The Minister of Finance, Revenue, Public Health and Family Welfare, Public administration and development, Commerce industry and employment, PWD and Home Department are the members of the MPSDMA. The department of Home, Government of Madhya Pradesh is the nodal department of the Authority.

As stipulated in the Act, at the State level State Government has constituted the State Disaster Management Authority under the chairmanship of honorable Chief Minister of the State. Likewise State Executive Committee (SEC) of SDMA under the chairmanship of Chief Secretary of the State. At the district level District Disaster Management Authority (DDMA) under the chairmanship of District collector and co-chaired by the chairman of Zilla Parisad. There shall be a district disaster management officer who will coordinate all activities in the district and shall in charge of Emergency Operation Centers.

In the State the Home Department of Government of Madhya Pradesh has been identified as nodal department for disaster management. And also Home department is responsible for servicing the State Disaster Management Authority (SDMA).

Aim & Objectives

The Authority has the mandate not only to take up the mitigation activities but also the relief, restoration, reconstruction and other measures. These activities cover the entire gamut of disaster management including preparedness activities:

- Coordinate with the line departments,
- Coordinate with bilateral and multi-lateral aid agencies,
- Coordinate with UN Agencies, International, National and State-level NGOs,
• Network with similar and relevant organizations for disaster management

Functions of State Disaster Management Authority

➢ SDMA will be assisted by State Executive Committee.
➢ Lay down state disaster management policies and approve the state plan in accordance with guidelines laid down by NDMA.
➢ Approve DM plans prepared by State departments.
➢ Lay down guidelines for integration of measures for prevention of disasters and mitigation in the development plans and projects.
➢ Coordinate implementation of State plan.
➢ Lay down detailed guidelines for standards of relief

3.2 State Executive Committee (SEC)

As per subsection (1) of section 20 of Disaster Management Act 2005, the State Executive Committee of State Disaster Management Authority has been constituted to carry out the work of SDMA. The SEC is chaired by the Chief Secretary of Government of Madhya Pradesh. The SEC is notified via no. F 35-115-2006-C-1 dated September 5th 2007. Later the SEC is reconstituted via order no. F-19-17/2006/1/4 dated December 22nd 2010.

The Home Department will be the Nodal Department for disaster management and under the leadership of the Additional Chief Secretary/Principal Secretary Home and Secretary/OSD, SDMA shall play the coordinating role in disaster management. All departments shall ensure adequate assistance to the nodal department.

3.3 District Disaster Management Authority (DDMA)

As per the subsection (1) of section 25 of Disaster Management Act, 2005 the District Disaster Management Authority has been constituted and notified via no. F 35-115-2006-C-1 dated September 5th 2007. The District Disaster Management Authority is chaired by the Collector and co-chaired by the Chairman of Zilla Panchayat of the respective district.

The DDMA plays a co-coordinating role at the district level to ensure that the various Government functionaries in the district effectively carry out the DM activities in this phase. Working in close co-operation with Government departments and local bodies, the roles of DCs in this phase include:

i. DDMA to act as the district planning, coordinating and implementing body for DM and take measures in accordance with the guidelines laid down by NDMA and SDMA.
ii. Prepare district disaster management including response plan.
iii. Coordinate implementation of national policies, state policies, national plan, state plan and district plan
v. Ensuring that prevention, mitigation and preparedness activities are carried out in accordance with the appropriate guidelines;

vi. Providing inputs to MPSDMA relating to various aspects of disaster management, including early warnings, status of preparedness etc

vii. Ensuring that relevant officials in the district possess the knowledge to deal with disaster management issues

viii. 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

ix. Facilitating and coordinating with local government bodies to ensure that pre-disaster DM activities in the district are carried out optimally

x. Facilitating community training, awareness programmes and the installation of emergency facilities with the support of local administration, NGOs, and the private sector

xi. Establishing adequate inter-department coordination on issues related to disaster management

xii. Reviewing emergency plans and guidelines

xiii. Involving the community in the planning and development process

xiv. Ensuring that local authorities, including Municipal Corporations, Gram Panchayats etc. in the district, are involved in developing their own mitigation strategies

xv. Ensuring appropriate linkage between DM activities and planning activities

xvi. Revisiting/ reassessing contingency plans related to disaster management

xvii. Ensuring that proper communications systems are in place, and contingency plans maximize the involvement of local agencies

xviii. Ensuring that DM related equipment, especially fire-fighting equipment are well maintained and ready to use

3.4 State Disaster Emergency Response Force

The State will create response capabilities from within its existing resources by equipping and training at least one battalion equivalent force for effective management of disasters and necessary training arrangement will be made for the force in disaster management skills in consultation with the National Disaster Response Force.

3.5 State Police and Fire Services

The State Police Forces and the Fire Services are crucial responders to disasters. The police force will be trained in disaster management skills and the Fire Services will be upgraded to acquire multi-hazard rescue capability.

3.6 Civil Defense and Home Guards

The mandate of the Civil Defense and the Home Guards will be redefined to assign an effective role in the field of disaster management. They will be deployed for community preparedness and public awareness. A culture of voluntary reporting to duty stations in the
event of any disasters will be promoted.

3.7 Disaster Management Institute (DMI) 23

DMI was established in 1987 in the backdrop of world’s worst ever Chemical Disaster as an autonomous organization of Housing and Environment Department, Government of Madhya Pradesh. It is the only institute of its kind in the whole country attaining substantial credibility in imparting professional training and providing consultancy services in the area of natural as well as man-made disaster management.

4. INITIATIVES 12, 22

4.1 Disaster Management policy

a) Phase I: Key Activities in Pre-Disaster Phase
   i. Planned development:

   Govt. of Madhya Pradesh (GoMP) would ensure that the planning activities of the state administration and local authorities take into account disaster risks and provide for suitable preventive and mitigation measures.

   ii. Development of policies and guidelines:

   GoMP would develop appropriate guidelines that would include:

   - Civil/ architectural/ structural/ land use planning specifications;
   - Other guidelines specific to disaster type, like quarantine (epidemic), cropping patterns (flood), evacuation (flood/ cyclone) etc.;
   - Development of laws/ by laws that assist the implementation of a framework for disaster management

   iii. Establishing a proper chain of command:

   The GoMP will establish a clear chain of command with MPSDMA for all disaster management activities and coordination mechanisms across all entities responsible for implementation in the state.

   iv. Risk assessment:

   Relevant departments would co-ordinate with MPSDMA for a thorough assessment of:

   - Hazards: Classification of the region into zones based on hazard potential
   - Vulnerability: Assessment of degree of vulnerability of any given structure/ people / region to the impact of the hazard.

   v. Develop disaster management plans:
The guidelines for such plans will be prepared by stakeholders like Government departments, district administration, local authorities and expert agencies etc., in consultation with MPSDMA. The relevant authorities will prepare plans using these guidelines and ensure that these are constantly reviewed and updated.

MPSDMA and the relevant Government departments will prepare, and constantly update, a master contingency plan for the state based on the local plans. All District Collectors shall, in advance, designate evacuation areas for use in emergencies and define plans for providing essential services to those areas, when in use.

vi. Develop repositories of information:

MPSDMA and the relevant Government departments will ensure that a comprehensive repository of information such as names, contact details, etc. is created, maintained and made easily accessible to the relevant authorities at all times.

vii. Establish communication and technology networks:

GoMP, in conjunction with MPSDMA will ensure that a comprehensive information network is available. This network must enable timely collection of hazard-related information and rapid dissemination of relevant information and warnings.

viii. Developing early warning mechanisms:

MPSDMA shall ensure that these mechanisms are aligned with the overall disaster management plan for the state.

ix. Building capabilities & expertise:

MPSDMA shall network with number of entities such as disaster management agencies, research institutions, disaster management specialists, NGOs, community groups, line departments, local Government authorities and other stakeholders to augment the capabilities of all relevant entities.

x. Capacity Building:

MPSDMA and the relevant Government departments shall ensure that personnel in specialised areas (medical care, rescue etc.) are adequately trained and available for deployment in emergency situations. Disaster management capacity building will have special thrust on empowering women towards long-term disaster mitigation.

b) Phase II: Impact Phase – Emergency Relief Measures and Relief

In the event of a major disaster SDMA will declare emergency and monitor response activities from time to time. The executive committee under the Chief Secretary will meet more frequently for monitoring, review and decision-making.
The District Disaster Management Authority (DDMA), in conjunction with local authorities, shall be responsible for carrying out relief activities when the impact of a disaster is restricted within the geographical boundaries of a district.

i. **Search & Rescue:**

The DDMA, in conjunction with local authorities will be responsible for the search and rescue operations in an affected region. In doing so, the DDMA will be guided by relevant disaster management plans and will be supported by Government departments and local authorities.

ii. **Subsistence, shelter, health and sanitation:**

The relevant Government departments and local authorities would provide temporary shelter, health and sanitation services to rescued victims in order to prevent an outbreak of disease.

iii. **Infrastructure and essential services:**

The local authorities would work in close coordination with relevant Government departments like Police, State Disaster Response Force etc. to restore infrastructure to normal operating condition.

iv. **Security:**

Usually, in a disaster situation, the police and security personnel are preoccupied with conducting search and rescue missions. Some people could take advantage of the situation and resort to looting and other anti-social activities. Consequently, it is necessary that security agencies functioning under the administrative control of the district authorities be geared to prevent this and provide a sense of security to citizens. The Secretary, SDMA and DCs may invoke special powers vested in him/ her by GoMP, if existing powers regarding the same are inadequate.

v. **Communication:**

The SDMA, the district administration and local authorities would communicate to the larger community the impact of the disaster and specific activities that are being or need to be undertaken to minimize the impact.

vi. **Preliminary damage assessment:**

Once a disaster strikes, the Government departments and the local authorities shall carry out a preliminary ‘need and loss assessment’ and the district administration shall mobilize resources accordingly.

vii. **Funds generation:**

The GoMP allocates funds in the state Budget for relief activities. In addition, funds may be available through the State Disaster Response Fund (Calamity Relief Fund will be merged into SDRF).
viii. Finalizing relief payouts and packages:

Relief packages shall be customized, if required, to the specifics of the disaster by the GoMP. Relief packages would include details relating to collection, allocation and disbursal of funds to the affected people.

ix. Post-relief assessment:

MPSDMA, with assistance from Government departments, district administration and local authorities will document learning from the relief experience, which can be inputs into further mitigation, relief or rehabilitation and reconstruction plans.

c) Phase III: Post-Disaster Phase – Reconstruction & Rehabilitation

i. Detailed damage assessment:

The relevant Government departments and local authorities shall initiate detailed assessment at their respective level for damages sustained in housing, industry/services, infrastructure, agriculture, health/education assets in the affected regions.

ii. Assistance to restore houses and dwelling units:

GoMP may, if needed, will formulate a policy of assistance to help the affected to restore damaged houses and dwellings.

iii. Relocation (need based):

The local authorities, in consultation with the people affected and under the guidance of MPSDMA, shall determine relocation needs taking into account criteria relevant to the nature of the calamity and the extent of damage.

iv. Finalizing reconstruction & rehabilitation plan:

The effectiveness of any reconstruction and rehabilitation is based on detailed planning. MPSDMA will oversee reconstruction and rehabilitation work and ensure that it takes into account the overall development plans for the state.

v. Funds generation:

GoMP shall finalise the fund generation mechanism, including the covenants and measures that govern fund inflow and disbursement and usage.

vi. Funds disbursement and audit:

MPSDMA, in conjunction with relevant agencies, shall monitor disbursal of funds. To avoid duplication, the funds and relief/rehabilitation activities to be routed through the SDMA Executive Committee/DDMA only.

vii. Dispute resolution mechanisms:
MPSDMA, in conjunction with relevant agencies, shall institutionalize mechanisms to address beneficiary grievances at various levels, as well as explore innovative ways of dispute minimisation like involving the community in reconstruction initiatives.

4.2 **Disaster Management Plans**

A long-term disaster management approach requires that planning activities for development should include robust mitigation practices. GoMP would ensure that the planning activities of the state administration and local authorities take into account disaster risks and provide for suitable preventive and mitigation measures.

Detailed disaster management plans that are tailored to local needs would enable the relevant authorities and the community to respond systematically and effectively to disasters. The guidelines for such plans will be prepared by stakeholders like Government departments, district administration, local authorities and expert agencies etc., in consultation with MPSDMA. The relevant authorities will prepare plans using these guidelines and ensure that these are constantly reviewed and updated. Existing procedure manuals viz. Relief Manuals and Flood Memorandum etc. would be reviewed and updated by the relevant Government department, under the overall guidance of the Authority. In addition, MPSDMA and the relevant Government departments will prepare, and constantly update, a master contingency plan for the state based on the local plans. All District Collectors shall, in advance, designate evacuation areas for use in emergencies and define plans for providing essential services to those areas, when in use.

i. **Develop repositories of information:**

It is critical that the relevant authorities should be in a position to quickly establish contact with people and resources in the aftermath of a disaster. MPSDMA and the relevant Government departments will ensure that a comprehensive repository of information such as names, contact details, etc. is created, maintained and made easily accessible to the relevant authorities at all times.

ii. **Establish communication and technology networks:**

A robust state-wide information network is critical not only for managing disasters but also for effective functioning of the state government. Hence, the GoMP will ensure that a comprehensive information network is available. This network must enable timely collection of hazard-related information and rapid dissemination of relevant information and warnings. GoMP, in conjunction with MPSDMA, will ensure that appropriate levels of redundancies are built into the network from a disaster perspective.

iii. **Developing early warning mechanisms:**

Early warning mechanisms help the relevant authorities in taking timely preventive measures and thereby, reduce the damage caused by disasters. Wherever possible, the relevant authorities, in conjunction with Government departments, shall set up early warning mechanisms to give advance warning for hazards like floods, fire etc. This shall include the
setting up of Regional Response Centres, if necessary, for providing key early warning information and preparing for a response, in the event of occurrence of disaster. MPSDMA shall ensure that these mechanisms are aligned with the overall disaster management plan for the state.

iv. **Establish flexible procedures:**

Emergency situations may warrant simplified procedures for decisions relating to evacuation, procurement of essentials, deployment of resources and such other activities. The relevant Government departments shall accordingly define flexible procedures for emergency situations.

v. **Building capabilities & expertise:**

It is necessary to build strong capabilities and expertise for handling various aspects of disasters. MPSDMA shall network with number of entities such as disaster management agencies, research institutions, disaster management specialists, NGOs, community groups, line departments, local Government authorities and other stakeholders to augment the capabilities of all relevant entities. In addition, GoMP would set up an institute dedicated to conducting research, development and training activities related to disaster management in the state. This institute would aid in the sharing and dissemination of specialized knowledge related to disaster management among various implementation agencies, NGOs, private sector and the community in the state. This institute will develop disaster management as a distinct management discipline for streamlined disaster management cadre.

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### 4.3 Publications

1. [http://www.dmibhopal.nic.in/](http://www.dmibhopal.nic.in/)
2. Do’s & Don’ts During Toxic Release [http://www.dmibhopal.nic.in/do.html](http://www.dmibhopal.nic.in/do.html)
3. Rescue Skills viz CPR, Transportation of victims, triage, first aid etc. [http://www.dmibhopal.nic.in/firstaid.pdf](http://www.dmibhopal.nic.in/firstaid.pdf)
4. Earthquake resistant construction techniques, [http://www.dmibhopal.nic.in/ear.pdf](http://www.dmibhopal.nic.in/ear.pdf)
References

1. http://www.mp.nic.in/aboutmp.htm
12. http://dit.mp.gov.in/documents/10180/a8e1ab88-54b2-4f5f-9706-71c93df9e38f
15. http://mpsdma.nic.in/imagescroll/Slide1.GIF