



Government of Karnataka

**Haveri District**  
**“Disaster Management Plan”**  
**2019-20**

ಹಾವೇರಿ ಜಿಲ್ಲೆಯ  
“ವಿಪತ್ತು ನಿರ್ವಹಣಾ ಯೋಜನೆ”  
2019-20



**Krishna Bajpai I.A.S**

**Office of the Deputy Commissioner**

**Chairman of Disaster Management**

**Haveri District, Haveri**

**& Deputy Commissioner**

**Phone: 08375- 249044 (0),**

**Haveri**

**Email: deo.haveri@gmail.com**

---

## PREFACE

Natural disaster or calamity brings widespread damage to the property and lives of vulnerable people. The District Disaster Management Plan intends to mitigate the impact of such disasters be it floods, cyclone, earthquake or drought etc. Undeniably poverty in rural areas is directly proportional to the damage due to its impact. The responsibility of District Administration becomes manifold to prepare them for mitigation. It includes relief, rehabilitation and preventive measures to lessen the impact. A treatise on such management has been attempted taking all things into consideration and obtaining valuable feedbacks and past experiences of all the stakeholders and line departments. I would like to thank all of them for their active involvement in the exercise. Further I hope that this referral book will be of great help to all concerned related to disaster management.

This Endeavour will go a long way to guide them in managing the disasters in saving loss to life and property of the vulnerable people whose coping mechanism to fight the impact of disasters are not adequate due to various socio-economic reasons and locational disadvantage. **Haveri district has Geographical area of 4,85,156 Hectare which has covered most of the dry/wet lands, and often faces drought, and occasionally cyclones and floods like and 2013-14 and 2014-15.** As a whole this is a genuine effort of district administration to develop the plan and if you have any suggestions and comments are free to convey the same so that we can include them in the next edition. We are thankful to Regional Coordinator, Concern Departments/institutions and persons who have provided us the vital information in time.

Place: Haveri

  
**(Krishna Bajpai I.A.S)**

Date:



## CONTENTS

SL. No	Topic	Page No
1	Preface	i
2	Chapter-1 :Introduction	01-08
3	Chapter-2 : Haveri District Profile	09-18
4	Chapter-3 : Hazard Risk Vulnerability and Capacity	19-28
5	Chapter-4 : Institution Mechanism of Disaster Management	29-45
6	Chapter-5: Prevention and Mitigation Plan	46-60
7	Chapter-6: Preparedness Measures	61-74
8	Chapter-7: Capacity Building and Training Measures	75-82
9	Chapter-8 : Response and Relief meawsures	83-102
10	Chapter-9 : Reconstruction, Rehabilitation and Recovery	103-106
11	Chapter-10 : Finance Resources for Implementation of DDMP	107-108
12	Chapter-11: Procedure and methodology for Monitoring, Evaluation, Updation and Maintenance of DDMP	109-112
13	Chapter-12: Co-Ordination Mechanism for Imlementation of DDMP	113-116
14	Chapter-13:Standard Operating Procedures(SOPs) and Check List	117-124
15	Annexure-1: Contact Details of Fire Station	125-129
16	Annexure-2: Contact Details of Home Guards	130-131
17	Annexure-3: Contact Details of Hospitals	132-138

<b>18</b>	<b>Annexure-4: Contact Details of Animal Husbandary and Veterinary</b>	<b>139</b>
<b>19</b>	<b>Annexure -5: Contact Details Forest Officers and Staff</b>	<b>140</b>
<b>20</b>	<b>Annexure -6 : Recommendations</b>	<b>141</b>
<b>21</b>	<b>Annexure- 7: First information Report</b>	<b>142</b>
<b>22</b>	<b>Annexure -8 : Rapid Assesment Format for Disaster Management team</b>	<b>143-148</b>
<b>23</b>	<b>Annexure -9 : Requisition for Army AID by Civil Authorities</b>	<b>149</b>
<b>24</b>	<b>Annexure -10: De- Requisition of Army AID</b>	<b>150</b>
<b>25</b>	<b>Annexure- 11: UNISDR Terminologies for Disaster Management</b>	<b>151-155</b>
<b>26</b>	<b>Annexure- 12: Map</b>	<b>156-162</b>



# Chapter 1

## Introduction

### 1.1 Rationale/Justification for DDMP

Haveri District is exactly in the centre of Karnataka, being equidistant from Bidar in the far north and Kollegal in the far south. The district consists of seven taluks, namely Hanagal, Shiggaon, Savanur, Haveri, Byadagi, Hirekerur, and Ranebennur. It is bounded by Dharwad district in the north, by Gadag district in the northeast, by Bellary district in the east, by Davangere district in the south, by Shimoga district in the southwest and by Uttar Kannada in the west and northwest. Before it was made into its own district, it was part of Dharwad District. Haveri is 335 km from Bangalore.

Haveri is the administrative and political headquarters of the district, whereas Ranebennur in the south is a business hub. The important towns and villages in Haveri District are:

Haveri: The district's administrative, culture and political headquarters. It is also famous for its cattle markets, oil mills and cotton markets. Savanur: famous for Mausoleums of many Sufi saints and resting palace of erstwhile nizam.

- Haunsabhavi: Famous Place for Education (Mruthyunjaya vidya peeta).
- Hangal: Taluk headquarters. Place of the Tarkeshwar temple.
- Akki-Alur: City in Hanagal Taluk. Rice bowl of Haveri District. Famous for its lake and gardens.
- Kumar Pattanam: Place of Birla industries on the bank of the river Tungabhadra.
- Byadgi: Famous for Byadgi chilli.
- Bankapura: Notified as Bankapur Conservation Reserve offering a safe haven for peacocks.
- Ranebennur: Important trade centre in central Karnataka.
- Kaginele: Kaginele Kanaka Guru Peetha, a religious Math (institution) dedicated to sage Kanakadasa is present here.
- Rattihalli : City in hirekerur taluk. Place of the Kadambeshwar temple.

Risk assessment is carried out by using various Participatory Risk Appraisal tools such as Resource Mapping, Seasonality Chart, and Vulnerability Mapping etc. The following minimum information is gathered and presented.

1. There is history of occurrence of Flash Floods in the district. Vulnerable areas and potential impacts are identified. In the year 2011-12, all 7 taluk in Haveri district has been declared as drought under Government Order No.RD/229/TNR/2011, dated: 15-10-2011, 8-11-2011, 1-2-2012 and the same situation has been continued during the year 2012-13 also. And in 2018-19 in Khariff only Ranebennur taluk has declared as drought and Rabi all 7 taluk has declared as drought.
2. Floods do occur due to heavy rains in the some part of the district during July to September, resulting in damage of houses and infrastructure
3. There is no history in the District on occurrence of Earthquake and Land slide.

Considering the geographical location, access issues, population exposure, scale and diversity of resources, there exists an urgent need for implementing and expanding district-wide comprehensive disaster management strategies encompassing preparedness, prevention &



mitigation, emergency response & rehabilitation. The district administration is the focal point for implementation of all government plans and activities and its major concern is to ensure public safety, the protection of the citizens and all their rights. It is considered as a place of hope and offers a sense of security in pre, during and the aftermath of a disaster situation. Therefore, planning at the district level is crucial for efficient management of all disasters. It calls for the district disaster management plan which acts as one of the most important steps in disaster management at district level.

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

The aim of Haveri District DM plan is execution of disaster management in continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary for prevention, mitigation, capacity-building, preparedness to any threatening disaster situation.

Accordingly, the main objectives of the DDMP of District are:

1. To analyze the geomorphic, topographic, geologic, meteorological, hydrologic, economical, social and political perspectives using that are integrated with proactive Science and Technology inputs.
2. To identify the main hazards happening in the area.
3. To identify area vulnerable for varies natural as well as manmade hazards, to give an understanding of the causative and triggering factors.
4. To introduce innovation and good practice in institutional mechanism at district level to make it an integrated and coordinated plan at all levels and further develop action plans for different stakeholders (Communities, Govt. Line departments and other stakeholder groups) for disaster risk reduction, emergency response and recovery actions.
5. To suggest mitigation measures to be adopted by different stakeholders for the risks identified in the district and further to promote the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures to prevent and reduce hazard exposure and vulnerabilities to disaster.
6. Capacity development at all levels to effectively respond to multiple hazards and for community-based disaster management.
7. Facilitate the mainstreaming of disaster management concerns into the developmental planning and processes with an inclusive approach for People with Disability and vulnerable social elements and groups.
8. Ascertaining the status of financial allocation and resources available within district for preparing and executing Disaster Management.

## **1.3 Authority for DDMP: Disaster Management Act 2005 (DM Act)**

On 23rd December, 2005, the Government of India took a defining step by enacting the Disaster Management Act, 2005, which envisaged creation of Authorities at all three levels as below:

- National Disaster Management Authority (NDMA),
- State Disaster Management Authorities (SDMA),



➤ **District Disaster Management Authorities (DDMA).**

As per provisions in Chapter-IV of the DM Act, each State Government shall establish a DDMA for every district in the State with such name as may be specified in that notification. The DDMA will be headed by the District Collector, Deputy Commissioner, or District Magistrate as the case may be, with the elected representative of the local authority as the Co-Chairperson. The DDMA will act as the planning, coordinating and implementing body for DM at the District level and take all necessary measures for the purposes of DM in accordance with the guidelines laid down by the NDMA and SDMA. It will, inter alia, prepare the DM plan for the District and monitor the implementation of the all relevant national, state, and district policies and plans. The DDMA will also ensure that the guidelines for prevention, mitigation, preparedness, and response measures laid down by the NDMA and the SDMA are followed by all the district-level offices of the various departments of the State Government.

### **1.4 Mandate under chapter IV of the Disaster management plan**

Section 31 of the Disaster management (DM) Act 2005 mandates that there shall be a District Disaster Management Plan (DDMP) for the each district. The proposed DDMP complies with the National Policy on Disaster Management (NPDM) of 2009 and conforms to the provisions of the DM Act making it mandatory for the Government of India and various central ministries to have adequate DM plans. While the district plan will pertain to the disaster management for the whole of the district, the hazard specific nodal ministries and departments notified by the Government of India and State Government will prepare detailed DM plans specific to the disaster assigned. As per Section 32 of the DM Act, every office of the Government of India and of the State Government at the district level and the local authorities shall prepare comprehensive DM plans detailing how each of them will contribute to the national efforts in the domains of disaster prevention, preparedness, response, and recovery.

### **1.5 Stakeholders and their responsibilities**

- **At the District level**, DDMA, the district plan shall be prepared by the District disaster management Authority, after consultation with the local authorities.
- **Other technical institutions**, community, local self-governments, NGOs etc. is also stakeholders of the District Disaster Management Pan.

The duties and responsibilities of the stakeholders has been prepared with the sole objective of making the concerned departments understand their duties and responsibilities regarding disaster management at all levels and accomplishing them. Table 1.1 briefly refers to the name of all line departments and their role and responsibilities in perspective to disaster risk reduction in the district.



Sl. No.	Stakeholders	Responsibilities
1.	DDMA	<input type="checkbox"/> Overall management of the disastrous situation within the district <input type="checkbox"/> Coordination of the district with the various stake holding departments within the district <input type="checkbox"/> Coordination of the district with the state and the other neighboring districts <input type="checkbox"/> Maintaining a view of the activities of the DDMA and DEOC
2.	DEOC	<input type="checkbox"/> Receive and process disaster alerts and warnings from nodal agencies and Other sources and communicates the same to all designated authorities. <input type="checkbox"/> Monitor emergency operations. <input type="checkbox"/> Facilitate coordination among primary and secondary ESFs/Departments/Agencies <input type="checkbox"/> Requisitioning additional resources during the disaster phase. <input type="checkbox"/> Issuing disaster/incident specific information and instructions specific to all concerned. <input type="checkbox"/> Consolidation, analysis, and dissemination of damage, loss and needs assessment data. <input type="checkbox"/> Forwarding of consolidated reports to all designated authorities.
3.	NDMA	<input type="checkbox"/> To coordinate and monitor with the State for the implementation of the policies and plans related to DM. <input type="checkbox"/> Coordinating DRR activities and implementation thereof. <input type="checkbox"/> Facilitating resources on demands raise by administration
4.	SDMA	<input type="checkbox"/> Coordinating DRR activities and implementation thereof. <input type="checkbox"/> Facilitating resources on demands raised by administration. <input type="checkbox"/> To approve DDMP <input type="checkbox"/> Monitor and implementation of the plan. <input type="checkbox"/> Provide guidance to DDMP for various facets of this plan. <input type="checkbox"/> Providing necessary assistance to the district in an event of disaster. <input type="checkbox"/> Recommend provision of funds for mitigation and preparedness measures.
5.	NDRF	<input type="checkbox"/> Carrying out search and rescue on requisition by District as well as state administration. <input type="checkbox"/> Strengthening the response mechanism through trainings and awareness. <input type="checkbox"/> Coordinate with administration in response as well as capacity building. <input type="checkbox"/> Facilitate administration with the key resources in disaster.
6.	Army/Air Force	<input type="checkbox"/> Coordinating DRR activities and administration in response. <input type="checkbox"/> Receive and process disaster alerts and warnings from nodal agencies.
7.	Police	<input type="checkbox"/> Assess preparedness level <input type="checkbox"/> Establish radio communications and assist in precautionary evacuation activities with DEOC <input type="checkbox"/> Provide safety and security to citizens and their property during disaster



		<input type="checkbox"/> Establish command and control in coordination with fire and medical teams <input type="checkbox"/> Organise training on hazardous chemicals for police officers for facilitating handling of hazardous materials
8.	Fire Department	<input type="checkbox"/> To strengthen community response through trainings and awareness camps. <input type="checkbox"/> To train first responders at village / Panchayat level in firefighting. <input type="checkbox"/> To mitigate the fire risk by auditing and inspection and fighting fire disaster. - <input type="checkbox"/> To assist Search and rescue team in fire situations.
9.	Civil Defense, Home Guards	<input type="checkbox"/> Establish, maintain and manage search and rescue response system; <input type="checkbox"/> Coordinate search and rescue logistics during field operations; <input type="checkbox"/> Provide status reports of S&R updates throughout the affected areas.
10.	Health Department	<input type="checkbox"/> Coordinate assistance and response related to disaster within the District <input type="checkbox"/> Prepare and implement hospital preparedness plan. <input type="checkbox"/> Training of health workers on emergency preparedness and response. <input type="checkbox"/> Providing efficient and quick treatment of the affected people during the disaster <input type="checkbox"/> Prepare, keep and check ready Mobile Hospitals, stocks of equipment and drugs
11.	PWD	<input type="checkbox"/> Have a disaster response plan or disaster response procedures clearly defined <input type="checkbox"/> Site analysis and risk sensitive land-use planning <input type="checkbox"/> Restoration of roads to their normal condition <input type="checkbox"/> Repair/reconstruction of public utilities and buildings <input type="checkbox"/> Training and capacity building of the department and functionaries.
12.	Irrigation	<input type="checkbox"/> Preparedness and implementation of preparedness plan of the department <input type="checkbox"/> Monitor and protect irrigation infrastructure in pre and post disaster situation <input type="checkbox"/> Restoration of water supply to the affected area <input type="checkbox"/> Arrange adequate material and manpower to maintain cleanliness and hygiene
13.	HESCOM	<input type="checkbox"/> Restore the power supply and ensure uninterrupted power to all vital installation, facilities and site. <input type="checkbox"/> Identify requirements of external equipment required such as DG sets, generators etc; <input type="checkbox"/> Damage Assessment
14.	Transport	<input type="checkbox"/> Overall coordination of the requirement of transport in implement emergency related response and recovery
15.	Food and Civil Supplies	<input type="checkbox"/> Identify requirement of food and clothing for affected population; <input type="checkbox"/> Control the quality and quantity of food, clothing and basic medicines <input type="checkbox"/> Ensure the timely distribution of food and clothing to the people; <input type="checkbox"/> Ensure that all food that is distributed is fit for human consumption



16.	Information officer	<input type="checkbox"/> To provide and collect reliable information on the status of the disaster and disaster victims for effective coordination. <input type="checkbox"/> Respect the socio-cultural and emotional state of the disaster victims while collecting information for dissemination. <input type="checkbox"/> Coordinate with both print and electronic media to provide news flashes for specific do's, don'ts & needs.
17.	Animal Husbandry	<input type="checkbox"/> Establish procedures for coordination among local government agencies, volunteer organizations <input type="checkbox"/> Assistance during emergency with regards to medical care, temporary confinement, shelter, food and water <input type="checkbox"/> Disposal of dead and unclaimed animals
18.	Forest	<input type="checkbox"/> Imparting special skills required during emergency operations to the officials <input type="checkbox"/> Check available stocks of equipments and materials likely to be most needed after disaster. <input type="checkbox"/> Assess the extent of damage to forests, nurseries and storage facilities <input type="checkbox"/> A pests and disease monitoring system should be developed <input type="checkbox"/> Training of the workers in disaster management
19.	Municipality	<input type="checkbox"/> Land Usage <input type="checkbox"/> Solid/ liquid waste treatment and management
20.	PRED	<input type="checkbox"/> Strengthening the community based response by awareness and implementation of DM policy and guidelines <input type="checkbox"/> Preparing the Community as first responder and local authorities as per Village Disaster Management Plan.
21.	Education	<input type="checkbox"/> Building capacity at school level through various competitions and awareness campaign. <input type="checkbox"/> To train the volunteers through NCC/ NSS etc. in Firefighting, First aid, and other disciplinary & volunteering
22	Fisheries Dept.	<input type="checkbox"/> The fisheries development officer shall check the functioning of life saving appliances and provide and render services of such equipment. <input type="checkbox"/> List to be prepared active fishermen, families with Livelihood activities and complete address for identification in case of emergency. <input type="checkbox"/> Identification of vulnerable habitations, creek points, likely marooned areas, rate of inundation and receding waters, identify the locations where fishing craft are anchored and prone to damages. <input type="checkbox"/> Ensure that boats and other equipments of fishermen are moved to safer places and secured. And ensure positioning the relief boats and expert swimmers, life saving appliances at vulnerable points for preventive and rescue activities. <input type="checkbox"/> Mobilize expert swimmers to the cyclone / flood hit areas. And alerting the teams for post disaster activities



## **1.6 How to implement the plan**

- Plans will work only in the case when present organizational structure is responsible to its non-emergency duties i.e. if a job is done well everyday; it is best done by that organization during emergency.
- 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 should be sought and emphasized. The emergency management partnership is important to all phases of natural and man-made disasters.

## **1.7 Approval Mechanism of DDMP: Authority for implementation (State Level / District level orders)**

The DM Act 2005 enjoins central and state governments to make provisions for the implementation of the disaster management plans. In this respect, the sections of the DM Act 2005 applicable for national, state, and district DM plans are 11, 23, and 31. The Chapters V and VI of the DM Act spell out the responsibilities of the central, state, and local governments with respect to disaster management. The DM Act states that every Ministry or Department of the Government of India shall make provisions, in its annual budget, for funds for the purposes of carrying out the activities and programmes set out in its disaster management plan. The Act mandates that every Ministry and Department of the Government of India and every state must prepare a DDMP in accordance with the SDMP/NDMP. Annually, respective DM authorities must review and update their DM plans. Central ministries and state governments will integrate DRR into their development policy, planning and programming at all levels. They must adopt a holistic approach and build multi-stakeholder partnerships at all levels, as appropriate, for the implementation of the DM plans.

## **1.8 Plan Review and Updation**

As per Section 31(4) the district plan shall be reviewed and updated annually. Also, As per Section 31(7) the district authority shall, review from time to time, the implementation of the plan and issue such instructions to different departments of the government in the district as it may deem necessary for the implementation thereof.

## **1.9 Training and Rehearsals:**

For effective implementation of Disaster Management Plan and to achieve above stated objectives, different Kind of training programmes has been conducted. Disaster Management Programme has Community based disaster Preparedness approach is being adopted for community level Awareness about Hazards and to create Disaster management Teams at village level. All formed teams were imparted subject related trainings. This will further enhance better understanding of individual's role and responsibilities in emergency response besides improving the overall coordinated efforts.

The main objectives of training plan are:

- Familiarizing key personnel involved in the plan with their equipment, the overall plans and their roles.
- Ensuring efficacy of emergency response mechanisms / resources.



- Reviewing the total plan, including communications and logistics, so that updating, modifying and training activities can be improved.

Team Drills - These rehearsals are conducted at regular intervals at least once in a year by individual task force team in order to improve the resource planning, coordination and application of resources. The responsibility of conducting such drills at specified frequency lies with the respective Task Force Leader.

Full-Scale Mock Drills - The ability of the emergency management team to perform a set of critical tasks under simulated conditions for different hazards are validated by conducting a full scale mock drill once in a year. This includes but not limited to management initiatives, response activities, direction, and control, mobilization of resources, communications, mitigation and post incident activities of all concerned. This is a field mock drill on a large scale involving all the task forces. After completion of every team drills and/or Full Scale mock drills, a debriefing meeting shall be arranged in which proceedings of the mock drills are discussed highlighting weak areas- shortfalls for effecting improvement in the plan.



## Chapter 2

### District Profile

Haveri district is exactly in the center of Karnataka with equal distance from Bidar in the far north to Kollegal in the far south. It is also known as the gateway district to the northern districts of Karnataka. Total population is 1597668 of which 355501 live in urban and 1242167 in rural area.

Haveri district along with Gadag district was earlier part of undivided Dharwad district. Owing to the demands of the people Haveri district was carved out of old Dharwad district and was formed on 24.08.1997.



The district is spread across an area of 4848 Sq.Kms. Haveri district has, for decentralized administration, two sub-divisions namely Haveri and Savanur with seven taluks viz. Hanagal, Shiggaon, Savanur, Haveri, Byadgi, Hirekerur, and Ranibennur. Haveri is an administrative and political Head Quarters of the District.

It lies between the latitudes of 14° 17' North to 15° 41' North and longitudinally between 75° 11' East to 75° 42' East. The district has a length of 82 km from North to South and breadth of 72 km from east to west. It is at an altitude of 591.90 meters above mean sea level. The average rain fall of the district is 777.4 mm.



Sub-Division	Taluks
1.Haveri	1. Haveri 2. Byadagi 3. Hirekerur 4. Ranebennur
2.Savanur	1. Savanur 2. Shiggaon 3. Hanagal

Agriculture being the main occupation in the district, of the 485156 hectare of the geographical area of the district 363207 hectare is cultivated. Paddy, Jawar, Cotton, Maize, Chilies, Gram, Groundnut, sunflower, sugarcane, and oilseeds are the major crops of the district. Varada, Kumadhvati, Dharma and Tungabhadra are the main rivers of the district. Apart from sand and building stones no other mineral ores are found in the district.

### 2.1 Taluks/ GPs

Sl. No	Name of the Sub- Division	Name of the Taluk	Numbers of GPs
1	Haveri	1. Haveri	33
		2. Byadagi	21
		3. Hirekerur	39
		4. Ranebennur	40
2	Savanur	1. Savanur	21
		2. Shiggaon	28
		3. Hanagal	42

### 2.2 Literacy Rate in Percentage:

Category							
SC		ST		OBC		GEN	
M	F	M	F	M	F	M	F
74.4	56.4	79.9	62.2	-	-	-	-

Note: Literacy Rate for OBC and GEN population is not available

### 2.3 Land use pattern: (No. of HH)

S.No.	Name of the taluk/ municipal	Big Farmers	Marginal farmers	Small farmers	Agricultural laborers	Total
1	Haveri	10706	10422	13063	44047	<b>88660</b>
2	Byadagi	5378	7344	8131	20897	<b>49094</b>
3	Hirekerur	8889	16612	14681	33280	<b>33280</b>
4	Ranebennur	11331	15050	14432	40177	<b>96040</b>
5	Savanur	8486	5539	9009	27603	<b>56176</b>
6	Shiggaon	6797	7169	8402	26635	<b>56172</b>
7	Hanagal	8417	15865	12628	37780	<b>90555</b>
<b>Total</b>		<b>60004</b>	<b>158347</b>	<b>78001</b>	<b>230419</b>	<b>526771</b>



## 2.4 Population

Sl. No.	Name of the District Hq/Taluk/Municipality	SC		ST		OBC		GEN		TOTAL	
		M	F	M	F	M	F	M	F	M	F
1	Haveri Total	<b>18597</b>	<b>18205</b>	<b>10410</b>	<b>9782</b>	-	-	-	-	<b>143600</b>	<b>136762</b>
	Haveri Rural	12564	12098	1654	1661					100856	94879
	Haveri Urban	4071	4148	723	722					33759	33343
	Guttal Urban	1962	1959	10410	9782					8985	8540
2	Byadagi Total	<b>8776</b>	<b>8136</b>	<b>9776</b>	<b>9369</b>	-	-	-	-	<b>72143</b>	<b>68881</b>
	Byadagi Rural	7161	6544	8135	7632					57013	53997
	Byadagi Urban	1615	1592	1641	1737					15130	14884
3	Hirekerur Total	<b>15641</b>	<b>15009</b>	<b>12510</b>	<b>12234</b>	-	-	-	-	<b>118319</b>	<b>112796</b>
	Hirekerur Rural	14674	14084	11750	11468					108551	103373
	Hirekerur Urban	967	925	760	766					9768	9423
4	Ranebennur Total	<b>23322</b>	<b>22363</b>	<b>14174</b>	<b>13724</b>	-	-	-	-	<b>172010</b>	<b>163271</b>
	Ranebennur Rural	19136	18353	11439	11038					111083	104466
	Ranebennur Urban	4186	4010	2735	2686					60927	58805
5	Savanur Total	<b>13050</b>	<b>12405</b>	<b>6491</b>	<b>5999</b>	-	-	-	-	<b>83150</b>	<b>78371</b>
	Savanur Rural	11071	10456	6218	5762					62396	58558
	Savanur Urban	1979	1949	273	237					20754	19813
6	Shiggaon Total	<b>13257</b>	<b>12603</b>	<b>5756</b>	<b>5412</b>	-	-	-	-	<b>96735</b>	<b>91175</b>
	Shiggaon Rural	11055	10404	5463	5098					70703	66471
	Shiggaon Urban	1500	1502	204	227					26032	24704
	Bnakapur TMC	702	697	89	87					11651	10878
7	Hanagal Total	<b>19569</b>	<b>19043</b>	<b>10615</b>	<b>10368</b>	-	-	-	-	<b>133171</b>	<b>127284</b>
	Hanagal Rural	18568	18072	10442	10167					118863	113433
	Hanagal Urban	1001	971	173	201					14308	13851

Note: OBC and GEN population is not available

## 2.5 Rainfall: Rain Recording Stations:

Sl. No	Name of the Taluk	No. of GPs	Rain Recording stations
01	Haveri	06	Haveri Haveri APMC Devihosur Hosaritti Guttal
02	Byaadgi	03	Byadagi Kaginele Hedigoda



03	Hanagal	07	Hanagal Aadur Havanagi Tilavalli Samsagi Bammanahalli Kudal
04	Hirekeruru	05	Hirekeruru Rattihalli Hanmsabhavi Madagadmasur Masur
05	Ranebennur	05	Ranebennur Asundi Medaleri Kuppelur Hanumanmatti
06	Savanur	04	Savanur Yalavigi Kunimalalli Hattimattur
07	Shiggaon	04	Shiggaon Bankapur Dundashi Tadasa

## 2.6 Crop Pattern:

Sl	Crop	Haveri	Hanagal	Savanur	Shiggaon	Byadagi	Hirekerur	Ranebennur	Total
		Total	Total	Total	Total	Total	Total	Total	Total
1	Paddy	435	20548	0	6551	570	2674	4250	35028
2	Jowar	700	36	320	100	34	196	499	1885
3	Ragi	0	0	6	42	8	12	0	68
4	Maize	36275	16946	9515	13209	21729	38000	39314	174988
5	Bajra	0	0	0	0	0	0	0	0
6	Wheat	65	0	295	420	52	0	102	934
7	M.Millets	37475	37530	10136	20322	22393	40882	44165	212903
I	Total Cereals:	0	0	0	0	0	0	0	
1	Tur	530	25	345	350	110	514	1246	3120
2	Bengalgram	3	0	0	5	0	0	0	8



3	Horsegram	0	0	0	5	10	0	0	15
4	Blackgram	365	10	257	36	10	59	0	737
5	Greengram	7	15	155	45	10	1	0	233
6	Cowpea & other	5	0	0	0	0	33	80	118
7	Avare	0	0	0	0	0	0	0	0
8	Mothbean (Madake)	910	50	757	441	140	607	1326	4231
II	Total Pulses:	38385	37580	10893	20763	22533	41489	45491	217134
	Total Foodgrains:	0	0	0	0	0	0	0	
1	Groundnut	2042	429	9800	5850	198	475	1500	20294
2	Sesamum	0	0	10	0	6	8	0	24
3	Sunflower	0	0	0	0	0	0	10	10
4	Castor	0	0	0	0	0	0	8	8
5	Niger	0	0	13	0	2	8	0	23
6	Mustard	0	0	0	0	0	0	0	0
7	Soyabean	1790	2308	450	3670	236	75	74	8603
8	Safflower	3832	2737	10273	9520	442	566	1592	28962
9	Linseed	0	0	0	0	0	0	0	
II I	Total Oilseeds:	11915	5992	21800	7840	7962	14524	5689	75722
I V	Commercial Crops:	1090	1429	0	342	82	588	577	4108
1	Cotton	1047	1372	0	292	129	382	0	3222
2	Sugarcane (H)	14052	8793	21800	8474	8173	15494	6266	83052
2a	Sugarcane (P)	0	0	0	0	0	0	0	0
	<b>GRAND TOTAL</b>	<b>56269</b>	<b>49110</b>	<b>42966</b>	<b>38757</b>	<b>31148</b>	<b>57549</b>	<b>53349</b>	<b>329148</b>



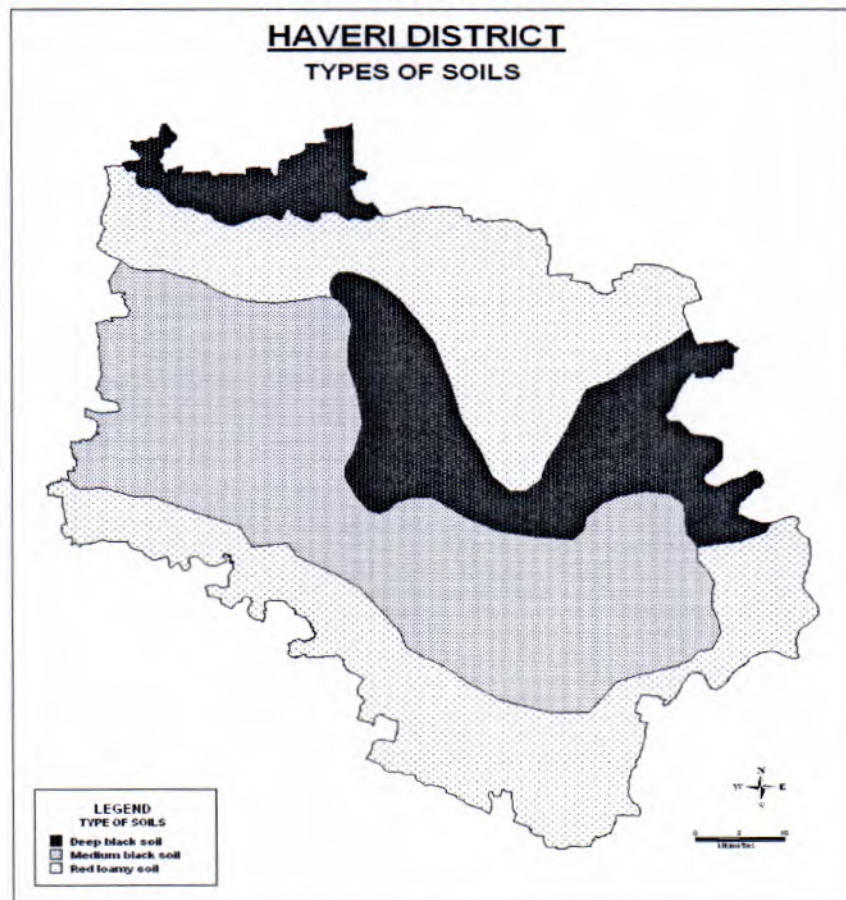
## 2.7 Religious details

Sl.No	Name of the District Hq/Taluk/Municipality	Hindu	Muslim	Christians	Buddhists	Jains	Etc
1	Haveri	227311	49100	370	16	1372	2193
2	Byadagi	118809	20955	227	13	710	310
3	Hirekerur	193229	36718	316	4	307	541
4	Ranebennur	289209	43090	1005	9	1063	905
5	Savanur	116325	44306	118	6	482	284
6	Shiggaon	137337	46657	154	6	3173	583
7	Hanagal	199658	57101	216	14	2727	739

### River-gage station

1. Tungabhadra – Haralalli, Haveri taluk
2. Varada – Marol, Haveri taluk
3. Kumadvati – Kuppelur, Ranebennur taluk

### HAVERI DISTRICT SOIL TYPES





## **Analysis of Land use Pattern**

Land is a basic and indispensable source for agriculture. The quality and extent of land use largely determine the variety and magnitude of agriculture productivity/production. Extreme focus and overwhelming pressure on land use pattern have recorded sharp changes in recent years from a relatively static situation in the various uses of land.

The drastic and significant changes in land use pattern have become perceptible due to the sharp increase in determinants like irrigation facilities, introduction of the new technology and the ever rising demographic pressure. A clear understanding of these determinants of land use pattern will be necessary to formulate a policy programme for achieving optimum levels in crop productivity in the near future.

The present attempt aims at the spatial distribution, measuring and analyzing land use patterns at taluka level of Haveri district with maps and data tables.

### **Classification of Land use Pattern**

The Government of Karnataka has accepted the more comprehensive pattern evolved by the Ministry of Food and Agriculture, Government of India. According to this schema land use was classified into following five categories as:

1. Forest
2. Land not available for cultivation.
3. Other uncultivated land excluding current fallows.
4. Fallow lands, and
5. Net Sown area.

This scheme was modified by the Government of Karnataka in 1961 as:

1. Forest
2. Land not available for cultivation including:
3. Land put to non agricultural uses
4. Barren and uncultivable land

Other uncultivated land comprising:

1. Permanent pastures and other grazing lands
2. Lands under miscellaneous tree crops
3. And grooves not included in Net Sown Area
4. Cultivable wastes

Fallow Lands including:

1. Fallows other than current fallows
2. Current fallows
3. Net Sown Area

The analyses of above categories of land use pattern are an important aspect in agriculture planning. The nature, structure and type of land use development at micro level can be assessed by the analysis. The manner in which the available land is being used in a taluka, the quantity and



quality of land available for cultivation, how much of land is intensively cultivated will help the decision making process.

The analysis helps the agricultural planners in decision making process relating to increase the potentiality of cultivable land, reutilization of cultivable waste land, extent of irrigation facilities and to enhance the cropping intensity. The study also helps in understanding the natural agriculture structure of area.

It is improper to include all these above categories in the present study. Only the last six of these nine categories are related to the agricultural landuse and remaining three are related to general land utilization pattern.

The land use under first three categories like forest, nonagricultural uses, barren and uncultivable lands is rarely involved in agricultural use. The lands under the six categories like Net Sown Area, current fallows, other fallows, cultivatable waste, permanent pastures and other grazing lands and miscellaneous tree crops and groves are involved and used in agricultural landuse regularly at present. Net Sown Area or fallow lands were cultivated in the past may be used in future again as cultivable wastes or they are used for some other agricultural related activities as in the case of pastures, grazing lands and lands with miscellaneous tree and groves. The change are receipt of landuse from one type to another is considered more normal and frequent only among the last six categories.

## 2.8 Details of Forest in Haveri District

S/ N	Name of the Taluq(Range)	Reserve forest(Ha)	Protected forest(Ha)	Unclassified forest(Ha)	Village forest(Ha)	Private forest (Ha)
1	2	3	4	5	6	7
01	Haveri	3728.886	Nil	13.355	Nil	Nil
02	Byadagi	1621.260	276.14	291.736	Nil	Nil
03	Ranebennuru(T)	578.459	380.12	88.200	Nil	Nil
04	Hangal	8939.550	409.99	46.01	Nil	Nil
05	Hirekerur	8987.313	97.906	Nil	Nil	Nil
06	Dundasi	9467.301	80.94	176.79	Nil	Nil
07	Ranibennuru(WL)	13524.707	Nil	Nil	Nil	Nil
	<b>Total</b>	<b>46847.475</b>	<b>1245.096</b>	<b>616.091</b>	<b>-</b>	<b>-</b>

### Taluk wise Rainfall Details in Haveri District from 2011

Taluka	Normal	2011	2012	2013	2014	2015.	2016	2017	2018
		Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual
Byadagi	666.0	854.2	676.7	281.8	1055.9	575.7	408.7	752.1	573.4
Hangal	1034.0	1140.5	708.8	393.4	1312.1	835.5	586.5	1028.4	1077.2
Haveri	765.0	977.1	516.9	269.9	990.3	637.8	517.6	551.3	880.0
Hirekerur	851.0	1284.2	666.1	321.4	1361.2	672.6	551.6	1018.6	835.0
Ranibennur	611.0	887.8	596.7	361.4	1080.6	593.3	443.4	792.9	659.3



Savanur	702.0	834.9	533.2	241.6	992.6	590.8	480.5	642.7	629.3
Shiggaon	813.0	859.0	702.1	223.2	925.7	670.7	518.5	643.5	956.5
<b>Total</b>	<b>5442.0</b>	<b>6837.7</b>	<b>4400.5</b>	<b>2092.7</b>	<b>7718.4</b>	<b>4576.4</b>	<b>3506.9</b>	<b>5429.5</b>	<b>5610.7</b>
<b>Avg.</b>	<b>777.4</b>	<b>976.8</b>	<b>628.6</b>	<b>299.0</b>	<b>1102.6</b>	<b>653.8</b>	<b>501.0</b>	<b>775.6</b>	<b>801.5</b>

## CROPPING PATTERN

The cropping pattern of Haveri district is complex due to the differences in determinants in the talukas. The determinants like soil fertility, soil type, climate, topography, rainfall, cultural traditions, financial returns, population pressure and non physical determinants contribute to taluka level differences in cropping pattern. On account of these differences large number of field and garden crops are raised in Haveri district. However of these 15 crops are included in this inquiry as they are aerielly important. They are viz., Maize, Paddy, Ragi, Jowar and Minor Millets among Cereals, Greengram, Horsegram, Cowpea and Tur among pulses, Groundnut, Soybean and Sunflower among Oilseeds, Cotton and Sugarcane among commercial crops, Chillies among spices fruits, vegetables and coconut among garden crops. All these crops together occupy 100% of the total cropped area in the district.

This chapter provides an inquiry into a clear understanding of the spatial distribution of each one these major crops their aerial association and combinations. A good number of maps and tables support this analysis.

The cropping pattern of the Haveri district is aerielly dominated by the food grains which consist of cereals and pulses occupy over 53 % (196000 ha) of the cropped total area. Among the food crops the important cereals are Maize, Rice and Jowar and these dominate in the district crop land use pattern. These cereals are with over 53 % of Total Cropped Area (TCA) are again important because they occupy first three ranks not only in the cereals but also among all crops grown except cotton ( second rank in area) in the district. The pulses have about 1.5 % of the TCA in the district.

The oilseeds and cotton are the other important crops that are grown in the district. Next to cereals, cotton and oilseed crops occupy major cultivable area. Cotton is exceedingly important among ranking of crops as it attains more than the rice and ranks second among all crops. Among the oilseeds most important crops are groundnut, soyabean, sunflower, niger etc. Spices and pulses are next important crops aerielly where spices are grown under irrigation and pulses raised mostly rainfed conditions.

Ragi, Bajra Wheat, Gram, Tur, Sugarcane, vegetables and fruits cultivation is concentrated in few patches as they have very less proportion of area i.e., 1 to 2 % of T C A.

District has a total irrigated land of 99028 ha and the cropping pattern within the Haveri district is largely controlled by the amount, duration and intensity of rainfall. The cultivation and concentration of crop generally vary in an east - west direction i.e. from semi malnad talukas to semi maidan talukas. The cropping pattern generally followed in semi malnad talukas is vastly different from those in the semi maidan talukas. Normally high rainfall (1063 mm



average- Hangal Taluk) and undulating slopes of the semi malnad talukas provide favorable conditions for water loving crops like paddy. Normal and bellow normal rainfall talukas ( Haveri, Byadgi, Hirekerur, Ranebennur, Savanur, Shiggao) provide ideal conditions for those crops which require less moisture like Maize, Jowar, Cotton and drought resistant varieties like Bajra, Navane etc. Generally cultivation of sugarcane necessitates irrigation but concentration of sugarcane in few tracts of Tube well irrigation is mainly attributed to the location of sugar factory nearby Haveri. The cultivation of crops to some extent like Jowar, Rice and other cereals in other talukas irrespective of favorable conditions is also due to these being the staple cereals in the Haveri district. A study of taluka level variation in each crop or crop combination is necessary for a clear understanding of the district's cropping pattern.



## CHAPTER 3

# HAZARD, RISK AND VULNERABILITY (HRV) ANALYSIS

This chapter deals with potential hazards which may have to be faced by the district, probable time of occurrence, vulnerability of the district to different disasters its analysis and analysis of the risk involved. This acts as a reference, upon which mitigate measures, rescue, restoration and rehabilitation plan etc. are planned successfully. Any error in HRV analysis will compound the problems / effects of a disaster. Therefore a careful attempt has been made to achieve the realistic analysis of hazard, risk and vulnerability pertaining to Haveri district.

### 3.1 HAZARD ANALYSIS

The Hazard may be termed as any event/ object/ rivers/ industries/ earthquake/ fire/ building/ excess or deficit of rainfall which can cause a potential damage to a population/Animals/property/environment etc., an analysis involving occurrence magnitude, volume of hazards and the impact caused by such hazards gives a proper direction to prepare a plan to deal with such eventualities. Hazard analysis of Haveri district comprises of seasonality of different hazards, history, and area affected etc. with a special emphasis on hazard due to breach of dams.

#### ➤ **Drought:**

Karnataka stands Second only to Rajasthan in terms of Drought Affected areas. The state is highly vulnerable to drought as compared to its neighboring states. Every year, more than 50% of the talukas are declared as drought affected. About 152.1 Lakhs ha (80%) out of 190.238 Lakh ha is affected by drought in Karnataka. Groundwater levels are depleting due to successive droughts and quality of water is getting deteriorated in terms of Fluoride, Nitrate and Salinity. Although, drought may not pose great danger immediately within a few minutes as could happen in case of a severe earthquake, it has huge impact on the occurrence of loss of livelihoods, exodus, poverty, unrest, terrorism, robbery etc.

#### ➤ **Flood:**

Almost all the districts in Karnataka are facing the brunt of moderate to severe floods. Floods are associated with cloud bursts, cyclones or depressions in the Bay of Bengal and Arabian Sea. The floods are quite common in the districts of Belgaum, Bijapur, Bagalkote, Raichur, Gulbarga, Shimaoga, Chikkamagalur, Udupi, Coorg, Ballari, Dakshina Kannada, Dharwad, Davanagere, Gadag, Hassan, Haveri, Uttara Kannada, Bidar, Bangalore (R), Bangalore (U), Kolar, Mandya, Mysore, Chamarajanagara.

Risk assessment is carried out by using various Participatory Risk Appraisal tools such as Resource Mapping, Seasonality Chart, and Vulnerability Mapping etc. The following minimum information is gathered and presented.

1. There is history of occurrence of Flash Floods in the district. Vulnerable areas and potential impacts are identified. In the year 2011-12, all 7 taluka in Haveri district has been declared as drought under Government Order No.RD/229/TNR/2011,



dated: 15-10-2011, 8-11-2011, 1-2-2012 and the same situation has been continued during the year 2012-13 also.

2. Floods do occur due to heavy rains in the some part of the district during July to September, resulting in damage of houses and infrastructure
3. There is no history in the District on occurrence of Earthquake and Land slide.
4. Maps showing basic details of district have already been shown in the foregoing pages.

**LIST SHOWING THE NAMES OF VILLAGES LIKELY TO BE AFFECTED BY FLOOD AND DETAILS OF PERSONS TO BE CONTACTED IN CASE OF EMERGENCIES**

Sl. No	Taluk	Name of the Village	Name of the RI	Contact Number	Name of the VA	Contact Number
1	RANEB ENNUR	Choudayyadanapur	V M Malimat	9844558912	C N Pujar	9886472425
2		Chandapur	V M Malimat	9844558912	C N Pujar	9886472425
3		Chikkakurvatti	V M Malimat	9844558912	Chetana Kumari	9035508228
4		Haranagiri	V M Malimat	9844558912	C N Pujar	9620089613
5		Kudrihal	V M Malimat	9844558912	Vishal Chakrasali	8618836839
6		Belur	V M Malimat	9844558912	V,G,B,Prabha kar	9538380509
7		Udagatti	V M Malimat	9844558912	V M Malimat	9844558912
8		Somalapur	V M Malimat	9844558912	Akshata M	9483796990
9		Konanatambigi	V M Malimat	9844558912	Akshata M	9483796990
10		Hirebidari	V M Malimat	9844558912	Rudresh,A,C	8123502243
11		Airani	V M Malimat	9844558912	Yuvaraj,M	8970309412
12		Nadiharalahalli	V M Malimat	9844558912	Yuvaraj,M	8970309412
13		Nelavagal	M,S,Kenchareddi	9742144539	Basavantakumar	8105080119
14		Kodiyal	M S Kenchareddi	9481526015	Basavaraj Guled	7795773885
15		Kavalettu	M S Kenchareddi	9481526015	Basavaraj Guled	7795773885
16		Makanur	M S Kenchareddi	9481526015	Basavaraj Guled	7795773885
17		Nagenahalli	M S Kenchareddi	9481526015	Prakash Lamani	9986688238
18		Hole-anweri	M S Kenchareddi	9481526015	J S Hulihalli	9847364457
19		Pattepur	M S Kenchareddi	9481526015	Manoj, S	9901084763
20		Kusagatti	M S Kenchareddi	9481526015	Manoj, S	9901084763
21		Kooli	M S Kenchareddi	9481526015	Guru Lamani	9964633219
22		Chikkamaganu	M S Kenchareddi	9481526015	Guru Lamani	9964633219
23		Hiremaganur	M S Kenchareddi	9481526015	Kavita,Bukkas hetti	8660328551
24		Godihal	M S Kenchareddi	9481526015	S B Suresh	8095235353



25		Kuppelur	M S Kenchareddi	9481526015	S B Suresh	8095235353
26		Nandihalli	M S Kenchareddi	9481526015	Bhavana N	8073740295
27		Lingadahalli	M S Kenchareddi	9481526015	Jayashri S	8197685613
28		Manakur	M S Kenchareddi	9481526015	Bhavana N	8073740295
29		Mustur	M S Kenchareddi	9481526015	Bhavana N	8073740295

1	HIREKE RUR	Kodamaggi	V.V Gudageri	9740033343	C H Tahashildar	9731843212
2		Yattinahalli M M	V.V Gudageri	9740033343	C H Tahashildar	9731843212
3		Chikkamarab	V.V Gudageri	9740033343	N S Begur	8660860020
4		Yalival	V.V Gudageri	9740033343	N S Begur	8660860020
5		Malagi	V.V Gudageri	9740033343	N S Begur	8660860020
6		Kudapali	V.V Gudageri	9740033343	Hanumantappa U	9148373588
7		Badasangapur	V.V Gudageri	9740033343	Hanumantappa U	9148373588
8		Yadagodi	V.V Gudageri	9740033343	Hanumantappa U	9148373588
9		Sannagubbi	V.V Gudageri	9740033343	Kiran Kuruvatti	9901937775
10		Kirageri	V.V Gudageri	9740033343	SUMA	9686046107
11		Chatnalli	V.V Gudageri	9740033343	SUMA	9686046107
12		Puradakeri	V.V Gudageri	9740033343	SUMA	9686046107
13		Hallur	V.V Gudageri	9740033343	R KUMARA	9538785098
14		Shankaranahalli MK	V.V Gudageri	9740033343	R KUMARA	9538785098
15		Hiremaraba	V.V Gudageri	9740033343	Basavaraj Timalapur	8073866252
16		Totagantti	V.V Gudageri	9740033343	Vishwanatha U	9008715552
17		Rattihalli	V.V Gudageri	9740033343	Vishwanatha U	9008715552
18		Masur	V.V Gudageri	9740033343	C K Heddalli	9901791444
19		Khandebagoor	V.V Gudageri	9740033343	C K Heddalli	9901791444
20		Ramatirtha	V.V Gudageri	9740033343	C K Heddalli	9901791444
21		Tippayikoppa	V.V Gudageri	9740033343	K C Yattinamani	9731174828



S.I No	Taluk	Name of the Village	Name of the RI	Contact Number	Name of the VA	Contact Number
1	SAVANUR	Halasur	N R Suryavamshi	9448293370	M K Shanbal	9980426669
2		kunimellihalli	N R Suryavamshi	9448293370	A.R.Bilagi	7760757168
3		Mannangi	N R Suryavamshi	9448293370	A.R.Bilagi	7760757168
4		Mellagatti	N R Suryavamshi	9448293370	A.R.Bilagi	7760757168
5		Tondur	N R Suryavamshi	9448293370	Venkatesh Lamani	7026639379
6		Kalasur	N R Suryavamshi	9448293370	S S Bevur	9538982165
7		mantagani	N R Suryavamshi	9448293370	S S Bevur	9538982165
8		Hiremugadur	N R Suryavamshi	9448293370	Y Y Teggi	6362102239
9		Kalakoti	N R Suryavamshi	9448293370	Y Y Teggi	6362102239
10		Chikkamugadur	N R Suryavamshi	9448293370	P.S.Pattanashetti	7353667979
11		Nadiniralagi	N R Suryavamshi	9448293370	P.S.Pattanashetti	7353667979
12		Aralihalli	N R Suryavamshi	9448293370	P.S.Pattanashetti	7353667979
13		Dombarmattur	N R Suryavamshi	9448293370	M.R.Ishapur	8970079879
14		Hiremaralihalli	N R Suryavamshi	9448293370	P.S.Pattanashetti	7353667979
15		Chikkamaralihalli	N R Suryavamshi	9448293370	P.S.Pattanashetti	7353667979

Taluk	Sl.No	Name of the Village	Name of the RI	Contact Number	Name of the VA	Contact Number
Haveri	1	Varadahalli	M D Kichder	9964493362	Krishanayya Walikar	8792082256
	2	Karjagi	K.H.Talwar	9591721324	S.A Lingadahalli	7619425491
	3	Konanatambigi	K.H.Talwar	9591721324	Kumar Kittur	7892910448
	4	Mannur	K.H.Talwar	9591721324	Kumar Kittur	7892910448
	5	Handignur	K.H.Talwar	9591721324	B V Nandi	9916327979
	6	Kesaralli	K.H.Talwar	9591721324	Kumar Kittur	7892910448
	7	Hosaritti	Ravi Koravar	7022636178	Basayya Matapati	7892222646
	8	Kancharagatti	Ravi Koravar	7022636178	Prakash Uajjani	9731124886
	9	Belavagi	Ravi Koravar	7022636178	M S Hiremath	9844176633
	10	Mevundi	Ravi Koravar	7022636178	Kumar Kittur	9006896011



	11	Galaganath	Ravi Koravar	7022636178	Prakash Ujjani	9731124886
	12	Havanur	Ravi Koravar	7022636178	Prashant Lakkannanavar	6364125908
	13	Shyakar	Ravi Koravar	7022636178	Prashant Lakkannanavar	6364125908

**LIST SHOWING THE NAMES OF VILLAGES WHERE GANJI KENDRAS ARE PROPOSED TO BE SET UP DURING FLOOD**

Sl. No.	Taluk	Name of the village	Name of the School & Distance from River	Name of the H.M.	Contact Number
1	RANE BEN NUR	Choudayadanapur	G.H.P.S Near 1.0 K.M	M,H Halageri	9739337636
2		Chandapur	G.H.P.S 4.0 K.M	Rangaraddi V.B	9480254371
3		Chikkakurvatti	G.H.P.S 1.0 K.M	Ajmani	9482178377
4		Haranagiri	G.H.P.S Near 2.0 K.M	Basavaraj Dulehole	9448867892
5		Kudrihal	G.H.P.S Near 1.0 K.M	J K Guttal	8197871939
6		Belur	G.H.P.S Near 1.0 K.M	H,A Chikkalli	8717643635
7		Udagatti	G.H.P.S Near 1.0 K.M	R,L Subbannanavar	9916558361
8		Somalapur	G.H.P.S Near 0.5 K.M	Dt Talavar	9986295344
9		Konanatambigi	G.H.P.S Near 1.0 K.M	M,C Ballur	9901995191
10		Hirebidari	G.H.P.S Near 2.0 K.M	L,T,Minakappanavr	9844001522
11		Airani	G.H.P.S Near 0.5 K.M	H,C Hulmani	9845374399
12		Nadiharalahalli	G.H.P.S Near 0.5 K.M	B M Siddappa	9880361139
13		Nelavagal	G.H.P.S Near 2.0 K.M	M,I Maidur	7259789626
14		Kodiyal	G.H.P.S Near 1.0 K.M	Mohamad Imran, M	7411746456
15		Kavalettu	G.H.P.S Near 2.0 K.M	Renuka L, Maladakar	9972746033
16		Makanur	G.H.P.S Near 2.0 K.M	Basavaraj Duragappanavar	9686337500
17		Nagenahalli	G.H.P.S Near 1.0 K.M	S C Talawar	9611370455
18		Hole-Anweri	G.H.P.S Near 1.0 K.M	S,S,Nayak	9448830685
19		Pattepur	G.H.P.S Near 1.0 K.M	H R Venkannanar	9886181984
20		Kusagatti	G.H.P.S Near 1.0 K.M	A Y Olekar	9900438182
21		Kooli	G.H.P.S Near 1.0 K.M	S H Dodmani	9901746519
22		Chikkamaganur	G.H.P.S Near 0.5 K.M	F,A Kanakannanavar	9900353566
23		Hiremaganur	G.H.P.S Near 0.5 K.M	H V Nandepalavar	9980698708



24		Godihal	G.H.P.S Near 0.5 K.M	G U Malatesh	9620176097
25		Kuppelur	G.H.P.S Near 1.0 K.M	V,B, Marigoudra	7353997576
26		Nandihalli	G.H.P.S 2.0 K.M	G,B Chouhan	9164971285
27		Lingadahalli	G.H.P.S Near 0.5 K.M	Guddappa Neelala	9980104632
28		Manakur	G.H.P.S Near 2.0 K.M	S F Kademani	8197984858
29		Mustur	G.H.P.S Near 1.0 K.M	M, Rajashekar	9448754208

SL NO	Tsluk	Name of the Village	Name of the School & Distance fom River	Name of the H.M	Contact Number
1	Hirekerur	Kodamaggi	HPS Kodamaggi near 2600	Nagappanavar	7760459206
2		Yattinahalli M M	HPS Yattinahalli M M 1600 mtr	Bs Byadagi	9844640520
3		Chikkamaraba	LPS Chikkamarab 1200	Digihalli	9731706797
4		Yalival	HPS Yalival 2000mtr	Mohana	9448867808
5		Malagi	HPS Malagi 2400 mtr	N H Devaramni	9449606544
6		Kudapali	HPS Kudapali 3200 mtr	Y H Pujar	9880756819
7		Badasangapur	LPS Badasangapur 800 mtr	S S Sahapur	9739337753
8		Yadagodi	HPS Yadagodi 2400 mtr	S M Lingadahalli	9980974405
9		Sannagubbi	LPS Sannagubbi 1200 mtr	Katari	7259655464
10		Kirageri	HPS Kirageri 2400 mtr	S N Gudiyavar	9620541930
11		Chatnalli	LPS Chatnalli 800 mtr	S R Talavar	9008336875
12		Puradakeri	HPS Puradakeri 2000 mtr	S N Tadakanahali	9845358615
13		Hallur	HPS Hallur 2000 mtr	B G Kelaginamani	9972984365
14		Shankaranahalli MP	<i>HAMLATE VILLAGE</i>		
15		Hiremaraba	HPS Hiremaraba 2400 mtr	Ananda N K	9972269442
16		Khandebagoor	LPS Khandebagoor 1200	Somalapur	8147188492
17		Ramatirtha	LPS Ramatirtha 800 mtr	Mahamod Mustaf	9538558421
18		Tippayikoppa	HPS Tippayikoppa 2000	K U Lalithamma	9972047696
19		Hiremadapur	HPS Hiremadapur 2400	M H Kupelura	9008604845
20		Totaganti	HPS Totaganti 800 mtr	S P Sunsgar	9964398123
21		Rattihalli	HPUBS Rattihalli 800	M D Madleri	9480504540
22		Masur	Madari Sarakari prathamika School Masur 4400	K R Mulla	9845352157
23		Masur	Madari Sarakari Urdu School Masur 3600	K R Mulla	9739661347
24		Masur	Sarakari Urdu Hiriya Prathamika hennu makkala school Masur 3600	A R Rattihalli	9964625590
25		Masur	Sarakari urdu phrouda School Masur 2000	Smt.Pavitra M	9591154685



26	Masur	SVHS Masur 4000	T.S Marad	9743993475
27	Masur	SVHPS Masur 2000	Karegouda	9742059282
28	Masur	SVPUC Masur 1600	B T Bachappagoudar	9741949901
29	Masur	CMHPS Masur 4000	G M Karemudukannavar	9449711604
30	Masur	MKSCHS Masur 2000	H E Lamani	9972822215
31	Masur	HPS Siddeshwara nagar Masur 1600	Ratna K Jogihalli	7259119551

S.I No	Taluk	Name of the Village	Name of the School & Distance from River	Name of the H.M	Contact Number
1	Savanur	Halasur	G.H.P.S 1 km	V.M.Omkarannanavar	9741566947
2		kunimellihalli	G.H.P.S 1 km	R R Kargi	9972604958
3		Mannangi	G.H.P.S 2km	S B Bendigeri	8095925175
4		Mellagatti	G.H.P.S 1 km	S.F.Hiremath	9738474264
5		Tondur	G.H.P.S 1 km	S.F.Lakkangoudra	8722607134
6		Kalasur	G.H.P.S 1 km	S.B.Gayakawad	9663954183
7		mantagani	G.H.P.S 1 km	Mahesha Ingalagi	9945001567
8		Hiremugadur	G.H.P.S 1 km	C.P.Bajantri	9902450690
9		Kalakoti	G.H.P.S 1 km	B.D.Machenahalli	9481686826
10		Chikkamugadur	G.H.P.S 1 km	I.M.Hulagur	9980283294
11		Nadiniralagi	G.H.P.S 1 km	V.Varalkshmi	9901477055
12		Aralihalli	G.H.P.S 1 km	P.K.Ichhangi	9880630828
13		Dombarmattur	G.H.P.S 1 km	S F Doshager	9731525174
14		Hiremaralihalli	G.H.P.S 1 km	Siddalingesh Kotrappashettar	9945452504
15		Chikkamaralihalli	G.H.P.S 1 km	Shankrappa.Y.V	9611338733



Taluk	Sl. No.	Name of the village	Name of the School & Distance from River	Name of the H.M.	Contact Number
Haveri	1	Varadahalli	G.H.P.S 1 KM	R L Huded	9901563042
	2	Kancharagatti	1. G.H.P.S. 1 Km 2. G.U.L.P.S 1 Km	K D KUlkarani	8496061628
	3	Karjagi	M.P.S. 10 meter	Hemappa Jmalappa Kademani	9535808599
	4	Konanatambigi	G.H.P.S. Near 1 k.m	G M Gorvar	9900201322
	5	Mannur	G.L.P.S. Near 1 k.m	G C Marahalli	9008553119
	7	Kesaralli	G.H.P.S 1Km	R G Rittikurubar	9972530989
	8	Handiganur	H.P.S. Near 1 km	K V Melmuri	9902232646
	9	Hosaritti	1. G.M.P.S. 2. G.H.K.G.S. 1 Km. 3. G.U.H.P.S. 1 Km.	H P Dollin M C Kulkarani M M Mulla	8792640773 9449967291 9880130027
	10	Belavigi	G.H.P.S. Near 1 km	V M Tigari	6360341943
	11	Mevundi	G.H.P.S. Near 1km	Shivanandappa Gudappa Kariyammanavar	8748004739
	12	Galaganath	G.H.P.S. Near 1km	A K Guttal	9740061961
	13	Havanur	1. G.H.P.S. 2. G.K.H.G.S. 3. G.U.H.P.S. 4. G.L.P.S. Ambedkar Nagar 1 Km. 5. Govt High School	Mallappa S M Bharamanna Lakman Mohan M K C K Lamani R S Bhajantri	9880269787 9902549278 949211718 9945955868 8618075188
	14	Shyakar	G.H.P.S. Near 1km	Chandrappa Telginmani	7406486562



**OCCURRENCE OF DISASTERS IN THE PAST IN HAVERI DISTRICT**

Sl. No	Type of Hazard	Year of Occurrence	Human Loss	Crop Affected (H)	House Damaged	Infrastructure damaged	Animal Affected	Any other
1	Flood	2009	15	189863	17510	24687.38	54	NIL
2	Flood	2010	12	10979	2871	2823.90	38	NIL
3	Flood	2011	06	83	495	67.00	85	NIL
4	Flood	2012	06	334	574	-	14	NIL
5	Flood	2013	04	4954	1739	3582.35	30	NIL
6	Flood	2014	12	22639.21	2452	1147.31	66	NIL
7	Flood	2015	9	173.52	496	-	79	NIL
8	Flood	2016	9	318.64	176	-	17	NIL
9	Flood	2017	7	12954.95	987	-	11	NIL
10	Flood	2018	12	3568.86	734		10	NIL

**Proneness to different Disasters:**

Type of Hazard	Time of occurrence	Potential impact	Vulnerable area
Floods	-	-	-
Heavy rainfall	-	-	-
Drought	2015-16	Crop loss, Power problems	Entire District
Forest Fire	-	-	-
Epidemics 1. Dengue 2. Chikungunia.	April to Nov April to Nov	Health and life loss -	Ranebennur. Shiggaon, Entire District
Communal violence	-	-	-



### Seasonality of Hazards in Haveri district:

Type of hazard	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Flood	-	-	-	-	-	√	√	√	√	√	-	-
Drought	-	-	√	√	√	√	√	√	√	√	√	√
Cyclone	-	-	-	√	√	√	√	√	√	√	√	-
Fire	√	√	√	√	√	√	√	√	√	√	√	√
Land Slide	-	-	-	-	-	-	-	-	-	-	-	-
Accident	√	√	√	√	√	√	√	√	√	√	√	√
Food poisoning	√	√	√	-	-	√	√	√	√	√	√	√
Earthquake	√	√	√	√	√	√	√	√	√	√	√	√

#### Capacity Analysis

**India Disaster Resource Network (IDRN) is an online inventory designed as a decision making tool for the Government administrators and crisis managers to coordinate effective emergency response operations in the shortest possible time.** The Ministry of Home Affairs, Government of India has developed a web-based database of resource named India Disaster Resource Network (IRDN). This database contains information about **equipments** (such as boats, bulldozers, chain saw, etc), **manpower** (divers, swimmers, etc) and **critical supplies** (oxygen cylinder, fire fighting foams, etc) required during response. IDRN can be accessed by anyone and its direct link is **idrn.gov.in**. IDRN for Haveri district is being updated.

The resources available in the district with both private and Government are being compiled and are being updated in IDRN.



## **CHAPTER-4**

# **INSTITUTIONAL MECHANISM OF DISASTER MANAGEMENT**

There are two distinct features of the institutional structure for Disaster Management in India. Firstly, the structure is hierarchical and functions at four levels - Centre, State, District and Local. Secondly, it is a multi-stakeholder setup, i.e., the structure draws involvement of various ministries, government departments and administrative bodies. The institutional structure for disaster management in India is in a state of transition after enactment of GoI's Disaster Management (DM) Act 2005. The National Disaster Management Authority has been established at the GoI level, and the SDMA at state and DDMA at district level are formalized. In addition to this, the National Crisis Management Committee, part of the earlier setup, also functions at the Centre. The nodal ministries, as identified for different disaster types of function under the overall guidance of the Ministry of Home Affairs (Nodal Ministry for disaster management). This makes the stakeholders interact at different levels within the disaster management framework.

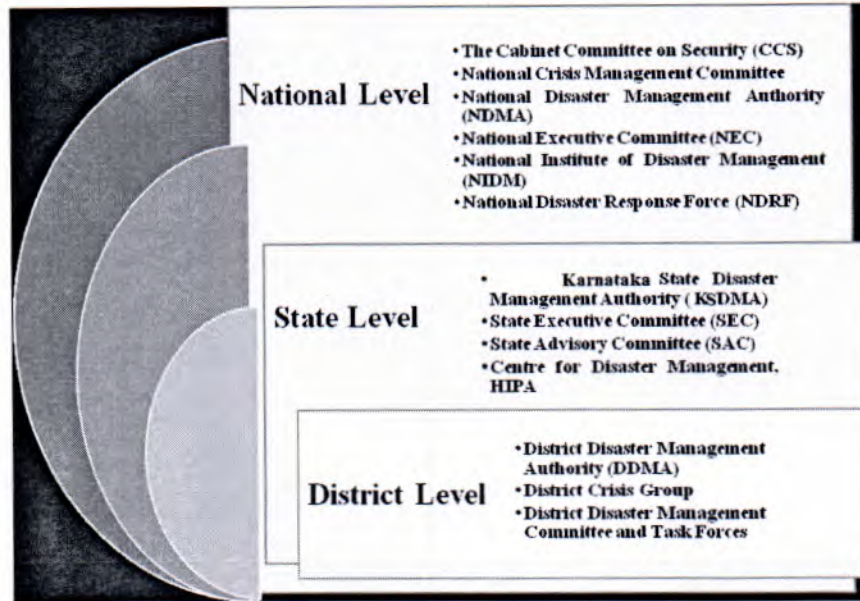
### **4.1 Disaster Management Act, 2005**

DM Act provides for the effective management of disasters and for matters connected therewith or incidental thereto. It provides institutional mechanisms for drawing up and monitoring the implementation of the disaster management. The Act also ensures measures by the various wings of the Government for prevention and mitigation of disasters and prompts response to any disaster situation.

The Act provides for setting up of a National Disaster Management Authority (NDMA) under the Chairmanship of the Prime Minister; State Disaster Management Authorities (SDMAs) under the Chairmanship of the Chief Minister of the respective states; District Disaster Management Authorities (DDMAs) under the Chairmanship of Deputy Commissioners at the district level. The Act further provides for the constitution of different Executive Committee at national and state levels. Under its aegis, the National Institute of Disaster Management (NIDM) for capacity building and National Disaster Response Force (NDRF) for response/rescue purpose has been set up. It also mandates the concerned Ministries and Departments to draw up their own plans in accordance with the National Plan. The Act further contains the provisions for financial mechanisms such as creation of National Disaster Response Fund and State Disaster Response Fund to take up preparedness and mitigation measures and to respond to disasters effectively. The Act also provides specific roles to local bodies in disaster management.



**Figure 4.1: Three-Tire institutional mechanism of disaster management in India.**

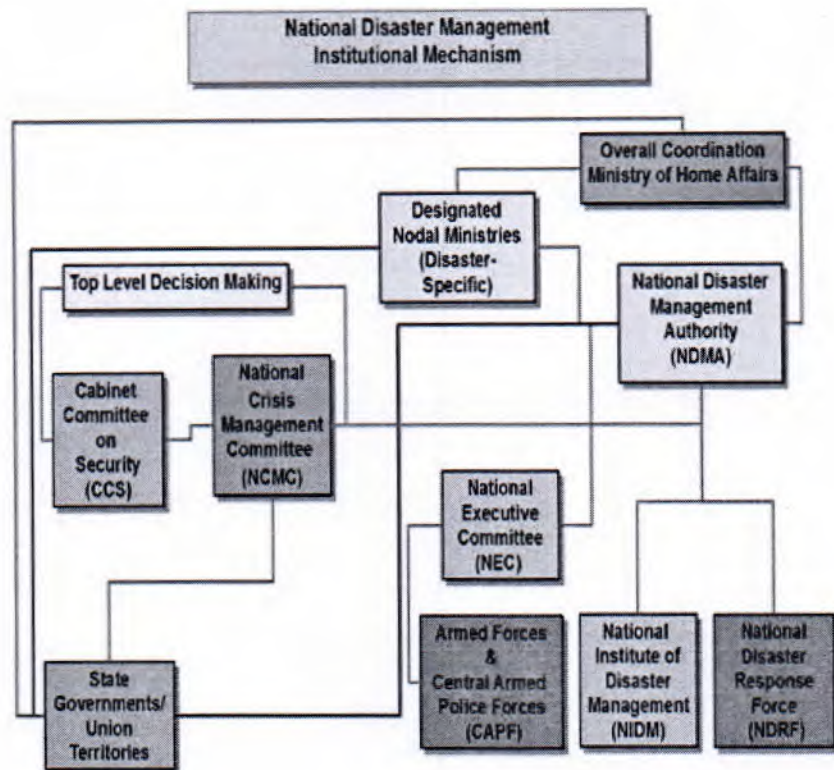


## 4.2 Institutional Framework

### 4.2.1 National Level

The overall coordination of disaster management vests with the Ministry of Home Affairs (MHA). The Cabinet Committee on Security (CCS) and the National Crisis Management Committee (NCMC) are the key committees involved in the top-level decision-making with regard to disaster management. The NDMA is the lead agency responsible for the preparation DM plans and the execution of DM functions at the national level. Figure 3.1 provides a schematic view of the basic institutional structure for DM at national level. The figure represents merely the institutional pathways for coordination, decision-making and communication for disaster management and does not imply any chain of command. In most cases, state governments will be carrying out disaster management with the central government playing a supporting role. The central agencies will participate only on the request from the state government. Within each state, there is a separate institutional framework for disaster management at the state-level. The DM Act of 2005 provides for the setting up of NDMA at national level, and, the SDMA at the state level. The role, composition and the role of the key decision making bodies for disaster management at national- level are briefly described in the Table 3.1. The extent of involvement of central agencies will depend on the type, scale, and administrative spread of the disaster. If the situation requires the direct assistance from central government or the deployment of central agencies, the central government will provide all necessary support irrespective of the classification of the disaster.





**Figure 4.2: National-level disaster management - basic institutional framework.**

Note: this represents merely the institutional pathways for coordination, decision-making and communication for disaster management and does not imply any chain of command (Source: NDMP-2009).



**Table 4.1: Institutional Arrangements for Disaster Management & Roles & responsibilities**

Agencies	Departments	Roles & responsibilities
<b>Cabinet Committee on Security (CCS)</b>	Prime Minister, Minister of Defense, Minister of Finance, Minister of Home Affairs, Minister of External Affairs	Evaluation from a national security perspective, if an incident has potentially security implications. Oversee all aspects of preparedness, mitigation and management of CBRN emergencies and of disasters with security implications Review risks of CBRN emergencies from time to time, giving directions for measures considered necessary for disaster prevention, mitigation, preparedness and effective response
<b>National Crisis Management Committee (NCMC)</b>	Cabinet Secretary • Secretaries of Ministries Departments and agencies with specific DM responsibilities	Oversee the Command, Control and Coordination of the disaster response. Give direction to the Crisis Management Group as deemed necessary Give direction for specific actions to face crisis situations
<b>National Disaster Management Authority (NDMA)</b>	Prime Minister • Members (not exceeding nine, nominated by the Chairperson)	Lay down policies, plans and guidelines for disaster management Coordinate their enforcement and implementation throughout the country Approve the NDMP and the DM plans of the respective Ministries and Departments of Government of India Lay down guidelines for disaster management to be followed by the different Central Ministries,/Departments and the State Governments
<b>National Executive Committee (NEC)</b>	Union Home Secretary Secretaries to the GOI in the Ministries/Departments of Agriculture, Atomic Energy, Defence, Drinking Water and sanitation, Environment, Forests and Climate Change, Finance (Expenditure), health and Family Welfare, Power, Rural Development, Science and Technology, Space, telecommunications, Urban Development, Water Resources, River development The Chief of the Integrated Defence Staff of the	To assist the NDMA in the discharge of its functions; • Preparation of the National Plan. • Coordinate and monitor the implementation of the National Policy. • Monitor the implementation of the National Plan and the plans prepared by the Ministries or Departments of the Government of India. • Direct any department or agency of the Govt. to make available to the NDMA or SDMA's such men, material or resources as are available with it for the purpose of emergency response, rescue and relief. • Ensure compliance of the directions issued by the Central Government, Coordinate response in the event of any Threatening disaster situation or disaster. Direct the relevant Ministries / Departments of the GoI, the State Governments and the SDMA's



	<p>Chiefs of Staff Committee, ex- Officio as members. Secretaries in the Ministry of External Affairs, Earth Sciences, Human Resource Development, Mines, Shipping, Road Transport and Highways &amp; Secretary, NDMA are special</p>	<p>regarding measures to be taken in response to any specific threatening disaster situation or disaster.</p> <ul style="list-style-type: none"> <li>• Coordinate with relevant Central Ministries/ Departments / Agencies which are expected to provide assistance to the affected State as per Standard Operating Procedures (SOPs).</li> <li>• Coordinate with the Armed Forces, Central Armed Police Forces (CAPF), the National Disaster Response Force (NDRF) and other uniformed services which comprise the GoI's Response to aid the State authorities.</li> <li>• Coordinate with India Meteorological Department (IMD) and a number of other specialised scientific institutions which constitute key early warning and monitoring agencies.</li> <li>• Coordinate with Civil Defence volunteers, home guards and fire services, through the relevant administrative departments of the State</li> <li>• Governments</li> </ul>
--	---	--

#### 4.2.1 State Level

##### 4.2.1.1 State disaster Management Authority (SDMA)

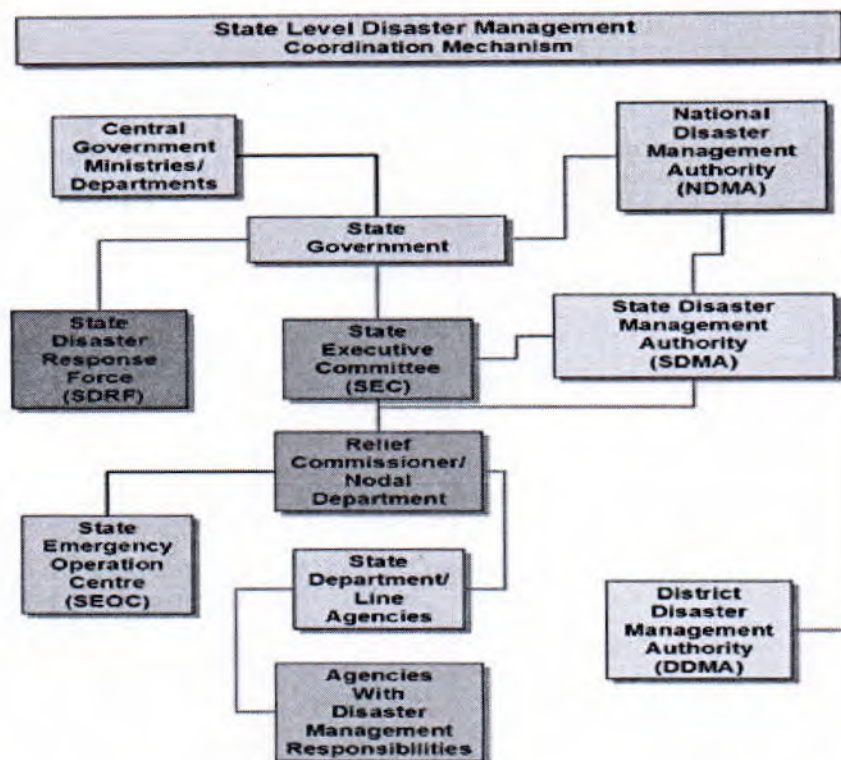
As per the DM Act of 2005, each state in India shall have its own institutional framework for disaster management. The DM Act mandates the setting of a State Disaster Management Authority (SDMA) with the Chief Minister as the ex- officio Chairperson. Figure 3.3 provides schematic view of the typical state-level institutional framework. As per clause (b) of sub-section (2) of Section 14 of the Disaster Management Act 2005, the Karnataka State Disaster Management Authority under the chairperson of the Honorable Chief minister was constituted with the following persons as member of the KSDMA.

**Table 4.2: SDMA Structure**

Sl. No.	SDMA Members	Designation
1.	Chief Minister of Karnataka	Chairman, Ex-officio
2.	Minister for Revenue	Vice-Chairman
3.	Minister for Home	Member
4.	Minister for Agriculture	Member
5.	Minister for Health and Family Welfare	Member
6.	Minister for Rural Development and Panchayat Raj	Member
7.	Minister for Public Works	Member
8.	Minister for Animal Husbandry	Member
9.	Minister for Housing	Member



10.	Minister for Energy	Member
11.	Chief Secretary (Chairman of SEC)	Chief Executive Officer
12	Secretary, Dept. of Revenue(Disaster Management)	Member Secretary



**Figure 4.3: State-level disaster management - basic institutional framework.**

Note: The figure represents merely the institutional pathways for coordination, decision-making and communication for disaster management and does not imply any chain of command (Source: NDMP-2009).

#### 4.2.2.1 Role & Responsibility of SDMA

State Authority shall have the responsibility for laying down policies and plans for disaster management in the State.

- Lay down the State disaster management policy.
- Approve the State Plan in accordance with the guidelines laid down by the National Authority.
- Approve the disaster management plans prepared by the departments of the Government of the State.
- Lay down guidelines to be followed by the departments of the Government of the State for the purposes of integration of measures for prevention of disasters and mitigation in their development plans and projects and provide necessary technical assistance therefore.
- Coordinate the implementation of the State Plan.
- Recommend provision of funds for mitigation and preparedness measures
- Review the development plans of the different departments of the State and ensure that prevention and mitigation measures are integrated therein.



- Review the measures being taken for mitigation, capacity building and preparedness by the departments of the Government of the State and issue such guidelines as may be necessary.
- The Chairperson of the State Authority shall, in the case of emergency, have power to exercise all or any of the powers of the State Authority but the exercise of such powers shall be subject to ex post facto ratification of the State Authority".

#### 4.2.2.2 Cabinet Sub-Committee on Disaster Management

Cabinet Sub-committee on Disaster Management is formed under the Chairmanship of Revenue Minister. The Cabinet Sub-Committee meets regularly to take stock of situation especially drought situation gives necessary guidance and directions. The composition of SEC is as follows:

**Table 4.3: Cabinet Sub-Committee on Disaster Management**

Sl. No	Cab. Sub-Committee Members	Designation
1.	Minister for Revenue	Chairman
2.	Minister for Law and Parliamentary affairs	Member
3.	Minister for Rural Development and Panchayat Raj	Member
4.	Minister for Horticulture and Agriculture Marketing	Member
5.	Minister for Co-operation and Sugar	Member
6.	Minister for Agriculture	Member
7.	Minister for Food and Civil Supplies and Consumer Affairs	Member
8.	Minister for Minor Irrigation	Member

#### 4.2.2.3 State Executive Committee

State Executive Committee (SEC) has been constituted under the chairmanship of Chief Secretary. SEC has the responsibility for coordinating and monitoring the implementation of the National

Policy, the National Plan and the State Plan as provided under section 22 of the Act. The composition of SEC is as follows:

**Table 4.4: State Executive Committee Structure in Karnataka State**

Sl. No	SEC Members	Designation
1	Chief Secretary to Government of Karnataka	Chairperson, Ex-officio
2	Addl. Chief Secretary/Principal Secretary to the Government, Home Department	Member
3	Principal Secretary/Secretary to the Government, Rural Development and Panchayat Raj Department	Member
4	Principal Secretary/Secretary to the Government, Agriculture Department	Member
5	Director General of ATI	Member
6	Director KSNDMC	Member



7	Secretary to the Government, Revenue Department (Disaster Management)	Member Secretary
8	Director General of Police and Director General of Fire and Emergency Services, Home Guards, and Civil Defence	Permanent Invitee

#### **4.2.2.4 Role & Responsibility of SEC**

- 4.2.2.4.1 Development of awareness campaign strategy and its implementation in the state.
- 4.2.2.4.2 Development of Human Resource Plan for implementation thereof – development of training modules and material
- 4.2.2.4.3 Preparation or updation of state disaster management plan to ensure that the issues of DRR have been addressed
- 4.2.2.4.4 To initiating risk and vulnerability assessments and preparation of annual vulnerability and risk reduction reports.
- 4.2.2.4.5 Laying down guidelines to integrate DRR into development process
- 4.2.2.4.6 Follow up with various line departments to ensure that DRR issues have been addressed in their development plans.
- 4.2.2.4.7 Preparation of Disaster Risk Reduction Projects in various sectors.
- 4.2.2.4.8 Carrying out DRR Audit of the development plans prepared by line departments.
- 4.2.2.4.9 Developing a Recovery framework for the state.
- 4.2.2.4.10 Development of Knowledge and information sharing platform in DRR
- 4.2.2.4.11 Conceptualizing and formulating projects and programmes as a part of the national initiatives/schemes.
- 4.2.2.4.12 Preparation of Minimum Standards of Relief
- 4.2.2.4.13 Preparation of Disaster Management Policy
- 4.2.2.4.14 Preparation of Mitigation plans vis a vis various hazards
- 4.2.2.4.15 Coordinate and monitor the implementation of National Policy, National Plan and State Plan
- 4.2.2.4.16 Lay down guidelines for the preparation of DMP by various departments
- 4.2.2.4.17 Lay down guidelines for safe construction practices and ensure compliance thereof
- 4.2.2.4.18 Provide necessary technical assistance or give advice to District Authorities.
- 4.2.2.4.19 Lay down, review and update state level response plans and guidelines
- 4.2.2.4.20 Ensuring the communication system is in order – setting up and strengthening of EOCs
- 4.2.2.4.21 Ensuring the conduct of mock drills regularly.

#### **4.2.2.5 State Disaster Response Force (SDRF)**

Karnataka is raising 4 companies of SDRF. SDRF is a hybrid force which consists of personnel from state police, reserve police, and fire and emergency personnel. This force is raised exclusively for rescue and relief operations in times of disasters.

#### **4.2.2.6 State Crisis Management Group (SCMG)**

The crisis management groups at State level have been constituted. The State Crisis Management Group (SCMG) is headed by the Chief Secretary along with Relief Commissioner. This group comprises of senior officers from departments of revenue, relief, home, civil supplies, power, irrigation, water supply, agriculture, forests, rural development,



health, planning, Public works, finance and Panchayat. The SCMG shall normally handle all crisis situation and advice and guide the District Crisis Management Group (DCMG) also. Its duty is to set establish a Emergency Operation Centre(Control Room) as soon as the disaster situation arises including all information on forecasting and warning of disasters.

#### **4.2.2.7 State Emergency Control Room**

There is a State Emergency Control Room in the Karnataka Disaster Management Secretariat, to provide Secretarial support to the Karnataka State Disaster Management Authority and also facilitate the functioning of the Authority. 1070 is the Helpline Line No. of State Emergency Control room which is operational 24 x 7. This Control Room will receive the information from various sources. It shall be in constant contact with the District Disaster Control Rooms, Police Control Rooms. The State Emergency Control Room will receive the information, record it properly and put up to the State Disaster Management Authority instantly. Similarly the instructions passed by the State Authority shall be conveyed to the addressees and a record maintained to that effect.

#### **4.2.2 District Level**

The district administration is the focal point for implementation of all governmental plans and activities. The actual day-to-day function of administering relief is the responsibility of the District Magistrate who exercises coordinating and supervising powers over all departments at the district level. As per provisions in Chapter-IV of the DM Act, each State Government shall establish a District Disaster Management Authority for every district in the State with such name as may be specified in that notification.

#### **4.2.2.1 District Disaster management Authority (DDMA), Haveri District**

In general the role of District Disaster Management Authority, Haveri District is to plan, coordinate, implement and to carry out any other measures for disaster management in the district as per the guidelines laid down by National Disaster Management Authority (NDMA) and State Disaster Management Authority (SDMA). The DDMA is headed by the Deputy Commissioner with the elected representative of the local authority (Chairman Zila-Parishad) as the Co- Chairperson. DDMA acts as the planning, coordinating and implementing body for DM at the District level and take all necessary measures for the purposes of DM in accordance with the guidelines laid down by the NDMA and SDMA. It inter alia prepares the District Disaster Management Plan for the District and monitors the implementation of the National Policy, the State Policy, the National Plan, the State Plan and the District Plan. DDMA also ensures that the guidelines for prevention, mitigation, preparedness and response measures lay down by the NDMA and SDMA are followed by all Departments of the State Government at the District Level and the local authorities in the District.

The DDMA acts as District Planning, coordinating and monitoring body in accordance with the guidelines lay down by the State Authority. As per Section 25 of the DM Act 2005 DDMA has been constituted for Haveri District as follows:

**Table 4.5: DDMA Structure of Haveri District**

Sl No.	Name of the Officer	Designation of the Officer	Designation in DDMA	Contact no.	Email ID
1	Shri Krishna Bajpi	Deputy Commissioner Haveri District	Chairperson (Ex Officio)	08375-249044	<a href="mailto:deo.haveri@gmail.com">deo.haveri@gmail.com</a>



2	Kariyannavar	President, Haveri Zilla Panchayath, Haveri	Co-Chairperson (Ex Officio)	08375-249031	
3	K Parashuram	Superintendent of Police, Haveri District	Member (Ex Officio)	08375-232800	<a href="mailto:dchvr@ksp.gov.in">dchvr@ksp.gov.in</a>
4	K. Leelavathi	Chief Executive Officer, Haveri Zilla Panchayath, Haveri	Member (Ex Officio)	08375-249031	<a href="mailto:ceozphaveri@gmail.com">ceozphaveri@gmail.com</a>
5	N. Thippeswami (I.C)	Addl. Deputy Commissioner, Haveri District	Chief Executive Officer of the District Authority (Ex Officio)	08375-249015	<a href="mailto:adchaveri16@gmail.com">adchaveri16@gmail.com</a>
6	B. Manjunath	Joint Director, Agriculture Dept. Haveri District	Member (Ex Officio)	08375-249021	<a href="mailto:jdahaveri@gmail.com">jdahaveri@gmail.com</a>
7	Dr. Raghavendra Swami	District Health Officer, Haveri District	Member (Ex Officio)	08375-249049	<a href="mailto:dhohaveri@gmail.com">dhohaveri@gmail.com</a>
8	R. Vasanna	Project Director, District Urban Development Committee, Haveri District	Member (Ex Officio)	08375-249097	<a href="mailto:dc_haveri@gmail.com">dc_haveri@gmail.com</a>

#### 4.2.3.2 The roles and responsibilities of the DDMA, Haveri District

The roles and responsibilities of the DDMA, Haveri District has been elaborated in Section 30 of the DM Act, 2005.

- The DDMA will act as the planning, coordinating and implementing body for DM at the District level and take all necessary measures for the purposes of DM in accordance with the guidelines laid down by the NDMA and SDMA. It will, inter alia prepare the District DM plan for the District and monitor the implementation of the National Policy, the State Policy, the National Plan, the State Plan and the District Plan.
- The DDMA will also ensure that the guidelines for prevention, mitigation, preparedness and response measures lay down by the NDMA and the SDMA are followed by all the Departments of the State Government at the District level and the local authorities in the District.
- The DDMA will also ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are taken.
- The DDMA will also ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the National Authority and the State Authority are followed by all departments, lay down guidelines for prevention of disaster management plans by the department of the Government at the districts level and local authorities in the district.
- The DDMA will also monitor the implementation of disaster management plans prepared by the Departments of the Government at the district level;
- The DDMA will also ensure lay down guidelines to be followed by the Departments of



the Government at the district level for purposes of integration of measures for prevention of disasters and mitigation in their development plans and projects and monitor the implementation of the same,

- The DDMA will review the state of capabilities and preparedness level for responding to any disaster or threatening disaster situation at the district level and take steps for their up gradation as may be necessary,
- The DDMA will organise and coordinate specialised training programmes for different levels of officers, employees and voluntary rescue workers in the district, facilitate community training and awareness programmes for prevention of disaster or mitigation with the support of local authorities, governmental and non-governmental organisations, set up, maintain,
- The DDMA will review and upgrade the mechanism for early warnings and dissemination of proper information to public, prepare, review and update district level response plan and guidelines.
- The DDMA will also coordinate response to any threatening disaster situation or disaster, coordinate with, and provide necessary technical assistance or give advice to the local authorities in the district for carrying out their functions,
- The DDMA will examine the construction in any area in the district and issue direction the concerned authority to take such action as may be necessary to secure compliance of such standards as may be required for the area;
- The DDMA will further identify buildings and places which could, in the event of any threatening disaster situation or disaster, be used as relief centers or camps and make arrangements for water supply and sanitation in such buildings or places establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice.
- The DDMA will encourage the involvement of non -governmental organisations and voluntary social-welfare institutions working at the grassroots level in the district for disaster management ensure communication systems are in order, and disaster management drills are carried out periodically.

#### **4.2.3.3 CONSTITUTION OF DISTRICT CRISIS GROUP**

The Crisis Group of the Haveri District is formulated under The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Govt. of Karnataka under the Rules conferred vide Section 8 of the said Rules, Issued a Notification No. KAEE 36 KABANI 98, Dated: 04.09.1998, constituted the District Crisis Group of Haveri District to implement Environmental Protection Act and the Rules made there under. The following is the composition of District Crisis Group.

**Table 4.6: The composition of District Crisis Group.**

<b>Sl. No</b>	<b>District Crisis Group Members</b>	<b>Designation</b>
1	Deputy Commissioner, Haveri Dist.	Chairman
2	Superintendent of Police. Haveri Dist.	Member
3	Addl. Deputy Commissioner (Emergency Officer), Haveri Dist.	Member
4	District Fire Officer, Haveri Dist.	Member



5	Deputy Director, Information Department, Haveri Dist.	Member
6	District Commandant, Home Guards, Haveri Dist.	Member
7	District Health Officer, Haveri Dist.	Member
8	Superintendent Engineer, HESCOM, Haveri Dist.	Member
9	Deputy Controller of Explosives, Mangalore.	Member
10	Executive Engineer, Panchayath Raj Engineering Dept. Haveri Dist.	Member
11	Environmental Officer, KSPCB, Haveri Dist.	Member
12	Joint Director of Agriculture, Haveri Dist.	Member
13	Regional Transport Officer. Haveri Dist	Member
14	Deputy Director of Factories and Boilers	Member Secretary

#### **4.2.3.4 Control Room, Haveri District**

It has been observed that at the time of a calamity/disaster, communication services are the first to go out of order. The Control Room reachable round the clock through toll free number - 1077. Control Room plays a vital role in Emergency Operation activation and place multi-mode and multi-channel communication system pre, during and post emergency situation. It coordinates the flow of information with respect to activities associated with relief operations. Additional District Magistrate is the nodal officer for the Control room and all operations of Disaster management in the District.

#### **4.2.3.5 Role and Objectives of Control Room, Haveri District**

Control Room plays a vital role in Emergency Operation activation in the district and has following roles and objectives during occurrence of any disaster and normal time,

- It acts as a control room that would be the nerve centre for the fatal incident and disaster management in the district.
- To monitor, coordinate and implement the actions for disaster risk management within the district.
- Activate the Emergency Support Function (ESF) in the event of a disaster and coordinate the actions of various line departments/ agencies.
- Encourage each line and stakeholder department within the districts to prepare their area- specific plans in terms of their vulnerability and proneness to specific disasters and receive reports on preparedness from their side.
- Serve as a data bank to all line departments and the planning department with respect to risks and vulnerabilities and ensure that due consideration is given to mitigation strategies in the planning process.



- Maintain a web-based inventory of all resources available with all concerned department in the district and update it through the India Disaster Resource Network (IDRN).
- Receive appropriate proposals on preparedness, risk reduction and mitigation measures from various departments/agencies and place the same for consideration of the Chief Secretary through Deputy Commissioner's approval.
- Monitor preparedness measures undertaken at the district levels including simulation exercises undertaken by various departments.
- Ensure from each line departments that all warning, communication systems and instruments are in working conditions. Upgrade the Disaster Management Action according to the changing scenario.
- Monitor preparedness measures and build the capacity on the disaster risk management training, workshops and awareness generation programme.
- Maintain a data base of trained personnel and volunteers who could be contacted at any time.

#### 4.2.4 Incident Response System (IRS)

Incident Response System is a combination of facilities, logistic, personnel, finance, operation and communication operating within a common organizational structure, with responsibility for the management of assigned resources to accomplish the objectives effectively pertaining to an incident. The IRS organization functions through Incident Response Team (IRT s) in the field. The District Magistrate (DM) as the chairman of the DDMA is a Responsible Person (RO) as overall in charge of the incident response management. If needed, he can delegate his functions to any other responsible officer or appoint another senior officer as an incident commander if the disaster is in more than scenario.

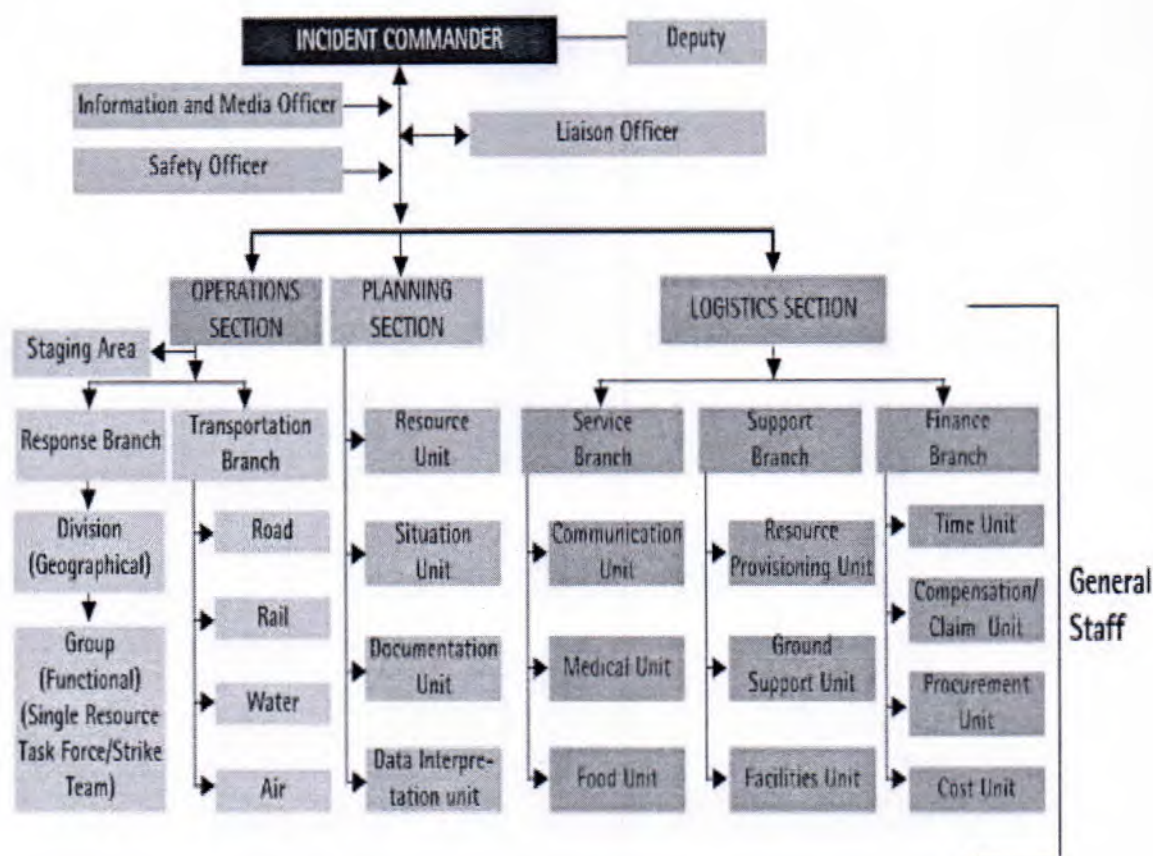
**Table 4.7: Major Responsibilities of the IRS sections.**

<b>Responsible Officer</b>	<b>Major responsibilities</b>	<b>Primarily responsible for effective response</b>
Incident commander	Overall In-charge of the Incident Response	<ul style="list-style-type: none"> <li>• To create and integrate communication flow during emergency period</li> </ul>
Operations Sections	Direct & supervise all tactical actions.	<ul style="list-style-type: none"> <li>• Activates and supervises organization elements in accordance with the Incident Action Plan and directs its execution</li> <li>• Determine need and request additional resources Review suggested list of resources to be rebased and</li> <li>• initiate recommendation for release of resources</li> <li>• Report Information about special activities, events or occurrences to Incident Commander</li> <li>• Maintain Unit / Activity details</li> </ul>



<p>Planning Sections</p>	<p>Collect/Analyse data, Workout need of required resources and prepare action plan for incident/ Disaster of the district Una.</p>	<ul style="list-style-type: none"> <li>• Prepare alternative strategies and control of operations,</li> <li>• Supervise preparation of Immediate Action Plan (IAP)</li> <li>• Provide input to IC and Operation in preparation of IAP</li> <li>• Reassign of service personnel already on site to other positions as appropriate</li> <li>• Determine need for any specialized resources in support of the incident</li> </ul>
<p>Logistics Section</p>	<p>Provide logistic support, procurement &amp; cost accounting</p>	<ul style="list-style-type: none"> <li>• Compile and display incident status information Oversee preparation and implementation of Incident Demobilization Plan.</li> <li>• Incorporate Plans (e.g. Traffic, Medical, Site Safety, and Communication) into IAP.</li> <li>• Other Functions include, briefing on situation and resource status, setting objectives, establishing division boundaries, identifying group assignments, specifying tactics/safety for each division, specifying resources needed by division, specifying operations facilities and reporting locations – plot on map and placing resource and personnel order.</li> </ul>
		<ul style="list-style-type: none"> <li>• Assign work locations and tasks to section personnel.</li> <li>• Identify service and support requirements for planned and expected operations</li> <li>• Coordinate and process requests for additional resources.</li> <li>• Provide input to / review communication plan, traffic plan, medical plan etc</li> <li>• Recommend release of unit resources</li> <li>• Maintain Unit/ Activity details</li> </ul>
<p>Finance Section</p>	<p>The Finance section is basically of the administration and managing finance.</p>	<ul style="list-style-type: none"> <li>• The major roles of this section include managing (1) Incident Command Post, (2) Staging Areas, (3) Base, and (4) Camps. The major functions are:</li> <li>• Minimize excessive communication of resources calling for assignment</li> <li>• Allow IC/OPS to properly plan for resources use and allow for contingencies.</li> </ul>





**Figure 4.4: General flowchart of IRS in District Haveri District**

#### 4.2.5 Forecasting and warning agencies

The timely flow of early warning system from the source to the targeted stakeholder is very important. The dissemination of early warning should be institutionalized so that it reaches the stakeholders in minimum possible time by recognized means of communication. In the following table, the name of the Nodal agencies of the Government of India mentioned which are mandated for providing early warning of different natural hazards that may strike within the state of Haveri District.

**Table 4.8: Forecasting and warning agencies, their contact number and other details.**

Disaster	Nodal Ministry/ Department	Early Warning/Forecasting Agencies	Contact Details	Email/Webpage/Remarks
Floods	Min. of Water Resources (MoWR)	<ul style="list-style-type: none"> <li>➤ N- (CWC) Central Water Commission</li> <li>➤ S-IMD</li> <li>➤ D -Irrigation and Public Health Dept./ DEOC</li> </ul>	N-011-26187232 S-080-22244419 22235725, D- 08375249102	<a href="http://india-water.gov.in/ffs/">http://india-water.gov.in/ffs/</a> <a href="http://www.imd.gov.in/pages/main.php">http://www.imd.gov.in/pages/main.php</a>



Droughts	Min. of Agriculture and Farmers Welfare (MoAFW)	<ul style="list-style-type: none"> <li>➤ N- IMD</li> <li>➤ S – State Regional IMD office</li> <li>➤ D –Agriculture, IPH and DEOC</li> </ul>	N-011-24619167 S-080-22244419  22235725, 22235733, D-08375249102	<a href="http://www.imd.gov.in/pa ges/main.php">http://www.imd.gov.in/pa ges/main.php</a>
Earthquake/ Tsunami	Min. of Earth Sciences (MoES)	<ul style="list-style-type: none"> <li>➤ N- IMD</li> <li>➤ S- SDMA / SEOC/KSN DMC</li> <li>➤ INCOIS</li> <li>➤ D- DDMA/ DEOC</li> </ul>	S-1070/  080-22253707  D-1077	<a href="http://www.imd.gov.in/pa ges/earthquakeprelim.php">http://www.imd.gov.in/pa ges/earthquakeprelim.php</a>  <a href="mailto:secy.dm@gmail.com">p secy.dm@gmail.com</a>
Forest Fire (FF)/Domestic Fire (DF)	Min. of Environment, Forest and Climate Change (MoEFCC)	<ul style="list-style-type: none"> <li>➤ N-Forest Survey of India/ISRO (for FF)</li> <li>➤ S- SEOC/Forest Deptt. (For FF)</li> <li>➤ D- Department of Forest (For FF)</li> <li>➤ D- Department of Fire Services (Domestic Fire)</li> </ul>	S-1070/080-22032995  D-08375232666	<a href="https://earthdata.nasa.gov/earth-observation-data/near-real-time/firms/active-fire-data">https://earthdata.nasa.gov/earth-observation-data/near-real-time/firms/active-fire-data</a>  <a href="mailto:secy.dm@gmail.com">secy.dm@gmail.com</a> <a href="mailto:cfomlr@ksfes.gov.in">cfomlr@ksfes.gov.in</a>
Landslide	Min. of Mines (MoM)	<ul style="list-style-type: none"> <li>➤ N- GSI &gt;</li> <li>➤ S- Regional office of GSI</li> <li>➤ DEOC/DDMA/PW D</li> </ul>	S-1070/080-22032995	<a href="http://www.portal.gsi.gov.in/">http://www.portal.gsi.gov.in/</a>



Chemical and Industrial	MoEFCC/ Ministry of Industries	<ul style="list-style-type: none"> <li>➤ D- Deptt. of Industries</li> <li>➤ D- Department of labour and employment</li> </ul>	S- 080-26531200	<a href="mailto:secy-moef@nic.in">secy-moef@nic.in</a> <a href="mailto:secy.dm@gmail.com">secy.dm@gmail.com</a>
Road Accidents	Min. of Road Transport and Highways (MoRTH)	<ul style="list-style-type: none"> <li>➤ D- Police</li> </ul>	D-08375-232800	
Aircraft Crash	Ministry of civil aviation	<ul style="list-style-type: none"> <li>➤ N-Airports Authority of India (AAI)</li> </ul>	N-011 2463 2950 S-1070 080-22253707 D-1077	<a href="mailto:dc.mnglr@gmail.com">dc.mnglr@gmail.com</a> <a href="mailto:tn.dwivedi57@nic.in">tn.dwivedi57@nic.in</a> <a href="mailto:secy.dm@gmail.com">secy.dm@gmail.com</a>
Stampede	Ministry of Revenue	<ul style="list-style-type: none"> <li>➤ D- District Administration/DE</li> </ul>	S-1070 D-1077	
Dam / Reservoir Burst	Min. of Water Resources	<ul style="list-style-type: none"> <li>➤ D- Hydro power project, I&amp;PH, District Administration</li> </ul>	D-1077	<a href="mailto:egov-mowr@nic.in">egov-mowr@nic.in</a>
Epidemics	Ministry of - Health and Family Welfare	<ul style="list-style-type: none"> <li>➤ D- Health and Family Welfare Department</li> </ul>	D-08375-249009	
Human Induced Hazards	NDMA	<ul style="list-style-type: none"> <li>➤ D- Karnataka Police</li> </ul>	D-08375-232800	<a href="mailto:Secretary@ndma.gov.in">Secretary@ndma.gov.in</a> <a href="mailto:controlroom@ndma.gov.in">controlroom@ndma.gov.in</a>
Hydro-meteorological (High Wind, Heat Wave)	Min. of Agriculture and Farmers Welfare (MoAFW)	<ul style="list-style-type: none"> <li>➤ N- IMD/INCOIS</li> <li>➤ S- SEOC</li> <li>➤ D- DEOC</li> </ul>	S-1070 080-22253707 D-1077	<a href="http://www.imd.gov.in/pages/allindiawxbulletin.php">http://www.imd.gov.in/pages/allindiawxbulletin.php</a>



## CHAPTER-5

### PREVENTION AND MITIGATION MEASURES

#### 5.1 Introduction

Disaster mitigation means measures designed to prevent, predict, and prepare, for respond to monitor and / or mitigate the impact of disaster. In chapter-2 all potential hazards in Haveri district has been discussed in details. The disaster especially the natural hazards like drought, flash floods, earthquakes, and cloudbursts cannot be avoided, however, with mitigation measures along with proper planning of developmental work in the risk prone area, these hazards can be prevented from turning into disasters if we take preventive and mitigation measures in advance. This requires changes in the current development model, practices and priorities. For efficient disaster mitigation, the pre-disaster phase needs to be utilized for planning and implementing preventive measures on the one hand and working on preparedness activities on the other. Disaster is caused due to failure of manmade structures, lack of preparedness and awareness. So far, disaster mitigation efforts are mostly reactive. Since usually the disaster consider as a development problem, prevention and mitigation needs to be built in this process only. The primary objectives of prevention and mitigation efforts for the district Haveri district would be:

- ❖ To identify and assess the existing and potential risks and to work towards reducing causalities and damage from disaster.
- ❖ To substantially increase public awareness of disaster risk to ensure safer environment for communities to live and work.
- ❖ To reduce the risk of loss of life, infrastructure, economic costs, and destruction that result from disasters.

#### 5.2 Hazard-specific Prevention & Mitigation Measures (Structural & Non-Structural Measures)

The major hazards which are likely to affect district Haveri district as discussed in chapter 2 are being discussed below for mitigation purposes. Both structural and non-structural measures shall be taken as part of mitigation plan. Structural mitigation refers to any physical construction to reduce or avoid possible impacts of hazards, which include engineering measures and construction of hazard-resistant and protective structures and infrastructure. Non-structural mitigation refers to policies, awareness, knowledge development, public commitment, information sharing which can reduce risk



**Table 5.1: Hazard-specific Prevention & Mitigation Measures (Structural & Non-Structural Measures)**

Hazard	Possibilities Mitigation Measures	Implementing Departments	Remarks
<b>Structural Mitigation Measures</b>			
<b>Flood</b>	<ul style="list-style-type: none"> <li>• Desilting /dredging of water bodies and deepening of water channel</li> <li>• Repair/Construction of embankments/ protection wall and maintenance of Flood Channels, canals, natural drainage, storm water lines</li> <li>• Drainage improvement and Diversion of flood water in order to lower water levels in the rivers.</li> </ul>	Primary Agency: Irrigation Supporting Agency: PWD, ULBs	
	<ul style="list-style-type: none"> <li>• Vegetative cover against the land erosion</li> </ul>	Primary Agency: Forest Department	
	<b>Non-Structural Mitigation Measures</b>		
	<ul style="list-style-type: none"> <li>• Flood Zoning mapping and demarcation using GIS</li> <li>• Capacity building of volunteers and technicians.</li> <li>• Awareness generation on health and safety of livestock.</li> <li>• Promote people for the cleanliness of water channels</li> <li>• Tie-up with IMD, CWC has been strengthened so that EWS can be effectively communicated to the vulnerable community</li> </ul>	Primary Agency: DDMA, Haveri district Supporting Agency: Irrigation, District information officer, PRED, DUDC, ULBs.	
	Safety audit of existing and proposed housing stock in flood prone areas	Primary Agency: Revenue Dept. Supporting Agency: PWD, DUDC	
	<ul style="list-style-type: none"> <li>• Promotion of traditional, local And innovative practices like bamboo/plastic bottle rafts etc.</li> </ul>	Primary Agency: DRD Dept., Haveri district	
	<ul style="list-style-type: none"> <li>• Creation of trained medical first responders for first aid and resuscitation measures</li> <li>• Developing of patient evacuation plans</li> </ul>	Primary Agency: Medical and Health Department Supporting Agency: DDMA and SDMA	
<b>Structural Mitigation Measures</b>			



<b>Fire (Forest and Domestic )</b>	<ul style="list-style-type: none"> <li>Establishment of Fire stations as per Fire Safety Bye-laws</li> <li>All fire tenders should be equipped with wireless sets / mobile phones</li> </ul>	Primary Agency: Fire Department	
	Zoning of forest areas	Primary Agency: Dept. of Forest	
	<b>Non-Structural Mitigation Measures</b>		
	Implementation of Fire safety measures and enforcement <ul style="list-style-type: none"> <li>Updating basic infrastructure and adopting modern fire-resistant technologies</li> <li>Improving outreach of fire services.</li> <li>Making the fire services a multi-hazard response unit</li> <li>Compulsory fire hazard evaluation of life line building e.g. Hospital, School, Warehouse, industries and all other Public Buildings</li> </ul>	Primary Agency: Fire Department Supporting Agency: Irrigation,	Fire extinguisher s will be made available in Panchayat offices far from a water source.
	<ul style="list-style-type: none"> <li>Training of community members in fire-fighting techniques</li> <li>Planning and calendar of evacuation drills/ mock drills in vital installations/ industrial plants/ government buildings / schools and critical infrastructure like hospitals, etc</li> </ul>	Primary Agency: DDMA Supporting Agency: Fire Department	
<b>Structural Mitigation Measures</b>			
<b>Earth quake</b>	<ul style="list-style-type: none"> <li>Seismic strengthening of existing structures Prioritization of structures especially critical/ lifeline structures</li> <li>Structural safety audit of critical lifeline structures e.g. Hospital, School, Warehouse, industries all other Admin Building</li> <li>Retrofitting of lifeline structures, weak or old buildings, rural unsafe house and public building and office</li> <li>Earthquake-resistant construction in urban, rural and semi-urban areas</li> </ul>	Primary Agency: PWD Supporting Agency: DTCP, DRD Dept, BESCOM, ULBs.	
<b>Non-Structural Mitigation Measures</b>			



	<ul style="list-style-type: none"> <li>• Development of Rapid Visual Screening procedures and Detailed Vulnerability Assessment</li> <li>• Regular conduction of Fire Safety Audits and Electrical Safety Audits</li> <li>• Techno-legal regime for ensuring compliance of earthquake-resistant design and construction practices in all new constructions</li> <li>• Licensing and certification of professionals Strict enforcement of guideline pertaining to seismic safety for government rural housing, urban development structure</li> </ul>	<p>Primary Agency: PWD</p> <p>Supporting Agency: DTCP, DRD Dept, BESCOM, ULBs.</p>	<p>Supporting Agency: DTCP, DRD Dept, ULBs. Safety in Urban areas of Haveri district will be assessed and the same will be disseminated with the help of workshops and trainings.</p>
	<ul style="list-style-type: none"> <li>• Mock-drills for Schools, Hospitals and , Public Buildings and trainings for mason, engineers and architects</li> <li>• Registration of trained and certified mason Mock-drills for Schools, Hospitals and , Public</li> <li>• Buildings and trainings for mason, engineers and architects</li> <li>• Registration of trained and certified mason</li> </ul>	<p>Primary Agency: DDMA</p> <p>Supporting Agency: District information officer, ULBs, DDPI, PWD</p>	<p>Trainings and awareness campaigns will be aimed at training rural population.</p>
<b>Structural Mitigation Measures</b>			
<b>Drought</b>	<ul style="list-style-type: none"> <li>• Water management including water harvesting and conservation</li> <li>• Promote modern irrigation methods in drought prone areas e.g. micro-irrigation including drip and sprinkler irrigation.</li> <li>• Rain Water Harvesting storage tanks at household level and public buildings</li> <li>• Structures for water harvesting and recharging like wells, ponds, check dams, farm ponds, etc</li> <li>• Development of fodder plots/banks</li> <li>•</li> </ul>	<p>Primary Agency: Irrigation</p> <p>Supporting Agency: PWD, ULBs and DRD Dept</p>	
	<ul style="list-style-type: none"> <li>• Afforestation with bio-diesel species through the National Afforestation Programme</li> <li>• Development of Pasture land in common property, seed farms and trust land</li> </ul>	<p>Primary Agency: Forest Department</p> <p>Supporting Agency: Agriculture Horticulture Dept.</p>	
<b>Non-Structural Mitigation Measures</b>			



<ul style="list-style-type: none"> <li>• Drought-prone area delineation at block level based on rainfall, cropping pattern, available supplement irrigation, satellite derived indicators, soil map, groundwater availability map, cattle population and fodder demand and socio- economic data</li> <li>• Gradation of drought-prone areas based on the frequency of occurrence of droughts, sensitivity to rainfall variation and vulnerability of community</li> <li>• Monitoring of drought based on rainfall and other parameters, crop health, available ground water and migration and impact on community</li> <li>• Set up control mechanism for regulated water use (ponds, small dams, check dams) on the early onset.</li> </ul>	<p>Primary Agency: Irrigation Supporting Agency: PWD,</p>	
<p>Insuring of crops</p>	<p>Primary Agency: Banks Supporting Agency: Revenue Dept. &amp; Agriculture and Horticulture Dept.</p>	
<p>Farmer education to practice drought resistant crops and efficient water use.</p>	<p>Primary Agency: Agriculture and Horticulture Dept. Supporting Agency: DDMA</p>	
<b>Structural Mitigation Measures</b>		
<p>Creation of appropriate infrastructure as mentioned in Off-site and On-site plans including Public Address system</p>	<p>Primary Agency: Dept. of Industries Supporting Agency: PWD and ULBs</p>	



<b>Chemical &amp; Industrial</b>	<ul style="list-style-type: none"> <li>Enforcement of code of practices, procedures and standards</li> <li>Audits of On-site &amp; Off-site Emergency plans at regular intervals</li> <li>Statutory inspection, safety audit and testing of emergency plans</li> <li>Safety Auditing</li> </ul>	Primary Agency: Dept. of Industries Supporting Agency: Department labour Employment,	
	Hotline telephone connection with nearby emergency services	Primary Agency: BSNL Supporting Agency: Dept. of Industries	
	Awareness generation among community	Primary Agency: DDMA Supporting Agency: Dept. of Industries	
	Training of specialized Medical First Aid Responders	Primary Agency: Medical and Health Dept. Supporting Agency: Dept. of Industries	
	<b>Structural Mitigation Measures</b>		
<ul style="list-style-type: none"> <li>Provision of adequate signboards, speed breakers and guard stones near the accident prone spots.</li> <li>Adequate construction/ resurfacing/widening etc. at risky or prone areas</li> <li>Construction of pedestrians both side of the road</li> <li>Install reflectors on roads so that deviations and medians are clearly visible to drivers.</li> </ul>	Primary Agency: PWD Supporting Agency: RTO and Revenue Dept.		
<b>Non-Structural Mitigation Measures</b>			
Setting up of a Highway Safety Patrol	Primary Agency: Police Dept.		



<b>Road Accident</b>	Awareness and Installation of warning hoardings	Primary Agency: DDMA and Revenue	
	Vehicle registration and proper investigation under road safety acts	Primary Agency: RTO	
<b>Structural Mitigation Measures</b>			
<b>Landslide</b>	Catchment area treatment/ A forestation, building up of check dams/detention basins in order to reduce the flood peaks and control the suddenness of the runoff	Primary Agency: IPH Supporting Agency: Forest Dept.	Distribution of seedlings of plant material useful in land reclamation in sloppy areas will be taken up with the
	<ul style="list-style-type: none"> <li>• Stabilization of slopes in landslides prone areas.</li> <li>• Construction of retaining walls and other structures to bring greater stability to dangerous slopes.</li> <li>• Construction walls of piles in slope areas to prevent landslides.</li> </ul>	Primary Agency: PWD Supporting Agency: IPH, DTCP,	
<b>Non-Structural Mitigation Measures</b>			
	<ul style="list-style-type: none"> <li>• Enforce land-use and building ordinances in areas susceptible to landslides and debris flows.</li> <li>• Discourage construction of buildings on steep slopes or near streams and rivers</li> </ul>	Primary Agency: DTCP,/RTO Supporting Agency: PWD	
	Assessment of the availability of equipment's that would be needed at the time of landslides and regular updating of them.	Primary Agency: PWD Supporting Agency: ULBs.	

### 1. Drought Mitigation Plan:

Drought is a normal, recurrent feature of climate and characterized in terms of its spatial extension, intensity and duration. Conditions of drought appear when rainfall is deficient in relation to the statistical multi-year average for a region, over an extended period of a season or a year, or even more. Drought is a temporary aberration unlike aridity, which is a permanent feature of climate. Drought produces wide-ranging impacts that span across many sectors of the economy and are felt far beyond the area experiencing physical drought. Direct or primary impacts of droughts are usually associated with reduced agricultural production; depleted water levels; higher livestock mortality rates and damage to wildlife and fish habitats. When direct impacts have multiplier effect through the economy and society, they are referred to as indirect impacts in terms of reduced income for farmers and agri-business, increased prices for food and timber, unemployment, reduced purchasing capacity and demand for consumption, default on agricultural loans, and reduction in agricultural employment leading to migration etc.



## **Drought Mitigation**

Mitigation measures are initiatives undertaken to reduce the incidence or minimize impacts of drought. Besides drought proofing, these measures help in adapting to climate change, restoring ecological balance and bringing development benefits to the people. However, drought mitigation programmes are not to be construed stand-alone interventions that are to be implemented only in the wake of a drought; but must form part of developmental planning in the domain of soil conservation, watershed development and forestry. As such, drought mitigation measures are to be mainstreamed in regular development programmes of Central and State Governments. Government's policy towards drought management has changed considerably over the years and now rests upon early warning & preparedness, crisis management response, medium and long-term drought mitigation measures with greater application of state-of-the art technology and scientific tools. A number of Central Governments Schemes/ Programmes have evolved over time to address the need for medium and long-term drought mitigation requirements. Notable among them are Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Integrated Watershed Management Programme (IWMP), subsuming erstwhile Drought Prone Area Programme (DPAP), National Rural Drinking Water Programme (NRDWP), Swarna-jayanthi Grameen Swarozgar Yojana (SGSY), Rashtriya Krishi Vikas Yojna (RKVY), Fodder & Feed Development Scheme etc. Besides, various area development programmes by State Governments either through their own resources or with Government of India's support like Backward Region Grant Fund (BRGF), Rural Infrastructure Development Fund (RIDF) are contributing significantly to enhance drought resilience. Central and State Governments continue to consider further possibilities of reorienting/synergizing regular development programs for achieving a robust drought resilient regime.

### **Mitigation Plan for Drinking Water during Drought Situation:**

#### **Structural Mitigation Measures for Drought**

- a) Artificial recharging of ground water, watershed programmes in privately owned small/marginal farms, laying of pipes/channels for exclusive transportation of water to dry areas;
- b) Programme for reconstruction and preservation of traditional water harvesting structures, construction of canals for transportation of water from surplus to non-surplus areas, establishment of cost-effective drip /sprinkle irrigation practices etc.
- c) Construction of watershed structures at the right place where water recharge can be enhanced/will be used for life saving irrigation at critical stages of crop growth and during drought situations.
- d) Construction of "Community Ponds" through Panchayati Raj Institutions (PRI) and maintenance by levying user charges.
- e) Augmentation of agro-based food processing industries in rural areas for sustenance of employment,
- f) Establishing chain of cold storages to minimise post-harvest losses along with adaptation of appropriate post-harvest management practices like pre cooling, cold storages and refrigerated transport. Pre-harvest losses due to diseases and pests can also be minimized through better management practices;



- g) Construction of shelters for cattle and development of infrastructure for storage and transportation of dry and green fodder etc.
- h) Ensuring provision of medicines and critical health care in the risk prone areas during drought for humans and animals;
- i) Ensuring efficient functioning of the PDS in drought affected areas;
- j) Provision of adequate infrastructure for dissemination of weather based advisories to the farming community on real-time basis in regional languages through extension machineries;
- k) Providing credit promptly in the drought affected areas and extending marketing and price support to farmers;
- l) Insurance products need to be developed for different agro-climatic zones providing coverage against drought. The Central/State Governments need to promote, agricultural insurance programmes and ensure that farmers are informed about the availability of insurance products and educate them about the need for managing their yield and income risks through insurance coverage;
- m) Identifying, procuring and keeping in readiness drought proofing materials in required quantities before the onset of monsoon season such as :- Seed & fodder Plan (including alternative varieties, mini kits etc. keeping in view the impending drought);

#### **Non-Structural Mitigation Measures for Drought:**

For creating an enabling environment for the mitigation measures existing laws including the following (illustrative) would need to be considered/reviewed/updated:-

- (i) Revisiting Mahatma Gandhi National Rural Employment Guarantee Act/Operational Guidelines of MGNREGS to include/strengthen drought mitigation measures;
- (ii) Updating of State Scarcity Relief Manuals which replaced the erstwhile famine codes on the lines of Manual for Drought Management at National level;
- (iii) Establishing a definite procedure and fixing of time frame for attending to drought relief measures;
- (iv) Establishing an appropriate water regulatory regime in consultation with the States;
- (v) Empowerment of Panchayats, Municipalities, Local bodies and inclusion of drought mitigation measures as part of their role in Eleventh and Twelfth Schedules of Constitution of India.

#### **2. Mitigation in case of Floods:**

Floods caused extensive damage to human, animal and plant life. Flood result in rendering many people homeless leading to devastation and total chaos to lack of communication and means of transportation. Haveri district is vulnerable to floods due to breach of dams. There is a major dam of **Thunga Bhadra Project** and Varada, Kumadwati, Tungabhadra and Dharma situated in the district. These dam sites are thoroughly studied by the scientist and Engineers and ensured the safety of the construction at the time of foundation. Still precautionary measures have to be taken to mitigate the disaster.



### Existing facilities:

Facilities available in the villages in the flood plain zone and also villages on higher elevations nearby have been identified. These facilities are in the form of school buildings, panchayat buildings and temples. In case of emergency such buildings will be mobilized to serve as shelters temporarily. In addition requirement of tents has also been assessed. Sources who can supply tents at a very short notice have been identified. Depending upon the need of the hour external relief will be mobilized. Time of travel of flood wave from the time of occurrence of disaster is assessed in the Study **Haveri**

**District Disaster Management Plan: 2019-20** of Dam breaks analysis. The minimum time available at the nearest habitation is about an hour. Transport requirement for emergency evacuation has been assessed. Keeping in view, the time available at respective locations, required transport facilities can be mobilized through transport department. Number of boats and coracles available and their locations have been identified and are enlisted in chapter-logistics. These can be put to service at short notice. In case of extreme emergency, machine boat services will also be mobilized. Such facilities are available and can reach the spots within about 3 hours. During such situations maintenance of law and order is very important. Help of police and home guards will be taken. There are number of police stations and police out posts in the nearby areas. District administration will be informed to keep some additional force during the monsoon season. If need be help will be taken of the reserve police force, stationed at district head quarters. As evacuation during emergency has to be carried out immediately, the flood reaches a particular village such operation may be required to be done round the clock. For operation during night, illumination in the villages is very important. These are a surety of uninterrupted power supply. Therefore, alternate lighting arrangements are necessary. It is proposed to mobilize, LPG lanterns, petromaxes, etc., in addition, advantage will be taken of the head lights of transport vehicles.

## 2. FLOOD MITIGATION

Before	During	After
<p>Learn warning signs and community alert systems</p> <ul style="list-style-type: none"><li>• Stockpile emergency building materials</li><li>• Install check valves in sewer traps to prevent flood waters from backing up in sewer drains</li><li>• Plan and practice an evacuation route</li><li>• Have disaster supplies on hand</li><li>• Develop an emergency communication plan in case of separation</li><li>• Ask an out-of-state relative to serve as the "family contact"</li><li>• Teach family members how and</li></ul>	<p>During a flood watch:</p> <p>If indoors:</p> <ul style="list-style-type: none"><li>• Turn on battery operated radio to get latest emergency information</li><li>• Get pre-assembled emergency supplies</li><li>• If told to leave, do so immediately.</li></ul> <p>If outdoors:</p> <ul style="list-style-type: none"><li>• Climb to high ground and stay there</li><li>• Avoid walking through any Flood waters.</li><li>• If in a car, turn around and go another way; if your car stalls, abandon it immediately and climb to higher ground.</li></ul> <p>During an evacuation:</p> <ul style="list-style-type: none"><li>• If advised to evacuate, do so</li></ul>	<p>Don't return home until authorities express it is safe to do so</p> <ul style="list-style-type: none"><li>• Help neighbors whom may need assistance</li><li>• Use extreme caution when entering buildings</li><li>• Inspect foundations for cracks or other damage and examine walls, floors, doors, and windows to make sure that the building is not in danger of collapsing</li><li>• Watch out for animals, especially poisonous snakes, that may have come into your home with flood waters</li><li>• Watch for loose plaster and ceilings that could fall</li></ul>



when to turn off the gas, electricity, and water and teach children how • Ask your insurance agent about flood insurance	immediately to avoid flooded roads, being sure to follow recommended evacuation routes and listen to radio for evacuation instructions	• Take pictures of damage for insurance claims • Look for fire hazards • Throw away all food (including canned) that has come in contact with flood waters
---	--	--

### 3. Lightning:

Lightning is a natural phenomenon of the district. Every year people as well as cattle die due to the lightning. Therefore the proper measure needs to be taken to reduce the death toll.

Few Tips to survive lightning:

- If you are in a building it is advisable to stay inside. Stay away from windows, doors, fireplaces, stoves, metal pipes, sinks and other electrical charge conductors.
- Unplug TVs, radios and other electrical appliances.
- Don't use the phone or other electrical equipment.
- If you are outside, seek shelter in a building, cave or depressed area. Lightning typically strikes the tallest item in an area.
- If you're caught in the open, bend down with your feet close together and your head down. Don't lie flat - by minimizing your contact with the ground you reduce the risk of being electrocuted by a ground charge.
- Get off bicycles, motorcycles, and tractors.
- If you are in a car, stop the car and stay in it. Don't stop near trees or power lines that could fall.

Before Disaster	During Disaster	After Disaster
-Installation of an effective lightning rod system -Staying inside for at least 30 minutes after the last strike -Seeking shelter in a low area and staying away from trees while being caught up in an open area -Staying away from metal objects and tall objects, such as telephone poles, light standards, antennas and tall trees -Staying away from water sources like swimming pool, ponds, lakes or rivers	-Mobilization of specialized equipment and machinery to affected areas -Arrangements to be made for quick transportation of injured victims to the hospitals	-Arrangements for distribution of gratuitous relief and cash doles

#### 4.2.1.1 Do's and Don'ts during Lightning

- If caught on high ground or in an open area, seek shelter in a low area and stay away from trees.
- If you are swimming, get out of the water immediately, and move away from the body of water. Being near water is extremely dangerous during a lightning storm.
- If you are caught in a lightning storm with a group of people, maintain a distance of at least 50-100 feet between each person.



- While inside, keep windows closed, and try to stay within inner rooms of the structure
- In a car, try to avoid touching any part of the metal frame or the car's glass.
- Stay inside at least 30 minutes after the last strike. Don't go out if the rain starts letting up.

#### **4.2.2 Measures to be taken –Chemical/Industrial Disaster**

In Haveri District most of MAH units are located Ranebennur taluk. Following are the emergency response plan for various types of industrial disasters as identified in.

##### **4.2.2.1 Prepare for a Chemical Emergency**

- Avoid mixing chemicals, even common household products. Some combinations, such as ammonia and bleach, can create toxic gases.
- Always read and follow the directions when using a new product. Some products should not be used in small, confined spaces to avoid inhaling dangerous vapors. Other products should not be used without gloves and eye protection to help prevent the chemical from touching your body.
- Store chemical products properly. Non-food products should be stored tightly closed in their original containers so you can always identify the contents of each container and how to properly use the product. Better yet – don't store chemicals at home. Buy only as much of a chemical as you think you will use. If you have product left over, try to give it to someone who will use it. Or see below for tips on proper disposal.
- Beware of fire. Never smoke while using household chemicals. Don't use hair spray, cleaning solutions, paint products, or pesticides near the open flame of an appliance, pilot light, lighted candle, fireplace, wood burning stove, etc. Although you may not be able to see or smell them, vapor particles in the air could catch fire or explode.
- Clean up any spills immediately with some rags, being careful to protect your eyes and skin. Allow the fumes in the rags to evaporate outdoors in a safe place then wrap them in a newspaper and place the bundle in a sealed plastic bag. Dispose of these materials with your trash. If you don't already have one, buy a fire extinguisher that is labeled for A, B, and C class fires and keep it handy.
- Dispose of unused chemicals properly. Improper disposal can result in harm to yourself or members of your family, accidentally contaminate our local water supply, or harm other people or wildlife.

Many household chemicals can be taken to your local household hazardous waste collection facility. Many facilities accept pesticides, fertilizers, household cleaners, oil-based paints, drain and pool cleaners, antifreeze, and brake fluid. Some products can be recycled, which is better for our environment. If you have questions about how to dispose of a chemical, call the facility or the environmental or recycling agency to learn the proper method of disposal.

##### **4.2.2.2 Toxic Release**

The emergency procedures address to large-scale release of toxic chemical like ammonia having widespread impact.

- Assess the situation in consultation with industries handling toxic chemicals like Ammonia, Benzene, H<sub>2</sub>S. Depending on the situation, determine the action to be taken.



- Inform general public with the help of police, Radio broadcast or TV channel about required precaution to be taken.
- In case of ammonia leakage, instruct general public to cover their nose with wet cloth and move towards safe location notified (crosswind direction).
- Ask them to evacuate or remain indoors as per the situation.
- Instruct the villagers to free all the live-stocks to enable them escape. They will move out to safe place by their natural instinct.
- If evacuation is required, determine the area to be evacuated in downwind direction to designated Safe Assembly points.

#### **4.2.2.3 Fire / Explosion**

Leakage of LPG from storages or tankers and subsequent fire / explosion can cause widespread damage. Emergency response action for tackling LPG leaks is given below.

- Leaks from LPG storages, tankers, LPG pump glands, pipes flanges or pipeline ruptures or from vent emissions due to cargo tank over-pressure or relief valve failure will initiate a vapour cloud. Therefore, in case of release of large quantity of flammable vapour, immediate effort should be directed to eliminate source of ignition. In such event, eliminate all sources of ignition i.e. open flames, welding, cutting, operation etc.
- If possible, isolate the vessel involved in the incident.
- Direct or disperse the vapour cloud away from such sources by means of fixed and/or mobile water sprays or by water fog arrangement.
- If ignition does occur, there are chances of flash back to the source of leak. Leaks from pipelines are likely to be under pressure and these, if ignited, will give rise to a jet flame.
- In such a case it may be safer to allow the fire to burn out while protecting surroundings by copious cooling water rather than to extinguish the fire and risk a further vapour cloud which may result in explosion or flash back on encountering ignition source again.

Spillage of POL products in the industry will generally be contained in dyke resulting in confined pool. Leakages from road/rail tankers will result into unconfined pool. Emergency response actions for tackling such leaks are given below.

- A liquid spillage on land from tank or pipeline ruptures may be in large quantities and will generally be contained in bonded areas or culverts. The ignition of the ensuing vapour cloud would then result in a pool fire.
- If possible, isolate the vessel involved in the incident.
- Fire fighting operation should be carried from upwind direction.
- The hydrocarbon liquids like POL burn with a production of soot. Hence fire fighting operation should be carried out using respiratory personal protective equipment and / or fire proximity suits.
- Cool surrounding area exposed to heat radiation or flame impingement, with water in order to prevent secondary fire. It is suggested that fire fighters should maintain safe distances from fire.



- The bunds or dykes are provided around the storage tanks storing flammable materials to limit the size of any pool fires. The storage tanks containing Class 'A' products are normally provided high expansion foam pouring arrangement to control the rate of burning. This is to be activated in the event of a fire.
- If there is no fire, arrangement should be made to pump out / transfer spilled material to safer place e.g. into another tank or tankers.

Before Disaster	During Disaster	Post Disaster
<p>➤ To familiarize professionals like fire fighters, medical personnel with special tactics and hazards, and enabling them to test their part of the plan</p> <p>➤ To review the total plan, including communications and logistics, so that updating modifying and training activities can be improved</p>	<p>➤ Control emergency by arresting leakages, spillage, fighting fire, shutting off the valves and / or equipment etc. by utilizing the combat team</p> <p>➤ Take measures to preserve the property and minimize damage to environment and loss of material by segregation, covering, salvaging and diverting fire as required</p> <p>➤ Take care of the surrounding areas to reduce the 'domino effect'</p> <p>➤ Nullifying the sources of leak / toxic release</p>	<p>➤ To ensure that law and order is maintained at evacuation/ relief centers and in the affected areas as well</p> <p>➤ Identify the trauma cases and counsel them appropriately</p> <p>➤ Identify and characterize the source and its origin</p> <p>➤ Arrangements for distribution of gratuitous relief and cash doles</p> <p>➤ Special attention to ladies, children and elders</p>

#### 4.2.4 SPONSE PROCEDURE - TRANSPORTATION DISASTERS Road Tanker Accident

Various hazardous chemicals are transported along the major roads in the district. Any accidents involving these tankers may or may not result in release of hazardous chemicals.

Following procedures is formulated to deal with such emergencies

- It should be the endeavor of the first observer to immediately inform the nearest Police Station clearly indicating the location of the accident and the number of vehicles affected.

**While talking to the caller the following information should be sought from him:**

- Where has the accident occurred?
- Where is the accident location i.e. nearest village / town etc?
- How many people are hurt?
- Is the driver alive and is he around?
- What is material involved in the accident, is it hazardous? And has he initiated any action? (if driver is calling)
- How many vehicles are involved in the accident?
- Is the road blocked due to accident?



- Is it a tanker or trailer?
- Can you cite any fire?
- Is any leakage observed from tanker?
- Do you feel any irritation in your throat or eyes?

**Instructions by Police to be given immediately to the caller / Informer are:**

- Ask no one to go near the tanker.
- Do not try to plug the leak.
- Try to instruct people to move away from the downwind direction of the leak (in the direction of wind).
- Stay clear from the road
- The Police should immediately rush to the site and cordon off the accident site from either side of the State Highway/District road and stop the traffic on either side.
- Request for ambulance and heavy equipment like crane for rescue operation and normalisation.
- Police should ascertain the chemical in the tanker based on HAZCHEM code on the tanker or from the tremcard. The information may also be obtained from tanker crew, if not seriously injured.
- Inform the District Administration, fire brigade and nearby industry who are supplier / user of these chemicals, if information available. Industry to be contacted for specific chemicals is given below.
  - Depending on nature of chemicals, action should be initiated to evacuate the persons in downwind direction. If chemical is flammable like LPG, Petrol or others, effort should be made to put-off all ignition sources like open flame, bidis, cigarettes etc.
  - All the vehicles in vicinity should be asked to stay put and with their ignition off.
  - Using proper personal protective equipment, rescue of affected persons should be initiated. Proper medical attention should be provided.
  - On arrival of expert help and depending on the situation, efforts should be made to contain the leak or transfer into another tanker or to neutralise the leak.



## **CHAPTER-6**

### **PREPAREDNESS MEASURES**

#### **6.1 Introduction**

Disaster preparedness is a broad concept that describes a set of measures that minimises the adverse effects of a hazard including loss of life and property and disruption of livelihoods. Disaster preparedness is achieved partially through readiness measures that expedite emergency response, rehabilitation and recovery and result in rapid, timely and targeted assistance. It is also achieved through community-based approaches and activities that build the capacities of people and communities to cope with and minimise the effects of a disaster on their lives. Section 30

of DM Act 2005, states that the “District Authority shall review the preparedness measures & give directions to the concerned departments at the district level or other concerned authorities where necessary for bringing the preparedness measures to the levels required for responding effectively to any disaster or threatening disaster situation”. The present DDMP of Haveri provide detailed preparedness plan with role and responsibilities of each departments pre-, during- and post- disaster. The plan basically detailed out preparedness strategy under which communities and district authorities would be prepared so that level of destruction and unnecessarily delay in relief and response can be reduced. The preparedness measures that is going to include in this chapter include discuss and setting up disaster relief machinery, formulation of community preparedness plans, training to the specific groups and earmarking funds for relief operations.

#### **6.2 Identification of Stakeholders involved in Preparedness**

Preparation for the disasters is a joint venture of various departments and agencies within the district. Accordingly, departments wise preparedness checklist and their task and responsibilities given in table 5.1.

#### **6.3 Preparedness and evacuation for disabled**

- 6.3.1 Persons with disabilities are often overlooked during a disaster. Keeping this in view, some potential problems encountered by people with various types of disabilities and possible measures taken are mentioned below for preparedness during response and evacuation:
- 6.3.2 Training of the support staff of the disabled people with regards to response and evacuation
- 6.3.3 The physically impaired should be provided with whistles as part of emergency preparedness kit.
- 6.3.4 Clear markings for the evacuation routes in all government buildings
- 6.3.5 Procurement of equipment for physical impaired people like mobility aids
- 6.3.6 Use of picture cards to communicate immediate needs of food, water, toilet, medication, etc. by the impaired.



**Table 6.1: Department wise Preparedness Checklist and their task and responsibilities**

SN	Department	Preparedness Task and Responsibilities
1.	District Administration/DDMA	<ul style="list-style-type: none"> <li>• Prepare, Coordinate and monitor overall district response to DRR.</li> <li>• Review the state of capabilities for responding to any disaster or threatening disastrous situation</li> <li>• Advise, assist and coordinate the activities of the other Departments Establish stockpiles of relief and rescue materials</li> <li>• Ensure communication systems are in order Mock drills are carried out periodically;</li> <li>• Ensuring of preparing response plans by Departments of the Government</li> <li>• Ensure enforcement of the codes, bylaws and act such as National Building Code, Bureau of Indian Standards, etc in the upcoming development projects, construction work, and commercial complexes.</li> </ul>
2.	DEOC	<ul style="list-style-type: none"> <li>• Proper functioning of the DEOC including hunting line 1077</li> <li>Keep updated resource inventory for disastrous situation (IDRN) Keep updated the functioning of Satellite phones</li> <li>• Stock piling of multi –hazard emergency equipment and maintenance</li> </ul>
3.	Police Department	<ul style="list-style-type: none"> <li>• Ensure proper functioning of all equipments.</li> <li>• Ensure proper mechanism in place for early warning of different hazards through police stations and police posts.</li> <li>• Arrange for public address system and siren.</li> <li>• Prepare for temporary installation of wireless systems between district and subdivisions in case of any damage to existing wireless system with the department.</li> <li>• Train the communication wing of police in setting up control room at short notice at a required site.</li> <li>• Prepare Contingency Plan for response to bomb blast, riots, terrorist attack and other law and order emergencies.</li> <li>• Prepare deployment plan of home guards and other volunteers for protection of property of affected community.</li> <li>• Prepare for proper arrangement for custody of recovered belongings and property from dead bodies and affected sites.</li> <li>• Police personal and staff of PCR vans should keep basic first aid box and ensure proper functioning of equipments.</li> <li>• Prepare for proper protection to women, girls and children to avoid cases of human trafficking.</li> <li>• Prepare for protection of dead bodies to avoid their theft and false claims.</li> <li>• Train police personnel and staff of PCR vans in first aid and basic life saving techniques.</li> <li>• Prepare for safety and security of food and other commodities.</li> <li>• Prepare for protection against hoarding, black marketing of relief material.</li> <li>• Prepare for safety and security arrangements for evacuated area, affected area, transit camps, relief camps, hospital, medical centre, cattle camps and feeding entrees.</li> </ul>



		<ul style="list-style-type: none"> <li>• Ensure traffic plan of Police at disposal.</li> <li>• Keep updated telephone Nos and databases of reserved battalions of police, BDS and Dog Squad in police control Room</li> </ul>
4.	Home Guards	<ul style="list-style-type: none"> <li>• Ensure proper functioning of all equipments.</li> <li>• Prepare teams trained in search and rescue, first aid, firefighting, etc.</li> <li>• Prepare a database of volunteers and equipments and update the same in DDMP. Emergency arrangements in industries and direct for corrective measures, if necessary, with respect to statutory provisions for safety.</li> <li>• Direct the management of industries and units to prepare on-site</li> <li>• Emergency plan of their units.</li> </ul>
5.	Fire Services	<ul style="list-style-type: none"> <li>• Ensure proper functioning of all firefighting equipments, appliances and respiratory equipments.</li> <li>• Ensure important buildings should have sketched maps and marked evacuation routes with glowing sign.</li> <li>• Ensure regular evacuation drills as per evacuation plans in all important buildings, malls, hospitals, etc.</li> <li>• Make a database of existing firefighting services and facilities provided with private agencies.</li> <li>• Be aware of MAH units and other potential hazardous installations and level of possible emergency required.</li> <li>• Prepare to deal with leakage of flammable toxic substances.</li> <li>• Ensure, at disposal, the list of adverse effects of chemicals and antidotes/ methods to deal with emergency involving each chemical. This is prepared by Department of Industrial Safety and Health</li> <li>• Review the adequacy of existing fire prevention arrangements in each MAH and other hazardous units before and after the installations. Share the report with Department of Industrial Safety and Health.</li> <li>• Identify roads and routes of access and escape to and from MAH and other potential hazardous units.</li> </ul>
6.	Health Department	<ul style="list-style-type: none"> <li>• Prepare trained team of paramedics.</li> <li>• Develop dos and don'ts and IEC materials regarding health and hygiene.</li> <li>• Organise awareness camps with help of PHCs and Development and Panchayat Department for hygiene promotion and public health issues.</li> <li>• Ensure availability of trained mobile medical teams at disposal. Prepare psychological and psychosocial care teams.</li> <li>• Ensure availability of generator sets and buffer stock of fuel at disposal. Ensure availability of adequate supply of life saving equipments and stock of medicines, portable supplies including portable oxygen cylinders, portable X-ray machine, portable ultrasound machines, triage tags, etc.</li> <li>• Ensure availability of adequate space with suitable facilities for storage of medicines.</li> <li>• Prepare a database of private hospitals and nursing homes with services and facilities available.</li> <li>• Prepare a database of doctors registered with Indian Medical Association (IMA).</li> </ul>



		<ul style="list-style-type: none"> <li>• Prepare a database of available ambulance services from government, private agencies and District Red Cross Society, if any.</li> <li>• Ensure, at disposal, list of MAH units and hazardous chemicals stored in them.</li> <li>• Ensure, at disposal, the list of antidotes for various hazardous chemicals. This list is prepared by Department of Industrial safety and Health.</li> <li>• Ensure availability of adequate supply of blood units.</li> <li>• Prepare database of blood donors in the district and update the same in DDMP.</li> <li>• Prepare a database of providers of refrigerated vehicles for transportation of vaccines, blood, blood products, etc.</li> <li>• Train drivers and attendants of ambulance and mobile medical units in first aid and basic life saving techniques.</li> <li>• Prepare a decontamination ward in view of any possible chemical or industrial hazard.</li> <li>• Prepare for prompt establishment of temporary hospital, mobile surgical unit, etc at short notice, near the affected area.</li> <li>• Ensure proper and safe mechanism for medical waste disposal. Prepare for proper disease surveillance system.</li> <li>• Make proper arrangement and mechanism for mass casualty management.</li> </ul>
7.	Agriculture Department	<ul style="list-style-type: none"> <li>• Prepare Agriculture Contingency Plan.</li> <li>• Constitute a Crop Weather Watch Group at district level (as per 'A Model Manual for Drought Management', GoI) with representatives from Meteorological Department and concerned officers dealing with agricultural inputs, credit extension, etc to keep a close watch on the monsoon situation, extreme temperature, hail and wind storm.</li> <li>• Identify vulnerable areas prone to pest infestation, drought, flood and other hazards.</li> <li>• Ensure awareness generation in farmers regarding various plant diseases, alternate cropping practices in disaster-prone areas, crop insurance, provision of credit facilities, proper storage of seeds, etc.</li> <li>• Provide training to farmers in alternate cropping techniques mixed cropping and other agricultural practices which minimise crop losses during future disasters.</li> <li>• Ensure surveillance for pest infestation and crop diseases.</li> <li>• Ensure availability of stock for immediate replacement of broken/non-functioning gadgets/equipments.</li> <li>• Ensure availability of adequate stock of seeds and other agro inputs particularly for areas vulnerable to hazards.</li> <li>• Prepare trained and equipped team for assessment of damage to soil, crop, plantation, drainage, embankment, other water bodies and storage facilities that might impact agricultural activities.</li> <li>• Prepare for establishment of public information booths, with appropriate and modern means of communication, to assist farmers in providing information regarding insurance, compensation, repair of agro equipments and restoring of agricultural activities at the earliest.</li> <li>• Identify sources of feed and fodder.</li> </ul>



8.	Animal Husbandry	<ul style="list-style-type: none"> <li>• Ensure isolation / separation of sick and healthy animals and prepare for arrangements for keeping, feeding and watering of animals suffering from contagious diseases.</li> <li>• Sensitize farmers/ owners for above problems.</li> <li>• Ensure separate transportation of animals suffering from contagious diseases.</li> <li>• Ensure proper disinfection of space, vehicle and manpower involved in transportation of sick/ infected and dead animal from contagious diseases.</li> <li>• Ensure fully functional mobile veterinary unit at disposal.</li> <li>• Prepare a database of veterinary hospitals/ clinics and agencies working for animal care.</li> <li>• Ensure availability of stocks of mineral and feed supplements, lifesaving drugs, electrolytes, vaccines, etc.</li> <li>• Ensure sensitization of farmers about protection of their feed and fodder prior to the onset of monsoon.</li> <li>• Ensure filling feed banks before the scarcity period.</li> <li>• Prepare for the feed of the poultry birds for drought situation.</li> <li>• Locate feed and fodder banks in view of submergence situation during the monsoon.</li> <li>• Identify source for procurement of fodder.</li> <li>• Identify safe locations for fodder depot and cattle camps within the district.</li> <li>• Ensure assured source of water or canals for drinking and growing fodder along with the above locations.</li> <li>• Prepare for necessary arrangements of tatties, gunny bags and tarpaulin sheets to cover the sheds during heat and cold waves.</li> <li>• Prepare for special care for productive, lactating and pregnant animals; also supplement them with additional concentrates and fodder.</li> <li>• Ensure proper administration of deworming and vaccinations for cattle, sheep and goats, pigs and other relevant measures for disease management.</li> <li>• Prepare for arrangements for transportation of critically injured livestock.</li> <li>• Identify space for burial of animals and ensure proper disposal of dead animals.</li> </ul>
9.	Bharat Sanchar Nigam Limited	<ul style="list-style-type: none"> <li>• Procure recovery plans from private communication service providers for their recovery time objectives.</li> <li>• Prepare for alternate communication System</li> </ul>
10.	Rural Development and Panchayat Raj	<ul style="list-style-type: none"> <li>• Prepare mechanism for proper solid waste management, disposal of waste and removal of debris in shelter and relief camps, feeding centers and affected rural areas.</li> <li>• Prepare for sanitation operations in view of post flood situations.</li> <li>• Ensure availability of tractor trolleys and other required equipments for the same.</li> </ul>



		<ul style="list-style-type: none"> <li>• Plan to provide building/guest house/dharamshalas at different locations to establish control room, first aid and medical post or shelters during emergency.</li> <li>• Prepare a database of catering services providers.</li> <li>• Prepare mechanism for proper solid waste management and disposal of waste in shelter and relief camps, feeding centers and affected villages.</li> <li>• Prepare for prompt provision of temporary toilets/ trench latrines in the affected area and relief camps in rural area.</li> </ul>
11.	Education Department	<ul style="list-style-type: none"> <li>• Organise awareness generation programs in schools and colleges for students, teachers, administrative staff and other helpers. These programs should focus on dos and don'ts for various hazards and safe evacuation in case of any emergency.</li> <li>• Conduct hygiene promotion activities as per direction issued by the Health Department on a regular basis.</li> <li>• Ensure preparation of first aid and disaster management kit in each school and college.</li> <li>• Ensure preparation of school and colleges disaster management plan.</li> <li>• Identify safe schools and colleges to serve as relief shelter in case of any emergency within that area, only for short period of time.</li> </ul>
12.	Food & Supplies Department	<ul style="list-style-type: none"> <li>• Prepare a database of godowns and cold storage facilities in the district. Prepare a database of catering services providers.</li> <li>• Prepare for safety of stored food grains in godowns against inundation and water logging, fire and other possible hazards.</li> <li>• Prepare for out-movement of food grains to a pre-decided safer location, if required.</li> <li>• Ensure availability of adequate food grains storage in godowns in view of the scarcity or emergency period.</li> <li>• Prepare a database of kerosene depots, petrol pumps, gas agencies, etc and update the same in DDMP.</li> <li>• Ensure availability of adequate stock of gas cylinders, kerosene, etc.</li> <li>• Prepare database of private retailers and wholesalers of edible food items.</li> <li>• Prepare a database of providers of refrigerated vehicles for transportation of perishable food items.</li> <li>• Prepare for large scale movement of food grains, their transportation, expeditious unloading, proper storage and prompt distribution through fair price shops, if required.</li> <li>• Prepare a database of private providers of tents, tarpaulin sheets, poles, kanats, cooking utensils, polythene bags, shrouds and other essential items that could be used for community kitchen and cremation and burial.</li> </ul>
13.	Forest Department	<ul style="list-style-type: none"> <li>• Ensure proper functioning of all equipments and vehicles. Prepare a database of Ara machine holders carpenters.</li> <li>• Prepare team for catching wild animals to prevent infiltration in habituated areas, relief camps, etc.</li> <li>• Prepare for supply of wood for cremation.</li> </ul>



14.	KSRTC	<ul style="list-style-type: none"> <li>• Ensure proper functioning of filling station, vehicles and equipments including fire extinguishers, first aid kits, etc.</li> <li>• Prepare for prompt deployment of vehicles at short notice for various purposes like mass evacuation, transportation of response teams, relief items, victims, etc.</li> <li>• Prepare mechanical team for prompt repair of equipment and vehicles.</li> <li>• Drivers and conductors in first aid and basic life saving techniques.</li> <li>• Identify the vehicle for rescue operations.</li> <li>• Be well familiar with routes of potential hazardous installations and follow incident traffic plan.</li> </ul>
15.	Irrigation Department	<ul style="list-style-type: none"> <li>• Ensure proper early warning mechanism in place for flood by monitoring water level of surface water bodies.</li> <li>• Ensure proper and timely inspection of conditions of bunds, siphons, regulators, embankments, inlet and outlets of lakes and reservoirs, etc.</li> <li>• Ensure timely de-silting and dredging of rivers and canals, if required. Ensure prompt repair of channels, if required.</li> <li>• Ensure proper functioning of all equipments including dewatering pumps.</li> <li>• Prepare for the arrangements of clean drinking water for affected livestock and poultry.</li> </ul>
16.	Municipalities	<ul style="list-style-type: none"> <li>• Prepare for sanitation operations in view of post flood situations within jurisdiction of the area.</li> <li>• Ensure cleaning of drains before the monsoon season.</li> <li>• Prepare mechanism for proper solid waste management and disposal of waste in shelter and relief camps, feeding centers and affected area.</li> <li>• Ensure availability of tractor trolleys and other required equipments for the same.</li> <li>• Prepare mechanism for proper solid waste management, disposal of waste and removal of debris in shelter and relief camps, feeding centers and affected areas in their jurisdiction.</li> <li>• Plan to provide building/ guest house at different locations to establish control room, first aid and medical post or shelters during emergency in coordination with DDMA.</li> </ul>
17.	Pollution Control Board	<ul style="list-style-type: none"> <li>• Prepare a database of hazardous chemicals and pollutants in the districts and their probable adverse effects on environment.</li> <li>• Prepare for methods and techniques of decontamination of the same.</li> </ul>
20.	District Information Officer	<ul style="list-style-type: none"> <li>• Prepare for proper public address system ensuring rumour control. Prepare for media management.</li> <li>• Ensure database of dos and don'ts of all possible hazards in the district.</li> <li>• Ensure distribution of IEC material to community for awareness generation about the same.</li> <li>• Publicise the information in the interest of public awareness through booklets, pamphlets, radio, television, film shows, newspapers, documentary films, door to door campaign, meetings, etc.</li> </ul>



21.	Public Works Department	<ul style="list-style-type: none"> <li>• Ensure availability and functioning of all equipments like cranes, JCB, etc.</li> <li>• Prepare a data base of availability of heavy equipments like cranes, JCB with private agencies also.</li> <li>• Ensure, at disposal, the list of MAH units and other vulnerable buildings Prepare for prompt clearance of debris.</li> <li>• Prepare the demolishing squad for prompt demolition of unsafe buildings.</li> <li>• Prepare for prompt clearing and repairing of damaged roads, culverts, bridges and flyovers.</li> <li>• Prepare for construction of new temporary roads at short notice for diverting traffic from the affected area.</li> <li>• Prepare for construction of temporary facilities like that of medical post, temporary shelters, etc at short notice.</li> <li>• Prepare for prompt establishment of helipad near the affected site for VVIP visits.</li> <li>• Prepare for restoration of government buildings damaged during disaster.</li> </ul>
22.	Regional Transport Authority	<p>Make a database of private vehicles available with schools, colleges and other private agencies.</p>
23.	Revenue Department	<ul style="list-style-type: none"> <li>• Ensure regular monitoring of rain gauge and regular updation of database for distribution and variation in rainfall.</li> <li>• Ensure proper mechanism in place for early warning of different hazards to village level through tahsildars.</li> <li>• Ensure proper functioning of district Flood Control Room during monsoon period and otherwise, if required.</li> <li>• Identify villages vulnerable to flood and drought.</li> <li>• Prepare a database of critical and lifesaving infrastructure in the district Prepare a database of safe locations for evacuation.</li> <li>• Identify possible safe sites for temporary shelters, relief camps and staging area.</li> <li>• Ensure availability of fully functional boats, life jackets and oars in view of flood condition of the district.</li> <li>• Prepare a database of voluntary organizations and service they offer.</li> <li>• Ensure the authenticity of the same.</li> <li>• Identify competent persons/experts from various required fields for carrying out damage and need assessment post disaster.</li> <li>• Prepare proper mechanism for disbursement of compensation to victims or families of deceased.</li> <li>• Prepare a database of safe locations for relief distribution site for mass care and housing.</li> <li>• Identify site(s) for temporary burial.</li> </ul>



**Table 6.2: Hazard preparedness of Haveri district**

District level agency	Available Preparedness	Preparedness that needs to be strengthened
Drills	<p>Off-Site Emergency Mock Exercise in the month of Dec. 2017 was conducted on district level in LPG plant.</p> <p>Mock drills on school safety are conducted on regular intervals in schools of the district.</p>	<ul style="list-style-type: none"> <li>➤ In order to inculcate a culture of preparedness among the industry, community and first responders.</li> <li>➤ Facilitate the District officials in reviewing adequacy and efficiency of the disaster management plans of the district.</li> <li>➤ To evaluate the resource available with various departments within the industry.</li> <li>➤ In doing so enhance co-ordination amongst various personnel.</li> <li>➤ To evaluate Standard Operating Procedure (SOP).</li> </ul> <p>Iron out all the administrative issues.</p>
Search & Rescue:	<p>The Prime Nodal Agency for Search and Rescue within District is Police along with Home Guards. In case the incident is beyond the capacity of the district and state NDRF.</p>	<p>The district is prepared to handle a localized disaster only. The district will procure additional SAR equipment and train the personnel who are identified to handle such SAR equipment.</p>
Damage & Loss Assessment	<p>The Nodal Officer for assessment of the damages and loss will be with the Revenue department with key departments</p> <p>Damage assessment is carried out with regards to building stock, standing crops, agricultural area, livestock lost, forest cover decimated, vital installations etc. for better rescue and relief. Damage assessment is conducted in 2 phases: Rapid and Detailed Damage Assessment</p>	<p>The district will identify teams to undertake damages and needs assessment and such teams will be adequately trained in damages and needs assessment.</p>
Medical First Aid	<p>The department can give medical aid to a small scale disaster. They are equipped with medical kits, stretchers, X-Ray etc., 200 bed capacity and power backups.</p> <p>Health staff showed active participation in mega mock exercise and a practical example of triage system of the injured and dead was adopted by them while portraying a post-disaster situation.</p>	<p>The district health department needs to be rendered with adequate no. of ambulances or emergency vehicles in order to tackle a disaster situation.</p> <p>Health department needs to make a DM plan and update their resource information.</p> <p>Training of Home Guards/Police/Nurses, ASHA ANM/Volunteers.</p> <p>Facilitation of First Aid Kits to the stakeholders for medical services till village/ community levels</p>



<p>Mass Casualty Management</p>	<p>Nodal Officer is DHO and MS of the district with support 108/ Red Cross/ Police/ Home Guards and other suitable agencies</p> <p>The identified regional hospitals of the district along with the other private hospitals and CHC, PHC's will get operational in a disaster event.</p> <p>Human Resource preparedness within District comprises of General Surgeons, Medical Specialist, Gynecologist, Radiologist, Orthopedic Surgeon, Nurses, ASHA, ANM, Senior students of medical institutions, Veterinary Surgeon &amp; Gynecologist, ENT, and Bed Strength. Regional Hospitals are supported by the Blood Banks and list of donors.</p> <p>Equipment available with the medical departments or other agencies consists of stretchers, ambulances, various other emergency machinery like X-Ray machines, Ultra Sound.</p>	<p>Training of medical staff in management of mass casualty along with strengthening of necessary equipment. Another identified gap is not having sufficient medicinal stock for the same.</p> <p>A mortuary with bigger capacity needs to be made for a post disaster event.</p>
<p>Relief, food &amp; Water</p>	<p>Nodal Officer is the District Food and Civil Supply Department with support of Revenue/ Health and Family Welfare.</p>	<p>Gap- Non- Availability of adequate Warehouses/ storage areas along with Fair Price Shops, availability of Cylinders, wood, utensils, clothing's at the community / Village level to be required.</p>
<p>Shelter/ Medical/ Relief Camp</p>	<p>Nodal Officer for the Shelter /Medical/ Relief Camp is DDMA with the Key stakeholders such as Revenue, Education departments</p> <p>The possible sites for the establishment of the above Camps are the schools, community shelters, parking areas, temple areas and open grounds within the district.</p>	<p>Gap- Non Availability of basic utilities for functioning of camps.</p> <p>DM plan/team needs to be formed in all panchayats of district and shelters for animals and people need to be identified at village level.</p>



## **6.4 Community and local level preparedness**

The plan recognizes the fact that in the event of disaster communities are the first responders and hence there is no better alternative to community and local level capacities for disaster response. In order to enhance communities' capacity to take action to help themselves in the absence of necessary outside response for days the plan envisages creating necessary awareness about hazards, risks and response. Areas which would be specifically addressed for community preparedness are-

- 6.4.1 Evacuation
- 6.4.2 Medical first aid
- 6.4.3 Light search and rescue
- 6.4.4 Search and rescue extrication from damaged buildings
- 6.4.5 Debris clearance
- 6.4.6 Support fire fighting

Plan also envisages equipping community at Panchayat level by ensuring the provision of medical supply, communication such as radio, TVs, extrication equipment. Panchayat will be encouraged to establish local early warning systems in higher vulnerable areas and for holding community level disaster response drills. Development of response capacity at Panchayat level for first response would help in avoiding desperate situation. Creation of Sub-division level stock pile for relief and warehouses would be ensured.

## **6.5 NGO Participation**

Sections 35 and 38 of the Disaster Management Act inter alia specifically emphasis the coordination of actions with NGOs. The National Policy on Disaster Management (NPDM) also states the national vision for community mobilization and participation in DM and aims to provide momentum and sustenance through the collective efforts of all government agencies and NGOs. There is emphasis on community based disaster management, including last mile integration of the policy, plans and execution and early warning dissemination. Promoting a productive partnership with NGOs is a prominent thrust area in the NPDM. There is a large scope for improving the engagement of NGOs in DM and on efficiently utilizing their unique advantages and core competencies by strengthening humanitarian coalitions, alliances and NGO networks. There is also need to strengthen public awareness, capacity building and knowledge management through CBOs and NGOs. Institutional mechanisms for the advocacy and engagement of NGOs with government agencies on DM concerns require to be strengthened. Replication and scaling up of community level good practices has to be promoted.

## **6.6 Community Based Disaster Preparedness**

Communities are not only the first to be affected in disasters but also the first responders. Community participation ensures local ownership, addresses local needs, and promotes volunteerism and mutual help to prevent and minimize damage. The community participation for DM would be promoted on the motto of "self-help", "help thy neighbor" and "help thy community". The needs of the elderly, women, children and differently able persons require special attention. Women and youth will be encouraged to participate in decision making committees and action groups for management of disasters. Networking of youth and women based organization would be done and they will be trained in the various aspects of response such as first aid, search and rescue, management of community shelters, psycho-social counseling,



distribution of relief and accessing support from government/agencies etc. Community plans will be dovetailed into the Panchayat, Block and District plans. Preparedness to face disasters is required at all levels right from the Household to the state Government to minimize the impact of Disasters. The district administration cannot provide relief and commences rescue operation immediately at the time of disaster. Therefore the first responder of any disaster can develop some traditional coping mechanisms by the local community which reduce their vulnerabilities. The involvement of the community is the key factor in any disaster preparedness. The participation of the community is vital to sustain the activities of rebuilding the shattered community life.

#### **Community Based Disaster Preparedness is:**

- ❖ A response mechanism to save life, livelihood, livestock and assets with available resources within the community.
- ❖ Leads to multi pronged development interventions to address the root cause of vulnerability.
- ❖ Leads to a self-reliant disaster proof community.

In order to generate the preparedness and response within the people, Community Based Disaster Preparedness Plans (CBDP) can also be developed in all the vulnerable areas. District Disaster Management Authority, Haveri has to take initiative for community based disaster preparedness and develop ownership for sustainability of the process, effort is to be made to ensure maximum participation of all sections of the community irrespective of class, caste, sex and occupation.

#### **6.7 Media Partnership**

The media plays a crucial role in information and knowledge dissemination in all phases of DM. The versatile potential of both electronic and print media needs to be fully utilized. Effective partnership with the media will be worked out in the field of community awareness, early warning and dissemination, and education regarding various disasters. The use of vernacular media would be harnessed for community education, awareness and preparedness at the local level. The District information officer in consultation with the DDMA would take appropriate steps in this direction.

#### **6.8 Indian Disaster Resource Network**

IDRN is a nation-wide electronic inventory of resources that enlists equipment and human resources, collated from districts, states and national level line departments and agencies. It is a web based platform, for managing the inventory of equipment, skilled human resources and critical supplies for emergency response. Primary focus of IDRN portal is to enable the decision makers to find answers on availability of equipment and human resources required to combat any emergency situation. This database will also enable them to assess the level of preparedness for specific disasters. All resource related information pertaining to Haveri district is uploaded on the website.

#### **6.9 Protocol for seeking help from other agencies**

Disaster management is a multi stakeholder function. Other agencies at various levels proactively support whenever required. With the increasing incidence of more intense storms and other natural hazards, public and private stakeholders are actively seeking opportunities to respond to needs. But often, people do not always know where to begin, where assistance is most critical, who else is responding, and how actions are sustained in an effective manner. Therefore, DDMA will put in place a mechanism for seeking assistance from different stakeholders, such as Private Sector, NGO, UN agencies, Faith based organisations, Trade organisations, Public Sector undertakings, and other government agencies present in the district.



#### **6.10 Mechanisms for checking and certification of logistics, equipments and stores**

Operational readiness of the equipment required for disaster is very critical. Each department will constitute a committee for the following purpose:

1. Identify the equipment to be used during disaster response
2. Carry out verification and certification of worthiness at least once in a year
3. The committee could also make recommendation for repair, replacement or for additional procurement of equipment.
4. DDMA will review these reports annually and establish need for additional resources

#### **6.11 Operational check-up of Warning Systems**

Working with departments identified for early warning generation and dissemination, the DDMA will establish a mechanism for checking operational readiness of the early warning equipment and dissemination system. The early warning generation and dissemination will be tested at least once in a year through mock drill. Table top exercises will be carried out to keep latest contact information of agencies and department which play roles in providing and receiving early warning.

#### **6.12 Protocol and arrangements for VIP visits**

During the disaster VIP's visit affected areas to take firsthand account of situation and to oversee relief operations. It has been seen that the Ministers, members of Parliament and State legislatures, local councilors, leaders of various political parties, etc. visit the scene of a disaster to mark public concern. While organising VIP visit the following consideration needs to be taken in to account:

1. It should not interrupt or affected rescue, relief, and life saving work
2. Appropriate time for visit need to be finalised based on the ground situation
3. Local police, Revenue officials, Military, Health Department, Media and other relevant holders should coordinate appropriately
4. DDMA should prepare latest situation update and greater details about the location of visit
5. Minute to minute programme should be prepared
6. Appropriate protocols need to followed depending on the VIP who is visiting
7. Adequate security and traffic management plan should be prepared

#### **6.13 Hospital preparedness**

The District Health Officer of the district in coordination with the DDMA will ensure that the hospitals and health centers in the district are prepared to respond to various disasters. Towards strengthening preparedness the following action will be undertaken:

- 6.13.1 Train the medical staff to respond to disasters
- 6.13.2 Prepare hospital level disaster response and preparedness plan and hold mock drills
- 6.13.3 Maintaining a stockpile of emergency resources
- 6.13.4 Prepare resource mobilization plan
- 6.13.5 Maintain emergency contact numbers of various hospitals including private and military hospitals
- 6.13.6 Map and identify blood banks and blood donors in and around the district
- 6.13.7 Map and identify suppliers for critical medicines



#### **6.14 School preparedness**

The District Fire Officer /DHO of the district in coordination with the DDMA will ensure that the schools in the district are prepared to respond to various disasters. Towards strengthening preparedness the following action will be undertaken:

- ❖ Train the school teachers, staff and students to respond to disasters
- ❖ Prepare school disaster management and preparedness plan and hold mock drills
- ❖ Prepare school level task forces and train them
- ❖ Maintain emergency contact numbers of service providers such as Police, Hospitals, Ambulance services, DDMA etc.



## CHAPTER 7

### CAPACITY BUILDING AND TRAINING MEASURES

**As per the Disaster Management Act (2005), capacity-building includes:**

1. Identification of existing resources and resources to be acquired or created;
2. Acquiring or creating resources identified under sub-clause (i);
3. Organization and training of personnel and coordination of such trainings for effective management of disasters.

The primary purpose of capacity-building in disaster management is to reduce risk and thus make communities safer. This can be done by increasing resilience and enhancing coping capacities. Effective capacity-building at the district level requires the active participation of all those who are tasked with it. It must, therefore, include maintaining a comprehensive and up-to-date District Disaster Management Resource Inventory, awareness generation, education, Research and Development (R&D) and systematic and systematized training. The Deputy Commissioner should ensure the following capacity-building activities of the entire district, and the various Heads of Departments should ensure capacity-building of their respective departments. DDMA will work towards capacity building of the district to disasters by doing the following activities:

- Awareness generation and sensitization of public by trainings, mock drills, print media, mass media and street plays.
- Organizing mock drills at regular intervals in schools and government buildings.
- Organizing marathons, slogan writing, painting etc. in different sub division so as to ensure participation of people from different spheres.
- Organizing specific trainings for masons and engineers for making disaster resistant buildings.
- Distribution of IEC material to government offices, schools, colleges and panchayats.
- Organizing trainings for stake holders and other employees of state government.
- Ensuring that all villages/Panchayats have an active DM plan and DM task forces.
- Ensuring that all line departments have an active DM plan and DM task forces.
- Updating resource list of all line department at least twice a year.

#### **7.1 Trainings and Capacity Building**

The approach for the capacity analysis should eye the short term, medium term and long term timeline for policy and cutting edge level with a multi-layer approach. The trainings must target the stakeholders responsible to fill in the gaps in capacity identified in chapter 2. These trainings should leverage upon the local capacity of the district to facilitate various programs. The programs to work on the capacity gaps must target the stakeholders at the policy level with training of officials at DDMA, at cutting edge level with training of civil defense, home guard and police. These trainings should eye both response and mitigation centric approach to build upon the existing capacity of the district. To enhance capacity for disaster management the following training plan is proposed:



**Table 7.1: Short Term and Long-Term Capacity Building Programmes for the stakeholders**

<b>Nature of training</b>	<b>Responsible departments</b>	<b>Potential training institutes</b>	<b>Frequency</b>	<b>Approach</b>
Training for DDMA and Senior Executives on Policies	DDMA	DDMA,SDMA	Annually	Short term
Emergency Operation Center staff training	DDMA	Home Guards NDRF	Quarterly	Short Term
Advanced search & Rescue training	Police , Home guards, Fire Department, DDMA	NDRF, Karnataka Police Academy,	Quarterly	Medium to long Term
Training to Police for Crowd Management and emergency Response	Police Service	Police Academy, NDRF, Home guards,	Quarterly	Long Term
Training on Applicable Wireless Communication (Walkie Talkie/ Wireless/ HF/ UHF/ VHF/ Ham Radio)	Police and Home Guards	SDMA, Police	Quarterly	Short Term to Medium Term
Training of Doctors on Mass casualty Management	DMO	Medical , DDMA	Quarterly	Medium Term
Training of Asha Workers Mass casualty Management	Health and Family Welfare	DHO	Quarterly	Medium Term
Training of ASHA, ANM for medical first response / psychosocial care	Health and Family Welfare	SDMA, Red Cross	Quarterly	Short Term
Training doctors on emergency response	Health and Family Welfare	Red cross, SDMA/DDMA	Quarterly	Long term / existing institutions
Training of ASHA, ANM for medical first response / psychosocial care	EMRI, District hospital Una	District hospital	Biannually	Long term
Teacher Sensitization	Education Departments	DIET	Bimonthly	Medium to Long Term
Training to teacher of Special Needs Children (Old Age, Orphan, ) for evacuation and rescue	Education Departments	NDRF/ Home guards/ Education Departments	Quarterly	Medium to Long Term
School safety training	Education	PWD, Engineers ,DM specialist from NDRF/ DDMA/SDMA, Civil defence, Home guard, Police	Quarterly	Long term using local institutions



Comprehensive training for NCC, NSS	DDMA and district authority	SDMA and DDMA, UNDP	Annually	Medium to Long term
Municipal Corporation training on DRR and disaster preparedness	DDMA and district administration	DDMA, UNDP	Annually	Medium to Long term
Basic training on GIS remote sensing and disaster mapping for DEOC staff	DDMA	DDMA,SDMA, KSNDMC, ISRO,NIDM	Annually	Medium to Long term

**Table 7.2: Roles and Responsibilities of the Departments with regard to Capacity Building**

SN	Dept.	Roles and Responsibilities pertaining to Capacity Building
1.	<b>Revenue &amp; Disaster Management Department</b>	<ul style="list-style-type: none"> <li>• DEOC to be functional and active. Ensure regular training of DEOC staff</li> <li>• DEOC to be equipped with emergency resources, maps and well non-interrupted communication network.</li> <li>• Develop trained human resource as mountain rescuers, swimmers, divers and boat-operators in view of vulnerability of the district and tourist destination.</li> <li>• Train rescue teams in first aid, search and rescue and basic life saving techniques.</li> <li>• Maintain data base of the trained personnel's in different fields of Disaster Management and revenue with the district administration.</li> <li>• Adequate stocking/replenishing of SAR equipment, first aid kits public addressable system, blankets, tarpaulins, etc.</li> <li>• Train officers of revenue in first aid and basic SAR at the ground level.</li> <li>• Development of District Disaster Response Force on lines of NDRF</li> </ul>
2.	<b>Police Dept.</b>	<ul style="list-style-type: none"> <li>• The trained police personnel should be placed on record within a district-level database of persons trained in disaster management.</li> <li>• Trainings of police personnel for capacity-building in respect to new techniques and modern technologies used to manage disasters and SAR operations.</li> <li>• Refresher courses for District police officials under the guidance of NDRF</li> <li>• Training in Psycho- socio care of the teams formed to help prevent human trafficking which is increasingly becoming common in the aftermath of disasters</li> <li>• Ensure availability of required SAR equipment for the teams of disaster management.</li> </ul>
3.	<b>Home Guards</b>	<ul style="list-style-type: none"> <li>• Provision of trainings for volunteers in search and rescue (SAR), first aid, traffic management, dead body management, evacuation, shelter and camp management, mass care and crowd management.</li> <li>• Home Guards companies would be equipped with SAR items to deal with and respond to emergencies.</li> </ul>



4.	<b>Fire Services</b>	<ul style="list-style-type: none"> <li>• Network of fire services would be increased and they would be equipped to deal with other emergencies too.</li> <li>• Database of fire personals trained in disaster management should be placed on record at district-level with the DEOC.</li> <li>• Regular Mock drills conducted by firefighting staff and personnel for dealing with hazardous materials and accidents involving the same.</li> <li>• Conduct of regular refreshers course for staff within department from national and state level training institutes.</li> <li>• Providing awareness regarding fire safety to the society and community on the large.</li> <li>• Formation of Task force for checking industrial units and offices for fire safety norms twice a year.</li> <li>• Procurement of specialised equipment's for SAR, hydraulic platform, HAZMAT van, motorcycle fire tenders and other advanced rescue tender,etc.</li> </ul>
5.	<b>Health Dept.</b>	<ul style="list-style-type: none"> <li>• Trainings of paramedics staff, mobile medical teams, psycho-social care teams and Quick Response Medical teams (QRMTs), for health attendants and ambulance staff in first aid and life-saving techniques</li> <li>• Procurement / stock availability of portable equipments for field and hospital diagnosis triage, etc.</li> <li>• Training of members of local communities, PHC, CHC, Anganwadies, Asha Workers in new techniques and procedures for health, WASH practices, trauma counseling, psycho – socio care, dealing with PWD, etc.</li> <li>• Capacity building at the institutional level should be done by carrying out various activities under the Hospital Emergency Preparedness Programme (HEPP).</li> <li>• Coordinate and liaison with Red Cross, NCC, NSS, NYKS and Civil Defense volunteers to spread awareness among the community</li> <li>• Developing awareness material for the community. Creation of a core group of master trainers at district level.</li> <li>• Evolve a mechanism for community outreach education programmes. Maintain a data base of the trained officials and provide the same to DEOC</li> </ul>
6.	<b>Irrigation Dept.</b>	<ul style="list-style-type: none"> <li>• Training of Staff in irrigation and Public Health related problems under a disastrous situation</li> <li>• Procurement of early warning and communication equipments through appropriate channels of the District Administration and providing trainings to all human resources with regard to early-warning especially for floods within district</li> <li>• Awareness regarding Participatory Irrigation Management for farmer staff.</li> </ul>



7.	<b>Agriculture Dept.</b>	<ul style="list-style-type: none"> <li>• Formation and training of a Weather Watch Group for the purpose of monitoring crops in the district.</li> <li>• Putting in place disaster management protocols for the hazards of drought, flood, hailstorm, etc.</li> <li>• Training of farmers in alternate cropping techniques and mixed cropping.</li> <li>• Awareness of farmers with regards to various diseases and their management.</li> <li>• Awareness and Training to farmer's regarding fodder management, seed banks and fodder banks.</li> <li>• Formation of Rapid Damage Assessment Teams who will be capable of assessing the condition of soil, fields, irrigation systems and any other damage to crops in post-disaster situations.</li> </ul>
8.	<b>Animal Husbandry</b>	<ul style="list-style-type: none"> <li>• Awareness regarding various diseases that different livestock within Bengaluru rural district can be effected with and their proper management especially the nomadic population.</li> <li>• Training of people regarding maintenance of livestock and increasing the capacity of their livestock.</li> <li>• Formation of Rapid Damage Assessment teams capable of examining and assessing damage caused to livestock, feed and fodder, and other things within the domain of animal husbandry.</li> </ul>
9.	<b>Rural Development and Panchayat Dept.</b>	<ul style="list-style-type: none"> <li>• Formation of Task Forces at village level to spread awareness with regards to issues of hygiene and sanitation (WASH) and disaster management at the village level through the Gram Panchayats.</li> <li>• Formation and training of Village Level Disaster Management Plans and Committees</li> <li>• Conducting of meetings at village levels every year quarterly and maintain the record.</li> <li>• Maintaining data base of the trained community at the village level and share the same with the district administration</li> <li>• Provision of training of teams regarding relief distribution, shelter &amp; camp management as per IRS.</li> </ul>
11.	<b>Education Dept. (Government and Private)</b>	<ul style="list-style-type: none"> <li>• Education and awareness programs on disaster management to be incorporated within educational curriculum of school/college and made mandatory.</li> <li>• Conducting of Mock Exercises like "Drop, Cover, Hold" on regular bases.</li> <li>• Development of Emergency Evacuation Plans for the schools and place in school building for all to see.</li> <li>• Formation and training of damage and needs assessment teams within the department.</li> </ul>
12.	<b>BESCOM</b>	<ul style="list-style-type: none"> <li>• Training of Staff in disaster management and its related preparedness and maintenance needs.</li> <li>• The timely purchase of electric equipment's necessary for maintaining a state of adequate preparedness and for speedy and efficient disaster response, through the appropriate channels of the District Administration.</li> <li>• Forming of Task Force for dealing with power problems and to provide awareness on electrical safety to departments &amp; community.</li> </ul>



13.	<b>Forest Dept.</b>	<ul style="list-style-type: none"> <li>• Training of department officers/ officials in disaster with regards to related forest fires and wild/escaped animals who could pose a threat to human safety.</li> <li>• Generate awareness among the community with regards to forest fire/wild animals and maintenance of green belt</li> <li>• Formation of Task Force teams to watch over trackers / tourist in forested areas of the district both in winters and summers</li> </ul>
14.	<b>KSRTC</b>	<ul style="list-style-type: none"> <li>• Training to drivers, conductors and staff in basic first aid and life saving techniques</li> <li>• Adequate stocking/replenishing of First Aid kits and maintenance of fire extinguishers in all vehicles and depots in the district.</li> <li>• Spreading awareness among public with regards to driving norms and safety measures to avoid disasters.</li> </ul>
15.	<b>Media (electronic and print)</b>	<ul style="list-style-type: none"> <li>• Training of the Staff for sensitization towards reporting during Disaster Ensure timely community awareness, early warning and its dissemination by the concerned personals both pre and post disasters</li> <li>• Developing means of spreading awareness through social media and latest techniques and technologies</li> <li>• The DPRO in consultation with DDMA would educate the community in disaster management.</li> </ul>

## 7.2 Community Capacity Building

Communities are not only the first to be affected in disasters but also the first responders. Community participation ensures local ownership, addresses local needs, and promotes volunteerism and mutual help to prevent and minimize damage. The community participation for DM would be promoted on the motto of “self-help”, “help the neighbour” and “help the community”. The Community Based Approaches or community participation in disaster management is also referred to as Community Based Disaster Management (CBDM) or Community Based Disaster Risk Management Capacity (CBDRM) with the essential feature of reducing vulnerability and disaster risk. Community Capacity Building includes formation and strengthening of the community disaster response or preparedness structures, awareness, training, public information campaigns, sustainable livelihood activities, through skill development, formation of task teams for SAR, WASH, Early Warning, First Aid, Shelter Management. The needs of the elderly, women, children and differently able persons require special attention. Networking of youth and women based organisation would be done and they will be trained in the various aspects of response such as first aid, search and rescue, management of community shelters, psycho-social counseling, distribution of relief and accessing support from government/agencies etc. Community plans will be dovetailed into the Panchayat, Block and District plans. DDMA will coordinate with volunteers and social organizations like Home Guards, NCC, Red Cross, Market Trade Associations, Youth Clubs, Self Help Group (SHGs), CBO’s, NGO’s and Anganwadi centres, etc. play a vital role in spreading mass scale community awareness. Media equally plays an important role in raising awareness and educating people. Skill-development at the community level can be done on the Public Private Partnership (PPP) model to ensure sustainability of the community against disasters. Public awareness can be brought about through:

- 7.2.1 Traditional modes of promoting knowledge and awareness would be adopted such as use of folk songs, nuked natak, etc.
- 7.2.2 Community would be targeted through local fairs and festivals.
- 7.2.3 Documentaries in local language would be screened through local cable networks etc. and mass media would be roped to promote education and awareness.



Community-based Disaster Risk Reduction (CBDRR) and Village Contingency Planning (VCP) are critical aspects for capacity building at the community-level and will be managed by the concerned departments in the district. Multiple responsibilities within the arena of capacity-building and training will be delegated to local authorities, PRIs and ULBs under the overall guidance of the District Administration.

**Table 7.3: Community Capacity Building Strategies**

S. No	Tasks	Mode of conduct	Nodal Agencies	Supporting Agencies
1	Priority-wise information dissemination of various hazards and their do's and don'ts. Also preparation of community based disaster management plans shall be promoted in these areas. First priority needs to be given to the schools, industrial clusters, slums and resettlement colonies Second Priority shall be given to the communities living in the outer part of the district especially villages.	Through Nukkad Natak, Film Shows, Rallies, Media, Newspaper Media, Posters and Pamphlets, Group discussions and workshops etc	District Administration	NGOs, Schools and colleges volunteers, NSS, NCC, Sports groups, groups, etc.
2.	Constitution of Community Based Disaster Management Committees and Taskforces	Through community level meetings	District Administration	Members, Local Volunteers etc.
3.	Capacity Building of Community Members	Through mock-drills, preparation of community plans, trainings and workshops on disaster specific topics	District administration	108 Ambulance and NGOs
4.	Trainings to the taskforces and committee members First-Aid and Trauma Counseling Search and rescue and fire-fighting Warning Dissemination etc.	Trainings and workshops	Revenue Department along with Health, Police and Fire Dept.	Home Guard, 108 Ambulance and NGOs
5.	Post disaster epidemic problems	Seminars and community meetings	Health dept.	Local health dept., and NGOs



6	Trainings for construction of seismic resistant buildings and retrofitting of the buildings. Target groups are contractors, masons, engineers, architects and local communities	Showing Films, videos, distributing posters and brochures, reading materials, etc in trainings and workshops.	District administration	PWD, Private contractors and NGOs etc
---	--	---	-------------------------	---------------------------------------

**Table 7.4: Setting Up Of Disaster Volunteer Force - Identification & Training**

<p><b>Block level Task Force</b>  <b>G.P. Level Task Force</b>  <b>Village Level Task Force</b></p>	<ul style="list-style-type: none"> <li>• <b>Early Warning Group-</b> Warn the community of the impending danger.</li> <li>• <b>Rescue &amp; Evacuation Group-</b> To be put into task immediately after abatement of calamity.</li> <li>• <b>Water &amp; Sanitation Group-</b> Ensured safe drinking water in the shelter camps, MCS</li> <li>• <b>Shelter management Group-</b> Shall remain overall charge of managing the evacuees in shelter camps.</li> <li>• <b>First Aid &amp; Medical Group-</b> Shall take care of the minor elements in the rescue camp.</li> <li>• <b>Patrolling and Liaison Group-</b> Shall watch &amp; Word belongings of the inmates in the shelter camps &amp; keep liaison with Govt.</li> </ul>
---	---

#### 7.4. Capacity Building of Persons with Disabilities (PWD)

It is important to consider the special/specific needs of persons with disabilities in every phase of disaster management and risk reduction planning. Specialist Services to empower PWD's by promoting access to following can reduce vulnerability and increase their capacity:

— Functional rehabilitation: e. g., Physiotherapy, occupational therapy, prosthetic and orthotic services

- Corrective surgery
- Assistive devices
- Information leaflets in Braille
- Sign language for early warning systems
- Disabled Peoples Organisations

Support services: care taker, sign language interpreter, adapted transportation services, etc.

Not all organizations can focus on disability issues to the same extent, every organization has to choose its level of involvement and accordingly obtains the appropriate education/training/ skilled personnel.



## CHAPTER-8 RESPONSE AND RELIEF MEASURES

### 8.1 Introduction

The post disaster phase of Disaster Management looks into Relief, rehabilitation, reconstruction and recovery. The effective disaster management strategy aims to lessen disaster impacts through strengthening and reorienting existing organizational and administrative structure from district – state to national level. Relief on the contrary, is viewed as an overarching system of facilitation of assistance to the victims of disaster for their rehabilitation in States and ensuring social safety and security of the affected persons. Relief needs to be prompt, adequate and of approved standards. It is no longer perceived only as gratuitous assistance or provision of emergency relief supplies on time. Emergency response plan is, thus, a first attempt to follow a multi-hazard approach to bring out all the disasters on a single platform, incorporating disaster resilient features to ‘build back better’ as the guiding principle. It provides a framework to the primary and secondary agencies and departments, which can outline their own activities for disaster response. Response process begins as soon as it becomes apparent that a disastrous event is imminent and lasts until the disaster is declared to be over Disaster response is aimed at: Saving Life-Minimise the Loss- Stabilising the Situation.

### 8.2 Response Planning

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

**Table 8.1: Response planning phases during the early warning**

Pre-Disaster	Responsible Dept.	Post-Disaster	Responsible Dept.
Activate control room if necessary	DDMA will activate the control room at district level. Control room at Sub-Division and Taluk level will be activating by concerned Disaster management authority.	Quick Damage and Need Assessment	Multi-Sectoral committees encompass all line departments constituted by DDMA
Review situation	DDMA will review all the situation on the basis of data and reports provide by the line departments	Search and rescue	Home Guard/Civil Defense/Fire with coordination with Police and NDRF (if required)



Communicate warning (Inform community likely to be affected by the impending disaster Inform line departments/agencies to mobile resources/teams for quick deployment)	DEOC will communicate the warning to all potential affected areas with support of district information officer, Police, Home Guard, Fire and Local Administration.	Activate Line Departments/Agencies to Quick restoration of basic utilities and critical infrastructure e.g. Roads, Life Line Buildings i.e. Hospital, Blood Bank, Schools and Banks, Admin Building, Electricity, Water/Sanitation,	DDMA will coordinate with all line departments for quick restoration
Coordination with all line departments	Chief Executive officer appointed by DDMA will coordinate	Activate all Quick response Team QRTs/ First Responder Team	DDMA will coordinate with all available QRTs in the District
Stocking of Essential and basic life line Items and materials	All frontline departments i.e. Medical, Food and Civil Supplies, PWD, BESCOM, Police	Sharing, reporting and Communicating the info to the State and National Level and Requisition for assistance to prompt response or relief	Chief Executive officer appointed by DDMA will coordinate
Identification of temporary shelter	Revenue Department will identify the shelter with support of PWD, Municipalities and Education	Activate and deploy the Incident Response Teams	DDMA Chairman
Evacuate people to temporary shelter with necessitated facilities	Police and Home guard will evacuate the people to safer place or identified temporary shelter in support of Fire Dept., NCC, NGO	Provide temporary shelter and basic necessitate facilities to people	Revenue Department will coordinate with all line departments
Remove assets from dangerous areas	PWD will facilitates all these activities in coordination with RTO, KSRTC	Make sure the functioning of all communication networks	RTO, KSRTC, NHAI will further help



**Table 8.2: Response planning phases during the no early warning**

<b>Activities</b>	<b>Responsible Dept.</b>
Activate control room and forward the report to state and national level	DDMA will activate the control room at district level. Control room at Sub-Division and Taluk level will be activating by concerned disaster management authority. CEO of DDMA will report to higher Authority
All heads of the departments will report to the Control Room	DDMA will coordinate with line departments
Activation of damages and needs assessment teams to undertake damages and needs assessment	Multi-Sectoral committees encompass all line departments constituted by DDMA will undertake an assessment of damages to assets and infrastructure and assess the needs of the community.
Restoration of Critical and life line infrastructure	PWD, Irrigation, BESCOM, Health and family Welfare, Food and Civil Supplies will initiate efforts to restore the infrastructure starting especially with the most critical infrastructure that could assist relief
Activate and deploy the Incident Response Teams	Chief Executive officer appointed by DDMA will coordinate
Provide relief to the affected communities	DDMA will coordinate with food and civil supplies, health and family welfare, Police, RTO, KSRTC, PWD and Irrigation
Coordinate relief operations	DDMA and Revenue Dept. coordinate with Incident response team at Hierarchical admin level e.g. Taluk, ZP
Request for possible help from external sources/ Resource's Mobilization	Chief Executive officer appointed by DDMA will coordinate

### **8.3 Disaster Response Functions to be carried out:**

#### **8.3.1 Early Warning Phase**

1. Activation of Control Room/EOC: As soon as EW Message/Information is available through IMD/CWC/GSI/KSNDMC/ DDMA will activate EOC/CR
2. Inform Community likely to be impacted
3. Inform Line Departments/Agencies
4. Hold Meetings of DDMA
5. Requisition of NDRF
6. Requisition of Paramilitary

#### **8.3.2 Immediate Post Disaster Phase**

1. Search & Rescue: Home Guard/Civil Defense/Fire will carried out the search and rescue with coordination with Police and NDRF (if required) and the existed Paramilitary Forces within or near by the district.



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

**Table 8.3: Damage assessment in context to Response**

Sl. No	Damages
1	Roads and Bridges
2	Life Line Buildings
3	Food and Civil Supplies
4	Houses
5	Water lines and Tanks
6	Electricity
7	Communication
8	Medical Infrastructure
9	Monuments
10	Agriculture Crops and Horticulture
11	Livestock
12	Forest

#### 8.4 Quick Need Assessments

Need assessment will be undertaken by a multi-sectoral team with a special focus on the following sectors mentioned in table 8.4.

**Table 8.4: Need assessment in context to Response**

Sl. No.	Sector of Need
1.	Temporary Shelter
2.	Food and Civil Supplies
3.	Medical/health
4.	WASH
5.	Special Needs
6.	Psychosocial care
7.	Security needs in context to varying social groups
8	Restoration of essential services like, roads, water facilities, power ,communication

#### 8.5 Resource Mobilization

Resource mobilization is one of the most important and crucial activity when any disaster occurs in the district for responding to disaster in an efficient manner. The IDRN portal has information regarding the different kind of resources available for multi-hazard, with the various departments along with their location across district. It can lead to quick and immediate procurement of the required resources from the nearest available site and department for response to any disaster. Various resources required in the damages and needs assessment will be mobilized by the concerned departments. Following is the list of the departments which are responsible for mobilizing various needs identified in the damages and needs assessment:



**Table 8.5: Resource Mobilization and Responsible Department**

SN	Identified Need	Action	Nature of resources	Responsibility
1	Temporary Shelter	DDMA/Revenue Department will arrange relief camps/shelters. Wherever required Tents will be pitched in to accommodate affected people. Departments of Education, Health and Family Welfare will provide support	Tents, sleeping bags blankets and clothing's, Sanitizer and sanitary pads, stretchers	Revenue Dept./ DDMA/ Health/
2.	Food and Civil Supplies	Food and Civil Supplies Dept. will Provide food, Fuel, and Drugs	Essential food items and fuel	Food and Civil Supplies Dept.
3.	Medical	Medical Dept. will arrange the lifesaving medicines, blood, Doctors, Paramedical staff	Medicines, doctors, ANM, nurses, Asha Workers	Health and Family Welfare Dept./ Red Cross
4.	WASH	IPH will provide chlorine tables for water purification, drinking portable water, sanitation kits	Drinking water, sanitation	Irrigation Dept.
6.	Psychosocial care	Health and Family Welfare Dept./Red Cross will take care the reported Physco and Mental Trauma cases	Psychosocial care	Health and Family Welfare Dept./Red Cross
7.	Security needs in context to varying social groups	Maintain the Law and Order and security of Social group and tackle the human trafficking situation	Trained personnel	Police/Home Guard, Civil Defense
8.	Road clearance	To restore the road function, remove the debris and clearance of any blockage	Earth removers and man power	PWD
9.	Power storage	To restore the power, provide the temporary chargeable generators and batteries	DG sets, wires, manpower, batteries, search lights	BESCOM
10	Communication	To restore the communication network	Network restoration, v- sets , satellite phones, walkie talkie	BSNL,NIC, Police



## **8.6 Response Management**

### **8.6.1 Activation of EOC**

The DEOC will function to its fullest capacity on the occurrence of disaster. The district DEOC will be fully activated during disasters. The activation would come into effect either on occurrence of disaster or on receipt of warning. On the receipt of warning or alert from any approved agency which is competent to issue any early emergency warning, all community preparedness measures including counter-disaster measures will be put into operation. The Deputy Commissioner will assume the role of the Chief of Operations for Disaster Management. All line departments senior official will be immediately reported to the DEOC. The DDMA will expand the Emergency Operations Centre to include Branch arrangements with responsibilities for specific tasks depending on the nature of disaster and extent of its impact. All the occurrences report would be communicated to the SEOC/SDMA, NEOC/NDMA and Supporting Agencies by means of telephone and subsequently fax periodically. The occurrence of disaster shall be immediately communicated to the stakeholders such as NGOs, trained volunteers through SMS gateway (or telephonic in case of communication exist or any available communication network) for which specific provision of group mobile directory would be made.

#### **8.6.1.1 Main Roles of DEOC after activation:**

1. Assimilation and dissemination of information.
2. Liaise between Disaster site and State Head Quarter.
3. Monitoring, coordinate and implement the DDMP.
4. Coordinate actions and response of different departments and agencies.
5. Coordinate relief and rehabilitations operations
6. Hold press briefings.

## **8.7 Relief distribution**

Relief distribution will be coordinated by sub divisional, taluk and respective disaster management committees. The onsite distribution will be done by incident response team. The updated needs will be communicated to the DDMA and the DDMA will ensure the regular supply of the required items. The relief distribution will include essential items which serves the basic needs of the affected community like LPG , medicines, clothes, food items, drinking water, soaps, blankets, items of special needs for women's, children's, handicapped and old aged.

## **8.8 Search and rescue management**

Search and Rescue activities include, but are not limited to, locating, extricating, and providing immediate medical assistance to victims trapped in exigency situation. People who are trapped under destroyed buildings or are isolated due to any disaster need immediate assistance. The District Commissioner, in conjunction with local authorities will be responsible for the search and rescue operations in an affected region. At present, Nodal department for this activity is NDRF and Home Guard/civil Defense Department. The helping departments for search and rescue are P.W.D., ZP/MCC, Self-help groups, N.C.C, NGO and PRED. There are other bodies too that help these departments in this work, like, Health department, Fire department. In doing so, the DC will be guided by relevant disaster management plans and will be supported by Government departments and local authorities.



## **8.9 Information management and Media management**

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

## **8.10 VIP management**

It may be possible that the scale of a disaster may in addition prompt visits of the VVIPs/VIP which further requires the active management to ensure the effortlessly ongoing response and relief work without any interruption. DDMA will be designated senior official to handle the VVIPs/VIPs visits to the affected areas and further to brief the VVIP/VIP beforehand about the details of casualties, damage and the nature of the disaster. The Police and Home guard will be handled all the security of VVIPs/VIP during their visit. It would be desirable to restrict media coverage of such visits, in which case the police should liaise with the government press officer to keep their number to minimum.

## **8.11 NGO Coordination and Management**

Non-governmental organizations (NGOs) will play as one of the most effective alternative means of achieving an efficient communications link between the disaster management agencies and the effected community due to their outreach at the grassroots level. As per the section 35 and 38 of the DM Act 2005 stipulates that the DDMA shall specifically emphasize the coordination of actions with NGOs. In typical disaster situation, DDMA with the support of DRDA, will coordinate the NGOs/CBO's and further manage their work in prompt response, relief and rescue. It will also monitor and take feedback at grassroots level by the agreeable community participation.

## **8.12 Disposal of dead bodies and carcass**

District administration will coordinate to arrange the mass cremation burial of the dead bodies with support of police & forest department after observing all codal formalities & maintain the video recording of such unclaimed dead bodies after properly handing over the same to their kith or kin. Department of animal husbandry in association with the local administration shall be responsible for the deposal of the animal carcass in case of mass destruction.

## **8.13 Seeking external help for assistance**

### **1. Procedure for Provision of Aid:**

i. The Armed Forces are conscious of not only their constitutional responsibility in-aid to civil authority, but also, more importantly, the aspirations and the hopes of the people. Although such assistance is part of their secondary role, once the Army steps in, personnel in uniform whole heartedly immerse themselves in the tasks in accordance with the Army's credo-"SERVICE



BEFORE SELF”.

ii. Assistance during a disaster situation is to be provided by the Defense Services with the approval and on orders of the central government. In case, the request for aid is of an emergency nature, where government sanctions for assistance is not practicable, local military authorities when approached for assistance should provide the same. This will be reported immediately to respective Services Headquarters (Operations Directorate) and normal channels taken recourse to, as early as possible.

## **2. Requisition Procedure:**

Any state unable to cope with a major disaster situation on its own and having deployed all its resources will request Government of India for additional assistance. Ministry of Defense will direct respective service headquarters to take executive action on approved requests. The chief secretary of state may initiate a direct request for emergency assistance, for example, helicopter for aerial reconnaissance, or formation of local headquarter (Command/Area Headquarters) or naval base or air force station.

## **3. The Armed Forces may be called upon to provide the following types of assistance:**

- Infrastructure for command and control for providing relief. This would entail provision of communications and technical man power.
- Search rescue and relief operations at disaster sites.
- Provision of medical care at the incident site and evacuation of casualties.
- Logistics support for transportation of relief materials
- Setting up and running of relief camps
- Construction and repair of roads and bridges to enable relief teams/material to reach affected areas.
- Repair, maintenance and running of essential services especially in the initial stages of disaster relief.
- Assist in evacuation of people to safer places before and after the disaster
- Coordinate provisioning of escorts for men, material and security of installations,
- Stage management and handling of International relief, if requested by the civil ministry

## **4. Disaster Relief Operation**

Important aspects of policy for providing disaster relief are as under:

- Disaster relief act can be undertaken by local commanders. However, HQ Sub Area is to be informed at the first opportunity and then flow of information to be maintained till completion of the task.
- Effective and efficient disaster relief by the army while at task.
- Disaster relief tasks will be controlled and coordinated through Commanders of Static headquarters while field units Commanders may move to disaster site for gaining first-hand knowledge and ensuring effective assistance.
- Once situation is under control of the civil administration, army aid should be promptly de-requisitioned.
- Adequate communication, both line and radio, will be ensured from Field Force to Command Headquarters.



## **5. Procedure to Requisition Army, and Air Force:**

- a.** It will be ensured by the local administration that all local resources including Home Guards, Police and others are fully utilised before assistance is sought from outside. The District Magistrate will assess the situation and project his requirements to the State Government. District Control Room will ensure that updated information is regularly communicated to the State Control Room, Defense Service establishments and other concerned agencies.
- b.** District Magistrate will apprise the State Government of additional requirements through State Control Room and Relief Commissioner of the State.
- c.** Additional assistance required for relief operations will be released to the District Magistrate from the state resources. If it is felt that the situation is beyond the control of state administration, the Relief commissioner will approach the Chief Secretary to get the aid from the Defense Services. Based on the final assessment, the Chief Secretary will project the requirement as under while approaching the Ministry of Defense, Government of India simultaneously for clearance of the aid:

**6. Co-Ordination between Civil and Army:** For deployment of the Army along with civil agencies on disaster relief, co-ordination should be carried out by the district civil authorities and not by the departmental heads of the line departments like Police, Health & Family Welfare, PWD and PHED etc.

**7. Overall Responsibility When Navy and Air Force are also being employed:** When Navy and Air Force are also involved in disaster relief along with the Army, the Army will remain over all responsible for the tasks unless specified otherwise.

## **8. Principles of Deployment of Armed Forces**

**Judicious Use of Armed Forces:** Assistance by Armed Forces should be requisitioned only when

- **It becomes absolutely necessary** and when the situation cannot be handled by the civil administration from within its resources. However, this does not imply that the response must be graduated. If the scale of disaster so dictates, all available resources must be requisitioned simultaneously.
- **Immediate Response:** When natural and other calamities occur, the speed for rendering aid is of paramount importance. It is clear that, under such circumstances, prior sanction for assistance may not always be forth coming. In such cases, when approached for assistance, the Army should provide the same without delay. No separate Government approval for aid rendered in connection with assistance during natural disaster and other calamities is necessary.
- **Command of Troops:** Army units while operating under these circumstances continue to be under command of their own commanders, and assistance rendered is based on task basis.
- **No Menial Tasks:** While assigning tasks to troops, it must be rendered that they are not employed for menial tasks e.g. troops must not be utilised for disposal of dead bodies.
- **Requisition of Aid on Task Basis:** While requisitioning the Army, the assistance should not be asked for in terms of number of columns, engineers and medical teams. Instead, the civil administration should spell out tasks, and leave it to Army authorities to decide on the force level, equipment and methodologies to tackle the situation.
- **Regular Liaison and Co-ordination:** In order to ensure that optimum benefits derived out of Armed Forces employment, regular liaison and coordination needs to be done at all levels and contingency plans made and disseminated to the lowest level of civil administration and the Army.



- **Advance Planning and Training:** Army formations located in areas prone to disaster must have detailed plans worked out to cater for all possible contingencies. Troops should be well briefed and kept ready to meet any contingency. Use of the Vulnerability Atlas where available must be made.
- **Integration of all Available Resources:** All available resources, equipment, accommodation and medical resources with civil administration, civil firms and NGOs need to be taken into account while evolving disaster relief plans. All the resources should be integrated to achieve optimum results. Assistance from outside agencies can be super imposed on the available resources.
- **Early De-requisitioning:** Soon after the situation in a disaster-affected area has been brought under control of the civil administration, Armed Forces should be de-requisitioned.

#### 8.14 Relief Measures:

Once the rescue phase is over, the district administration shall provide immediate relief assistance either in cash or in kind to the victims of the disaster. The District Disaster Management Authority, Bengaluru rural district & its Emergency Support Functionaries shall enter in to pre-contract well in advance and procure materials required for life saving. The office of Deputy Commissioner is responsible for providing relief to the victims of natural & manmade disasters like fire, lightning, earthquakes, accidents etc.

**Table 8.6 Revised lists of items and Norms of assistance from State Disaster Response Fund (SDRF) and National Disaster Response Fund (NDRF)**

(Period 2015-20, MHA Letter No. 32-7/2014-NDM-I Dated 8th April, 2015)

Sl. No	Items	Norms of Assistance
1	<b>GRATUITOUS RELIEF</b>	
	a) Ex-Gratia payment to families of deceased persons	<b>Rs. 4.00 lakhs</b> per deceased person including those involved in relief operations or associated in preparedness activities, subject to certification regarding cause of death from appropriate authority.
	b) Ex-Gratia payment for loses of a limb or eyes(s).	<b>Rs. 2.00 lakhs/-</b> per person, when the disability is more than 60%. Subject to certification by a doctor from a hospital or dispensary of Government, regarding extent and cause of disability.
	c) Grievous injury requiring hospitalization	<b>Rs 12,700/-</b> per person requiring hospitalization for more than a week. <b>Rs. 4,300/-</b> per person requiring hospitalization for less than a week.
	d) Clothing and utensils/household goods for families whose houses have been washed away/fully damaged/severely inundated for more than a week due to natural calamity	<b>Rs. 1,800/-</b> per family, for loss of clothing. <b>Rs. 2,000/-</b> per family, for loss of utensils/household goods



	e) Gratuitous relief for families whose livelihood is seriously affected	<b>Rs. 60/-</b> per adult and <b>Rs. 45/-</b> per child, not housed in relief camps. State Govt. will certify that identified beneficiaries are not housed in relief camps. Further State Government will provide the basis and process for arriving at such beneficiaries district-wise. Period for providing gratuitous relief will be as per assessment of the State Executive Committee (SEC) and the Central Team (in case of NDRF). The default period of assistance will up to 30 days, which may be extended up to 60 days in the first instance, if required, and subsequently up to 90 days in case of drought/pest attack. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year.
2	<b>SEARCH &amp; RESCUE OPERATIONS</b>	
	(a) Cost of search and rescue measures/ evacuation of people affected/ likely to be affected.	As per actual cost incurred, assessed by SEC and recommended by central Team (in case of NDRF). - By the time the central Team visits the affected area, these activities are already over. Therefore, the State Level Committee and the Central Team can recommend actual / near-actual costs.
	(b) Hiring of boats for carrying immediate relief and saving lives.	As per actual costs incurred, assessed by SEC and recommended by the Central Team (in case of NDRF). The quantum of assistance will be limited to the actual expenditure incurred on hiring boats and essential equipment requiring for rescuing stranded people and thereby saving human lives during a notified natural calamity.
3	<b>RELIEF MEASURES</b>	
	a) Provision for temporary accommodation, food, clothing, medical care etc. for people affected/ evacuated and sheltered in relief camps.	As per assessment of need by SEC and recommended of the Central Team (in case of NDRF), for a period of up to 30 days. The SEC would need to specify the number of camps, their duration and the number of persons in camps. In case of continuation of a calamity like drought or widespread devastation caused by earthquake or flood etc., this period may be extended to 60 days, and up to 90 days in case of severe drought.
		Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year. Medical care may be provided from National Rural Health Mission (NRHM).



	b) Air dropping of essential supplies	As per actual, based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF). - The quantum of assistance will be limited to actual amount raised in the bills by the Ministry of Defence for airdropping of essential supplies and rescue operations only.
	Provision of emergency supply of drinking water in rural areas and urban areas.	As per the actual cost based on the assessment need by NEC and recommended by the Central Team ( in case of NDRF), up to 30 days and may be extended up to 90 days in case of drought. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year.
4	<b>CLEARANCE OF AFFECTED AREAS</b>	
	a) Clearance of debris in public areas.	As per actual cost within 30 days from the date of start of the work based on assessment of need by SEC for the assistance to be provided under SDRF and as per assessment of the Central Team for assistance to be provided under NDRF.
	b) Drainage of flood water in affected areas	As per actual cost within 30 days from the date of start of the work based on assessment of need by SEC for the assistance to be provided under SDRF and as per assessment of the Central Team(in case of NDRF).
	c) Disposal of death bodies/ Carcasses	As per actual, based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF).
5	<b>AGRICULTURE</b>	
	<b>Assistance to farmers having landholding up to 2 ha Assistance for land and other loss</b>	
	a) De-silting of agriculture land ( where thickness of sand/ silt deposit is more than 3", to be certified by the competent authority of the State Government )	<b>Rs. 12,200/-</b> per hectare for each item
	b) Removal of debris on agriculture land in hilly areas.	(Subject to the condition that no other assistance/subsidy has been availed of by/is eligible to the beneficiary under any other Government Scheme.)
	c) De-silting/ Restoration/ Repair of fish farms	
	d) Loss of substantial portion of land caused by landslide, avalanche, change of course of rivers.	<b>Rs. 37,500/-</b> per hectare to only those small and marginal farmers whose ownership of the land is legitimate as per the revenue records.



6	<b>Input subsidy (where crop loss is 50% and above)</b>	
	a) For agriculture crops, horticulture crops and annual plantation crops	<b>Rs 6,800/-</b> per hectare in rainfall areas and restricted to sown areas. <b>Rs. 13,500/-</b> per hectare in assured irrigated areas, subject to minimum assistance not less Rs.1000/- and restricted to sown areas.
	b) Perennial Crops	<b>Rs. 18,000/-</b> hectare for all types of perennial crops subject to minimum assistance not less than <b>Rs. 2000/-</b> and restricted to sown areas.
	c) Sericulture	<b>Rs. 4,800/-</b> per hectare for Eri, Mulberry, Tussar <b>Rs 6000/-</b> per ha. For Muga
	<b>Input Subsidy to farmers having more than 2Ha of landholding</b>	<b>Rs. 6,800/-</b> per hectare in rainfall areas and restricted to sown areas. <b>Rs. 13,500/-</b> per hectare for areas under assured irrigation and restricted to sown areas. <b>Rs. 18,000/-</b> per hectare for all types of perennial crops and restricted to sown areas. - Assistance may be provided where crop loss is 33% and above, subject to a ceiling of 2 hectare per farmer.
<b>ANIMAL HUSBANDRY - ASSISTANCE TO SMALL AND MARGINAL FARMERS</b>		
	i) Replacement of milch animals, draught animals or animals used for haulage.	<b>Milch animals - Rs. 30,000/-</b> Buffalo/cow/camel/yak/Mithun etc. <b>Rs. 3,000/-</b> Sheep/goat/pig. <b>Draught animal - Rs. 25,000/-</b> Camel/horse/bullock etc. <b>Rs. 16,000/-</b> Calf/Donkey/Pony/Mule - The assistance may be restricted for the actual loss of economically productive animals and will be subject to a ceiling of 3 large milch animal or 30 small milch animals or 3 large draught animal or 6 small drought animals per household irrespective of whether a
		house hold has lost a large number of animals. (The loss is to be certified by the Competent Authority designed by the State Government). <b>Poultry:- Poultry @ Rs. 50/-</b> per bird subject to a ceiling of assistance of <b>Rs. 5000/-</b> per beneficiary household. The death of the poultry birds should be on account of natural calamity. Note:- Relief under these norms is not eligible if the assistance is available from any other Government Scheme. e.g. loss of birds due to Avian Influenza or any other diseases for which the Department of Animal Husbandry has a separate scheme for compensating the poultry owners.



	(ii) Provision of fodder/ feed concentrates including water supply and medicines in cattle camps.	Large animals - <b>Rs. 70/-</b> per day. Small animals - <b>Rs. 35/-</b> per day. Period for providing relief will be as per assessment of the State Executive Committee (SEC) and the Central Team (in case of NDRF). The default period for assistance will be upto 30 days, which may be extended upto 60 days in the first instance and in case of severe drought up to 90 days. Depending on the ground situation, the State Executive Committee can extend the time. Period beyond the prescribed limit, subject to the stipulation that expenditure on this account should not exceed 25% of SDRF allocation for the year. Based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF) consistent with estimates of cattle as per Livestock Census and subject to the certificate by the competent authority about the requirement of medicine and vaccine being calamity related.
	iii) Transport of fodder to cattle outside cattle camps	As per the actual cost of transport, based on assessment of need by SEC and recommendation of the Central team (in case of NDRF) consistent with estimated of cattle as per Livestock Census.
7	<b>FISHERY</b>	
	i) Assistance to Fisherman for repair/ replacement of boats, nets - damaged or lost --Boat --Dugout-Canoe --Catamaran --Net (This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/assistance, for the instant calamity, under any other Government Scheme.)	<b>Rs. 4,100/-</b> for repair of partially damaged boats only <b>Rs. 2,100/-</b> for repair of partially damaged net. <b>Rs. 9,600/-</b> for repair of fully damaged boats. <b>Rs. 2,600/-</b> for repair of fully damaged net.
	ii) Input subsidy for fish seed farm	<b>Rs. 8,200/-</b> per hectare. (This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/assistance, for the instant calamity, under any other Government Scheme, except the one time subsidy provided under the Scheme of Department of Animal husbandry, Dairying and Fisheries, Ministry of Agriculture.
8	<b>HANDICRAFTS/HANDLOOM - ASSISTANCE TO ARTISANS</b>	
	i) For replacement of damaged tools/ equipment	<b>Rs. 4,100/-</b> per artisan for equipments. - Subject to certification by the competent authority designated by the Government about damage and its replacement.
	ii) For loss of raw-materials/ goods in process/ finished goods.	<b>Rs. 4,100/-</b> per artisan for raw material. - Subject to certification by the competent authority designated by the State Government about loss and its replacement.



9	<b>HOUSING</b>	
	<b>a) Fully damaged/ destroyed houses</b>	
	i) Pucca house	<b>Rs. 95,100/-</b> per house, in plain areas <b>Rs. 1,01,900/-</b> per house, in hilly areas including Integrated Action Plan (IAP) districts.
	ii) Kutcha house	
	<b>b) Severely damaged houses</b>	
	i) Pucca house	
	ii) Kutcha house	
	<b>c) Partially Damaged Houses</b>	
	i) Pucca (other than huts) where the damage is at least 15%	<b>Rs.5,200/-</b> per house
	ii) Kutcha (other than huts) where the damage is at least 15%	<b>Rs.3,200/-</b> per house.
	<b>d) Damaged/destroyed huts:</b>	<b>Rs. 4,100/-</b> per hut (Hut means temporary, make shift unit, inferior to Kutcha house, made of thatch, mud, plastic sheets etc. traditionally recognized as huts by the State/District authorities.) Note:- The damaged house should be an authorized construction duly certified by the Competent Authority of the State Government.
	<b>e) Cattle shed attached with house</b>	<b>Rs. 2,100/-</b> per shed.
10	<b>INFRASTRUCTURE</b>	
	<b>Repair/restoration (of immediate nature) of damaged infrastructure.</b>	
	(1) Roads & bridges,(2) Drinking water Supply works, (3) Irrigation, (4) Power (only limited to immediate restoration of electricity supply in the affected areas), (5) Schools, (6) Primary Health Centre, (7) Community assets owned by Panchayat. Sectors such as Telecommunication and Power (except immediate restoration of power supply), which generate their own revenue, and also undertake immediate repair/restoration works from	<b>Activities of immediate nature:</b> Illustrative of activities which may be considered as works of an immediate nature is given in the Appendix. <b>Assessment of requirements:</b> Based on assessment of need, as per States' costs/rates/ schedules for repair by SEC and recommendation of the Central Team (in case of NDRF). - As regards repair of roads, due to consideration shall be given to Norms for Maintenance of Roads in India, 2001, as amended from time to time, for repair of roads affected by heavy rains/floods, cyclone, landslide, sand dunes, etc. to restore traffic. For reference these norms are * Normal and Urban areas: up to 15% of the total of Ordinary repair (OR) and Periodical repair (PR). * Hills: up to 20% of total of OR and PR. - In case of repair of roads, assistance will be given based on the



	<p>their own funds/resources are excluded.</p>	<p>notified Ordinary Repair (OR) and Periodical Renewal (PR) of the State. In case OR &amp; PR rate is not available, then assistance will be provided @ Rs.1 lakh/km for State Highway and Major District Road and @ Rs.0.60 lakh/km for rural roads. The condition of "State shall first use its provision under the budget for regular maintenance and repair" will no longer be required, in view of the difficulties in monitoring such stipulation, though it is a desirable goal for all the States.</p> <p>- In case of repairs of Bridges and Irrigation works, assistance will be given as per the schedule of rates notified by the concerned States. Assistance for micro irrigation scheme will be provided @ Rs.1.5 lakh per damaged scheme. Assistance for restoration of damaged medium and large irrigation projects will also be given for the embankment portions, on par with the case of similar rural roads, subject to the stipulation that no duplication would be done with any ongoing schemes. - Regarding repairs of damaged drinking water schemes, the eligible damaged drinking water structures will be eligible for assistance @ Rs.1.5 lakh/damaged structure. - Regarding repair of damaged primary and secondary schools, primary health centres, Anganwadi and community assets owned by the Panchayats, assistance will be given @ Rs.2 lakh/damaged structure. - Regarding repair of damaged power sector, assistance will be given to damaged conductors, poles and transformers up to the level of 11 kV. The rate of assistance will be @ Rs.4000/poles, Rs.0.50 lakh per km of damaged conductor and Rs.1.00 lakh per damaged distribution transformer.</p>
11	<b>PROCUREMENT</b>	
	<p>Procurement of essential search, rescue and evacuation equipments including communication equipments, etc. for response to disaster.</p>	<p>- Expenditure is to be incurred from SDRF only (and not from NDRF), as assessed by the State Executive Committee (SEC). - The total expenditure on this item should not exceed 10% of the annual allocation of the SDRF.</p>



12	<p><b>CAPACITY BUILDING</b></p> <p>State specific disasters within the local context in the State, which are not included in the notified list of disasters eligible for assistance from SDRF/NDRF, can be met from SDRF within the limit of 10% of the annual funds allocation of the SDRF.</p>	<ul style="list-style-type: none"> <li>- Expenditure is to be incurred from SDRF only (and not from NDRF), as assessed by the State Executive Committee (SEC).</li> <li>- The total expenditure on this item should not exceed 5% of the annual allocation of the SDRF.</li> <li>- Expenditure is to be incurred from SDRF only (and not from NDRF), as assessed by the State Executive Committee (SEC).</li> <li>- The norm for various items will be the same as applicable to other notified natural disasters, as listed above. Or</li> <li>- In these cases, the scale of relief assistance against each item for 'local disaster' should not exceed the norms of SDRF.</li> <li>- The flexibility is to be applicable only after the State has formally listed the disasters for inclusion and notified transparent norms and guidelines with a clear procedure for identification of the beneficiaries for disaster relief for such local disasters', with the approval of SEC.</li> </ul>
----	--	---

**APPENDIX Illustrative list of activities identified as of an immediate nature**

1	<p><b>Drinking Water Supply</b></p> <p>Repair of damaged platforms of hand pumps/ring wells/spring-tapped chambers/public stand posts, cisterns.</p> <ol style="list-style-type: none"> <li>2. Restoration of damaged stand posts including replacement of damaged pipe lengths with new pipe lengths, cleaning of clear water reservoir (to make it leak proof).</li> <li>3. Repair of damaged pumping machines, leaking overhead reservoirs and water pumps including damaged intake - structure, approach gantries/jetties.</li> </ol>
2	<p><b>Roads:</b></p> <ol style="list-style-type: none"> <li>1. Filling up of breaches and potholes, use of pipe for creating waterways, repair and stone pitching of embankments.</li> <li>2. Repair of breached culverts.</li> <li>3. Providing diversions to the damaged/washed out portions of bridges to restore immediate connectivity.</li> <li>4. Temporary repair of approaches to bridges/embankments of bridges, repair of damaged railing bridges, repair of causeways to restore immediate connectivity, granular sub base, over damaged stretch of roads to restore traffic.</li> </ol>
3	<p><b>Irrigation:</b></p> <ol style="list-style-type: none"> <li>1. Immediate repair of damaged canal structures and earthen/masonry works of tanks and small reservoirs with the use of cement, sand bags and stones.</li> <li>2. Repair of weak areas as piping or rat holes in dam walls/embankments.</li> <li>3. Removal of vegetative material/building material/debris from canal and drainage system.</li> <li>4. Repair of embankments of minor, medium and major irrigation projects.</li> </ol>
4	<p><b>Health:</b></p> <p>Repair of damaged approach roads, buildings and electrical lines of PHCs/community Health Centres.</p>



5	<b>Community assets of Panchayat</b>	
	<ul style="list-style-type: none"> <li>➤ Repair of village internal roads.</li> <li>➤ Removal of debris from drainage/sewerage lines.</li> <li>➤ Repair of internal water supply lines.</li> <li>➤ Repair of street lights.</li> <li>➤ Temporary repair of primary schools, panchayat ghars, community halls, anganwadi, etc.</li> </ul>	
6	<b>Power</b> Poles/Conductors and transformers upto 11 kv.	
7	<b>The assistance will be considered as per the merit towards the following activities:</b>	
i)	Damaged primary school building Higher secondary/ middle/ college and other educational institutions building	Up to Rs. 1.50 lakh/unit not covered
ii)	Primary Health Centre	Up to Rs. 1.50 lakh/unit
iii)	Electric poles and wires etc.	Normative cost (upto Rs.4000 per pole and Rs.0.50 lakh per km)
iv)	Panchayat Ghar/Anganwadi/ Mahila Mondal/ Yuva Kendra/ Community Hall	Up to 2.00 lakh/unit
v)	State Highways/Major District road	Rs.1.00 lakh/km
vi)	Rural road/bridge	Rs.0.60 lakh/km
vii)	Drinking water scheme	Up to 1.50 lakh/unit
viii)	Irrigation Sector: Minor Irrigation schemes/Canal Major irrigation scheme Flood control and anti Erosion Protection work	up to Rs.1.50 lakh/scheme Not Covered Not Covered
ix)	Hydro Power Project/HT Distribution systems/ Transformers and subs stations	Not Covered
x)	High Tension Lines (above 11 kv)	Not Covered
xii)	State Govt Buildings viz. departmental/office building, departmental/residential quarters, religious structures, patwarkhana, Court premises, play ground, forest bungalow property and animal/bird sanctuary etc.	Not Covered
xiii)	Long terms/Permanent Restoration Work incentive	Not Covered
xiv)	Any new work of long term nature	Not Covered



xv)	Distribution of commodities	Not Covered (However, there is a provision for assistance as GR to families in dire need of assistance after a disasters)
xvi)	Procurement of equipments/ machineries under NDRF	Not Covered
xvii)	National Highways	Not Covered (Since GOI born entire expenditure towards restoration work activities)
	Fodder seed to augment fodder production	Not Covered

8.15 DDMA, Haveri shall rendered relief to the Disaster Victims as per Minimum Standards of relief suggested by NDMA:

**Table 8.15 Minimum Standards of Relief:**

Sl No	In respect of Relief Camps	Steps to ensure Minimum Standards
1	Shelters	<ul style="list-style-type: none"> <li>➤ Identification of the Relief Centers in each Block of the District. Each relief centers shall be temporary in nature and must have 3.5 Sq.m of covered area per person.</li> <li>➤ Each centers have basic facilities like Toilets, water Supply, Electricity Supply as well as power back up with fuel etc</li> <li>➤ Safety of inmates and special arrangements to differently able persons, old and mentally serious patients should be giving top most priority.</li> </ul>
2	Food	<ul style="list-style-type: none"> <li>➤ Each relief centre must have adequate quantity of food especially for Aged &amp; Children</li> <li>➤ Arrangements of Milk and Other Dairy Products shall be provided to the Children &amp; lactating mothers.</li> <li>➤ Hygiene at community &amp; at camp kitchens.</li> <li>➤ Date of manufacturing and date of expiry on the packaged food items shall be kept in view before distribution.</li> <li>➤ Supplied food with calorie of 2400 kcal per day for adult and 1,700 Kcal per day for infants</li> </ul>
3	Water	<ul style="list-style-type: none"> <li>➤ Sufficient quantity of water shall be provided in the relief camps for personal cleanliness and had wash.</li> <li>➤ Minimum supply of 3liters of water per person per day is made available in the relief camps.</li> <li>➤ In case of safe drinking water is not possible at least double chlorination of water needs to be ensured.</li> <li>➤ Maximum distance from the relief camp to the nearest water point shall be not being more than 500 mts.</li> </ul>



4	Sanitation	<ul style="list-style-type: none"> <li>➤ 1 toilet for 30 persons may be arranged or built.</li> <li>➤ Separate toilet and bath area for women and children.</li> <li>➤ 15 liters of water per person needs to be arranged for toilets/ bathing.</li> <li>➤ Hand wash facilities in the toilets should be ensured.</li> <li>➤ Dignity kits for women shall be provided with sanitary napkins and disposable paper bags with proper labeling.</li> <li>➤ Steps may be taken for control of spread of diseases.</li> <li>➤ Toilets shall not be more than 50 m away from the relief camps.</li> <li>➤ Pit Latrines and Soak ways shall be at least 30m from any ground water source and the bottom of any latrine has to be at least 1.5m above the water level.</li> <li>➤ Drainage or spillage from the defecation system shall not run towards any surface water source or shallow ground water source.</li> </ul>
5	Medical Cover	<ul style="list-style-type: none"> <li>➤ Steps shall be taken to avoid spread of any communicable diseases.</li> <li>➤ Helpline should be set up and contact number and details shall be adequate publicized.</li> <li>➤ For Pregnant women, arrangement of basic arrangements for safe delivery</li> <li>➤ All the hospitals, doctors and paramedical staff are available in short notice. Doctors and paramedical staff should be available on 24x7 basis in the relief centers. In case of referral cases to the hospitals suitable transportation shall be arranged.</li> <li>➤ Medical emergency/contingency plan should be activated in case of mass casualty.</li> </ul>
6	Relief for Widows & Orphans	<ul style="list-style-type: none"> <li>➤ Separate register duly counter signed by officials having complete details women who are widowed and for children who are orphaned due to disaster shall be maintained and kept in permanent record.</li> <li>➤ Special care shall be given to widow and orphaned who are separated from the family.</li> </ul>



## CHAPTER-9

### RECONSTRUCTION, REHABILITATION AND RECOVERY

#### 9.1 Sector specific approach and processes for Reconstruction, Rehabilitation and Recovery

**Reconstruction, Rehabilitation and Recovery** process demands co-ordinate focus on multi disciplinary aspects of reconstruction and rehabilitation for recovery and is essential to understand disaster reconstruction, rehabilitation under the holistic framework of post disaster recovery. It will be in the form of recommendation rather than the rule. Rehabilitation and reconstruction are primarily carried out by the local bodies (Gram Panchayats, District, Talukas, Municipal Corporations, Municipalities, etc.) and different Government departments and boards. The reconstruction and rehabilitation plan is designed specifically for worst case scenario. Post disaster reconstruction and rehabilitation should pay attention to the following activities for speedy recovery in disaster affected areas. The contribution of both government as well as affected people is significant to deal with all the issues properly. Immediate and Long Term recovery plan includes following broad activities:

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



**Table 9.1: Sector specific approach and processes for Reconstruction, Rehabilitation and Recovery are as follows:**

Sector	Approach	Process
<p>Public assets: Roads and bridges Culverts Public buildings like hospitals and schools</p>	<ul style="list-style-type: none"> <li>•Multi hazard resistant construction to be followed while reconstruction of public assets. For example</li> <li>•Hazard resistant buildings to be made with the help of certified engineers.</li> <li>•Use of non-shrinking mortar</li> <li>Evacuation plans to be made for the public buildings</li> <li>•Non-structural mitigation measures to be taken into consideration</li> <li>•Risk sensitive development will be ensured in each of the reconstruction Programme.</li> <li>•For example:               <ul style="list-style-type: none"> <li>•landslide and flood zone mapping to be implemented</li> </ul> </li> <li>•Detailed geological survey of the land to be used for reconstruction.</li> <li>•Recommendations from PDNA</li> <li>•report to be considered.</li> </ul>	<ul style="list-style-type: none"> <li>•Detailed damages and needs assessment: Multi sectoral/ multi-disciplinary teams are to be made which can do a detailed damage and need assessment of the entire area.</li> <li>•Develop a detailed recovery plan through multi departmental participation. Specific recovery plan through consultative process of different line department are to be made.</li> <li>•Arrange for funds from Central government, state government, multi-lateral agencies (World Bank or ADB)”</li> <li>•Multi sectoral Project Management Unit to be made.</li> <li>• The process of monitoring and manipulation is to be done by SDMA</li> </ul>
<p>Utilities Water supply electricity communication</p>	<ul style="list-style-type: none"> <li>•Multi hazard resistant construction to be followed. For example:</li> <li>•Water pipelines, communication equipment used can be of such material which can resist impact of certain hazards Risk sensitive development will be ensured</li> <li>•Electric and communication junctions to be installed after considering landslide and flood zonation.</li> <li>•Recommendations from PDNA report to be considered.</li> </ul>	<ul style="list-style-type: none"> <li>•Detailed damages and needs assessment: Multi sectoral/multi-disciplinary teams are to be made which can do a detailed damage and need assessment of the utilities of the entire area.</li> <li>•Develop a detailed recovery plan through multi departmental participation including specific line departments and other stake holders.</li> <li>•Arrange for funds from Central government, state government, multi-lateral (World Bank or ADB)”</li> <li>•Multi sectoral Project Management Unit to be made.</li> <li>•Monitoring and evaluation: The process of monitoring and manipulation is to be done by SDMA.</li> </ul>



<p>Housing</p>	<ul style="list-style-type: none"> <li>•Multi hazard resistant construction to be followed.</li> <li>•Risk sensitive development will be ensured</li> <li>•Owner driven approach will be preferred. For example:</li> <li>•National and State schemes like Pradhan Mantri Awas Yojna (rural/urban) and Mukhya Mantri Awas Yojna can be included in construction of the individual houses.</li> <li>•Non-structural mitigation measures to be taken into consideration</li> <li>•Use of non-shrinking mortar</li> <li>Further loans can be sourced through banks and other financial institutions.</li> </ul>	<ul style="list-style-type: none"> <li>•Detailed damages and needs assessment: Multi sectoral/ multi-disciplinary teams are to be made which can do a detailed damage and need assessment of the entire area.</li> <li>•Develop a detailed recovery plan through multi departmental participation: Specific recovery plan through consultative process of different line department are to be made.</li> <li>•Arrange for funds from Central government, state government and multi- lateral (World Bank or ADB)”</li> <li>•Multi sectoral Project Management Unit to be made.</li> <li>•Monitoring and evaluation: The process of monitoring and manipulation is to be done by SDMA.</li> </ul>
<p>Economic restoration Agriculture Horticulture Industry Allied sectors Tourism etc.</p>	<ul style="list-style-type: none"> <li>•Multi sectoral assessment Assess direct and indirect losses.</li> <li>•Develop sectoral strategies the sectors that affected the most poor.</li> <li>•the sectors which are most critical for district’s economy</li> <li>•Risk sensitive development will be ensured</li> <li>•Owner driven approach will be preferred</li> <li>•Provision of single window insurance claim system</li> <li>•Promote insurance facility for all sectors through government and private institutions</li> </ul>	<ul style="list-style-type: none"> <li>•<b>Detailed damages and needs assessment:</b> Multi sectoral/ multi-disciplinary teams are to be made which can do a detailed damage and need assessment of the entire area.</li> <li>•<b>Develop a detailed recovery plan through multi departmental participation:</b> Specific recovery plan through consultative process of different line department are to be made.</li> <li>•<b>Arrange for funds from Central government, state government, multi lateral (World Bank or ADB)”</b></li> <li>•<b>Multi sectoral Project Management Unit to be made.</b></li> <li>•<b>Monitoring and evaluation:</b> The process of monitoring and manipulation is to be done by SDMA.</li> </ul>



<p>Livelihood restoration</p>	<ul style="list-style-type: none"> <li>•Nature, number and types of livelihoods affected</li> <li>•Interim and long term strategies Focus on livelihood diversification Issues related to most poor, women, and marginalized sections</li> <li>•Livelihoods of people without assets (labor)</li> <li>•Role of NGOs</li> </ul>	<ul style="list-style-type: none"> <li>•Detailed damages and needs assessment: Multi sectoral/ multi-disciplinary teams are to be made which can do a detailed damage and need assessment of the entire area.</li> <li>•Develop a detailed recovery plan through multi departmental participation: Specific recovery plan through consultative process of different line department are to be made.</li> <li>•Arrange for funds from Central government, state government, multi lateral (World Bank or ADB)”</li> <li>•Multi sectoral Project Management Unit to be made.</li> <li>•Monitoring and evaluation: The process of monitoring and manipulation is to be done by SDMA.</li> </ul>
<p>Psychosocial restoration</p>	<ul style="list-style-type: none"> <li>•Provisions like trainings from institute like NIMHANS, Mental hospitals and other specialized institutes</li> <li>•Spiritual leaders can help the community to cope up from the Trauma</li> </ul>	<p>Arrange for funds from Central government, state government, multi-lateral (World Bank or ADB)”</p>



## CHAPTER 10

### FINANCIAL RESOURCES FOR IMPLEMENTATION OF DDMP

#### 10.1 Existing sources of Funds for Disaster Management in the District:

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

SDRF is a fund constituted under section 48(1) (a) of the Disaster Management Act, 2005 (53 of 2005), these guidelines are being issued under section 62 of the DM Act, 2005.

##### 10.1.2 Calamities Covered under SDRF:

The SDRF shall be used only for meeting the expenditure for providing immediate relief to the victims of cyclones, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanches, cloud burst and pest attack.

##### 10.1.3 National Disaster Response Fund (NDRF):

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

##### 10.1.3.1 Calamities Covered under NDRF:

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

##### 10.1.4 Flexi-funds under Centrally Sponsored Schemes:

NITI Aayog has issued instructions for Rationalization of CSS, vide OM No. O-11013/02/2015-CSS & CMC dated 17th August, 2016. These instructions are applicable for Centrally Sponsored Schemes with one of the key objective "To undertake mitigation/ restoration activities in case of natural calamities, or to satisfy local requirements in areas affected by internal security disturbances. Therefore the CSS mentioned in Chapter 4 of this plan are one potential source of funding for mitigation/restoration activities.

##### 10.1.5 Funds to be created under DM Act 2005

##### 10.1.5.1 District Disaster Response Funds (DDRF)

DDRF is proposed to be created at the District Level as mandated by Section 48 of the DM Act. The disaster response funds at the district level would be used by the DDMA towards meeting expenses for emergency response, relief, rehabilitation in accordance with the guidelines and norms laid down by the Government of India and the State Government.

##### 10.1.5.2 District Disaster Mitigation Funds (DDMF)

District Disaster Mitigation funds would be created at the District Level as mandated under Section 48 of the DM Act 2005.



## **10.2 Responsibilities of the State Departments and Agencies**

All State Government Departments, Boards, Corporations, PRED and ULBs have to prepare their DM plans under Section 40 of The DM Act 2005. These Departmental DM Plans are already under preparation at the State Level including the financial projections to support these plans. The necessary financial allocations will be made as part of their annual budgetary allocations, and ongoing programmes. They will also identify mitigation projects and project them for funding in consultation with the SDMA/DDMA to the appropriate funding agency.

## **10.3 Techno-Financial Regime**

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

## **10.4 Other Financing Options**

DDMA in coordination with the departments will identify other financing options for restoration of infrastructure/livelihoods, like utilization of flexi fund within Centrally Sponsored Scheme for mitigation/restoration activities in the event of natural calamities in accordance with the broad objective of the Central Sector Scheme.

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



**CHAPTER 11**  
**PROCEDURE AND METHODOLOGY FOR MONITORING, EVALUATION,**  
**UPDATION AND MAINTENANCE OF DDMP**

**11.1 Introduction**

The District Disaster Management Plan is the sum and substance of the Horizontal and the Vertical disaster management plans in the district. District Disaster Management Plan of Haveri District is a public document which is neither a confidential document nor restricted to any particular section or department of administration. The underlying principal of disaster management is that it has to be part of all departments and none can fold fingers against it.

**11.2 Authority for maintaining & reviewing the DDMP**

The District Disaster Management Authority (DDMA), Haveri will update the DDMP annually and circulate approved copies to the entire stakeholder in Haveri District. DDMA, Haveri District will ensure the planning, coordination, monitoring and implementation of DDMP with regards to the mentioned below clauses of the DM Act, 2005:

11.2.1 Section 31, Clause (4) of DM Act 2005, mentions that the District Plan shall be reviewed and updated annually.

11.2.2 As per sub-section (7) The District Authority shall, review from time to time, the implementation of the Plan and issue such instructions to different departments of the Government in the district as it may deem necessary for the implementation thereof.

**11.3 Proper monitoring & evaluation of the DDMP**

Half-yearly meeting will be organized by the DDMA under the chairmanship of the Chairman, DDMA, and Haveri District to review disaster management activities in the state and updating the DDMP accordingly. All concerned departments and agencies have to participate and give recommendations on specific issues on Disaster Management and submit their updated reports quarterly.

**11.4 Post-disaster evaluation mechanism for DDMP**

The DDMA Chairman shall make special arrangements to collect data on a particular disaster irrespective of size and vulnerability. This post disaster evaluation mechanism shall be set up with qualified professions, experts and researchers and the collected data shall be thoroughly cross checked and documented in the EOC for further reference. The DDMA will evaluate the DDMP by conducting meetings and consultation with all stakeholders.

**11.5 Schedule for updation of DDMP:**

Besides the above (2 and 3) procedure of updating the DDMP shall be updated by:

1. Regular data collection system from the district Emergency Operations Centre (EOC)
2. Analysis of data
3. Review by Chairperson, DDMA
4. Updating and disseminating the updated plan

The updated data of DDMP will also be maintained at the DEOC website, ready for use in any situation under the supervision of DDMA, Haveri District.



The Chairman, DDMA will ensure regular updation of the DDMP by consulting the nodal officers of the frontline departments will update it on a biannual basis taking into consideration:-

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

#### **11.6 Uploading of updated plans at DDMA/SDMA websites:**

District Disaster Management Plan of the district is a public document & should be uploaded at the DDMA/SDMA websites under the supervision of the District Information Officer after each updation with prior approval of the Chairman DDMA.

#### **11.7 Conducting of Mock Drills:**

Section 30 (2) (x) of DM Act 2005, states that “District Authority shall review the state of capabilities for responding to any disaster or threatening disaster situation in the district & give directions to the relevant departments or authorities at the district level for their up gradation as may be necessary”. Similarly, Section 30 (2) (xi) of DM Act 2005, also states that “District Authority shall review the preparedness measures & give directions to the concerned departments at the district level or other concerned authorities where necessary for bringing the preparedness measures to the levels required for responding effectively to any disaster or threatening disaster situation”. Mock-drills help in evaluating disaster preparedness measures, identify gaps and improving coordination within different government departments, non-government agencies and communities. They help in identifying the extent to which the disaster plan, ESF’s, and SOPs are effective and help in revising the plan through lessons learnt and gaps identified. These drills enhance the ability to respond faster, better and in an organized manner during the response and recovery phase.

##### **10.7.1. The Responsible parties for organizing district drills**

Mock Drills will be conducted within District Haveri at various levels:



### **Level 1: District Level**

Conducting of District level Mock drills will be the responsibility of the Deputy Commissioner Haveri, along with Additional Deputy Commissioner Haveri, in association with **Key Participants Involved in Conducting a Mock drill** as the incident of disaster may be :-

- DDMA Haveri comprising of DC, ADC, SP, CEO, President Zila Panchayath.
- Revenue Department
- Assistant Commissioner
- Tehsildar, Block Officer
- MCC
- Elected representatives of Panchayath
- DD Factories and Boilers
- Chief Fire Officer
- District Health Officer
- Home Guards, Volunteers.
- District Information Officer
- Transport Department
- Food and Civil Supply Department
- NDRF, SDRF as the situation of the incident may demand
- Rest as per the IRS framework.

### **Level 2: Sub Divisional Level**

The Sub Divisional Magistrate (Civil) will be the concerned authority to conduct mock exercise at the Sub-Division level.

#### **11.7.2 Schedule for organizing drills**

District administration shall hold mandatory mock drill **twice annually** for the monitoring, evaluation, updation and maintenance of DDMP. First Mock drill will be held before the beginning of the tourist season in the Month of March or April as the case may be for checking the efficiency of the departments for any unforeseen incidence from taking place.

All the above mentioned levels will conduct mock drills at least **once in every six months** to evaluate their disaster management plans.



## **11.8 Monitoring & gap evaluation:**

### **10.8.1. Check on Personnel's involved in Execution of DDMP are trained with latest skills**

The District Authority shall check whether all the personnel involved in execution of DDMP are trained & updated on the skills necessary in line with the updated SOPs. As per Section 30 (2) (xii) of DM Act 2005, the District Authority shall organize & coordinate specialized training programmes for different levels of officers, employees & voluntary rescue workers in the district. Half yearly meeting for DDMP updation shall be organized by DDMA, under the chairmanship of Deputy Commissioner Haveri. DC should ensure for maintenance of DDMP and analysis the identified gaps. All concerned departments and agencies have to participate and give recommendations on specific issues of District Disaster Management Plan, and submit their plans.

### **10.8.2. Check on-site / off site Plans of Major Accidental Hazard Units**

All industrial units within Haveridistrict will submit their on-site/ off-site plans, after regular updation and maintenance to the DDMA for review and evaluation. They will regularly conduct on-site / off- site mock exercises annually or biannually as the case may be, to review, evaluate, and update their plans.



## CHAPTER 12

### COORDINATION MECHANISM FOR IMPLEMENTATION OF DDMP

#### 12.1 Introduction

The Coordination between District and Local governments is vital for the proper disaster management. It requires both inter departmental and intra departmental coordination with all the stakeholder line departments and local bodies like, PWD, Health and Family Welfare, fire and home guards, police, BSNL, Food and Civil Supply, forest, Revenue, Education, Agriculture, Horticulture, KSRTC , Municipalities, NGO's. Community Based Organisation and other local authorities. These partnerships recognize that each level of the disaster management arrangements must work collaboratively to ensure the effective coordination of planning, services, information and resources necessary for comprehensive disaster management.

The DDMP of the district is a three tier disaster management coordination based on bottom to top approaches i.e. taluk level, Sub-Division level and District level. This system enables a progressive escalation of support and assistance. The arrangements comprises of several key management and coordination structures. The principal structures that make up the Arrangements are:

(A) Disaster management committees are operational at taluk, Sub-Division and district level. The above committees are responsible for planning, organizing, coordinating and implementing all measures required to mitigate, prevent, prepare, respond and recover from disasters the affected area under their jurisdiction.

(B) Emergency Operation Centers at taluk, Sub-Division and district level supports disaster management groups while coordinating information, resources, and services necessary for disaster operations.

(C) Functional agencies of district administration, DDMA are responsible to coordinate and manage specific threats and provide support to other agencies on and as require

#### 12.2 Intra-Departmental Coordination:-

Each stake holder department i.e., PWD, Irrigation, Health and Family Welfare, fire and home guards, police, BSNL, Food and Civil Supply, forest, Education, Agriculture horticulture, KSRTC, Red Cross will constitute departmental level disaster management committee headed by a gazetted officer pertaining to that department. The committees will organise quarterly meetings of the committee members to analyses the preparedness level of the department in regard to disaster management. The committee will also decide the measures to be taken for reducing the gaps in their capacities and keep the proper record of the same.

#### 12.3 Sub division level coordination mechanism:-

As per the institutional mechanism, sub divisional officer (Civil) will call for the quarterly meeting the sub division level disaster management committee to review the preparedness level and plan to reduce the gaps identified. The chairperson will further report the situation to the DDMA and send the requisition of resources if required.



#### **12.4 Taluk level coordination mechanism:-**

As per the institutional mechanism, tahasildar will call for the quarterly meeting at the taluk level disaster management committee to review the preparedness level and plan to reduce the gaps identified at Taluk level.

#### **12.5 Arrangements at local level**

It is the local level that manages disasters within their own communities. Taluk, sub division and district levels are to provide additional resources, support, assistance and expertise as required. Local government is the key management agency for disaster events at local level. Local government achieves coordinated disaster management approach through Local Disaster Management committees.

#### **12.6 Coordination system with inter departments and at district level**

The District Magistrate/DC is the head of the District administrative set up and chairperson of the DDMA as per the DM Act, 2005. She / He have been designated as the responsible officer in the District. The heads of different departments in the District will have separate roles to play depending on the nature and kind of disaster. The roles and responsibilities of the members of the DDMA will be decided in advance in consultation with the concerned members.

**Pre Disaster coordination:** Minimum Annual meetings for review of preparedness and discussing the roles and responsibilities of the line departments, taluks and Sub Divisions. The meeting agenda would be discussing the capacity of each department in terms of SAR equipment's and manpower and regular updation of the same.

**Disaster phase coordination:** Coordination through phone or any other mode of communication in a disaster phase is not possible hence all the line departments and training institutes in the district should report to the DEOC as soon as the disaster strikes. After loss/damage assessment at the DEOC, the RO (D.C) would direct various stake holders to deploy their resources and task forces in the affected areas. Relief camps would be setup at a pre-defined location.

**Post disaster coordination:** In the post disaster phase, the RO would take updates on the conditions of basic amenities like water, food, roads, law and order etc. from the respective departments. An assessment of relief given and need of rehabilitation would also be taken in the post disaster phase.

#### **12.7 Coordination mechanism with community:**

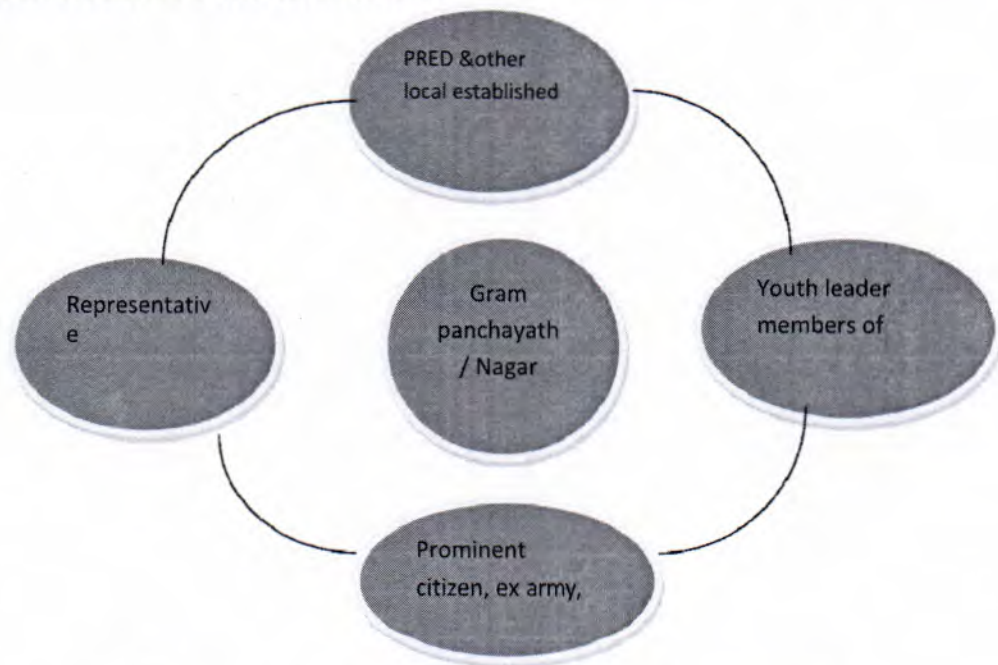
The community will be coordinated through the village disaster management committees. The mentioned committees generally comprises of

##### **Frequency of local Committee meetings**

Local Committee meetings must be held at least once in every six months at particular time and place decided by the chairperson of the group. In addition, the chairperson of a Local Committee must call a meeting if asked, in writing, to do so by:



- a) The District Authority for the Disaster district in which the Local Committee is situated; or
- b) At least one-half plus one of the members of the Local Committee.
- c) To help the Local government to prepare a local disaster management plan for its area;
- d) To identify, and provide advice to the relevant District Authority about support services required by the Local Committee to facilitate disaster management and disaster operations in the area;
- e) To ensure the community is aware of ways of mitigating the adverse effects of an event, and preparing for responding to and recovering from a disaster;
- f) To manage disaster operations in the area under policies and procedures decided by the district Authority;
- g) To provide reports and make recommendations to the relevant District Authority about matters relating to disaster operations;
- h) To identify, and coordinate the use of resources that may be used for disaster operations in the area;
- i) To establish and review communication systems in the Local Committee, and with the relevant District Authority and other Local Committees in the situation of disaster.
- j) To ensure that information about a disaster in the area is promptly given to the relevant District Authority, and
- k) To ensure risk management and contingency arrangements of essential services within the Local government area. Further information about the functions of the Local Authority may be found under sections 41 of the DM Act 2005



**Figure 11.1: Coordination mechanism with community**

### **12.8 Coordination mechanism with NGOs, CBOs, Self Help Groups (SHGs),**

The strong linkages which NGOs CBOs have with grassroots communities can be effectively harnessed for creating greater public awareness on disaster risk and vulnerability, initiating appropriate strategies for strengthening the capacity of stakeholder groups to improve disaster preparedness, mitigation and improving the emergency response capacities of the stakeholders. In



addressing the emerging concerns of climate change adaptation and mitigation, NGOs can play a very significant role in working with local communities and introducing innovative approaches based on the good practices followed in other countries. NGOs can bring in the financial resources from bi-lateral and multilateral donors for implementing pragmatic and innovative approaches to deal with disaster risk and vulnerability, by effectively integrating and converging the various government programs, schemes and projects to create the required synergy in transforming the lives of at-risk communities. The DDMA will maintain a proper record of the NGO's and CBO's working in the district and also map the available resources for them. The DDMA will appoint a Nodal officer for coordination with NGO's, CBO's and SHG's. The DDMA will call annual meeting of NGO's, CBO's & SHG's for mapping their resources. The meeting will be coordinated by the designated Nodal officer.

**12.9 Coordination with other districts and state:**

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



## Chapter 13

### STANDARD OPERATING PROCEDURES (SOPs) AND CHECK LIST

The following SOPs are designed to guide and initiate immediate action. The DDMA and the district administration will initiate action and build and expand the scope of these actions based on unfolding situation.

#### 13.1. Early Warning Management

<b>Actions</b>	<b>Responsibility</b>
Obtain early warning inputs from IMD, CWC, MHA / NDMA / SDMA control rooms, GSI	In charge – DEOC
Notify the early warning to Chairman and the members of the DDMA, Nodal officers of the line departments, ADCs, ACs, Dy SPs	In charge - DEOC
Disseminate early warning to divisions, blocks and Panchayats	ACs/ Tahsildars
Flash warning signals on all television and radio networks	District Information Officer
Establish disaster dash board on the official district website	District Information Officer
Inform communities / public / villagers about the disaster warning using vehicles mounted with loudspeakers	Tahasildars
Use PA systems facilities at Temples, Mosques and Churches to announce about the impending disasters	Tahasildars
Share early warning information with educational information and instruct closure of institutions if required	Tahasildars

#### 13.2 Evacuation when there is early warning

<b>Actions</b>	<b>Responsibility</b>
Obtain early warning inputs from IMD, CWC, MHA / NDMA / SDMA control rooms, GSI	In charge – DEOC
Notify the early warning to Chairman and the members of the DDMA, Nodal officers of the line departments, ADCs, ACs, Dy SPs	In charge - DEOC
Hold meeting to assess situation and make a decision whether to evacuate specific communities / population	Chairman DDMA
Communicate decision regarding evacuation to concerned Revenue and Police officers	Chairman DDMA
Evacuating people to safer places	Concerned ACs and Tahsildars
Deploy teams for law and order maintenance, traffic management as wells as cordoning specific areas	Superintendent of Police
Establish routes, shelters and other logistics arrangements	Revenue department
Establish information desk	Revenue department
Establish helpline numbers	BSNL



### 13.3 Evacuation when there no early warning

<b>Actions</b>	<b>Responsibility</b>
Activation of the DEOC	In charge DEOC
Notify about the disaster event to Chairman and the members of the DDMA, Nodal officers of the line departments, ADCs, ACs, Dy SPs	In charge - DEOC
Hold a meeting to assess situation and make a decision whether to evacuate specific communities / population	Chairman DDMA
Communicate decision regarding evacuation to concerned Revenue and Police officers	Chairman DDMA
Evacuating people to safer places	Concerned ACs and Tahsildars
Deploy teams for law and order maintenance, traffic management as wells as cordoning specific areas	District Superintendent of Police
Establish routes, shelters and other logistics arrangements	Revenue department
Establish information desk, helpline etc	BSNL

### 13.4 Search and Rescue

<b>Actions</b>	<b>Responsibility</b>
Activation of the DEOC	In charge DEOC
DDMA to review disaster situation and make a decision to deploy search and rescue teams in anticipation of a disaster	Chairman DDMA
Deploy district level search and rescue teams in identified Locations	Chairman DDMA
Deploy Fire & Emergency Service teams for search and Rescue	District Fire Officer
Deploy Home Guards rescue teams	District Commandant – Home Guards
Requisition of NDRF	Chairman DDMA
Establish on site coordination mechanism	ADCs / ACs
Assign area of search and rescue responsibility for different teams deployed on site	ADCs / ACs
Establish Staging Area for search and rescue resources	ADCs / ACs
Establish Camps for the responders with adequate food, water, sanitation facilities	ADCs/ ACs
Deploy teams for law and order maintenance, traffic management as wells as cordoning specific areas	District Superintendent of Police
Identify nearest helipad and ensure it is in operating Condition	ADCs ACs
Establish triage	DHO/MO
Transport critically injured	DMO/MO / 108 Ambulance service / Red Cross
Establish onsite medical camps or mobile camps for first aid	CMO/MO
Establish information desk and dead body identification	ADCs / ACs
Evacuating people to safer places	Concerned ACs and Tahsildars



Deploy volunteers for supporting auxiliary functions such as crowd management, route management, first aid, information management	ADCs /ACs
Rescue animals in confined spaces	Assistant Director – Animal Husbandry

### 13.5 Relief Operations

Actions	Responsibility
Undertake sub division wise / block wise / taluk wise relief needs assessment in terms of food, water, shelter, sanitation, clothing, utensils, medical and other critical items	ADCs /ACs
Identify suitable and safe facilities and establish relief Camps	ADCs /ACs /Tahsildar
Establish adequate lighting arrangement at the relief camps	BESCOM
Ensure adequate security arrangement at the relief camps and for the affected communities	District Superintendent of Police
Ensure adequate water and sanitation facilities in relief camps and other affected communities	EE – Irrigation
Set up RO plants / water purification plants or other suitable facilities for immediate water supply	EE-Irrigation
Supply, procure and provide food to the affected Communities	EE-Irrigation
Airdrop dry and un-perishable food to inaccessible location safe drinking water	DCs/ ADCs /ACs
Provide essential items lost due to disasters such as utensils	ADCs /ACs
Supply, procure and provide water to the affected Communities	EE – Irrigation
Make required shelter arrangements including temporary Camps	ADCs /ACs /Tahsildar
Establish medical facilities at relief camps and at Communities	DHO/MO / Red Cross / 108 Ambulance
Ensure suitable vaccination to prevent disease outbreak	DHO/MO
Arrange for psychosocial support for victims at the camps	DHO/MO
Ensure child friendly food for the children in the camps	DD Food
Ensure nutritious food for pregnant and lactating mothers in the camps	DD Food
Ensure medical care facility for pregnant women for safe Delivery	DHO/MO
Involve and coordinate NGO participation	ACs / Tahsildar
Put in place grievance handling mechanism to prevent Discrimination	ACs /Tahsildar
Ensure adequate availability of daily need items such as food, medicine, consumables etc to ensure their access to affected communities	ACs / DD Food
Provide adequate and weather, gender, culture appropriate clothing to the affected communities and especially address	ACs /Tahsildar



the needs of women, children, aged and physically challenged	
Ensure adequate transportation facility to transport relief Items	District RTO
Maintain proper records of and documents of beneficiaries and relief distribution	ACs /Tahsildar
Ensure adequate and appropriate heating facilities depending on the weather situation	DFO
Supply fire wood, cooking gas, POL for the kitchen	DD Food
Record and maintain documents of ex-gratia payments	ACs /Tahsildar
Provide first aid and medical treatment to the injured Animals	Veterinary Officer
Establish animal shelters wherever required	DD Animal Husbandry
Arrange fodder for animals	DD Animal Husbandry
Wherever required involve Animal Welfare Board and the Civil Society Organisations	DD Animal Husbandry
Establish banking facilities for people to withdraw cash	District Lead Bank

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

On receipt of report from Revenue officials, the DC/ACs will order to set up a relief camp at pre-decided location as per District/ Sub-divisional disaster management plan

In case new location is to be selected for the camp due to Man dividable circumstances, following points should be considered for arriving at a decision.

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

### **Shelter**

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



## **General Administration of the Camp**

- One responsible officer preferably Chief Officer/ASO should be designated as Camp Officer by the DC/ACs who will ultimately be responsible for general management of the Relief Camp. She/he will co-ordinate & supervise the works of other officers in the camp. Administrative structure of the camp should be as follows:

One help desk/ control room/ officer room should be designated where inhabitants can register their complaints

## **Basic Facilities**

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

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

## **Water Facilities**

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

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

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

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

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

### **Clothing**

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



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

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

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

- Since women are more vulnerable during disaster, their specific needs must be identified and taken care of.
- Female gynecologist and obstetrician should be available at hand to take care of maternity and child related health concern.
- Ensure that children inoculated against childhood disease within the stipulated time period.
- For safety and security of the women and children vigilance committees should be formed consisting of women.
- Women Police Officer should be stationed within the camp to record and redress any complaints made by women.
- Security measures should be taken in the camps to prevent abduction of women, girls and children.

## **Vermin control**

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

## **Security**

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

## **Entertainment, Recreation & Information Education Communication Programme**

- Literary clubs/ Organizations may be promoted to arrange books & magazines for camp populations.
- Camp population may be kept engaged by providing entertainment & recreational facilities to them.
- Temporary Anganwadi centers may be opened in the camp with the help of ICDS project officers for small children.



- Temporary schools may be setup in the camp involving volunteers from the campaign habitants. SSA may provide free textbook, stationary, Siksha-Mitra etc.
- Reputed NGOs may also be allowed to run temporary schools in the camp.

### 13.7 Restoration of essential services

Actions	Responsibility
Assess, priorities and develop work plan for debris removal and road clearance	SE / EE –PWD
Constitute teams with equipment for debris removal and road Clearance	SE / EE PWD
Assess and priorities and develop work plan for restoration of power supply	SE/ EE BESCO
Constitute teams / crew to undertake restoration of power supply	SE / EE BESCO
Assess, priorities and develop work plan for restoration of water supply	SE/EE - Irrigation / Concerned ULB
Constitute teams / crew to undertake restoration of water supply	SE/EE - Irrigation
Assess, priorities and develop work plan for restoration of telecommunication services	SE/EE - BSNL
Constitute teams / crew to undertake restoration telecommunication services	SE/EE - BSNL
Deploy temporary / portable exchanges in critical locations for immediate restoration of telecommunication services	SE/EE – BSNL
Assess, priorities and develop work plan for restoration of road network	SE/EE – PWD
Constitute teams / crew to undertake restoration of road Network	SE/EE - PWD
Constitute teams / crew to undertake restoration of road network in rural areas	SE / EE Rural Development
Coordinate with Army / SDMA for erection of bailey bridges / temporary road links where bridges are washed out	DC/ADC

### 13.8. Dead Body Disposal

Actions	Responsibility
Establish village / ward level committee for identification of dead bodies	AC/ ULB
Prepare a record of details of the bodies retrieved in the Dead Body Inventory Record Register, allocate individual Identification Number, photograph, and prepare Dead Body Identification Form	Tahsildar / AC
Identification of the dead bodies and handing over to the next of kin	Village level / ward level committee
Transport unidentified dead bodies to the nearest hospital or mortuary at district / sub division / block level	ADCs /ACs



Make public announcement for establishing identity	ADCs /ACs
Handover the identified dead bodies to the next of kin	ADCs /ACs /Tahsildar
In case of unidentified dead bodies – prepare inventory, allocate individual identification number, photograph, finger print, obtain DNA sample if possible and fill Dead Body Identification Form	ADCs /ACs Tahsildar
Preserve the information recorded as forensic information	ADCs /ACs /Tahsildar
Undertake last rights of unclaimed / unidentified dead bodies as per established religious practices	ADCs /ACs /Tahsildar
Coordinate with NGOs and obtain their support	ADCs /ACs /Tahsildar
Preserve the bodies of foreign nationals (if any) by embalming or chemical methods and then placed in body bags or in coffins with proper labeling for handing over and transportation of such bodies to Ministry of Extern Affairs, or to the Consular offices of the concerned countries and other actors such as International Committee of the Red Cross	ADCs /ACs /Tahsildar



**ANNEXURE- 1****DETAILS OF FIRE STATION****Dist.Fire Station's Telephone No's:**

Sl.No	Station	STD Code	Phone No
1.	Haveri	08375	232666/234038/101
2.	Ranebennur	08273	269101/269711/101
3.	Hanagal	08379	262801
4.	Hirekerur	08376	282555
5.	Shiggaon	08378	255101
6.	Byadagi	08375	8762484101
7.	Savanur	08378	241101

**STAFF STRENGTH**

Designation	Haveri	Ranebennur	Hanagal	Hirekerur	Shiggaon	Byadagi	Savanur	Total
Dist.Fire Officer	01	-	-	-	-	-	-	01
Fire Station Officer	-	-	-	-	-	-	-	-
Asst.Fire Station Officer	-	-	01	01	-	01	01	04
Leading Firemen	03	03	04	04	04	03	03	24
Firemen Driver	05	02	03	03	03	02	03	21
Driver Machanic	-	01	-	-	-	01	-	02
Fireman	10	07	07	08	08	06	06	52

**OFFICERS DETAILS**

Sl.No	Officer Name & Designation	Officer Address	Office Telephone No	Resi Ph No	Mobile No
1.	Shri S V Agadi Dist Fire Officer	Fire Station, Hanagal Road, Haveri	08375- 232666/101	-	9901551595
2.	- Asst Fire Station Officer	Fire Station, Cattle Market, Ranebennur	08373- 269101/2697 11	-	
3.	Shri M S Basavaraj Asst Fire Station Officer	Fire Station, APMC yard, Hanagal	08379- 262801	-	9740653020



4.	Shri Henri Desoza Asst Fire Station Officer	Fire Station, APMC yard Hirekerur	08376- 282555	-	9480537943
5.	-- Asst Fire Station Officer	Fire Station, Jakkanakatti road, Shiggaon	08378- 255101	-	
6.	Shri P B Padake Asst Fire Station Officer	Fire Station, Mallayyanagudda road, Byadagi.	08378-	-	9945401480
7.	Shri Narayanaswamy Asst Fire Station Officer	Fire station, APMC Yard Savanur	08378- 209101	-	9741548876

### STAFF DETAILS

#### Drivers:

Sl.No	Station	Officer/Staff Name	Designation	Mobile No
1.	Haveri	V N Teggin	Fireman Driver 55	9986527040
2.		N N Marilinganagoudra	Fireman Driver 1522	9743552644
3.		Siraj Mokashi	Fireman Driver 3864	9731157061
4.		B N Girish	Fireman Driver 3513	8880096271
5.		S S Doddamani	Fireman Driver 290	9902153361
6.	Ranebennur	Sanjeev Rathod	Fireman Driver 3624	9341001066
7.		Malatesh Choori	Fireman Driver 4101	8970473338
8.		Shivaraj P O	Driver Mech 1548	7892291396
9.	Hanagal	N N Noorandamath	Fireman Driver 3521	9844321116
10.		Sunil Dhang	Fireman Driver 3872	7259993643
11.		Budnesab Nadaf	Fireman Driver 4071	9535495673
12.	Hirekerur	Shrinath Angadi	Fireman Driver 3925	8147203440
13.		Virupakshappa Parvati	Fireman Driver 4017	8308996084
14.		Santosh Sattagihalli	Fireman Driver 329	9844624335
15.	Shiggaon	M G Angadi	Fireman Driver 33	9632178119
16.		Bahubali Bagannavar	Fireman Driver 3877	9035674071
17.		Siddalingesh Azoor	Fireman Driver 4032	8892922440
18.	Byadagi	S H Bolegaon	Fireman Driver 3565	9972901128
19.		Shekharappa Ambiger	Fireman Driver 5119	8494814998
20.		Suresh Naragal	Driver Mach 1166	9916252180
21.	Savanur	Basavaraj Arer	Fireman Driver 2515	9742237655
22.		Manjunath Rangannavar	Fireman Driver 5101	9164822010
23.		Manjunath Tavari	Fireman Driver 5102	7026489585



**Staffs:**

Sl.No	Station	Officer/Staff Name	Designation	Mobile No
1.	Haveri	S H Prasannakumar	Leading Fireman 1796	8711922102
2.		M S Valad	Leading Fireman 608	7829274689
3.		D V Pujari	Fireman 2405	9916050604
4.		A G Lakkundi	Fireman 2813	9743121609
5.		B M Martandesh	Fireman 3296	9743360892
6.		Vithal Joger	Fireman 3187	9538551164
7.		B H Dadapeer	Fireman 3416	9986226285
8.		M B Kamble	Fireman 4409	8123686698
9.		Basavaraj J B	Fireman 4799	8550054387
10.		Manjunath Bilebal	Fireman 4912	7795270368
11.		Ramesh Gunjal	Fireman 4932	9740434008
12.		Chandrashekhar S Nashipudi	Fireman 5026	9632607423
13.	Ranebennur	C C Tavaragundi	Leading Fireman 1282	9880832420
14.		S M Killedar	Leading Fireman 1648	8884812669
15.		A R Gorannavar	Leading Fireman 875	9845769206
16.		J S Vasanad	Fireman 2451	9164565787
17.		P H Adur	Fireman 3280	9986962221
18.		Hanumanth Chigari	Fireman 3072	8123300290
19.		Sukumar Kanakikodi	Fireman 4437	7829710550
20.		B I Basanakoppa	Fireman 2466	9980764625
		Mahadev Bagi	Fireman 4399	9008566241
21.		Vinay M K	Fireman 4650	9740000742
22.	Hanagal	Husensab Chavan	Leading Fireman 1957	9686787946
23.		Manjunath D Naik	Leading Fireman 502	9916393282
24.		Sheena Naik	Leading Fireman 570	9900908531
25.		Raghavendra Gavadi	Leading Fireman 597	9986773794
26.		K B Hiremath	Fireman 2707	9731077748
27.		M Y Hunagundi	Fireman 3262	9972396454
28.		M H Hallad	Fireman 2754	9164560105
29.		Mallikarjun Munnoli	Fireman 4405	8747897052
30.		Shivaraj Kumar Bagali	Fireman 4755	9900489389
31.		Dinesh Mulimani	Fireman 2768	7353764138
32.		Krishna Hadapad	Fireman 4905	9741661495
33.	Hirekerur	Avinash B	Leading Fireman 518	9071347433
34.		Santosha B	Leading Fireman 630	9845583123
35.		Kantaraj Naik	Leading Fireman 645	9731413645
36.		Jayaram J Gowda	Leading Fireman 385	9019086386
37.		Manjunath K N	Fireman 4202	9844504847
38.		D P Chalawadi	Fireman 2602	9901990399
39.		V J Chalawadi	Fireman 2654	9844022680



40.		Rajiv Sunagar	Fireman 3199	9538534268
41.		Channabasappa Wari	Fireman 3434	9964951418
42.		M K Waderahalli	Fireman 3199	9901988325
43.		Suresh Heggannavar	Fireman 3110	9538266841
44.		Santosh Dhatmatt	Fireman 5052	9535268947
45.	Shiggaon	G M Goudar	Leading Fireman 1801	9743565101
46.		Noorahamad A Mannanaik	Leading Fireman 218	9731868904
47.		D R MAdiwalar	Leading Fireman 1895	9986542870
48.		Basavaraj M Madar	Leading Fireman 2001	8494814800
49.		S G Patil	Fireman 3475	9986603319
50.		Anand Pujar	Fireman 3080	7829415492
51.		S C Patil	Fireman 2771	9611659119
52.		Tajoddin Bhagwan	Fireman 3456	9945424842
53.		M N Malligwad	Fireman 2692	9844583171
54.		Sukesh Patil	Fireman 4458	8970891344
55.		Siddappa Ritti	Fireman 2634	9743208234
56.		Mruntunjay Hiremath	Fireman 4412	7795766384
57.	Byadagi	S B Badaki	Leading Fireman 1363	9632826458
58.		B Y Gudaganatti	Leading Fireman 1348	9342119984
59.		Durgappa Madivalar	Leading Fireman 1373	9916029612
60.		J A Saradarakhan	Fireman 2414	7411821626
61.		Maruti Badiger	Fireman 3181	9738475041
62.		Vinayak Ghatakeri	Fireman 3182	9480768002
63.		Mallikarjun Ganagi	Fireman 4406	7259575921
64.		Basavaraj Karadigudda	Fireman 4151	8095683054
65.		Shambuling Nandaganvi	Fireman 2701	9686791101
66.	Savanur	B B Bannappanavar	Leading Fireman 1332	8861579199
67.		Muttanna Pradhani	Leading Fireman 940	9741863381
68.		Manjunath Meti	Leading Fireman 933	9535647783
69.		Basappa Yatnalli	Fireman 3188	9632470448
70.		Hanumantappa Madar	Fireman 3827	9844408920
71.		Hanumantappa Narti	Fireman 3267	9844563174
72.		Suresh Gunjal	Fireman 3824	8970792138
73.		Basavaraj Sankkanavar	Fireman 3341	9538264480
74.		Ningappa Kannanvar	Fireman 2717	9980489389

**PRESENT RESCUE EQUIPEMENTS**

Sl.No	Equipment Name	Quantity
1.	Combi Tool	02
2.	Life Buoy	70
3.	Life Jackets	70
4.	Grapnel	20
5.	Hand Forcible tools	04
6.	Rescue Ropes	30
7.	Rechargeable torch	06
8.	Bolt Cutter	02
9.	Breathing Apparatus set	14



**PRESENT VEHICLES AND EQUIPEMENTS**

<b>Vehicles And Equipements</b>	<b>Haveri</b>	<b>Ranebennur</b>	<b>Hanagal</b>	<b>Hirekerur</b>	<b>Shiggaon</b>	<b>Byadagi</b>	<b>Savanur</b>	<b>Total</b>
Water Tender	02	03	02	02	02	02	02	15
Water Bowzer	01	-	-	-	-	-	-	01
MRV	01	-	-	-	-	-	-	-
Towing Tender	01	-	-	-	-	-	-	01
Jeep	01	-	-	-	-	-	-	01
Motor Cycle	01	01	01	-	01	-	01	05
Motor Cycle (Mist Technology)	01	-	-	-	-	-	-	01
Portable Pump	02	02	03	02	02	02	01	07
B A Compressor	01	-	-	-	-	-	-	01
Aska Light	01	01	01	01	01	01	01	07
Generator	01	01	01	01	01	01	-	06
Combi Tool	01	-	-	-	01	-	-	02
Boat	01	-	-	-	-	-	-	01
OBM	01	-	-	-	-	-	-	01

<b>Station</b>	<b>Water Tender</b>	<b>Water Tank Capacity</b>	<b>Water Bowzer</b>	<b>Water Tank Capacity</b>	<b>Towing Tender</b>	<b>Jeep</b>	<b>Motor Cycle</b>	<b>Motor Cycle(Mist Technology)</b>	<b>Portable Pump</b>
Haveri	KA42 G478 KA42 G537	4500 ltr 4500 ltr	KA42 G501	16000 ltr	KA01 G977	KA03 G620	KA03 G1158	KA03 G1326	PP18/2007 PP05/2009
Ranebennur	KA42 G783 KA03 G8272 KA01 G8231	4500 ltr 4500 ltr 4500 ltr	-	-	-	-	KA03 G42	-	PP19/2007 PP11/2008
Hanagal	KA42 G386 KA42 G531	4500 ltr 4500 ltr	-	-	-	-	KA03 G1159	-	PP21/2010 PP12/2008 PP22/2009
Hirekerur	KA42 G274 KA03 G7080	4500 ltr 4500 ltr	-	-	-	-	-	-	PP20/2007 PP56/2009
Shiggaon	KA42 G284 KA42 G429	4500 ltr 4500 ltr	-	-	-	-	KA03 G1160	-	PP17/2010 PP07/2009
Byadagi	KA42 G281 KA42 G428	4500 ltr 4500 ltr	-	-	-	-	-	-	PP 64 PP 02/2010
Savanur	KA42 G564 KA42 G565	4500 ltr 4500 ltr	-	-	-	-	KA03 G1267	-	PP43/1994



**ANNEXURE-2**

**DETAILS OF HOME GUARDS**

SL. NO.	NAMES	DESIGNATION	MOBILE	PAID / HONORARY STAFF	REMARKS
1	SRI. P.S.MANTURE	COMMANDANT	9916654223 6360684228	HONORARY	D.D.O.
2	VACANCY	INSTRUCTOR	-	PAID STAFF	-
3	SRI. T.L.RAJKUMAR	F.D.A.	9886710349	PAID STAFF	FROM GADAG DISTRICT WEEKLY 3 DAYS O.O.D TO HAVERI DISTRICT
4	SRI. I.M.KAMDOD	DRIVER	9448843985	PAID STAFF	-

<b>SWIMMERS LIST OF HOME GUARDS HAVERI DISTRICT AS ON 08-05-2019</b>				
Sl No	Name Of Home Guards	Name Of Unit	UNIT	Contact Name & No
1	S.R.Bingapur.	14	Haveri	9901523656
2	M.A.Byadagi.	17	Haveri	9242796444
3	S.F.Magod.	68	Haveri	-
4	D.K.Uppar.	13	Haveri	9902215672
5	P.B.Myagalkeri.	46	Haveri	9008207420
6	B.S.Mannegar,	107	Haveri	9620780063
7	M.G.Tarlagatta	12	Haveri	9902209752
8	A.A.Naganur.	50	Haveri	9663410100
9	H.Y.Holeanchi	41	Haveri	7975013842
10	P.P.Jayram	111	Haveri	9901874224
11	N.H.Churi	40	Haveri	9743700168
12	K.H.Rajputh	27	Haveri	8971152136
13	C.Y.Bidargaddi	H-62	Haveri	8550032904
14	C.K.Sarvari	H-63	Haveri	9071845538
15	G.J.Hutagi	H-64	Haveri	8494901864
16	D.L.Kanaki	133	Haveri	9902360114
17	U.C.Chalgeri	148	Haveri	8970522350
18	A.L.Bartake	178	Haveri	9739263243
19	S.S.Golsangi	179	Haveri	9902874271
20	P.S.Karander	184	Haveri	9742787067
21	G.R.Rammappa	185	Haveri	9900816750
22	M.M.Shivamnoga	188	Haveri	7026586975
23	A.D.Tangod	126	Haveri	9620755981
24	U.H.Kambli	131	Haveri	9731528269
25	P.H.Kokale	169	Haveri	9448666845
26	M.B.Karehuchannavar	484	Byadgi	7996448466
27	N.B.Kadammanavar	498	Byadgi	9845309451
28	G.S.Doni	B-03	Byadgi	7760333813
29	N.S.Mudegoudar	B-11	Byadgi	7844274703
30	R.A.Phiradannavar	B-17	Byadgi	7899538944



31	N.S.Madiwalar	B-21	Byadgi	9620268605
32	C.S.Bellad	PLC	Akkiallur	9900255353
33	R.B.Belagalad	454	Akkiallur	-
34	M.A.Tatti	463	Akkiallur	9535087686
35	U.C.Chalavade	452	Akkiallur	-
36	G.Y.Kaneare	449	Akkiallur	-
37	R.B.JOGI	448	Akkiallur	7026443110
38	U.N.Madiwalar	A-11	Akkiallur	973151529
39	D.N.Kanner	A-9	Akkiallur	7026538204
40	P.S.Patil	A-8	Akkiallur	9164475045
41	S.F.Kagannavar	A-13	Akkiallur	7026497165
42	C.N.Bajantri	A-15	Akkiallur	9738886917
43	D.B.Devisur	A-17	Akkiallur	8746906471
44	R.N.Shirsi	456	Akkiallur	9686217379
45	M.F.Harijan	395	Hangal	9916423283
46	N.L.Jogi	417	Hangal	8861115295
47	A.M.Malgimath	H-17	Hangal	9972791525
48	S.S.Hirgapanvar	H-11	Hangal	-
49	L.K.Kumushi	H-21	Hangal	8884025278
50	P.D.Talwar	H-19	Hangal	9632845254
51	P.S.Lakamapur	H-17	Hangal	9742087126
52	S.G.Gantare	H-22	Hangal	9164152215
53	P.S.Sangur	H-18	Hangal	9880299493
54	N.S.Konankeri	H-07	Hangal	9632423015
55	L.F.Karbhimannavar	H-24	Hangal	8105386707
56	S.I.Banivaddar	H-15	Hangal	8660091964
57	B.M.Tadasad	H-13	Hangal	9901808326

LIST OF EQUIPMENTS IN DISTRICT HOME GUARDS OFFICE HAVERI AS ON 08-05-2019

SL.NO	ITEMS	QUANTITY
1	LIFE JACKETS	09
2	LIFE BOYE	04
3	ASKA LIGHT	08

LIST OF HOME GUARDS IN HAVERI DISTRICT

SL.N O.	UNIT OFFICERS NAME	UNIT NAME	MOBILE NO.	MEN HOME GUARDS	WOMEN HOME GUARDS
1	Sri. P.R.Rajputh	Haveri	9620176650	118	10
2	Sri.M.N.Mattur	Shiggoan	9980098030	61	16
3	Sri. A.M.Kunchur	Ranebennur	9972238339	69	7
4	Sri.C.S.Bellad (I/C)	Hanagal	9900255353	24	
5	Sri. A.T.Shigave	Savanur	8496973412	30	
6	Sri. M.T.Naik	Byadagi	9980345578	34	-
7	Sri. P.J.Olekar	Herikerur	9900758133	67	
8	Sri.C.S.Bellad	Akkiallur	9900255353	43	
TOTAL				446	33



**ANNEXURE-3**

<b>DISTRICT HEALTH AND FAMILY WELFARE OFFICER, HAVERI</b>					
List of Mobile Numbers of Doctors					
SINo	Name of the Institution	Name of the Doctors	Specialization	Mobile Number	Office Number
<b>SHIGGOAN</b>					
1	Taluka Hospital Shiggaon	Dr Hanumthappa P.H	M.S.G Surgeon	9482923618	08378-255224
		Vacant	OBG.	9448170855	
		Dr. Laxman Naik	Ortho.P.	9620962771	
		Dr. Mahesh Jagadavar	Paediatrician	9611107654	
		Dr. Subhash Lokre	Skin	9845927316	
		Dr. Gururaj	Anaesthscian	9448730633	
		Dr. Vivek Jainkeri	ENT	9743154465	
		Dr. Vastrad	Ayush Doctor	9916855463	
		Dr. Vidhyavati Byatappanavar	Dentist	9886979004	
2	Taluka Health Office Shiggaon	Dr. Shivakumar S	Taluka Health Officer	8277511052	08378-255085
<b>RANEBENNUR</b>					
3	Taluka Hospital Ranebenur	Dr. S.S Gadad	MBBS DOMS	9448982520	08373-266222
		Dr. C.S. Mavinatop	MBBS DCH	9844143403	
		Dr Parameshappa R C	MBBS GS		
		Dr. Pratibha Naik	OBG		
		Dr. Shwetha Patil	Skin		
		Dr. Govind U.	CMO	8453420023	
		Dr. Kiran K Nadiger	BDS	9844324083	
<b>BYADAGI</b>					
4	Taluka Hospital Byadagi	Dr B R Lamani	THO		08375-228222
		Dr.Veeresh Hosamani	GS		08375-289430
		Dr. Chandrakanta Mannapur	ORTH	9740106701	
		Dr. Nagaraj S	ANE		
		Dr. Srinivas N	PEAD	9480060841	
		Dr. Vani Kabali	SKIN		
<b>SAVANUR</b>					
5	Taluka Hospital Savanur	Dr Hiregoudar S Y	GS		08378-241477
		Dr Raghavendra Jigalikoppa	Skin		
		Dr Madhusudan	ORTH	9902581728	



HANAGAL					
6	Hangal	Dr Annapurna Mundinamani	GM		08379-262222
	Hangal	Dr Rohit N	GS		
	Hangal	Dr Harishkumar B N	PEAD		
	AKKIALUR	Dr Maruti Chikkannavar	SMO		
	BAICHAVALLI	Dr B C PATIL	AMO	8277511567 9480028161	
	HANGAL	Dr Ravindragouda Patil	THO	8277511162	
		Dr BHASIRA NASIPUDI	DENTAL M O	8123786304	
	ARALESHWARA	Dr Pavan Pukale	AMO	8277511140	
	SHIRGOD	Dr Ravindragouda Patil	AMO	8277511187	
HAVERI					
7	Agadi	Dr. Manjula Mundinamani	AMO	8277511011	
	CHC Guttal	Dr. Abhinandan Sahukar	OBG	9663330094	
	Devagiri	Dr. Manjunath Heggeri	AMO	8277511586	
	Devihosur	Dr. Suhil M Harvi	AMO	8277511775	
	Handiganur	Dr Mahesh Manjalapur	BAMS	8277511587	
	Havanur	Dr. Mehabubali Bevinamarad	AMO	8277511584	
	Hosaritti	Dr. Venkatesh Naik	AMO	8277511582	
	Kabbur	Dr. Sarika Nandigonnannavar	AMO	8277511581	
	Karjgi	Dr. Smitha Bhajantri	AMO	8277511579	
	Katenahalli	Dr. Mahmud Rafi Nadaf	AMO	8277511581	
	Kurubagonda	Dr. Jagadeesh Patil	AMO	8277511580	
	Negalur	Dr. Basavaraj Pattanashetti	BAMS	8277511002	
8	Taluka Hospital Hirekerur	Dr. Arpita B	GM		
		Dr. Mahantayya Ganjjigatti	GS		
		Dr.Jnanesh war	ANE		



**Telephone Number List**

Sl No	Name of the Taluk	Name of the institution	Designation	Name	CUG NO
1	Byadagi	PHC Kaginele	Medical Officer	Dr Murgesh Nooradevarmath	8277511563
2	Byadagi	PHC Chikkabasur	Medical Officer	Dr Ragavendra.T.C	8277511564
3	Byadagi	PHC Shankripur	Medical Officer	Dr S G Satyamurthi	8277511565
4	HANGAL	Adur	Medical Officer	Dr Shivanand Pujar	8277511566
5	HANGAL	Baichavalli	Medical Officer	Dr B.C Patil	8277511567
6	HANGAL	Bommanahalli	Medical Officer	Dr Sharanabasappa Gopale	8277511568
7	HANGAL	Belagalpete	Medical Officer	Dr Manjula Patat	8277511569
8	HANGAL	Naregal	Medical Officer	Dr Sunita Mallannanavar	8277511570
9	HANGAL	Sheshagiri	Medical Officer	Dr Hanumantappa Sunkapur	8277511571
10	HANGAL	Shadaguppi	Medical Officer	Dr Rajashekar Hakki	8277511172
11	HANGAL	Tilavalli	Medical Officer	Dr Naheed Agisibagil	8277511573
12	HANGAL	C Hosur	Medical Officer	Dr Nagabhushan Patil	8277511576
13	HANGAL	Hangal T H	C.M.O	Dr Harish	8277511577
14	HANGAL	Akkialur CHC	C.M.O	Dr M R Chikkanavar	8277511578
15	HAVERI	Karajgi	Medical Officer	Dr Smitha Bhajantri	8277511579
16	HAVERI	Kurabagonda	Medical Officer	Dr Jagadish Patil	8277511580
17	HAVERI	Katenahalli	Medical Officer	Dr Mohammad Rafi Nadaf	8277511581
18	HAVERI	Hosaritti	Medical Officer	Dr Venkatesh Naik	8277511582
19	HAVERI	Negalur	Medical Officer	Dr Basavaraj Pattanshetti	8277511583
20	HAVERI	Havanur	Medical Officer	Dr Mehabubali Bevinamarad	8277511584
21	HAVERI	Devagiri	Medical Officer	Dr Manjunath Janagiri	8277511586
22	HAVERI	Handiganur	Medical Officer	Dr Mahesh Manjalapur	8277511587
23	HAVERI	Kabbur	Medical Officer	Dr Sarika Nandigonnavar	8277511589
24	Hirekerur	Hirekerur	Medical Officer	Dr Honnappa G	8277511590
25	Hirekerur	CHC Masur	Medical Officer	Dr Neelakanta swami	8277511591
26	Hirekerur	CHC Rattihalli	Medical Officer	Dr Lokeshkumar	8277511592
27	Hirekerur	PHC Chikkerur	Medical Officer	Dr Chandregouda	8277511593
28	Hirekerur	PHC Koda	Medical Officer	Dr Rakesh Shrihari	8277511594
29	Hirekerur	PHC Kudapali	Medical Officer	Dr Mangalgouri G K	8277511595
30	Hirekerur	PHC Housebavi	Medical Officer	Dr N Chethan Kumar	8277511596
31	Hirekerur	PHC Kadur	Medical Officer	Dr Rohit Nidagundi	8277511597



32	Hirekerur	PHC Hosavirapur	Medical Officer	Dr Chinanada L H	8277511598
33	Hirekerur	PHC Hallur	Medical Officer	Dr Yoshita B R	8277511599
34	Hirekerur	PHC Medur	Medical Officer	Dr Sunita Marer	8277511601
35	Hirekerur	PHC Aladageri	Medical Officer	Dr Basappa Kengond	8277511602
36	Ranebennur	PHC honnatti	Medical Officer	Dr Harish Nyamati	8277511604
37	Ranebennur	PHC Sunakalbidari	Medical Officer	Dr Manjula H P	8277511605
38	Ranebennur	PHC Tumminakatti	Medical Officer	Dr Nandini B G	8277511606
39	Ranebennur	Devaragudda	Medical Officer	Dr Hanumantappa Kummanavar	8277511607
40	Ranebennur	Haranagiri	Medical Officer	Dr Nigar E Rahabar Havanur	8277511608
41	Ranebennur	Kuppelur	Medical Officer	Dr Sumanth K N	8277511609
42	Ranebennur	Itagi	Medical Officer	Dr Prakash D D	8277511610
43	Ranebennur	Karur	Medical Officer	Dr Rihan banu S	8277511611
44	Ranebennur	Aremallapur	Medical Officer	Dr Kantesh Bhajantri	8277511612
45	Ranebennur	Kajjari	Medical Officer	Dr Hanumantappa Y	8277511613
46	Ranebennur	Irani	Medical Officer	Dr Shoubhgya Karehonammanavr	8277511614
47	Ranebennur	Makanur	Medical Officer	Dr Rubiya M	8277511615
48	Ranebennur	Medleri	Medical Officer	Dr Somashekar P Sannamani	8277511617
49	Ranebennur	Chalageri	Medical Officer	Dr Neha asma H R	8277511618
50	Ranebennur	Halageri	Medical Officer	Dr Vishvamurthy Arkachari	8277511620
51	Savanur	PHC Tevarmellihalli	Medical Officer	Dr Ajit kulkarni	
52	Savanur	PHC Yalavgi	Medical Officer	Dr Roopa Bavaji	8277511622
53	Savanur	PHC Karadgi	Medical Officer	Dr Aruna Jadhav	8277511623
54	Savanur	PHC Kalasur	Medical Officer	Dr. Hanumantappa Kuduchi	8277511624
55	Savanur	PHC Kadakol	Medical Officer	Dr. Madan Ghodke	8277511625
56	Savanur	PHC Hattimattur	Medical Officer	Dr Satish A R	8277511626
57	Shiggaon	CHC Bankapur	AMO	Dr. Anilkumar Hosalli	8277511627
58	Shiggaon	PHC Hulagur	Medical Officer	Dr Nagesh Gungi	8277511628
59	Shiggaon	PHC Attigeri	Medical Officer	Dr Shashidhar	8277511629
60	Shiggaon	PHC Chandapur	Medical Officer	Dr Sheela N D	8277511630
61	Shiggaon	PHC Hirebendigeri	Medical Officer	Dr Vidya Mugadum	
62	Shiggaon	PHC Konanakeri	Medical Officer	Dr Ashok B A	
63	Shiggaon	PHC Dundashi	Medical Officer	Dr Vijaya C Patil	8277511631



<b>DISTRICT BLOOD BANK DETAILS</b>			
Sino	Taluk	Name of the Blood bank	Office no
1	Haveri	District Hospital Haveri.	08375 – 233360

**DISTRICT BLOOD STORAGE DETAILS**

Sino	Taluk	Name of the Blood Storage	Office no
1	Ranebennur	Ranebennur	08373 - 266222
2	Shiggoan	Shiggaov	08378 - 085222
3	Hangal	Akkialur	08379 - 241222

**STATEMENT OF AMBULANCES IN THE HAVERI DISTRICT**

Sl. No	VEHICLE REG. No	MODEL	PLACE OF WORKING	VEHICLE STATUS	REMARKS
1	KA 27 G 328	Ambulance Winger	GH Ranebennur	Running	Nagu Magu
2	KA 27 G 4072	Ambulance TT	GH Ranebennur	Running	State
3	KA 27 G 0454	Ambulance TT	GH Ranebennur	Running	State
4	KA 27 G 321	Ambulance Winger	GH Hanagal	Running	Nagu Magu
5	KA 27 G 304	Ambulance Winger	GH Hanagal	Running	JSV (State)
6	KA 27 G 294	Ambulance Omni	GH Hanagal	Running	Donated
7	KA 27 G 323	Ambulance Winger	CHC Akkialur	Accident	Nagu Magu
8	KA 27 G 309	Ambulance Omni	CHC Akkialur	Running	JSV (Donated)
9	KA 27 G 0451	Ambulance TT	CHC Akkialur	Running	State
10	KA 27 G 88	Ambulance Omni	GH Savanur	Running	Donated
11	KA25 C 5105	Ambulance Omni	GH Savanur	Running	Donated
12	KA 25 C 1785	Ambulance Omni	GH Savanur	Running	JSV (Donated)
13	KA 27 G 0325	Ambulance Winger	GH Savanur	Running	Nagu Magu
14	KA 27 G 485	Ambulance TT	GH Savanur	Running	State
15	KA 27 G 0303	Ambulance Winger	GH Hirekerur	Running	JSV (State)



**Information about Health Institutions**

<b>1. District Level Offices</b>	<b>4. HANGAL TALUK</b>	<b>6.RANEENNUR</b>	<b>8.HIREKERUR TALUK</b>	<b>9. Indian System of Medicine and Homeopathy</b>
1. District Hospital HVR	1. GH - Hangal	1. G.H. - Ranebennur	1. GH - Hirekerur	1. Gvt - Ayu - Hospital Shiggaon
2. District Health & Family welfare Office HVR	2. CHC - Akkialur	2. PHC - Honnatti	2. PHC - Chikkerur	2. Gvt - Ayu - Hospital Ranebennur
3. District Malaria Office Haveri	3. PHC - Bammnahalli	3. PHC - Halageri	3. PHC - Hamsbavi	3. Gvt - Ayu - Desp. Hediyaal Tq : RNR
4. District T.B. Office Haveri	4. PHC - Baichavalli	4. PHC - Makanur	4. PHC - Koda	4. Gvt - Ayu - Desp. Motebennur Tq: Bydagi
5. District Leprosy Office Haveri	5. PHC - Kusanur	5. PHC - Medleri	5. PHC Madlur	5. Gvt - Ayu - Desp. Anur Tq : Byadagi
6. District Serveillance Office Haveri	6. PHC - Adur	6. PHC - Kuppelur	6. PHC - Hosaveerapur	6. Gvt - Ayu - Desp. Budapanahalli Tq : Bydagi
	7. PHC - Tilavalli	7. PHC - Tumminakatti		7. Gvt - Ayu - Desp. Beluvagi Tq : Haveri
<b>2. HAVERI TALUK</b>	8. PHC - Belagalpet	8. PHC - Aremallapur	<b>8.RATTIHALLI TALUK</b>	8. Gvt - Ayu - Desp. Yattinahalli Tq : Hirekerur
1. CHC - Guttal	9. PHC - Sheshagiri	9. PHC - Devargudda	1. GH - Rattihalli	9. Gvt - Ayu - Desp. Joeesarahalli Tq: RNR
2. PHC - Handiganur	10. PHC - Araleshwar	10. PHC - Sunakalbidari	2. CHC Masur	10. Gvt - Ayu - Desp. Havangi Tq : Hangal
3. PHC - Kabbur	11. PHC - Kalakeri	11. PHC - Haranagiri	3. PHC - Kadur	11. Gvt - Ayu - Desp. Kuragunda Tq: Haveri
4. PHC - Devagiri	12. PHC - Shadguppi	12. PHC - Kajjari	4. PHC - Tadakanahalli	12. Gvt - Hom - Desp. Gondi Tq: Hangal
5. PHC - Agadi	13. PHC - Naregal	13. PHC - Karur	5. PHC - Maidur	13. Gvt - Hom - Desp. Hullatti Tq : Hangal
6. PHC - Negalur	14. PHC - Shiragod	14. PHC - Irani	6. PHC - Hallur	14. Gvt - Hom - Desp. Sammasagi Tq: Hangal
7. PHC - Katenahalli		15. MH Chalageri	7. PHC - Kudapali	
8. PHC - Kurubagonda	<b>5.SHIGGOAN TALUK</b>	16. MH Ranebennur		<b>Abstract</b>
9. PHC Karajagi	1. GH - Shiggaon		<b>Taluka Helath Offices</b>	1. District level offices 06
10. PHC - Hosaratti	2. CHC - Bankapur	<b>7. SAVANUR TALUK</b>	1. Taluka Health Office Haveri	2. District Hospital 01
11. PHC - Devihosur	3. PHC - Tadas	1. GH - Savanur	2. Taluka Health Office Ranebennur	3 Taluk Health Office 08



12. PHC - Havanur	4. PHC - Hulagur	2. PHC - Hattimattur	3. Taluka Health Office Byadagi	4. General Hospital 07
	5. PHC - Konankeri	3. PHC - Karadagi	4. Taluka Health Office Hangal	5. Community Health Centre 05
<b>3. BYADGI TALUK</b>	6. PHC - Attigeri	4. PHC - Yalavigi	5. Taluka Health Office Hirekerur	6. Primary Health Centre 67
1. GH - Byadagi	7. PHC - Chandapur	5. PHC - Tavarmellihalli	6. Taluka Health Office Rattihalli	7. Meternity Hospital 02
2. PHC - Kaginele	8. PHC - Dundasi	6. PHC - Kadakol	7. Taluka Health Office Shiggaon	8. Indian System of Medicine and Homeopathy 16
3. PHC - Chikkabasur	9. PHC - Hirebendigeri	7. PHC - Kalasur	8. Taluka Health Office Savanur	<b>Total Institutions 112</b>



**ANNEXURE-4**

## Contact details of Animal Husbandry and Veterinary

Name of the Personnel	Designation and Department	Address	Phone No.	
			Office	Mobile
Dr. D Sudhakar	Deputy Director Animal Husbandry	Deputy Director Haveri	08375- 249038	9743525466
Dr. Rajeev Koler	Asst. Director, Haveri	Asst. Director, Haveri	08375- 249038	7760627272
Dr. P.N. Hubballi	Asst. Director VH Haveri	VH Haveri	08375- 232033	9480667062
Dr. Gopinath	Asst. Director VH Byadgi	VH Byadgi	08375- 228540	9448961500 7975467938
Dr. Kiran kumar	Asst. Director VH Hirekerur	VH Hirekerur	08376- 282339	7022075545
Dr. Basavaraj. D.C	Asst. Director VH Ranebennur	VH Ranebennur	08373- 267395	9480422963
Dr. Biresh .S.	Asst. Director VH Savanur	VH Savanur	08378- 241563	8762099415
Dr. Hosamani	Asst. Director VH Shiggaon	VH Shiggaon	08378- 255251	9739613376
Dr. Girish Radder	Asst. Director VH Hangal	VH Hangal	08379- 262413	9901118508
Dr. Anand Palekar	Asst. Director VH. Bankapur	VH. Bankapur	08375- 249038	9980099150
Dr. Terali	KMF Haveri	KMF Haveri		9480682704



**ANNEXURE-5****Details of Forest Officers and Staff**

SL No.	Name of the Officer/Staff	Designation	Sub Division	Range	Mobile Number	E-mail ID
1	Girish H C	Deputy Conservator of Forests	-	-	9480374303	<a href="mailto:dcfhaveri@gmail.com">dcfhaveri@gmail.com</a>
2	AShok Gonde	Assistant Conservator of Forests	Haveri	-	9483445497	<a href="mailto:gondeashok@gmail.com">gondeashok@gmail.com</a>
3	S M Vali	Assistant Conservator of Forests	WL Ranebennur	-	9448140382	<a href="mailto:acfwlrr@gmail.com">acfwlrr@gmail.com</a>
4	B P Dudagi	Assistant Conservator of Forests	Hanagal	-	9448548017	-
5	Umarbadasha N K	Range Forest Officer	Haveri	Haveri	9916628822	<a href="mailto:rfohaveri@gmail.com">rfohaveri@gmail.com</a>
6	Mahesh Marenavar	Range Forest Officer	Haveri	Byadagi	9448376909	<a href="mailto:rfobyadagi@gmail.com">rfobyadagi@gmail.com</a>
7	Usharani H	Range Forest Officer	Haveri	Ranebennur	9481364596	<a href="mailto:rforanebennur@gmail.com">rforanebennur@gmail.com</a>
8	P H Pelanavar	Range Forest Officer	Hanagal	Hanagal	8217213378	<a href="mailto:rfohanagal@gmail.com">rfohanagal@gmail.com</a>
9	Hemagiri Angadi	Range Forest Officer	Hanagal	Hirekerur	8150894239	<a href="mailto:rfohrkrr@gmail.com">rfohrkrr@gmail.com</a>
10	S G Pujar	Range Forest Officer	Hanagal	Dundashi	8971279333	<a href="mailto:rfodundashi@gmail.com">rfodundashi@gmail.com</a>
11	M S Nyamati	Range Forest Officer	WL Ranebennur	WL Ranebennur	9611341933	<a href="mailto:rfowlrr@gmail.com">rfowlrr@gmail.com</a>



## **ANNEXURE -6**

### **RECOMMENDATIONS**

#### **(FACTORIES & BOILERS DIVISION - 2)**

- 1) A hot line between the MAH units and the Control Room is recommended for immediate and effective communication.
- 2) The road connecting from highway to the plants shall be widened and asphalted for safe movement of loaded LPG and POL tankers
- 3) The movement of the LPG tankers in the existing roads leading to the industries from the highways shall be regulated. The drivers shall be trained on sustained basis.
- 4) Fly over or cross bridge shall be provided on the railway line leading to Devangonhi Railway station from Whitefield station to see that vehicular traffic during emergency should not be stranded due to railway traffic.
- 5) Periodical training programmes shall be conducted to create awareness to the responders.
- 6) Mock rehearsals/ dry drills shall be conducted once in six months to evaluate the strength and weaknesses of the plans envisaged.



**ANNEXURE -7**  
**First information Report**

1. Name of District:
2. Date of Report:
3. Nature of Calamity:
4. Date and Time of Occurrence
  
5. Number and Names of the areas affected
  
6. Population Affected
  
7. Number of Persons
  
8. Died
  
9. Missing
  
10. Injured
  
  
11. Animals
  
12. Affected
  
13. Lost
  
  
14. Crops Affected
  
15. Number of houses damaged
  
16. Damage to Public Property











<p>(c) Bridges damaged/collapsed</p> <ul style="list-style-type: none"> <li>- Locality</li> <li>- Villages isolated</li> </ul> <p>d) Damages to the Communication Network</p> <p>(e) Damages to the Electricity Network</p> <p>(f) Damages to the Telecommunication Network</p>	<p>Yes/No and scale of the damages</p> <p>Scale 1 to 5 where 1 is no damages and 5 is completely destroyed</p>
<p><b>13. Health Facilities</b></p> <p>(a) Infrastructure damaged</p> <ul style="list-style-type: none"> <li>- Hospitals</li> <li>- Health Centers</li> <li>- Vaccination Centers</li> </ul> <p>(b) Availability of Doctors</p> <ul style="list-style-type: none"> <li>- In the area</li> <li>- In the district</li> </ul> <p>(c) Availability of Paramedical staff</p> <ul style="list-style-type: none"> <li>- In the area</li> <li>- In the district</li> </ul> <p>(d) Local Staff affected</p> <ul style="list-style-type: none"> <li>- Doctors</li> <li>- Paramedical Staff</li> </ul> <p>(e) Conditions of equipment Specify which equipment</p> <p>(f) Availability of medicines/drugs</p> <ul style="list-style-type: none"> <li>- Typology</li> </ul> <p>(g) Availability of Vaccinations</p> <ul style="list-style-type: none"> <li>- Typology</li> </ul> <p>(h) Any immunization campaign was undertaken before the disaster</p> <ul style="list-style-type: none"> <li>(i) Possibility of diseases outbreak</li> <li>(j) Other health problems</li> </ul>	<p>Number</p> <p>Scale 1 to 5 where 1 is no damages and 5 is completely destroyed</p> <p>Number</p> <p>Number</p> <p>Number</p> <p>Scale 1 to 5 where 1 is no damages and 5 is completely destroyed</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>List</p>



<p><b>14. Water Sanitation</b></p> <p>(a) Availability of safe drinking water</p> <p>(b) Availability of sanitation facilities</p> <p>(c) Availability of Disinfectant</p> <p>- Typology</p> <p>(d) Damages to the Water/Sewage systems</p> <p>(e) Damages to the water supply system</p> <p>(f) Availability of portable water system</p> <p>(g) Agencies participating in WATSAN</p>	<p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Scale 1 to 5 where 1 is no damages and 5 is completely destroyed</p> <p>Yes/No</p> <p>List</p>
<p><b>15. Crops/Agriculture Damage</b></p> <p>(a) Crop Damaged</p> <p>- Typology</p> <p>- % Of Hectare damaged</p> <p>- In Upland/medium/low</p> <p>- Paddy or Non paddy</p> <p>- Irrigated or non-irrigated</p> <p>(b) Normal and actual rainfall assessment</p> <p>(c) Livestock loss</p> <p>(d) Availability of Health services for livestock</p> <p>(e) Cattle feed/folder availability</p> <p>(f) Damage to agriculture infrastructure</p>	<p>Mm</p> <p>Number</p> <p>Yes/No</p> <p>Number</p> <p>Tonnes</p> <p>Scale 1 to 5 where 1 is no damages and 5 is completely destroyed</p>
<p><b>16. Food/Nutrition</b></p> <p>(a) Availability of food/stocks</p> <p>(1) Family</p> <p>(2) Relief</p> <p>(3) PDS</p> <p>(4) Community Kitchen</p> <p>(b) Expected duration of the food stock</p> <p>(c) Most affected groups</p> <p>- Infant</p> <p>- Children</p> <p>- Pregnant and lactating mothers</p> <p>- Elderly</p> <p>(d) Where are the different groups located?</p> <p>(e) Levels of malnutrition?</p>	<p>Yes/No</p> <p>Kg</p> <p>Tonnes</p> <p>Tonnes</p> <p>Kg</p> <p>Days To be ticked</p> <p>Days To be ticked</p>



<p>(f) Type of food required</p> <p>(g) Total quantity/ration levels required</p> <p>(h) How is the food supply and nutrition situation likely to evolve in coming weeks/months?</p>	
<p><b>1. 15.Secondary Threats</b></p> <p>(a) Potentially hazardous sites</p> <p>(b) Existence of epidemics</p> <p>(c) Scarcity of Food</p> <p>(d) Scarcity of Water</p> <p>(e) Scarcity of Shelter</p> <p>(f) Scarcity of Clothes</p> <p>(g) Any other problem</p>	<p>List</p>
<p><b>16. Response</b></p> <p>(a) Local: Govt./NGOs/CSOs/Individuals Type of assistance</p> <p>(b) National: Govt./NGOs/CSOs Type of assistance</p> <p>(c) International: Govt./NGOs/CSOs Type of assistance</p>	<p>To be ticked Description</p> <p>To be ticked Description</p> <p>To be ticked Description</p>
<p><b>17. Logistics and Distribution system</b></p> <p>(a) Availability of Storage facilities</p> <p>(b) Means of transport available</p> <p>(c) Availability of Fuel</p> <p>(d) Are there any distribution criteria already in place</p> <p>Availability of Manpower</p>	<p>Yes/No</p> <p>List</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p>
<p><b>18. Priority of Needs</b></p> <p>Search and Rescue:</p> <p>(a) Need of Search and Rescue</p> <ul style="list-style-type: none"> <li>- Locally available</li> <li>- Needed for neighbouring districts</li> <li>- Needed for neighbouring states</li> </ul> <p>(indicate from where)</p> <p>(b) Need of transportation and equipment:</p> <ul style="list-style-type: none"> <li>- Boats</li> <li>- Any other transportation(specify)</li> <li>- Special equipment(specify)</li> <li>- Heavy equipment(specify)</li> </ul> <p>(c) Need of shelter</p> <ul style="list-style-type: none"> <li>- Temporary</li> <li>- Permanents</li> </ul>	<p>Yes/No</p>



<p><b>1.2 Health:</b></p> <ul style="list-style-type: none"> <li>(a) Medical staff</li> <li>(c) Medicines(specify)</li> <li>(d) IV fluid</li> <li>(e) ORS</li> <li>(f) Vitamin A</li> <li>(g) Vaccines</li> <li>(h) Mobile units(quantity to be specified)</li> <li>(i) Cold chain system</li> </ul> <p><b>1.3 Education:</b></p> <ul style="list-style-type: none"> <li>(a) Infrastructure temporary / permanent</li> <li>(b) Teachers</li> <li>(c) Teachers kits</li> <li>(d) Reading materials</li> <li>(e) Availability of mid-day meal</li> </ul>	
<p>Crop/Agriculture</p> <ul style="list-style-type: none"> <li>(a) Need of seeds</li> <li>(b) Fertilizer , Pesticide</li> <li>(c) Type of Seed required</li> <li>(d) Availability of local variety</li> <li>(e) Availability of resources</li> </ul> <p>Infrastructure:</p> <ul style="list-style-type: none"> <li>(a) Repair of roads</li> <li>(b) Repair of railways and bridges</li> <li>(c) Power Supply</li> <li>(d) Telecommunication</li> <li>(e) Equipments required for restoration</li> <li>(f) Manpower required</li> </ul>	<p>Yes/No and specify location Yes/No and specify location</p> <p>List</p> <p>Number of Man days</p>

**Observation:**

- **Source of information:**
- **Site Visit:**
- **Interaction with affected population:**
- **Assessment Carried By:**



**ANNEXURE - 9**

**REQUISITION FOR ARMY AID BY CIVIL  
AUTHORITIES (NATURAL CALAMITIES)**

Reference No. : Calamities

1. From:
  2. To:
  3. For Information –
  4. Date and time origination of demand –
5. Situation as at area \_\_\_\_\_ an Heavy flood in area \_\_\_\_ due rising of rigor \_\_\_\_\_ civilians marooned. Own evacuation resources insufficient meet requirement. In view continuous heavy, rains in upper regions, more areas may be affected marooning another \_\_\_\_\_ civilians of \_\_\_\_\_ region.

**6. Type of extent of aid required for**

- (i) Equipment and personal, to evacuate marooned civil.
- (ii) Medical assistance for approximately \_\_\_\_\_ civilians.
- (iii) Tentage for \_\_\_\_\_ families if available.

**7. Likely duration and period of aid required**

for \_\_\_\_\_ days with effect from \_\_\_\_\_ (Present situation permitting)

**8. Officer in charge Army aid to contact.**

**9. Name of civil Liaison Officer detailed.**

Mr. \_\_\_\_\_ (Telephone No.) \_\_\_\_\_

**10. Arrangement made by civil authorities to guide Army aid to place of operations.** Mr. \_\_\_\_\_ will meet Army aid part at \_\_\_\_\_ on receipt of information from Army authorities)

**11. Special Instructions.**

- (i) School building at \_\_\_\_\_ being made available to house personnel and also for medical arrangements.
- (ii) Sufficient stocks of required medicines in the present contingency being made available to treat effected civilians population.
- (iii) Road Bridge at \_\_\_\_\_ is unserviceable.

12. Please acknowledge.

**Signature Office Seal  
Office Seal**



**ANNEXURE - 10**

**DE-REQUISITION OF ARMY AID (NATURAL CALAMITIES)**

**1. Reference No. Date:**

**2. From -**

**3. To -**

**4. Information -**

**5. Army aid requisitioned vides our reference no. \_\_\_\_\_ of  
\_\_\_\_\_ is hereby de-requisitioned with effect from  
\_\_\_\_\_ hrs on \_\_\_\_\_.**

**6. Please acknowledge.**

**Signature**

**Office Seal**

**Appointment**



## ANNEXURE – 11

### UNISDR Terminologies for Disaster Management

#### **Acceptable risk**

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

#### **Adaptation**

The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

#### **Biological hazard**

Process or phenomenon of organic origin or conveyed by biological vectors, including exposure to pathogenic micro-organisms, toxins and bioactive substances that may cause loss of life, injury, illness or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Comment: Examples of biological hazards include outbreaks of epidemic diseases, plant or animal contagion, insect or other animal plagues and infestations.

#### **Building code**

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

#### **Capacity**

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

#### **Capacity Development**

The process by which people, organizations and society systematically stimulate and develop their capacities over time to achieve social and economic goals, including through improvement of knowledge, skills, systems, and institutions.

#### **Contingency planning**

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

#### **Coping capacity**

The ability of people, organizations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.

#### **Critical facilities**

The primary physical structures, technical facilities and systems which are socially, economically or operationally essential to the functioning of a society or community, both in routine circumstances and in the extreme circumstances of an emergency.



**Disaster**

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

**Disaster risk**

The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.

**Disaster risk management**

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

**Disaster risk reduction**

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

**Disaster risk reduction plan**

A document prepared by an authority, sector, organization or enterprise that sets out goals and specific objectives for reducing disaster risks together with related actions to accomplish these objectives.

**Early warning system**

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

**El Niño-Southern Oscillation phenomenon**

A complex interaction of the tropical Pacific Ocean and the global atmosphere that results in irregularly occurring episodes of changed ocean and weather patterns in many parts of the world, often with significant impacts over many months, such as altered marine habitats, rainfall changes, floods, droughts, and changes in storm patterns.

**Emergency management**

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

**Emergency services**

The set of specialized agencies that have specific responsibilities and objectives in serving and protecting people and property in emergency situations.

**Exposure**

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



**Geological hazard**

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

**Greenhouse gases**

Gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds.

**Hazard**

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

**Land-use planning**

The process undertaken by public authorities to identify, evaluate and decide on different options for the use of land, including consideration of long term economic, social and environmental objectives and the implications for different communities and interest groups, and the subsequent formulation and promulgation of plans that describe the permitted or acceptable uses.

**Mitigation**

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

**Natural hazard**

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

**Preparedness**

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

**Prevention**

The outright avoidance of adverse impacts of hazards and related disasters. Comment: Prevention (i.e. disaster prevention) expresses the concept and intention to completely avoid potential adverse impacts through action taken in advance. Examples include dams or embankments that eliminate flood risks, land-use regulations that do not permit any settlement in high risk zones, and seismic engineering designs that ensure the survival and function of a critical building in any likely earthquake. Very often the complete avoidance of losses is not feasible and the task transforms to that of mitigation. Partly for this reason, the terms prevention and mitigation are sometimes used interchangeably in casual use.



**Public awareness**

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

**Recovery**

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

**Resilience**

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

**Response**

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

**Retrofitting**

Reinforcement or upgrading of existing structures to become more resistant and resilient to the damaging effects of hazards.

Comment: Retrofitting requires consideration of the design and function of the structure, the stresses that the structure may be subject to from particular hazards or hazard scenarios, and the practicality and costs of different retrofitting options. Examples of retrofitting include adding bracing to stiffen walls, reinforcing pillars, adding steel ties between walls and roofs, installing shutters on windows, and improving the protection of important facilities and equipment.

**Risk**

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

Comment: This definition closely follows the definition of the ISO/IEC Guide 73. The word "risk" has two distinctive connotations: in popular usage the emphasis is usually placed on the concept of chance or possibility, such as in "the risk of an accident"; whereas in technical settings the emphasis is usually placed on the consequences, in terms of "potential losses" for some particular cause, place and period. It can be noted that people do not necessarily share the same perceptions of the significance and underlying causes of different risks.

**Risk assessment**

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



### **Sustainable development**

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Comment: This definition coined by the 1987 Brundtland Commission is very succinct but it leaves unanswered many questions regarding the meaning of the word development and the social, economic and environmental processes involved. Disaster risk is associated with unsustainable elements of development such as environmental degradation, while conversely disaster risk reduction can contribute to the achievement of sustainable development, through reduced losses and improved development practices.

### **Vulnerability**

The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard. Comment: There are many aspects of vulnerability, arising from various physical, social, economic, and environmental factors. Examples may include poor design and construction of buildings, inadequate protection of assets, lack of public information and awareness, limited official recognition of risks and preparedness measures, and disregard for wise environmental management. Vulnerability varies significantly within a community and over time. This definition identifies vulnerability as a characteristic of the element of interest (community, system or asset) which is independent of its exposure. However, in common use the word is often used more broadly to include the element's exposure.

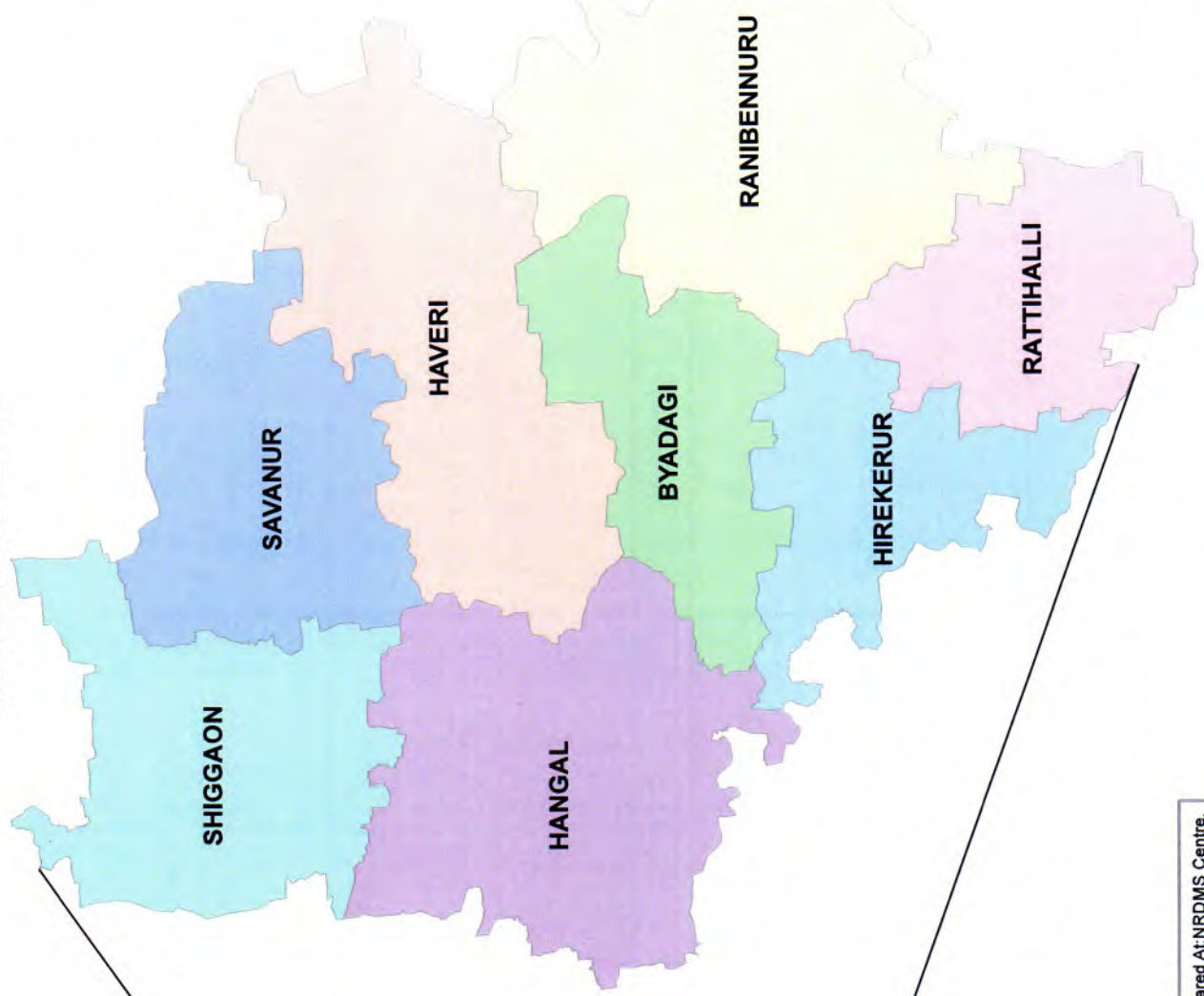


N.00.51 N.00.51 N.00.51 N.00.51 N.00.51 N.00.51



75°50'E 75°50'E 75°50'E 75°50'E 75°50'E 75°50'E

# HAVERI DISTRICT

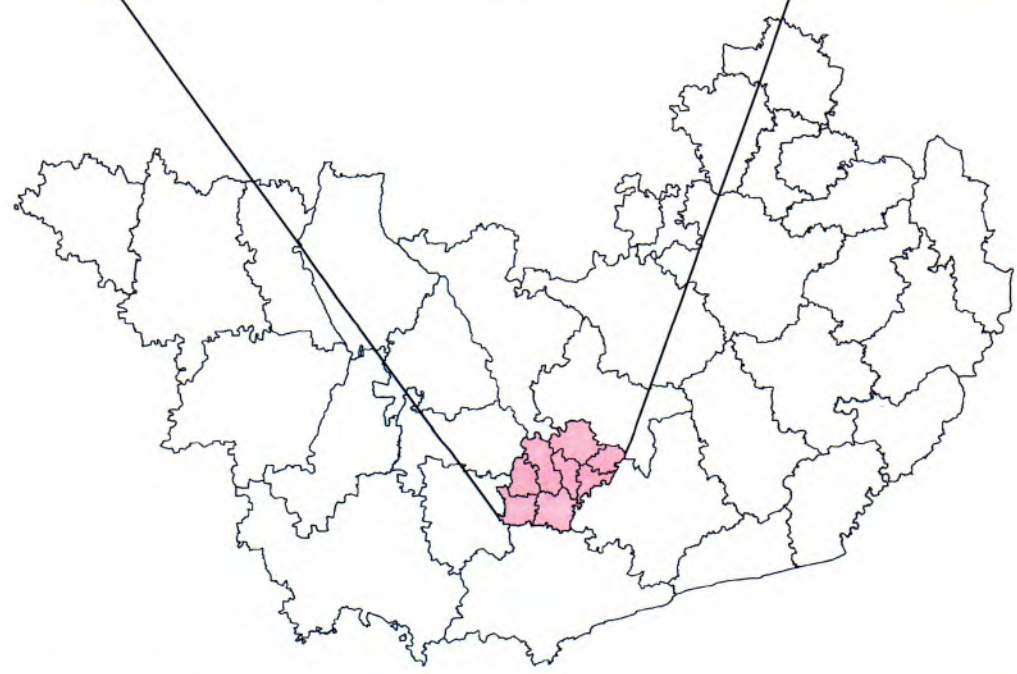


Prepared At:NRDMS Centre,  
Zilla Panchayat, Haveri

75°50'E 75°50'E 75°50'E 75°50'E 75°50'E 75°50'E

N.00.51 N.00.51 N.00.51 N.00.51 N.00.51 N.00.51

# KARNATAKA



75°50'E 75°50'E 75°50'E 75°50'E 75°50'E 75°50'E



# HAVERI DISTRICT



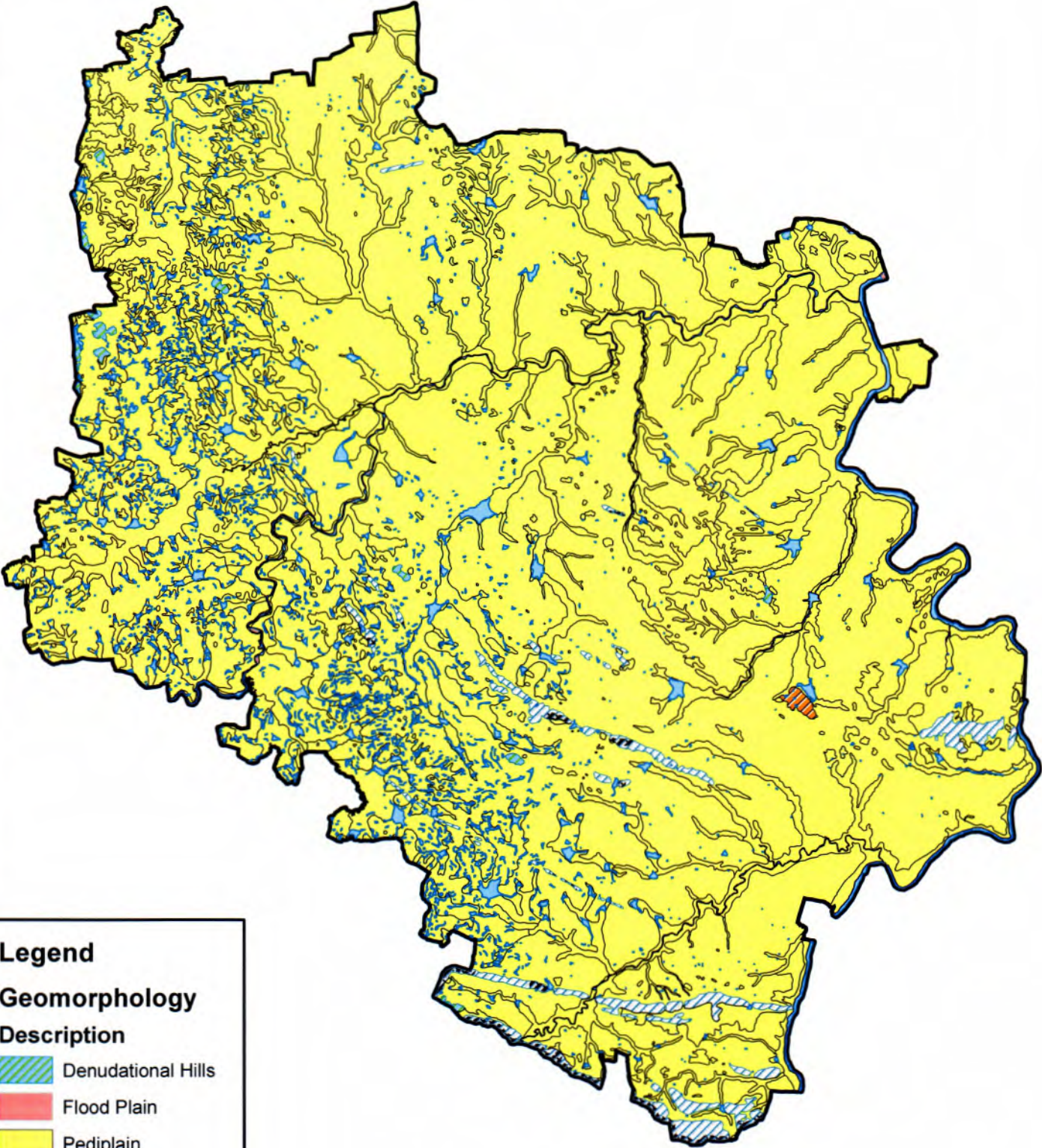
Prepared At:NRDMS Centre,  
Zilla Panchayat, Haveri



# HAVERI DISTRICT










## Geomorphology

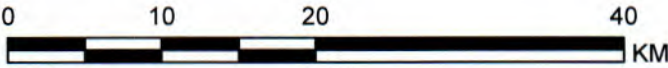


**Legend**

**Geomorphology**

**Description**

-  Denudational Hills
-  Flood Plain
-  Peditain
-  Settlement
-  Structural Hills
-  Water Body Mask
-  District Boundary

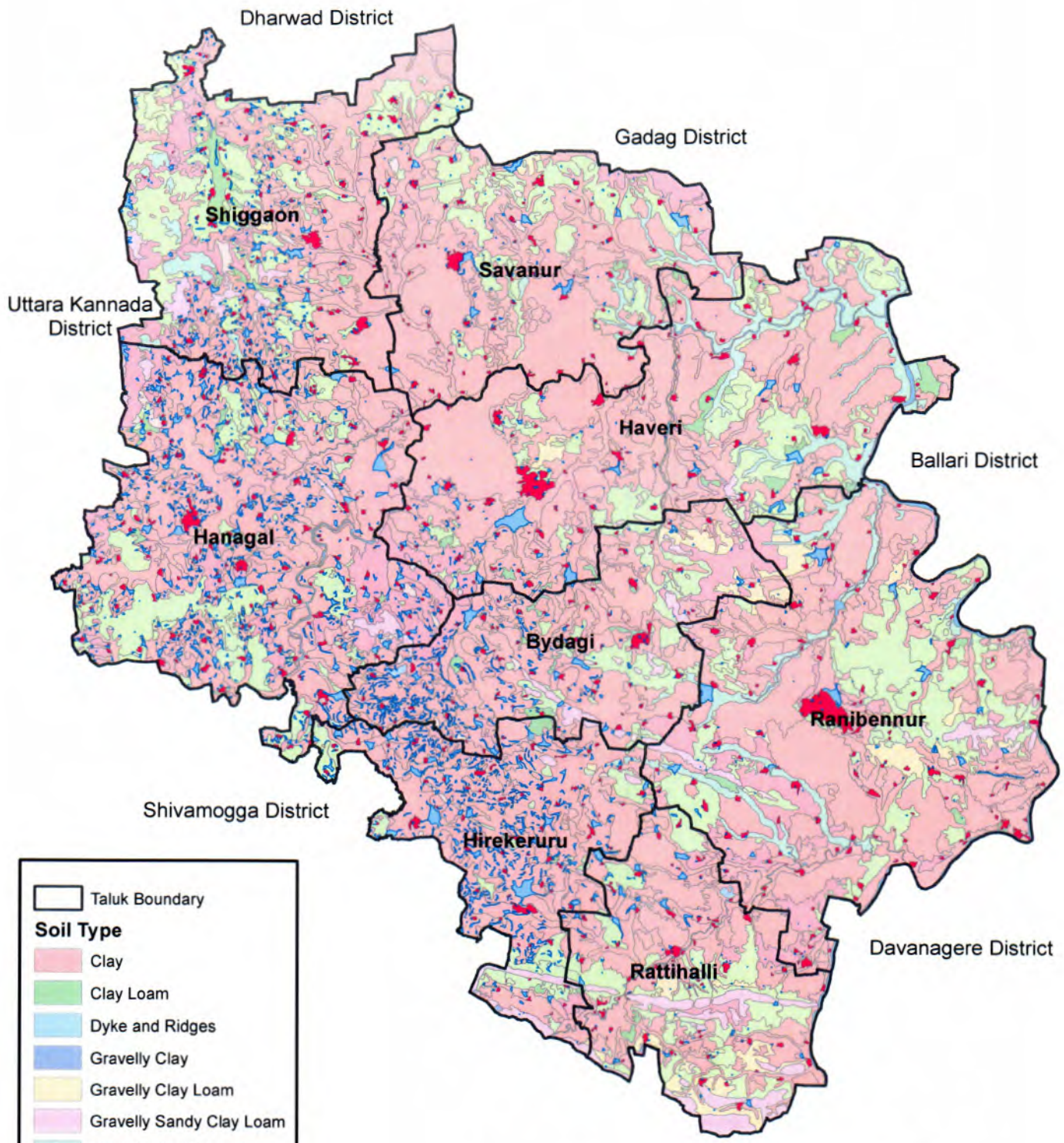




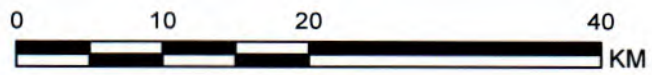
# HAVERI DISTRICT



## SOIL TYPE



	Taluk Boundary
<b>Soil Type</b>	
	Clay
	Clay Loam
	Dyke and Ridges
	Gravelly Clay
	Gravelly Clay Loam
	Gravelly Sandy Clay Loam
	Gravelly Sandy Loam
	Habitation Mask
	Sand
	Sandy Clay Loam
	Sandy Loam
	Water Body Mask



Prepared At:NRDMS Centre,  
Zilla Panchayat, Haveri



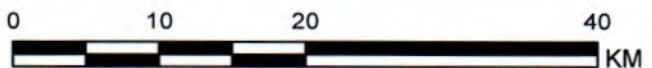
# HAVERI DISTRICT



## DRAINAGE MAP



	Taluk Boundary
	River
	Tank
	Drainage



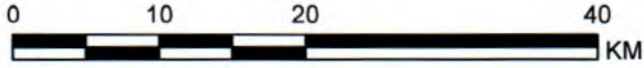
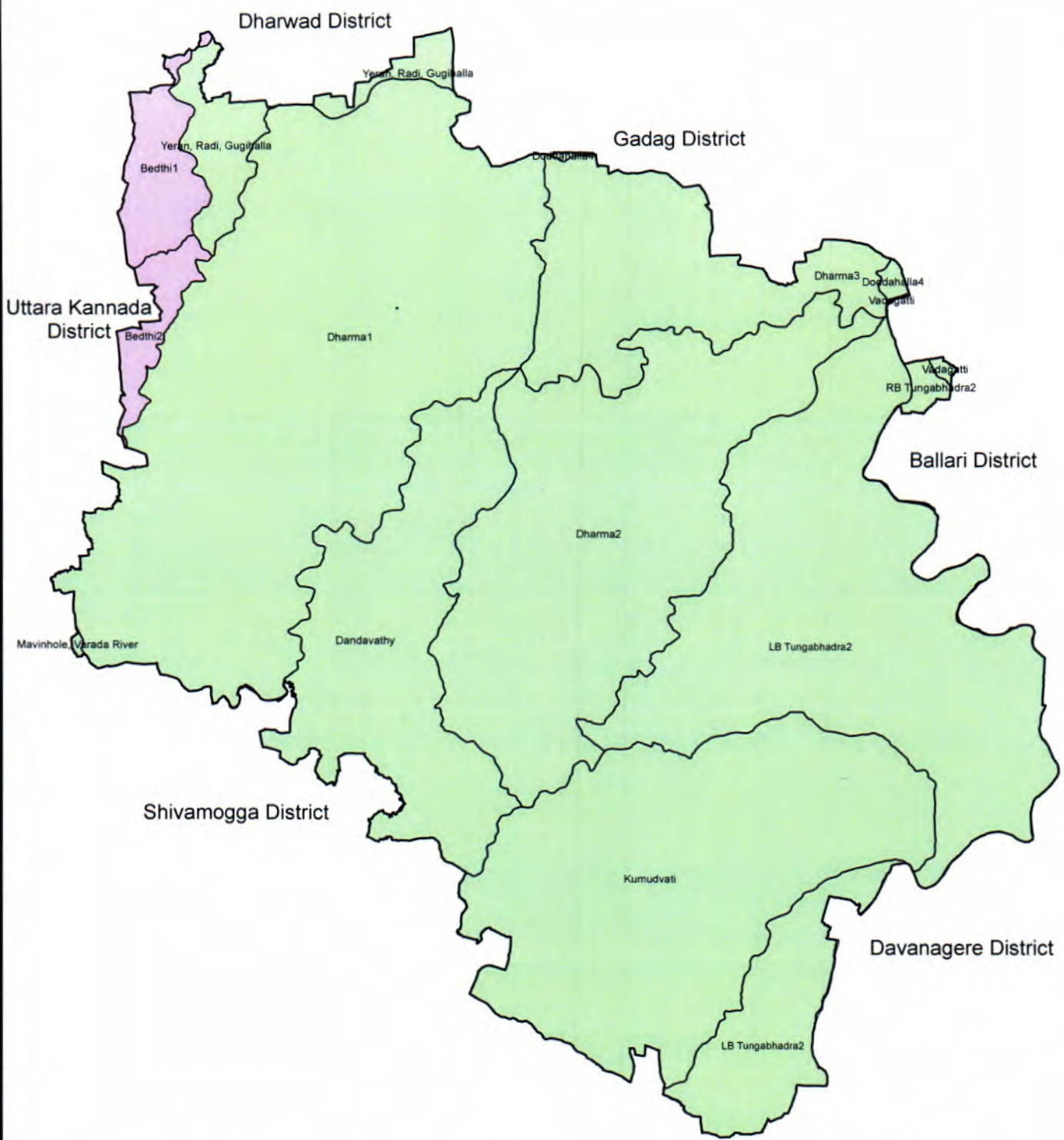
Prepared At:NRDMS Centre,  
Zilla Panchayat, Haveri



# HAVERI DISTRICT



## Watershed Basin



**Watershed River Basin**

- Krishna
- Sharavathy to Tapti
- Watershed
- Distrtict Boundary

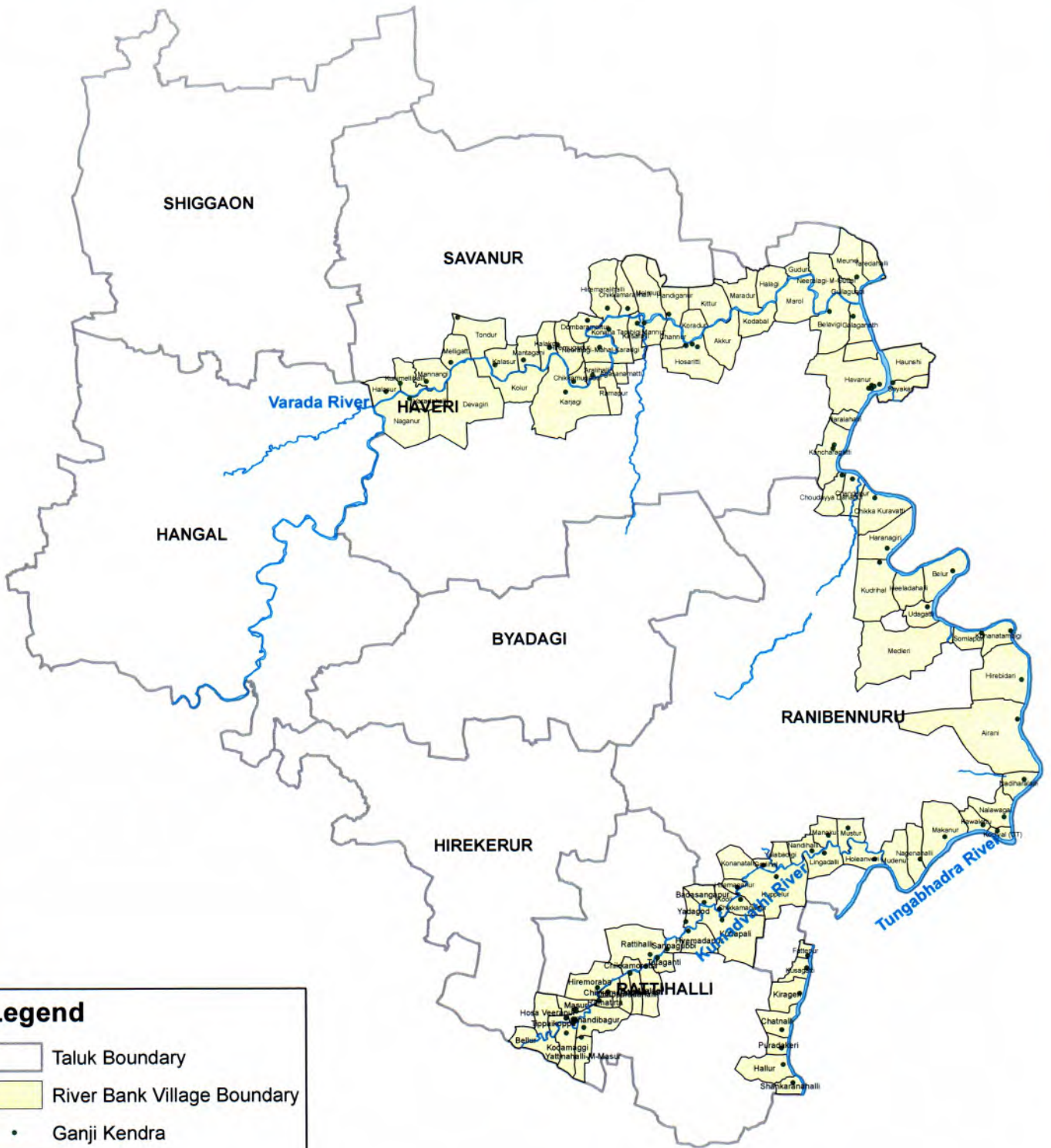
Prepared At:NRDMS Centre,  
Zilla Panchayat, Haveri



# HAVERI DISTRICT



Map Showing Location of Ganji Kendras are proposed to be set up during Flood



**Legend**

- Taluk Boundary
- River Bank Village Boundary
- Ganji Kendra
- River

Source:DDMP, DC Office Haveri

Prepared At:NRDMS Centre,  
Zilla Panchayat, Haveri

