

SHIMOGA DISTRICT

DISASTER MANAGEMENT PLAN 2009-10

**DEPUTY COMMISSIONER,
SHIMOGA DISTRICT,
SHIMOGA.**



PREFACE

Shimoga district is an exclusive Malnad District with 25% of forest land and plains.

It records heavy rainfall in Thirthahalli & Hosanagar Taluks with fast flowing rivers. It has important Industries. Hence the possibilities of various kinds of disasters can not be overlooked.

Any disaster management has to foresee disasters situation rising out of disasters. It has to device organised exercise to counter disaster and minimise its impact on the people and property. Each department involved in the exercise has to precisely know what, its role will be in the action.

Equally important is to define preventive measures to alert any disaster.

Disaster Management is not management during disaster, it is a continuous effort needing constant alertness. What follows is an attempt to bring in all the possible disasters, relevant to this district under the vision of Management. Further, efforts will be put to improve upon this effort and make it as comprehensive as possible.

This report is abstract of the main report containing information pertaining to various organisations / agencies involved in handling any major disaster in the district. For complete information on disaster management, it is recommended to refer to the main DMP.

PANKAJ KUMAR PANDEY, I.A.S.,

Deputy Commissioner.

CHAPTER –1

DISTRICT PROFILE

DISTRICT DISASTER MANAGEMENT PLAN, SHIMOGA DISTRICT**INTRODUCTION: -**

Geographically Shimoga district is located in north longitude 13°27' to 14°39' and east longitude 74°37' to 52' and surrounded by East Davanagere district, West Udupi and Uttara Kannada district, North Uttara Kannada and Haveri district, and in South Chickamagalore district. The geographical area is 8465 sq. Km. comprising Kodachadri, Kogur, Hulical and Agumbe ghat sections and ranges to 4411 above sea level Thirthahalli, Hosanagar, Sagar and Sorab taluks and malenad taluks covering most of the area of thick forests and highest peaks.

Tunga, Bhadra, Sharavathi, Varada and Kumadwati rivers are spread area in districts and world famous Jog falls, which falls from an height of 960 ft. in the west kodachadri Agumbe and Hulical ghats are famous for their natural beauty.

The average rain fall of the district is 1812 mm and in most of the year the climate condition is hot. The soil is red sand mixed laterite and black mixed. Paddy, Areca nut and garden crops are main crops. BRRBC, BRLBC and Tunga river projects are feeding projects in Bhadravati and Shimoga taluks. Apart from their projects, Anjanapura and some more tanks feeds water in almost all the taluks.

The DDMP has been formed keeping in view of past experiences, suiting to the needs under the able leadership of Deputy Commissioner and in co-operation of all other departments and public at large. The officers at in district level have come in several meetings and gave their valuable suggestions and tackled the problems most efficiently in a short while period keeping in inter departmental co-operation.

MITIGATION PLAN: -

All the Tahsildars have been inspired and instructed to form groups of Village Accountants, Revenue Inspectors, Deputy Tahsildars, wherever nodal officers are available and to identify the vulnerable areas and also to plan for the local publicity at the time of such incidents. The taluk level officers like Executive Officer, Asst. Executive Engineers, Block Educational Officers and all other departments are also asked to be in our team to provide necessary help to provide shelter, food, repairs of

roads, culverts, etc., wherever required. Karnataka Electricity Board Staff, Medical Staff and Municipality or Panchayath Staff have been asked to extend their services, within their limits. Almost all the social workers, NGOs and the likeminded people have been asked to provide their services in times of need.

We have also requested the Deputy Commissioner, Karwar for providing two boats on hire basis, for purpose of shifting the flood hit people, especially in Hosanagar, Sagar and Sorab taluks and accordingly two boats were deployed in the above areas.

All the officers were kept in touch with the DDM Heads, both in taluk and district level. Police, Home guards were kept in red alert especially in project areas and on river banks.

Police Officers, Home guards were alerted to identify the vulnerable plans along the Thunga and Bhadra river banks, flood hit areas especially in Sagar, Sorab, Thirthahalli and Hosanagar taluks. And also to identify the places where rehabilitation camps are to be opened, facilities to provide drinking water, food providing facility and areas available resources are to be identified. Medical facilities, NGO assistance, maintenance of cattle, open space for all their activities are also to be kept in mind in identifying the mitigation plan. The slum areas, the people living in low line areas, backwater level areas were kept in mind, and high alert and wide publicity arrangements were also made.

RESPONSE PLAN: -

Officers of all the departments have weekly meeting to discuss with the inter departmental plans to share each other and also to eradicate the difficulties that they are facing in the field level. Local engineers of PWD, PRED, have been asked to be in red alert to assess the damage and to immediate repair/alternate arrangements in their area without waiting for procedural aspects. Logistics arrangements for rescue operation has been discussed, including animal care, management of the deceased have been discussed.

RECOVERY AND RECONSTRUCTION PLAN: -

Municipal authorities, Gram Panchayath, Town Panchayath Officials were asked to keep an eye view of buildings and to take precaution care of such weak buildings, to keep up the bad drainage works repaired and to identify the risk oriented infrastructure. All the PWD, PRED officers were asked to be in the red alert.

STAND AND OPERATING PROCEDURES AND CHECKLISTS: -

Information team is kept in high alert in Deputy Commissioner's office to assist all around 24 hours. Search and rescue teams, Emergency Health Management Team, Relief Team (food, feed, fodder and civil supplies), transportation management Team, etc., have been made headed by the evaluation situation. Nodal Officers have been authorised to release the funds to the victims at their level only, to save time, assess the needy and to overcome the situation. This process has given courage and leadership to the officers to face the situation at their work spot only. Periodical meetings were held to know the situation and to keep in red alert. This has also been clarified to the nodal officers to bring it to the knowledge of DDM, the plan rescue operations they have held and to mitigate effectively.

Media and information officers were in touch with the DDM to highlight the various information from public to well from DDM and inter nation plans were also made to assess the situation.

It is urged that Hosanagar and Sorab taluks required two boats to each of the taluks and machine drive launch for Sagar taluk, which may save time, money and life at large. Skilled workers are to be deployed in handing the operational machines.

GEOGRAPHICAL INFORMATIONS**Location :****Latitude:** 13° 27' to 14° 39' N**Longitude:** 74° 37' to 75° 52' E**Height :** 597.19 Mtrs. Altitude above M.S.L.**Area:** 8477 Sq. Kms**Rainfall:** 1819 MM & rainy days are 86**Road Length:** From East to West 152.9 KM

From North to South 128.8 KM

Dams : Tunga, Bhadra-BRP, Linganamakki, Anjanapura, Ambligola, Maani,**Tanks:** 3328 (Z.P.) 304 (M.I.)**ULBs:** CMC-3, TMC-1, TP-5**Rivers:** Tunga , Bhadra, Sharavati, Kumudvati & Varada

Taluka	GP	Villages	Area Sq.KM
Shimoga	37	195	1113
Bhadravathi	39	138	690
Thirthahalli	38	245	1254
Sagar	35	230	1940
Shikaripura	43	155	909
Sorab	39	279	1148
Hosanagar	29	201	1423
Total	260	1443	8477

POPULATION: (2001)					
Taluka	Male	Female	Total	Projectd 2008	Projectd 2009
Shimoga	226928	218264	445192	500961	508928
Bhadravathi	171917	167072	338989	349010	350442
Thirthahalli	70734	72473	143207	151702	152916
Sagar	100977	100018	200995	217682	220065
Shikaripura	108344	105246	213590	230977	233460
Sorab	94267	91305	185572	201813	204134
Hosanagar	57392	57608	115000	123600	124829
Total	830559	811986	1642545	1775745	1794774

RAINFALL (IN MM) 2008

A-Actual & N-Normal

Taluka		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Shimoga	A	0.0	2.8	131.0	111.0	46.9	148.2	220.5	157.4	145.2	103.2	11.4	0.0
	N	1.0	1.0	8.0	49.0	92.0	121.0	241.0	139.0	98.0	134.0	49.0	8.0
Bhadravathi	A	0.0	4.0	55.7	41.5	52.4	130.1	218.9	248.8	129.0	41.2	11.0	0.0
	N	0.0	2.0	8.0	43.0	89.0	102.0	212.0	151.0	104.0	119.0	49.0	8.0
Thirthahalli	A	0.0	23.2	159.5	22.0	79.4	674.6	686.8	1053.0	318.8	47.0	10.0	0.0
	N	1.0	2.0	5.0	35.0	100.0	562.0	1119.0	728.0	196.0	140.0	41.0	9.0
Sagar	A	0.0	9.4	140.0	17.9	30.0	372.8	382.6	698.0	143.0	50.4	18.0	0.0
	N	1.0	1.0	7.0	48.0	90.0	399.0	825.0	461.0	150.0	130.0	46.0	6.0
Shikaripur	A	0.0	37.6	149.6	26.0	19.2	195.7	169.0	299.3	94.9	103.2	20.7	0.0
	N	1.0	1.0	8.0	59.0	99.0	156.0	320.0	163.0	96.0	144.0	43.0	11.0
Sorab	A	0.0	1.2	147.4	8.6	58.2	268.0	330.6	490.2	135.0	25.2	14.2	0.0
	N	2.0	0.0	6.0	35.0	80.0	288.0	620.0	323.0	118.0	128.0	40.0	6.0
Hosangar	A	0.0	12.2	267.2	22.6	53.2	812.1	710.2	905.4	406.4	74.4	18.6	0.0
	N	0.0	2.0	4.0	48.0	110.0	688.0	1202.0	595.0	206.0	149.0	44.0	7.0

AGRICULTURE: -

Kharif: Targeted area: Cereals 1.69 Lakh hect.,
Pulses 0.01 Hect., Oil seeds 0.01 Lakh Hect.,
Commercial Crops 0.14 lakh Hect.(Total
Khariff crops 1.85 Lakh Hect.)

Rabbi: Targeted area: coverage is 0.01 Lakh Hect.
which is occupied by pulses, usually grown
under residual moisture?

Summer: Targeted area: Cereals 0.22 Lakh hect., Pulses
& Oil seeds 0.07 Lakh Hect., (Total Summer
crops 0.29 Lakh Hect.)

HORTICULTURE: -

During 2007-08 :Arecanut 0.35 Lakh Hect,
Fruits 0.10 Lakh Hect. Spices 0.04 Lakh Hect,
were grown.

Agricultural labourers in the district: -

Taluka	Male	Female	Total
Shimoga	19979	20012	39991
Bhadravathi	26876	20164	47040
Thirthahalli	12046	18239	30285
Sagar	8344	9890	18234
Shikaripura	15267	21468	36735
Sorab	14322	20585	34907
Hosanagar	8910	8022	16932
Total	105744	118380	224124

CHAPTER –2

**MULTI HAZARD DISASTER PLAN
AND RESPONSE PLAN**

PREPARATION OF DDMP REPORT OF SHIMOGA DISTRICT

NEED FOR DDMP: -

The purpose of preparing District Disaster Management Action Plan (DDMAP) is -

- a) To ascertain the status of existing resources and facilities available with the various agencies involved in the management of disaster in the district.
- b) Assess their adequacies and short falls if any in providing a multi disaster response.
- c) Suggest institutional strengthening, technology support, up gradation of information system and data management for improving the quality of administrative responses to disaster at the district level and finally.
- d) To evolve DDMAP as an effective managerial tool.

OBJECTIVES: -

In the absence of a defined plan response to a disaster would be arbitrary leading to over emphasis of some actions or other actions, which would be critical. Moreover, due to absence of a defined response structure and responsibilities allocations there would be mismanagement of resources and overlap of actions among various agencies, which may exacerbate the situation thereby compounding the disaster effect.

A formal planning for managing disaster is therefore necessary to ensure minimize of hardship. This can be achieved only through: -

- a) Preplanning of proper sequence of response actions.
- b) Allocation of responsibilities to the participating agencies.
- c) Effective management of resources, and\
- d) Developing codes and standard operating procedures for smooth coordination between various departments and relief agencies involved.

The objectives of any DDMAP should be to localize a disaster and to the maximum extent possible contain it so as to minimize the impact on life, the environment and property.

HAZARD IDENTIFICATION

INTRODUCTION

Shimoga is exclusive Malnad district of Karnataka State and is exposed to multiple hazards, which may result in disaster if they are not controlled properly. In this section, effort has been made to identify all possible hazards in the district. These hazards have been studied further in subsequent chapters to know their possible impact during any disaster.

The various hazards that are possible in the Shimoga district have been broadly categorised as follows and the mitigative measures for each of these have been discussed under Chapter 4 of this report.

DISASTER

An occurrence of severity and magnitude that normally results in deaths, injuries, and property damage and that cannot be managed through the routine procedures and resources of government. It usually develops suddenly and unexpectedly and requires immediate, coordinated, and effective response by multiple government, voluntary and private sector organisations to meet human needs and speed recovery.

DISASTER MANAGEMENT

A collective term encompassing all aspects of planning for and responding to disasters, including both pre- and post-disaster activities. It may refer to the management of both the risks and consequences of disasters.

I. WATER AND CLIMATE RELATED DISASTERS: -

- 1) Floods
- 2) Droughts
- 3) Cyclones
- 4) Tornadoes & Hurricanes
- 5) Hailstorm

II. GEOLOGICALLY RELATED DISASTERS: -

- 1) Landslides and mudflows
- 2) Earthquakes
- 3) Dam Failure/Dam Bursts
- 4) Mines Fire

III. BIOLOGICALLY RELATED DISASTERS: -

- 1) Biologically Disaster & epidemics
- 2) Pest attacks
- 3) Cattle epidemics
- 4) Food poisoning

IV. CHEMICAL INDUSTRIAL DISASTERS: -

- 1) Chemical Industrial Disasters
- 2) Nuclear Disasters

V. ACCIDENT RELATED DISASTERS: -

- 1) Forest Fires
- 2) Urban Fires
- 3) Serial Bomb Blast
- 4) Air, Rail and Road accidents.

LIST OF ABBREVIATIONS

AAI	Airport Authority of India
AC	Assistant Commissioner
ADM	Additional District Magistrate
ASP	Additional Superintendent of Police
ATC	Air Traffic Controller
BPCL	Bharat Petroleum Corporation Limited
CP	Cathodic Protection
CPI	Circle Police Inspector
DC	Deputy Commissioner
DMP	Disaster Management Plan
ECC	Emergency Control Centre
ECR	Emergency Control Room
HPCL	Hindustan Petroleum Corporation Limited
HQA	Head Quarter Assistant
HSD	High Speed Diesel
IDLH	Immediate Danger to Life and Health
IGP	Inspector General of Police
IMC	Indian Molasses Company
IMD	Indian meteorological Department
IOCL	Indian Oil Corporation Limited
KEB	Karnataka Electricity Board (MESCOM)
KISCO	Kudremukh Iron and Steel Company
KMC	Kasturba Medical College
KREC	Karnataka Regional Engineering College
KSRTC	Karnataka State Road Transport Corporation
LPG	Liquefied Petroleum Gas
MAH	Major Accident Hazard (industries)
MS	Motor Spirit (Petrol)
MSDS	Material Safety Data Sheet
POL	Petroleum Oil Lube

PPE	Personal Protective Equipment
PS	Police Station
PSV	Pressure Safety Valve
RTO	Regional Transport Officer
SCADA	Supervisory Control And Data Acquisition
SCBA	Self Contained BreathingApparatus
SDPO	Sub Divisional Police Officer
SKO	Superior Kerosene Oil
SP	Superintendent of Police
TLV	Threshold Limit Value
TSV	Temperature Safety Valve

CHAPTER - 3

EARTHQUAKE

EARTHQUAKE MANAGEMENT

The recent devastation in Gujarat has been eye-opener as regards the magnitude of loss to human life and property. Hence, the District Administration has geared up the various Departments to effectively meet the challenge of an earthquake.

Since, earthquakes strike without forewarning and generally any measurement on the Richter scale is usually a postoperative measure, prevention in respect of earthquakes is imperative.

The main hurdles as regards planning are as follows:

- ❖ Structural planning of individual buildings.
- ❖ Communication lines.
- ❖ Electricity and water supply.
- ❖ Health hazards.
- ❖ Loss of life, property and employment.

Preventive steps are required in the following areas:

- ✓ Public structures.
- ✓ Dams.
- ✓ Roads.
- ✓ Maintenance of health and prevention of epidemic diseases.

Since, earthquakes are natural calamities dissemination of proper information, awareness, stocking of proper machinery and equipment are the prerequisites to tackle such a situation.

GENERAL STEPS TO BE TAKEN FOR MAINTAINING CALM INCASE OF EARTHQUAKE

1. Public to be educated to remain calm and not to panic.
2. Not to enter or exit from buildings when tremors are felt.

3. If indoors, take protection/shelter under a heavy object, which can sustain weight of heavy objects. Ex. A heavy desk, a study table, a strong cot etc.
4. Protect the head with covering such as books, pillows, blankets etc.
5. If outdoors to stay away from buildings, walls, tress, etc. as they are likely to collapse or get uprooted.
6. If driving, it is safe to stay inside the vehicle, as it is likely to provide protection from falling objects.

ACTION PLAN DURING EARTHQUAKES

- a. Inform the core committee members to swing into action.
- b. Summon the fire brigade.
- c. Inform Road Transport Authorities to stop movement of vehicle.
- d. Mobilize volunteers, youth, sportsmen, social service workers, Ex-servicemen, Medical personal.
- e. Make shift arrangements for temporary shelters to displaced persons.
- f. Providing water and food to the affected.

REHABILITATION OF EARTHQUAKE VICTIMS

The first and foremost requirement consequent upon the earthquake would be an alternate shelter that is capable of withstanding the next tremor.

District Administration has taken steps along with the public works department to ensure that any new constructions that are taken up are capable of withstanding quakes according to requirement. Wherever possible old and dilapidated buildings are subjected to inspection by the Public Works Department and necessary reinforcements provided.

Road and Rail network to be kept watch to ensure that people do not panic and desert their dwellings.

Control rooms with wireless, transportation and adequate food supplies to be set up at places affected by tremors to keep in constant touch with the District Administration.

First Aid and Medical facilities to be provided on war footing.

Services of Jawans, NCC cadets, Scouts and Guides and other voluntary organization like Lions club, Rotarians to be sought.

TASK FORCE FOR DISASTER MANAGEMENT DURING EARTHQUAKES

Assistant Commissioner

(to communicate with core committee, supervise and co-ordinate between Depts.)

AEE, PWD	Dy. SP/CPI	Tahasildar	Taluk Medical Officer	AEE, ZP	Animal Husbandry & Veterinary Services
To provide transport to evacuees and undertake repairs to roads and buildings.	To maintain law and order and provide free passage to evacuees	To provide food, drinking water and milk	To co-ordinate with PHCs and provide medical relief.	To provide clean drinking water	To provide fodder and veterinary services.

DUTIES AND RESPONSIBILITIES

The emergency responsibilities of key persons in the district are listed below. These duties and responsibilities are common to all types of major emergencies or disasters, (i.e., Natural or Manmade). The Emergency Organization Members will prepare, maintain and be guided by these during any major disaster in the district. Individuals assigned to these functions are expected to co-ordinate their actions with the Deputy Commissioner, who is the District Disaster Manager, will co-ordinate the overall action with all other agencies involved including the District Administration.

It may be noted that depending on the type of emergency and also availability of staff and resources, functions of various agencies may vary. At times, each person may be required to assume additional responsibilities in addition to their normal duties. This would be the prerogative of Deputy Commissioner to assign the additional responsibilities to the members of the emergency organization.

It may be necessary to develop agreements with neighboring districts or other organisations if resources are not available within the district for some of these functions

Following are the duties and responsibilities of the members of the Emergency Organization. These are general in nature and applicable to all types of emergencies.

District Disaster Manager (Deputy Commissioner)

Alternate: Additional Deputy Commissioner: -

It is the responsibility of the Deputy Commissioner to prepare, maintain and keep current the District Disaster Management Plan for the prevention and minimization of injury and damage caused by a major emergency or disaster. Prompt and effective response to a major emergency or disaster, and emergency relief and recovery, in consonance with the District Disaster Management Plan. The responsibility also include initiating and maintaining co-ordination and co-operation with various agencies involved and provide prompt information, decisions and infrastructure

facilities as requested. He should also mobilize, direct, and co-ordinate the emergency management staffs during emergency.

Following are the main functions during any emergency

- Declaration of emergency after confirming the magnitude of the disaster.
- Activate the Emergency Control Room at Deputy Commissioner's office and make it functional.
- Co-ordinate and establish contact with all agency involved in the emergency actions.
- Ensure setting up of Local Emergency Control Room close to the scene of accident or at Taluk headquarters where the disaster has struck.
- Ensure actions have been initiated to contain the emergency.
- Have overall supervision of all the emergency relief operations.
- Initiate evacuation of people from affected area with the assistance of police, fire and other agencies.
- Depending on type of emergency, mobilize additional resources like heavy lifting gears line cranes, bulldozers for rescue and mitigation operation.
- Set-up safe shelters for evacuated people and ensure they are provided with food and medical attention as the need be.
- Monitor progress or disaster especially in case of natural disasters like cyclone or floods by getting information from various agencies involved and mobilize additional support to mitigate the effects of disaster.
- Keep the State Administration informed regarding the disaster and the steps taken to contain the same.
- Issue statement to the press (both print and electronic media) on the prevailing conditions and the steps being taken by the District Administration to mitigate effects of the disaster.
- Get mutual aid from neighboring districts the Major Hazard Industries or seek the assistance of voluntary organization.

- If required, set-up mobile first aid centre or temporary health centres in the affected area or in the safe shelters.
- Visit the scene of the disaster to have first hand information about the rescue or mitigative operations that are being carried out.
- In case of floods, carry out aerial survey of the affected area to have preliminary estimates of the extent of damage caused.
- To co-ordinate with the state government through Principal Secretary, Dept. of Labor, Govt. of Karnataka and mobilize the help of Army/Navy/Air force or other agencies are requires.
- Call off emergency after confirming that all the actions have been taken to normalize the conditions and it is safe for people to re-enter the affected areas.

DISASTER MANAGER (Assistant Commissioner)

Alternate: - Tahsildar

The concerned Assistant Commissioner is Disaster Manager and he would rush to the Local Emergency Control Room (LECR) which is set up at the taluk headquarter of the affected taluk. He would function as the link between the affected area and the District Disaster Manager based at the main ECR located in the Deputy Commissioner office at Shimoga.

Following are the main functions during any emergency: -

- Set up the LECR at the concerned Taluk headquarters or at a safe place close to the scene of the disaster.
- Depending on the nature of emergency, co-ordinate with the various agencies at local level.
- Initiate the rescue operation with the help of local police, fire or other voluntary organisations and mutual aid members.

- Have close interaction with the Site Controller to ensure proper actions have been taken.
- Visit the affected area to gain first hand information of various steps being taken to mitigate the effects of the disaster.
- Keep the main Emergency Control Room at district head quarters informed about the developments on a regular basis and request for additional help by way of resources or specialized manpower or equipment.

SITE CONTROLLER (Tahsildar of affected Taluk)

Alternate: - Deputy Tahsildar

The Site Controller would be at the scene of the disaster or accident and would be reporting to the Disaster Manager located in the Local Emergency Control Room. He is the person who is dealing with the disaster directly in association with the various other emergency services. He would be in direct contact with the Disaster Manager based at the Local Emergency Control Room (LECR).

His responsibilities vary widely depending on the type of emergency. It could be a natural disaster like flood the effects are wide spread where rescue work would be of main concern. It could be a road accident involving a tanker carrying hazardous chemical where quick action has to be taken to arrest the leakage, if any, followed by evacuation of people if required.

Following are the main functions any emergency: -

- Take measures to mitigate the emergency in association with various emergency services like fire and police.
- Keep in constant touch with the Local Emergency Control Room at taluk headquarters with available means of communication and keep Disaster Manager informed about the developments on regular basis.
- Request for additional help like specialized manpower or equipment to effectively handle the emergency.

- Rescue and evacuate the people from affected area and shift them to safe shelters.
- Ensure setting up of safe shelters with basic amenities for food sanitation.
- Mobilize medical professional with the help of ECR or LECR and ensure the affected persons are given medical attentions.
- Arrange to shift the injured or sick to specialized hospitals if need be.

LAW AND ORDER FUNCTION [Superintendent of Police (Superintendent of Police)]

Alternate: - Sub-divisional Police Officer (SDPO)

It is observed that the police are the first agency to reach the site during any emergency. The local police initiate the emergency action even before the declaration of emergency and setting up of the ECR at Deputy Commissioner Office, Shimoga. Even though the main function of the Police is to maintain law and order, it is observed that most of the rescue and relief operation is initiated by the police before arrival of full-fledged rescue teams.

Following are the main functions of the Police (at various) levels during any emergency: -

Superintendent of Police (SP): -

After receiving instructions from Deputy Commissioner, the Superintendent of Police will rush to the ECR and establish contact with the local police station. He would then direct implementation of the action plan through the police station nearest to the scene of disaster.

- Depending on the type of disaster, ensure cordoning off the affected area by the local police.
- Mobilize additional police force from various sources depending on the requirement.

- Ensure co-ordination with various police and other agencies involved in handling the disaster.
- If necessary mobilize the home guards.

SDPO of the concerned Sub Division: -

The SDPO of the sub-division where the disaster has struck would get in touch with the nearest police station and ensure the police team is rushed to the scene of the emergency. His main function would be to act as link between scene of the accident and the Emergency Control Room at Shimoga.

- On receiving information from the Emergency Control Room, he would rush to the site, assess the situation, obtain first hand information, take control of the overall situation.
- Alert district administration to mobilize Reserve Police personnel for deployment for traffic regulations, supervision of evacuation and security duties.
- Alert area District Commandant of Home guards to mobilize home guards, as necessary (and keep the SP informed).
- Arrange for necessary transportation vehicles for rescue operation in consultation with RTO.
- Arrange for necessary ambulances and other medical facilities for the affected persons in co-ordination with various government and non-governmental agencies.
- Arrange for removal of the dead bodies, identifications and proper preservation.
- Prepare list of missing persons and take immediate steps to trace them.
- Communicate the information to other agencies through police control room.
- Keep in constant touch with ECR to ascertain latest status and intimate police personnel with upto date information regarding response actions and further instructions.
- Arrange for relief to policemen handling the emergency situation.

Circle Inspector: -

The Circle Inspector of the concerned area would also rush to the scene of the accident and direct the various operations like maintaining law and order, barricading and diversion of traffic away from the scene of accident. His main functions would include

- Maintain direct contact with the local police station through the police mobile van.
- Keep monitoring the progress of various mitigative and rescue measures being undertaken.
- Ensure police personnel are given updated information for announcement during the emergency.
- Mobilize government and private buses through RTO for evacuation.
- Ensure that the bus/vehicle drivers are properly instructed regarding areas to be visited and routes to be taken during evacuation.
- Ensure security duty personnel are at their posts and that only authorised personnel/vehicles are allowed to enter the emergency/affected area with proper identity cards.

Police Inspector of nearest Police Station: -

The local police station plays an important role during any Industrial disaster in the industrial area around concerned area as well as during any road accident in the district involving a tanker carrying hazardous chemicals.

- Divert traffic away from the scene of accident on major roads. Set up barricades and regulate crowd in affected area.
- Warn and advice people about emergency using vehicle mounted with Public Address system in the affected area.
- Evacuate people and livestock in affected areas using rescue routes identified in advance (depending on wind direction in case of gas leak),

- Provide relief to victims till arrival of rescue team.
- Maintenance of law and order at the scene of emergency and prevention of anti social elements from taking advantage of the situation.
- Ensure law and order and maintain security in evacuated areas.
- Assist in rendering first aid medical help to those in need,
- Ensure police personnel on emergency duty receive proper briefing about possible hazardous effects and are provided with personal protective equipment.

Traffic Police: -

Depending on the type of disaster, the traffic police would take control of the traffic movement in the district. During a natural disaster like cyclone or floods the roads may be cut off for a longer period and hence traffic police play a very important role in handling any such emergencies. Their duties would include

- Stop traffic approaching the affected area and advise the crew regarding the impending danger.
- Ensure tankers containing hazardous chemicals are parked in safe places.
- Check for alternate routes and divert the traffic in a controlled manner to prevent congestion in diversions.
- Keep close liaison with other police agencies and assist in crowd control around the affected area.
- Make way for emergency and relief vehicles on priority basis.
- Monitor the condition of the blocked road and resume normal traffic only when the affected area is declared safe.

FACTORY INSPECTORATE (Dy. Chief Inspector of Factories)

Alternate: - Senior Inspector of Factories.

Factory Inspectorate plays an important role during any industrial and transportation disaster in which there is large-scale release of hazardous chemicals. In case of

such disaster, the Dy. Chief Inspector of Factories or Sr. Inspector of Factories would position themselves in the ECR and help the District Administration by providing expert advice for minimizing the effect of such a disaster.

Main functions: -

- Ensure the on-site emergency management plan of the affected industry (in case of an industrial disaster) has been activated and the mitigative measures are taken to safeguard the people present in the premises.
- Visit the site of accident to ensure proper measures are taken to control the situation.
- Speed up help from mutual aid members, if required to contain the emergency.
- Mobilize the technical experts for advice if required.
- Inspect the area along with the tech. Co-coordinators and report to Deputy Commissioner for giving all clear signals.

FIRE FIGHTING FUNCTION (Divisional Fire Officer)

Alternate: - Station Fire Officer

The Divisional fire Officer/Station Officer will place himself in the main Emergency Control Centre and maintain continuous contact on VHF with the Station Officer at the site. Depending on the need, the Divisional Fire Officer will place himself at the site and maintain contact with the Deputy Commissioner in the Main Emergency Control Centre.

The Station Officer/ Sub-Officer/Asst. Sub-Officer of the fire station closest to the scene of disaster will direct fire-fighting operations at the site and keep the Divisional fire officer/station officer informed of the developments at the site.

Main functions: -

- Initiate rescue and fire fighting operation with available means. Ensure that all fire fighters use proper personnel protective equipment while fighting a fire or controlling gas leak.

- Help the District Administration in evacuation of people from affected zones using escape routes decided in advance depending on the wind direction.
- Continuously evaluate the situation and decide the necessity to call in additional Fire Engines from neighboring taluks/district.
- Mobilize the services of the home guards for firefighting through the police.
- He will advice the Deputy Commissioner on the extent of evacuation necessary.
- Preserve valuable evidences, which may be useful for investigation later on.
- Ensure availability of water and make arrangement for private water tanker carriers.
- When the emergency is over, carry out joint inspection of affected areas along with site controller and Technical experts to ensure the emergency is under control.
- Send the message of "SAFE" to DC/SP etc to enable him to officially call off the emergency.

CIVIL DEFENCE FUNCTION – Home guards (District Commandant)

Alternate: - Dy. District Commandant

District Commandant/Dy. Commandant will position themselves in the Emergency Control Room and assist the District Administration in mitigating the emergency. They would be continuous in contact with the field officer/units.

Main functions: -

- Assist the Police or Fire personnel in carrying out their duties.
- Carry out rescue and evacuation operation in close association with other emergency agencies.
- Evacuated areas would need to be guarded against looting.

PUBLIC WORKS/HIGHWAY FUNCTION (Superintendent Engineer)

Alternate: - Executive Engineer

Depending on type and location of the disaster, the in-charge of the PWD/Highway or Irrigation department representatives would make themselves available at the ECR and maintain close contact with their engineers who would be at the scene of the disaster.

Main functions: -

- Help the police to divert traffic away from the scene of accident along all the major roads.
- Ensure diversion routes are in good condition and traffic does not get jammed.
- Exhibit proper diversion signs conspicuously at suitable places.
- Provide the mobile crane/heavy earthmoving equipment for the purpose of salvage operation.
- Provide necessary assistance as required and directed by Deputy Commissioner/Superintendent of Police.

TRANSPORTATION FUNCTION (RTO)

Alternate: - ARTO

The transportation department plays an important role during any type of disaster as it would involve large-scale evacuation of people in the affected area. RTO/ARTO would be based at ECR and assist the District Administration in mitigating the emergency.

Main functions: -

- Deploy required number of buses with drivers to evacuate people to safe shelters.
- Mobilize various earth moving equipment and other heavy machinery from different sources required for rescue operation.
- Provide mobile workshop if required for urgent repairs/breakdown.

- Provide assistance as required and directed by Superintendent of Police/Deputy Commissioner.

HEALTH FUNCTION (District Health Officer)

Alternate: - Assistant Health Officer.

The DHO/AHO would be based in the ECR and assist District Administration in ensuring prompt health care to all affected people through their network in affected areas.

Main functions: -

- On receiving the information about the emergency DHO will mobilize all the available medical & paramedical Staff for handling emergency.
- Rush medical teams from the nearby hospitals to the scene of the disaster or safe shelters nearby.
- Set up first aid centre at the affected area and rescue shelters.
- Mobilize all the available ambulances and assist in shifting the injured/affected persons requiring the additional attention to hospitals.
- Alert all government & private hospitals to meet any emergency and line of treatment to be followed.
- Alert blood banks to maximize their stock.
- Set up temporary emergency wards with medical facilities to receive the affected victims.
- Inform all the doctors/para medicals regarding the nature of emergency as per the message received from the ECR and also inform about the line of treatment to be followed.
- Ensure sufficient stock of drugs and other medical facilities are available.
- Keep in touch with the district Emergency Control Room and Deputy Commissioner and appraise him of the situation and advice him on additional help required from outside agencies.

WELFARE FUNCTION (Dy. Director, Food and Civil Supply)

Alternate: - Assistant Director, Food and civil Supply

The DFO/AFO would be based in the Emergency Control Room and assist the District Administration in running the safe shelters and relief centres set up during the disaster.

Main functions: -

- Will be overall in-charge of Relief and Rehabilitation activities.
- Identify the rehabilitation centre in advance and establish them in shortest possible time.
- Arrange for orderly transportation of population from the emergency zone and adjacent villages in case evacuation has been ordered by Deputy Commissioner.
- Co-ordinate with the other departments connected with relief measures.
- Provide basic amenities such as food, drinking water and sanitation at the rehabilitation centres.
- Distribute food packets at the affected areas to the people, emergency services agencies such as police, fire fighting personnel and others.
- Exercise any other powers to seek any assistance from the local authorities in achieving this objective.
- Establish contact with the voluntary organisations for assistance.
- To ensure that necessary arrangements are made for the orderly return of all villagers to their respective places once the Deputy Commissioner informs about the termination of the emergency.

INFORMATION FUNCTION (District Information Officer)

Alternate: - Assistant Information Officer.

The District Information Officer would be based in the Emergency Control Room during any disaster and assist the district authorities in smooth operation.

Main functions: -

- Upon receiving the information from District Administration, the information officer should co-ordinate with media for giving information regarding emergency.
- Co-ordinate with the affected victims' families for giving information of their dear ones if missing/dead/injured.

POLLUTION CONTROL FUNCTION (Dy. Environment Officer)

Alternate: - Assistant Dy. Environment Officer.

The representative of the Pollution Control Board would be based in the Emergency Control Room during any disaster and ensure the environmental damage is kept minimum.

Main functions: -

- Mobilize all possible resources at his disposal and keep the laboratory functioning for analysis of pollutants and emissions.
- Rush the team to the affected area for collection of samples and analyze the same.
- Keep the Emergency Control Room informed about the possible effect on human life as well as environment and corrective actions taken to minimize the same.

CHAPTER –4

FLOODS

FLOOD MANAGEMENT

Floods cause 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.

Preventive steps:

Certain advance measures are taken to prevent extensive damages caused by floods.

- ◆ Embankments
- ◆ Flood ways and diversions of rivers.
- ◆ Protection of river banks.
- ◆ Community-cum-shelter buildings.

Emergency measures to be taken

It is imperative that rescue and evaluation operations are taken up by the district administration without any loss of time.

People living in low-lying areas are forewarned to evacuate the place and are shifted to a safe environment. Relief centres are to be set up to provide adequate food, clothing, shelter and water to the persons shifted. For shifting people and animals rafts and boats are to be kept ready and services of ex-service men and sports persons who are good swimmers are employed for relief measures.

Members of the flood relief committee will work in accordance with the action plan and press into service the NGO's and other youth who are trained to meet the exigency.

At the village level, the panchayat members and the volunteers are requested to identify members of the families especially children and ensure that evacuation is done in-groups, which will make the task re-location easier.

Adequate stock of food grains, rafts, boats and other equipment for shifting affected persons and animals. Alternate shelters for communities headed by co-ordinator to ensure that proper medical facilities are provided to the affected families.

In case of deaths, proper documentation to be done after identifying the deceased and necessary steps taken to dispose the corpse to prevent health hazards.

NGO's and other volunteers to set up kitchens in the shelters for providing food to the evacuees. Necessary food grains to be provided by the district administration.

Adequate quantity of drinking water to be supplied by the local administration to the evacuees and where necessary transport facilities be provided for providing water.

Each relief centre to be provided with adequate number of trained personnel from health department. Temporary health centres to be set up with sufficient quantity of medicines and beds. Local doctors from the nearby towns to be requisitioned to attend to emergencies.

Core committee members to set up relief centres in each village and work round the clock to co-ordinate with the medical team and relief workers.

Wireless communication is to be kept functioning round the clock all core committee members to be provided with wireless handsets for co-ordination.

TASK FORCE FOR DISASTER MANAGEMENT DURING FLOODS

Assistant commissioner

(to communicate with core committee, supervise and co-ordinate between departments)

AEE,PWD	Dy.Sp/CPI	Tahasildar	Taluk medical officer	AEE, ZP	Animal husbandry & veterinary services
To provide transport and temporary shelters to victims and undertake maintenance of affected roads.	To maintain law and order and provide assistance to victims.	To provide food, drinking and milk	To co-ordinate with PHCs and provide medical relief in temporary medical camps.	To provide temporary alternate accommodation to the victims	To provide fodder and veterinary services and shelter homes for live stock.

DROUGHT MONITORING

Since the District is prone to frequent droughts, emphasis is laid on monitoring the situation during droughts.

Identification of drought-prone villages and taluks has been done and contingent plans have been worked out to meet any unforeseen situation.

The following steps have been taken on a regular basis by the District Administration and Panchayat Offices to combat the menace of drought:

- Digging of bore wells.
- Providing hand pumps and motor pumps wherever required.
- Repair of existing hand pumps and motor pumps.
- Digging of wells.
- De-silting of wells, tank beds.
- Providing pipelines for supply of water.
- Providing water to problems areas through water tankers and other means.
- Providing water storage facilities at all block levels.

Since water contamination and water borne diseases can cause health hazards precautions are taken to ensure that drinking water is properly purified before consumption. The District Health officials and the ZP Department monitor supply of drinking water and ensure that there is no scope for water contamination.

PROVIDING FOOD AND FODDER DURING DROUGHT

Since drought has a cyclic effect there is a drain on resources such as food, water, employment, etc., as there is inadequate soil moisture there is shortage of food and fodder.

The focus during drought would be on the following vital areas:

- Water conservation.
- Supply of essential commodities.

- Employment generation.
- Early warning systems.
- Health care.
- Water supply to remote areas by tankers etc.
- Emphasis on the poorer classes of society.
- Priority to drinking water over irrigation.
- Training to NGO's Volunteers and youth.

The following Action Plan has been formulated by the District Administration to deal with the situation of drought.

Contingency plan prepared in co-ordination with the Water Supply Department, ZP, TP, Municipal Corporations, Irrigation Department and Health Department to ensure availability of adequate quantity of drinking water.

Food: Department of Food and Civil Supplies is in readiness to face any situation of drought and has maintained stock register of availability of food grains.

Health: Department of Health has trained personnel on its rolls to deal with situation of drought and forms an important organ of the Core Committee.

Fodder: An adequate step taken to ensure that fodder for cattle is stored in case of impending drought.

Veterinary Facilities: Veterinary Department has been instructed to store adequate stock of medicines to save lives of cattle and live stock.

TASK FORCE FOR DISASTER MANAGEMENT DURING DROUGHT**Assistant Commissioner**

(to communicate with core committee, supervise and co-ordinate between departments)

AEE, PWD	AEE, ZP	Tahasildar	Taluk Medical Officer	AEE, MI	Animal Husbandry & Veterinary Services
To generate employment to the needy victims	To provide drinking water to affected areas	To provide food, drinking water and milk	To co-ordinate with PHCs and provide medical relief and set up medical camps if necessary	To generate employment to the needy victims	To provide fodder and veterinary services for live stock.

GEOLOGY OF SHIMOGA DISTRICT

PHYSICAL FEATURES: -

The district is part and parcel of Malnad track. Western Ghats and large part of the district comprising of the taluks of Sorab, Sagar, Hosanager and Thirthahalli lies in Malnad track. The Sikaripura, Shimoga and Bhadravati are in Semi-Malnad. The Western Ghats form the basin dividing the western slope of basin forming the 'Sharavati' basin and eastern slope forming 'Tungabhadra' basin.

Geology: -

The district is composed of several rock types of diverse origin and can be classified into three groups i.e. peninsular greiss, Dharwad super group and younger formations. The Migmatites and older Granites forms the peninsular gneiss and it forms the basement for other formations. The Dharwad super group composed of Bababudan and Chitradurga group. The Bababudan group consists of meta-volcanoes, conglomerates, quartzite's limestone dolomites and grey whacks etc. They occur in the form of belt called Shimoga belt. All the important economic minerals like Manganese, Iron ore, quartz, Titanomagnetite, limestone etc are concentrated in Dharwad super group.

MINING LEASES IN SHIMOGA DISTRICT

There are 6 mining leases are existing in Shimoga district presently. Total working area of all the mining leases is 158.39 hectares.

1. LIMESTONE

Limestone mining is carried out in Bandigudda Vg in Bhadravati Tq by M/S VISL authorities Bhadravati over an extent of 97.12 Hectares for their own steel plant.

2. CHINA CLAY (KAOLIN)

The deposits of Kaolin were seen in Thithahalli Tq are the results of chemical weathering of aluminous rock, Kaolin occurs in association with granitic gneiss. And it is used for Porcelains' China ware etc. The major producer of this mineral is M/S Mysore minerals Ltd. The total area of mining lease is 34.06 Hectares.

3. MANGANESE: -

The important manganese ore deposits were concentrated along the Shimoga schist belt particularly in Kumsi, Shankargudda Ganger – Siddharahalli and Hosur village in Sikaripura Tq. The ore occurs in association with phyllites and schist in the form of lenses and packets. The important ore minerals are psilomelone and pyrolucite. M/S Mineral Enterprises, Ltd, Bangalore is the main producer of manganese. The total area is 17.50 acres.

4. KYANITE: -

The only known deposits of kyanite are situated near Yedur vg. in Hosanagar Tq. It occurs in associations with granitic gneiss. The total area of mining lease held by Sri H. Yusuf Ali Khan Total area is 7.29 Hectares.

5. IRON ORE: -

Hematite iron ore occurs in association with weathered Iron-formation near Marathi vg in Sagar Tq. The mining was held by Sri B.R. Yogendranath Singh, Bangalore. Total area is 7.29 Hectares.

QUARRY LEASES

Building stones, ordinary sand and Brick earth are the important minor minerals in Shimoga district.

Granite and granitic gneiss are the only important building material occurs in almost all taluks in Shimoga District.

1. SHIMOGA TQ

Quarry leases of building stone material are existing in Sulebylu Village. Gajjannahalli and Kallagangur villages in Shimoga Tq over an extent of 32.25 acres.

2. Thirthahalli Tq

Most of the quarry leases building stone in Shimoga district are situated in Thirthahalli Tq in Melinakuruvalli village, Buklapur village, Suralibalebylu and Geruballi villages over an extent of 52.30 acres.

3. Bhadravathi Tq

Building stone quarry leases are situated in Moodalvitthalapur village near Holehonur and Kudligere village and Anthergange villages in Bhadravati Tq over an extent of 27.00 acres.

4. Shikaripura Tq

Building stone quarry leases are situated in Harogoppe village in Sikaripur Tq over an area of 0.20 acres only.

5. Hosanagar Tq

In Hosanagar Tq building stone leases are situated in Ramachandrapur, Masagalli, Karadiga etc., villages over an extent of 5.20 acres

6. Sagar Tq

In Sagar Tq Building stone quarry leases are situated in Kanike, Gantnakoppa, Chikkamattur village and Laterite quarries are situated in Tyagarthi, Mallandur, Brahman Bedur, Kerehithlu etc village area an extent of 22.30 acres

7. Soraba Tq

Building Stone quarry leases like granite and laterite material are situated in Bastikoppa, Hurali villages over an extent of 3.00 areas.

PREVENTIVE MEASURES TO BE TAKEN IN CASE OF NATURAL DISASTER.

- ❖ Prevention of spreading of mine fires and their mitigation
- ❖ Landslides and other mass movements can be predicted and the damage minimized
- ❖ Measures of landslide control are avoidance, surface drainage sub-surface drainage, vegetation, blasting and hardening.
- ❖ In case of earth quakes emergency evacuation, search rescue and relief from important action plan in disaster management
- ❖ Programs of disaster management/ mitigation encompass a wide range of options ranging from issuance flood warnings to reduction of flooding to actual evacuation.

CHAPTER-5

**BIOLOGICAL DISASTERS
AND
EPIDEMICS**

BIOLOGICAL DISASTERS AND EPIDEMICS

Disasters caused by living organisms such as bacteria, virus, fungus, etc. are termed as biological disasters. These organisms may cause epidemics.

Since, epidemics are major health hazards it is necessary to have trained persons to handle disasters of such nature. Proper training in first aid, hygiene and treatment is essential to deal with biological disasters.

To effectively treat cases of epidemics public awareness and education, before and after the epidemic, is vital.

Studies have related that the following are major problems faced before and during the outbreak of epidemics.

- Inadequate medical and health facilities.
- Inadequate supply of pure water.
- Lack of medical and health assistance.
- Absence of effective control of common diseases.
- Unsanitary conditions.
- Malnutrition.

STEPS FOR EFFECTIVELY TACKLING BIOLOGICAL DISASTERS

- Setting up emergency health service.
- Preparing a contingency plan.
- Training of personnel to deal with such emergencies.
- Awareness camps for epidemic prone areas.

Local health authorities have been instructed to be in preparedness with medicines and other infrastructure to deal effectively with outbreak of any epidemic in the district.

TASK FORCE FOR DISASTER MANAGEMENT DURING BIOLOGICAL DISASTERS AND EPIDEMICS

Assistant commissioner

(to communicate with core committee, supervise and co-ordinate between Departments)

AEE, PWD	Tahasildar	Taluk Medical Officer	Animal Husbandry & Veterinary Services
To provide temporary accommodation to the affected persons where necessary	To provide food, drinking water and milk and supervise medical facilities	To co-ordinate with PHCs and provide medical relief and set up medical camps, if necessary	To provide fodder and veterinary services for live stock

MEDICAL ASSISTANCE

LIST OF HOSPITALS & PRIMARY HEALTH CENTERS:

1. SHIMOGA TALUK	5. SORABA TALUK
2. BHADRAVATHI TALUK	6. SHIKARIPURA TALUK
3. THIRTHAHALLI TALUK	7. HOSANAGARA TALUK
4. SAGAR TALUK	

FOOD POISONING: -

Food poisoning is a phenomenon where a large number of people could get affected after consuming contaminated food. This happens mostly during religious and social functions during which food is prepared in make shift kitchen on mass scale. This calls for immediate action by the district administration to provide medical attention, identify the source of poisoning and take corrective actions.

VETERINARY DEPARTMENT

Livestock population in Shimoga District largely comprises of cattle, Buffaloes, Sheep rearing being a traditional activity is taken up by shepherds, which is mostly migratory in nature. The livestock and poultry population is furnished.

Livestock population in Shimoga District.

Sl. No	Particulars	No.
1.	Cattle	539728
2.	Buffaloes	193989
3.	Sheeps	13905
4.	Goats	57759
5.	Pigs	1311
6.	Dogs	115130
7.	Others	216
8.	Poultry	569382
	Total	1491420

The health coverage and breeding programmer are being extended through 135 Veterinary Institutions located throughout the district. Particulars are furnished below:

Sl. No	Institutions	No.
1.	Veterinary Hospitals	16
2.	Veterinary Dispensaries	66
3.	Primary Veterinary Centers	62
4.	Key village scheme & Sub Centers	10
5.	Mobile Vety Centers	07
6.	Special livestock breeding programmer	11

CATTLE DISEASE: -

In the event of an outbreak of cattle diseases like foot and mouth disease, large population of cattle can get affected. Such emergencies will require help of veterinary doctors and possible disposal of large quantity of milk, milk products and meat.

CHAPTER-6

**ACCIDENT RELATED
DISASTERS**

ACCIDENT RELATED DISASTERS**ROAD ACCIDENT:**

Road Accident is a major killer and takes place without warning. Rate on road accidents, are ported indicate that 70% of road accidents, areas from drivers negligence. Some other reasons are poor road condition, heavy traffic, poor vehicle maintenance possible impacts of accident of individuals are loss of life, Trauma Care & burns.

MITIGATION MEASURES:

1. The provisions of Motor Vehicles Act and other related legislation's and regulations are strictly enforced.
2. Adequate Highway and traffic Aid post will be created.
3. Trauma Care Centers shall be established at every 100 kms. on the National and State Highway.
4. Speed monitoring equipments and computerization of movement of vehicles with adequate checkpoints on the National Highway will be introduced.
5. Fixation of timings to the passenger vehicles to avoid and traffic fan. Identify and designate routes and fixing the time for transportation of hazardous chemicals and other materials.
6. Prohibit the parking of vehicles on National Highway and State Highway.
7. Excavation on roads will be protected well particularly in the night with barricades fluorescent signs and red lights.
8. PWD and National Highway department should concentrate on removal of bottlenecks on National and State Highway.
9. Efforts will be made to provide road dividers on National and State Highway on priority basis.

10. Arrangements will be made adequate embankments/reflector/proper signs on curves.
11. Arrangements will be made information signs boards giving the local of the nearest village Police Station, Hospital, Ghat Traffic Position, Petrol pump, etc. at every traffic aid post.
12. All two-wheeler drivers including pillion riders must always wear the right kind of helmet.
13. Overtaking in vehicles is regulated.
14. Frequently accidents occurring spots will be identified and precautionary measures will be taken.
15. Lanes will be marked for pedestrians/Cyclists.

Since accidents general result in injuries, burns or loss of life providing emergency medical facilities is of utmost importance. Relief teams comprising medical personnel and transport authorities have to be rushed to the spot provide first aid and shifting the injured to the nearest hospital.

Upon arrival at the accident spot the team should immediately provide first aid to the victims and look for persons trapped inside the vehicle. Assistance of the local police should be sought to disperse any crowds that may hinder effective relief measures. If the magnitude of the accident is high help of local NGOs and volunteers may be taken.

In case of major building collapse the major role is to be played by the Fire Department with the assistance of the Police and Health Authorities.

Shifting victims to the nearby hospital should be done after providing necessary first aid. Necessary equipment to remove debris should be kept readily available to save victims who may be buried inside. Volunteers and NGOs must be trained properly to handle such so that emergency relief is carried on smoothly.

Fire disasters occur mainly due to carelessness or mischief by miscreants. Preventive measures such as avoiding storage of large quantities of combustible materials in one place, firefighting equipment in petrol filling stations, textile, plastic,

paper and wood industries should be insisted upon during inspection by the concerned authorities.

Personnel of the fire brigade are well equipped to handle any fire hazards and regular drills and training sessions are held.

TASK FORCE FOR DISASTER MANAGEMENT DURING ACCIDENTS, BUILDING AND FIRE DISASTERS

Assistant Commissioner

(to communicate with core committee, supervise and co-ordinate between Departments)

R.T.O	Dy. SP/CPI	Tahasildar	Taluk Medical Officer	Fire Officer
To provide necessary details about the vehicle and transport if necessary	To maintain law and order and inform the kith and kin of victims.	To supervise medical facilities and arrange	To co-ordinate with PHCs and provide First Aid and medical relief.	To provide fire engines and personnel

DISASTER MANAGEMENT PLAN FOR THE FOREST AREAS OF SHIMOGA DISTRICT

Introduction :-

Fire plays a very critical role in the habitat management. One of the main factors that have accelerated the degradation of forest cover is the occurrence of fire which has almost become an annual feature. The glaziers, firewood and MFP collectors and tourists tend to set fire deliberately or by accident. Smugglers and poachers also set fire to the forest to divert the attention of field staff. Due to the forest fire the natural regeneration is lost and the forests are deprived of rich humus. Wild animals particularly herbivores and reptiles are the worst sufferers for want of green foliages while innumerable soil fauna will be destroyed , which play a very important role in maintaining the ecological balance by decomposing and releasing energy from dead plant and animals. Hence preventive and fire control measures have been given much importance in the habitat development.

Forests are very valuable in this district and form a major portion of the area .

Total Area of Forest.

1. Shimoga Division	-	662.23 sq.kms
2. Shimoga Wildlife Division-		827.66 "
3. Sagar Division		2007.47 "
4. Bhadravathi Division (2 Ranges)		296.61 "

Type of Forests

The forest types of the forests in Shimoga districts as per classification by Champion and Seth (1968) are as follows.

1. Southern Tropical Wet evergreen Forests (1A / c4)
2. Southern Tropical Semi-evergreen Forests (2A / c2)
3. Southern Tropical Moist Deciduous Forests (3B / c2)
4. Southern Tropical dry deciduous Forests (5A / c2)
5. Dry deciduous Scrub (5/D/s1)

Probable causes for forests fires.

The forest areas are susceptible for fire in the months of January to end of June i.e. the summer season.

Considerable damage takes place every year due to the ground fire that occurs in the forests. The leaves which fall on the ground is the fuel for fire. Also the grass dries because of sunlight & becomes fuel to the fire.

Also dried bamboos in the forests act as fuel to the fire.

Plantation which are raised are also susceptible to the fire and at the initial stages if there is fire then the plantation itself fail and causes heavy loss.

In the high forests the regeneration is severely affected. The humus is also burns & causes losses of Carbon & fertility of soil, there is also resultant compaction of soil and consequent poor porosity. Further forest regeneration is also affected.

The fire also affects the former and the young regeneration of the forest and destroys. Medicinal plants & rare herbs.

Normally the fire occurs intentionally by the villagers for the purpose of getting fresh grass for the purpose of grazing.

There are accidental fires due to negligence of the nearby villagers & Poachers.

The fires are controlled immediately by fire watchers & staff with the assistance of villagers.

FAUNA / WILD ANIMALS IN THE FOREST

Almost all kind of wild animals found in southern India are found in the forests of the district and rich in fauna & flora, the fauna comprises of Tigers, Leopards, sloth bear, bisons, elephants , monkeys, languors, deers, Sambars, and other animals like pangolin, porcupines, hares , Malabar squirrels, lizards, insects & birds.

A Rough estimation of the various species of wild animals in the district is as follows.

1.	Tigers	18	Nos.
2.	Leopards	150	"
3.	Bisons	500	"
4.	Elephants	2	"
5.	Sambars	800	"
6.	Deers	3000	"
7.	Wild Boars	3000	"
8.	Malabar squirrels	300	"
9.	Foxes	400	"
10.	Wild deers	100	"
11.	Pangolins	300	"
12.	Paryolin	60	"
13.	Bears	150	"
14.	Birds	100	Species.
15.	Insects & Butterflies	300	Species.
16.	Snakes	500	Nos.
17.	Pythons.	300	"

Existing practice to tackle the forest fires are as follows :-

Prior to the fire season the fire lines of 3.2 m. width are created to stop the fire from entering from one block to another, these fire lines are created near roads, around plantations, along forest boundaries, D'lines and strips within forest areas.

Forest camps are established at sensitive points and forest staffs stay round the clock & rush to the spot in groups as soon as they get the fire occurrence information over wireless and extinguish the fire.

CHAPTER –7

**HAZARD, RISK AND
VULNERABILITY ANALYSIS &
CAPACITY ANALYSIS**

Vulnerability and Risk Assessment

Past history reveals that Shimoga district is less prone to natural disasters. There are instances of many man-made disasters such as strikes and incidents of fire and burning of buses and vehicles at the time of strikes, Road accidents are common. A few rail accidents have taken places.

Proneness to different disasters: -

Name of the district	Type of hazard	Time of occurrence	Potential impact	Vulnerable area
SHIMOGA	Floods	June - August	Loss of crops, damage to infrastructure such as roads, houses, bridges, etc.	Along the river courses, entire district.
	Heavy rainfall	June - August	Loss of crops.	Entire district.
	Drought	Jan - May	Burning of crops, scarcity of drinking water, fodder, etc.	Partly in Shimoga.
	Landslides	-	-	-
	Fire accident	Jan - May, any time	Loss of life and property	Entire district especially during festivals/jathre, etc.
	Earthquake	Any time	Loss of life and damage to dam, property, houses, buildings, etc.	Entire district.
	Chemical disasters	Any time	Loss of life and damage to dam, property, houses, buildings, etc.	Chemical industries, petroleum tanks, chlorine.
	Cyclonic indirect effect	June - Aug	Heavy rainfall, loss of crops	Entire district.

During rainy season, Tunga, Bhadra, Sharavathi, Kumudvati and Varada rivers and its tributaries in the district may pose threat of floods. Things get worse as the flood devastates the crops in the affected area and is also a source of epidemics.

The district had never experienced any earthquake expect minor tremors from time to time. Since the district falls under seismic zone II and III, i.e., less risk to moderate risk zones, the possibility & can never be ruled out as it can happen any time.

Drought may occur due to want of rain at proper time. Or sometimes heavy rainfall may damage the crops.

Cyclonic effect in the eastern coast and Bay of Bengal may cause excessive rainfall which would result in crop damage and other loss.

Fire accidents and incidents such as strikes, burning of vehicles are frequently happening in the district particularly fire accident occurs during the summer season.

Occurrence of disasters in the past: -

Disasters	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Earthquake	-	-	-	-	-	-	-	-	-	-	-	-
Floods	-	-	-	-	-	-	-	Yes	-	-	Yes	Yes
Cyclones	-	-	-	-	-	-	-	-	-	-	-	-
Droughts	-	-	-	-	-	Yes	Yes	-	-	-	Yes	-
Epidemics	-	-	-	-	-	-	-	-	-	-	-	-
Industrial accidents	-	-	-	-	-	-	-	-	-	-	-	-
Fire	-	-	-	-	-	-	-	-	-	-	-	-
Road/rail accidents	-	-	-	-	Yes	Yes	Yes	-	-	-	-	-
Boat capsize	-	-	-	-	-	-	-	-	-	-	-	-
Mine accidents	-	-	-	-	-	-	-	-	-	-	-	-
Heat/cold wave	-	-	-	-	-	-	-	-	-	-	-	-
Avalanches	-	-	-	-	-	-	-	-	-	-	-	-
Building collapse	-	-	-	-	-	-	-	-	-	-	-	-
Bomb blasts	-	-	-	-	-	-	-	-	-	-	-	-
Pests	-	-	-	-	-	-	-	-	-	-	-	-
River bank erosion	-	-	-	-	-	-	-	-	-	-	-	-

Capability analysis: -

The existing capacity in terms of human resource, materials and machines necessary for disaster preparedness before, during and after the disasters are listed below;

Storage of food: -

All the Gram Panchayat offices are being used as storage points when need arises. Secretaries of Gram Panchayats and Asst. Directors and Deputy Directors are the contact persons. Adequate quantity rice/ragi has been kept for distribution to the victims in the godowns. These locations could also be used as storage points for medicines, blankets etc.

Important Departments and Organisations: -

All the departments working under the D.C. such as S.P., A.C., Tahsildar, S.E/E.Es of PWD/Irrigation, Commandant, Home Guards/Fire Force Officer, DHO, Municipal Commissioner/Chief Officers, etc., are connected with telephone (both external and internal), VHF's will be installed. All the line departments are directed to keep themselves ready as per the guidelines mentioned in this plan. NGOs and private sector agencies including private firms and industries are asked prepare themselves with disaster management plans. The resources available with different agencies are identified.

Administrative preparedness: -

The following steps have been taken to combat any eventualities during and after the disaster situations.

- 1) DC will be overall in charge of the disaster management in the district and could delegate any of the powers to other officers in the district.
- 2) Control Room will be functioning round the clock in the DC office, SP's office, Tahsildar's office with adequate facilities staff exclusive members assigned with the job.
- 3) The respective Taluk Tahsildars are working as taluk level incident commanders for managing the disasters.
- 4) Superintending Engineer of Irrigation department will be assigned the overall responsibility of flood management and rainfall data management.

- 5) SE, PWD has been assigned the overall responsibility of setting up of site operations centre during the disaster situation and provide all the necessary facilities.
- 6) Transport Department/KSRTC is in charge of providing the vehicles necessary for managing the response activities.
- 7) DHO is in charge of providing the necessary medical facilities such as Medicine, Ambulances, Statures at medical relief camps, mobile medical teams ready for the purpose.
- 8) SC, MESCOM/KPTCL is in charge of providing electricity supply during disaster situations.
- 9) Flood and Civil supplies officers have been directed by the DC to store adequate foodstuff at vulnerable areas and strategic points.
- 10) SP has been directed by the DC to set up and monitor the wireless stations and make arrangements to seek army assistance if required.
- 11) The SE/PWD; SE, Irrigation have been instructed to carry out the repair works of dams, canals, river embankments, bridges, old and unsafe buildings immediately and before the rainy season ever year.
- 12) City Municipal Commissioner and the Chief Officers of the respective Town Municipalities have been asked to clean the drains, manage solid and water wastes, supply of water, provide sanitary facilities and all the civic facilities needed for effective management of urban disasters.
- 13) Some NGOs in the district working at the levels of taluks and villages are asked to collaborate with local administrations to carry out the relief, rescue operations and rehabilitation activities.
- 14) HAM radio sets with operators are instructed to be ready.
- 15) The Deputy Director and Assistant Director of Veterinary Department are asked to keep the medicines ready to protect the animals against contagious diseases and medicines supplied to the field functionaries for routine treatment.
- 16) Review of pre-disaster arrangements has been carried out and contingency plan for the district has been provided to all the heads of the departments in the district.

The resources available in the district with both private and Government have been compiled.

The list of vital installations such as Dam, transformers, telecommunication centres, wireless relay stations etc., have been provided with protection and security and the same will be intensified during disaster.

Resource	Capability			Availability		
	Group of villages level	Taluk level	District level	Group of villages level	Taluk level	District level
Police	Yes	Yes	Yes	Yes	-	-
Fire Brigade	-	Yes	Yes	Yes	-	-
Home Guards	-	Yes	Yes	-	Yes	-
Power supply	Yes	Yes	Yes	Yes	-	-
Defence	-	-	-	-	-	Yes
Water supply	Yes	Yes	Yes	Yes	-	-
Civil Supply and Food	Yes	Yes	Yes	Yes	-	-
Engineering service	-	Yes	Yes	Yes	-	-
Health service	Yes	Yes	Yes	Yes	-	-
NGOs	Yes	Yes	Yes	Yes	-	-
Private Hospitals	Yes	Yes	Yes	Yes	-	-
Road network	Yes	Yes	Yes	-	Yes	-
Railways	-	Yes	Yes	Yes	-	-
Colleges student Volunteers	-	Yes	Yes	Yes	-	-
Airways	-	-	-	-	-	-
Safe shelters	-	Yes	Yes	Yes	-	-
CBOs	Yes	Yes	Yes	Yes	-	-

Prevention and Response Strategies: -

Officers are responsible to ensure proper preventive and response measures before the disaster (in anticipation), during the disaster (concurrent stage) and after disaster (post disaster stage). These measures are integrated into the preparedness and response plan. The mechanism for co-ordination, monitoring and supervision of prevention, rescue and relief operations are clearly specified.

The respective sugar cane industries and other industries and all the private factories have prepared their on-site disaster management plan as per the Factories Act.

Weak points in the river embankments which require constant watch at the time of monsoon. The irrigation Department is ready with the plan to face any eventuality of breaching of reservoirs, embankments, etc., which may result in flood. EE has

been instructed to keep the channels/nalas clean for free flow of water before the onset of monsoon.

The Department of Agriculture is ready with contingency plan for crop loss or drought situations. Pests and fertilizers are available during any disaster situation. Field staffs are alert to help the farmers to protect their crop.

The Forest Department has got plan for prevention of forest fire or any kind risks due to vulnerability of any kind to forest in the district.

Relief and Rescue Operation: -

Rescue work will be taken up by the local police, home-guards, fire force along with local villagers and volunteers.

In case severe distress due to natural calamities like high flood or earthquake, emergent relief such as temporary shelter, rice, dal, potato, salt, kerosene, matchboxes, toothpaste, soap, milk, clothing, blanket, etc., will be arranged from the identified traders and sources.

Supply of Fodder: -

Fodder of at least 1 kg/animal per day up to maximum of 3 days will be stocked and provided. The Revenue and Veterinary officers will be in charge

Post Disaster Measures: -

- 1) Damage assessment by the respective officers.
- 2) Immediate restoration of infrastructure facilities.
- 3) It is to be examined if labour intensive works are required be undertaken to provide labour in the affected pockets.
- 4) Disposal of carcasses to be immediately taken up to prevent epidemics by the Deputy Director/AD of Veterinary Department.
- 5) DHO will take immediate steps for disinfections of drinking water sources.
- 6) Supplying potable water will be taken up by the Local Bodies.

Post Disaster Evaluation Measures: -

Private properties and properties of the government under different departments are also damaged by the natural calamity. Assessment in such cases has to be done quickly by the officers.

Assessment of crop damage: -

District Agriculture Officer such as Joint Director or Deputy Director or Assistant Director will have to undertake immediate survey of the damages as outline below;

- a) Area covered under different groups.
- b) Approximate loss of crops.
- c) Cropping pattern, Rabi or Khariff.
- d) Requirements of seeds, seedlings, fertilizers, pesticides, etc., to be assessed.
- e) It is to be examined if seeds/seedlings can be supplied to the affected cultivators at subsidized rates.
- f) Availability of seeds/seedlings etc. and procurement of pump sets.
- g) Funds needed, funds available and not additional requirement of.

Rehabilitation: -

House damage in the wake of major disaster in the rural areas presents a serious problem. As these houses are generally mud built with thatched roof, the worst sufferers are the economically backward people who normally reside in vulnerable prone areas of these villages. Rehabilitations schemes are undertaken to provide housing to as many people as possible after a devastating disasters. Such houses are either to be located on the land allotted by the government or in their own safe land.

- Taluk Panchayat Officer and Engineers could visit the sites suitable for housing purposes in a village during normal times and if the people living in

vulnerable prone areas are willing to shift to new sites. They can obtain their willingness in writing and furnish such lists to the AC/DC.

- The house shall be built according to the requirement of beneficiaries and their pattern of living subject to financial limitation. The people must involve themselves in the housing programme.
- For this purpose, facilities available under Ashraya, Indira Awaas Yojana schemes etc., should be availed of.

Restoration: -

The restoration programme may involve two stages of works. In the first stage some repairs are immediately necessary to avoid further deterioration for making the works worthy for immediate use. Restoration of communication power supply, hospital facilities, water and sanitary arrangements are some of the programme, which may come under this category. The concerned departments of government may lay down priorities in the restoration programme having regard to the necessary and availability of funds.

1.	Executive Engineer, PWD; DCF, Forest Department	They will take steps for clearance of fallen trees and departmental buildings from the roads for free movement of vehicles etc. Immediate repair of roads and bridges be taken up.
2.	BSNL	Immediate restoration of Telephone services.
3.	DD, Veterinary Dept.	Removal and disposal of carcasses, vaccination, cattle treatment, supply of fodder, etc.
4.	DHO	Disinfections of water sources & treatment etc.
5.	Agriculture Dept.	Treatment of saline inundation fields. Supply of seeds in area where crop has been damaged.
6.	KUWS & DB; Municipality & Panchayats	Repair of damaged tube wells/installations of new tube wells.
7.	KPTCL	Immediate restoration of power lines.

Role and responsibilities of the Deputy Commissioner and District Magistrate: -

Phase	Activities	Other officials to be involved	Resources/ equipments to be procured from
Pre-Disaster	Preparedness before the disaster	All district level officials	The Secretary, Dept. of Disaster Management.
During disaster	Reviewing and analyzing the calamity situation in the district over the next one year through a meeting at the district level involving all the departments of the district as well as sub division and GP levels and the locally active NGOs/CBOs	All ACs; All Tahsildars; All Panchayats	Police/Fire/Fisheries/RTO/ Civil Defence.
	✓ Identifying disaster prone zones and strategies to stay prepared for the worst.	Field functionaries, District Information Officer.	Commandant/Co-Coordinator of NCC/NSS/NYKS
	✓ Ensure IEC through Emergency section/ Panchayats/NGOs/AW centers/Street plays/ workshops	District Fisheries Officer Leading NGO/CBOs	
	✓ Reviewing the DCR and making it functional as per SOP fixed by him (SOP to be prepared earlier)	NSS/NCC/NYKS/ Police	VHF from the Police/Mike set/ batteries/generators available in the district office from the private parties on requisition.
	✓ Making the DCR well equipped and depute senior officers from time to time to review the receipt of information and dissemination.	Fire, Civil Defence	
	✓ Calling a meeting of officers/NGOs/CBO co-ordination and discuss issue such as capacity assessment of different NGOs/CBOs and ask them to adopt certain vulnerable areas to avoid overlapping and duplicity.	All district level officials. All ACs/Tahsildars	
	✓ Preparing a checklist (containing the dos and don'ts) and pass that on to the NGOs/CBOs.	All Panchayats District Fisheries Officer Leading NGOs Police	Power boats/country boats/ vehicle/rope/rescue kits and trained resource personnel from SRC/SSC/Army/unit/Civil Defense/Hired from the private parties according to the requirement.
	✓ Ensuring/installing communication system to the inaccessible villages	Police Fire Brigade, Leading NGO, Panchayats, Field functionaries programme co-coordinators of NSS/NCC.	

	<ul style="list-style-type: none"> ✓ Checking stock of the public distribution system and arrangement of temporary godown. ✓ Checking the resources with other department such as Police, Fire and of NSS/NCC/NYKS. 	ACs/Tahsildars, TPEO, DHO, CDPO, DDs, Panchayat Field functionaries Medical Officers, Police, KUWSDB, Municipality, RTO/ Leading NGO.	
	<ul style="list-style-type: none"> ✓ Preparing a list of vehicles/ ambulance already deployed and/or to be deployed on hire during crisis. 		
	<ul style="list-style-type: none"> ✓ Keeping stock of road cleaning equipments and vehicles for relief operation. 		
	<ul style="list-style-type: none"> ✓ Assigning specific duties to different officers/ Sr. Officers at headquarters. 		
	<ul style="list-style-type: none"> ✓ Staying in constant touch with other line departments. 		
	<ul style="list-style-type: none"> ✓ Ensuring proper functioning of warning systems & communication systems. 		
	<ul style="list-style-type: none"> ✓ Ensuring mock drill of the rescue and relief teams 	Home guards, Police.	
	<ul style="list-style-type: none"> ✓ Preparing a map showing the location of temporary shelter camps with accessibility. ✓ Identifying shelter/temporary shelter in high elevated places and arrangement of tents etc. ✓ Identifying and mapping of disaster (of all kinds) prone areas <p>Ensuring formation of village level Disaster Management Committee through Block Development Officers</p>		
	<p>Dissemination of warning: -</p> <ul style="list-style-type: none"> ✓ Receiving warning from reliable sources and cross checking them for authenticity. ✓ Disseminating warning to District Level Officials/ Revenue/Field Functionaries/ PRIs and Co-ordination with the Revenue control room. ✓ Keeping the control room active round the clock. ✓ Disturbing duties to the district level officials, ACs Panchayats and Field functionaries. 		

	<ul style="list-style-type: none"> ✓ Arranging vehicles and public address systems for information dissemination. 		
	<ul style="list-style-type: none"> ✓ Establishing coordination with the NGOs/CBOs and the village communities and assigning them duties. 		
	Asking the people in the vulnerable areas to move to the shelters and to move their domesticated animals to safer places and to cooperate with the volunteers and other officials engaged in similar activities.		
	<p>Search, Rescue and Evacuation:-</p> <ul style="list-style-type: none"> ✓ To coordinate with NGOs/ CBOs/Police for support. ✓ Arrangement & deployment of vehicles etc., for evacuation. <p>Evacuating people from marooned areas and administer emergent relief</p>		
	<ul style="list-style-type: none"> ✓ Organizing trained taskforce members and deputing to be marooned and cut-off areas for evacuation. ✓ Deployment of police for maintaining discipline and peace keeping during evacuation. ✓ Mobilizing people to move to safe shelters. ✓ Deployment of police/Fire Brigade for search and rescue. ✓ Ensuring proper utilization of the rescue materials. ✓ Providing rescue kits at the affected areas. 		
	<p>Distribution of Relief Materials: -</p> <ul style="list-style-type: none"> ✓ Keeping a record of the affected area and people so as to account for the relief materials needed. ✓ Procurement and transportation of relief materials to affected areas. 		
	<ul style="list-style-type: none"> ✓ Arrangement of free kitchen in the shelter camps & affected areas and assigning the responsibilities to officials for proper distribution. 		
	<ul style="list-style-type: none"> ✓ Coordinating with the NGOs/ CBOs. 		

	<ul style="list-style-type: none"> ✓ Encouraging other voluntary organisations from outside for rescue and relief operation. ✓ Distribution of basic medicines and disinfectants to prevent epidemic. ✓ Ensuring health care activities by the CDMO in the shelter camps & through mobile units/temporary health in regular intervals. ✓ Ensuring cattle health activities by the CDVO through Mobile units/ temporary health camps in the affected areas. ✓ Ensuring that there is enough storage of food and pure water in the shelters. 		
	<ul style="list-style-type: none"> ✓ Monitoring all the activities in the affected areas. 		
Post disaster	<p>Short term measures: -</p> <ul style="list-style-type: none"> ✓ Formation of special task force with required equipments ✓ Assigning responsibilities for specific areas. ✓ Emergency cleaning of debris to enable reconnaissance. 		
	<ul style="list-style-type: none"> ✓ Cleaning fallen trees and branches from the roads to facilitate local relief work. ✓ Forming a work team carrying emergency tool kits. ✓ Deployment of towing vehicles, earth moving equipments, cranes. ✓ Construction of temporary roads. ✓ Keeping national and other highways clear from disaster effects. 		
	<ul style="list-style-type: none"> ✓ Assessment of damage. ✓ Temporary supply of flood drinking water and medicines to the shelters and affected areas. 		
	<ul style="list-style-type: none"> ✓ Arrangement for safe shelter for animals. ✓ Providing the lighting facilities for shelter places. ✓ Deployment of home guards and constables to maintain law and order. ✓ Providing temporary arrangements for income generation for the affected 		

	<ul style="list-style-type: none"> ✓ people. ✓ Drought resistance short duration paddy seeds to be made available to farmers. 		
	<ul style="list-style-type: none"> ✓ Encouraging NGOs/INGOs from outside to carry out restoration and reconstruction works. ✓ Ensuring crop insurance. ✓ Supervising all the activities. 		
	<p>Long Term Measures: -</p> <ul style="list-style-type: none"> ✓ Immediate restoration of road communication, irrigation system, educational institutions, Government institutions, electrical installation, drinking water supply, construction of IAY houses for the BPL families and massive area plantation to maintain ecological balance. 		
	<ul style="list-style-type: none"> ✓ Meeting with district level officials/Officials at Headquarter and chalk out emergency plan with vulnerable areas and resource list. ✓ Co-ordination meeting NGOs/ PRIs and assignment of duties. ✓ Pre-positioning of staff in the likely cut off areas. 		
	<ul style="list-style-type: none"> ✓ Arrange food and other basic requirement for emergency response. ✓ Collect information from different areas and to act accordingly. 		
	<ul style="list-style-type: none"> ✓ Co-ordination meeting with officials at Headquarters by 12 hours intervals and 24 hours intervals with the field officials. ✓ Regular collection of situation report of the risk and vulnerable areas from the officers assign for the purpose. 		
	<ul style="list-style-type: none"> ✓ Provision for administering emergent relief and the other basic needs. ✓ Contact with SRC for supply of temporary shelter materials. ✓ Keeping in touch for supply of food articles procuring whole 		

	<ul style="list-style-type: none"> ✓ sellers. ✓ Deputation of volunteers to different probable affected areas. 		
	<ul style="list-style-type: none"> ✓ Helping the evacuees for returning to their houses. ✓ Immediate arrangement of free kitchen in the cut off and inaccessible areas. ✓ Relief distribution. ✓ Monitoring of relief distribution. ✓ Provision of drinking water. 		
	<ul style="list-style-type: none"> ✓ Provision of medical facilities. ✓ Repair/restoration of roads. ✓ Transportation of relief and human resources. 		

Role and responsibilities of the District Health Officer (DHO): -

Phase	Activities	Other officials to be involved	Resources/ equipments to be procured from
Pre-Disaster	<p>Preparedness and warning dissemination: -</p> <ul style="list-style-type: none"> ✓ Stock piling of life saving drugs/ ORS packets/Halogen tablets on receipt of warning from the Collector/DCR. ✓ Transmission of messages to all PHCs to stock medicines and keep the medical staff ready. ✓ Disease surveillance and transmission of reports to the higher authorities on a daily basis. ✓ Vaccination. ✓ To obtain and transmit information on natural calamities from the DCR. ✓ Ensuring distribution of areas of operation among the mobile team. ✓ Pre distribution of basic medicines to the people who are likely to be affected. ✓ Shifting the patients who are in critical situation to the district hospital. ✓ Awareness messages to stop the outbreak of epidemics. ✓ Conducting mock drills. 	DHO, Medical Officers of PHCs/ ICDS, CDPOs NGOs, CBOs, private practitioner in the locality/ first aid trainers.	Medicines, required medical equipments, First aid kits, ambulances, public address systems, mobile vans, tents.

During disaster	Rescue and Evacuation: - <ul style="list-style-type: none"> ✓ Constitute mobile teams and visit the worst affected areas. ✓ Disinfection of of drinking water sources. ✓ Opening of site operation camps. ✓ Regular health check-up at shelter camp & affected areas. ✓ Assigning responsibilities to the medical officers for close monitoring of health camps. 	DHO, Medical officers of PHCs, ICDS, CDPOs, NGOs, CBOs, private practitioner in the locality, first aid trainers Rescue team, volunteers at the shelters, police, fire officers, trained volunteers.	Medicines, required medical equipments, first aid kits, ambulances, ambulances, public address systems, mobile vans, tents
Post disaster	Restoration and rehabilitation: - <ul style="list-style-type: none"> ✓ Organization of health camps. ✓ Deploying mobile fully equipped and manned medical vans. ✓ Close monitoring of health camps. ✓ Ensuring adequate quantities of medicine/disinfectants. ✓ Making sure that there is no outbreak of water borne diseases/malnutrition. ✓ Co-ordination with the District Rehabilitation Committees, other line departments, NGOs/ICDS projects, village Committee, PHD, RWSS, etc. 	DHO, Medical officers of PHCs, ICDS, CDPOs, NGOs, CBOs, private practitioner in the locality, first aid trainers Rescue team, volunteers at the shelters, police, fire officers, trained volunteers.	Medicines, required medical equipments, first aid kits, ambulances, ambulances, public address systems, mobile vans, tents

Role and responsibilities of the Superintendent of Police (SP): -

Phase	Activities	Other officials to be involved	Resources/ equipments to be procured from
Pre-Disaster	Preparedness and warning dissemination of warning: - <ul style="list-style-type: none"> ✓ Reception of warning from the DCR. ✓ Communication establishment with district and sub-division/ GP control rooms and departments offices within the division. ✓ Alerting the team force for deployment at the time of calamity. ✓ To issue directive to police field functionaries to co-operate with revenue personnel in management of relief operation 	Home guard/Police forces, AC/ Tahsildars, SIs	VHF, other improved telecommunication systems.

During disaster	<p>Rescue and Evacuation: -</p> <ul style="list-style-type: none"> ✓ Clearance of roads and other means of transportation. ✓ Traffic management and patrolling of all highways and other access roads to disaster sites. ✓ Making sure that discipline is maintained. ✓ Assistance to district authorities for taking necessary action against hoarders, black marketers and those found manipulating relief materials ✓ Co-ordination with fire personnel. ✓ Provision of security in transit camps/feeding centers/relief camps/cattle camps/co-operative food stores and distribution centers. ✓ Safe guarding of belongings of evacuees. <p>Distribution of Relief: -</p> <ul style="list-style-type: none"> ✓ Maintaining laws and order at the shelters and the relief camps. ✓ Co-ordination with military service personnel in the area. ✓ Deploying officers/police personnel to record death cases. ✓ Assisting the community in organizing emergency transport. ✓ Assisting the District Officials/NGOs in distribution of relief materials. ✓ Providing escorts in transit of relief materials to the relief camps/affected areas. 	<p>Home guard/Police forces, AC/ Tahsildars, Sis</p> <p>NCC, NSS, trained volunteers local youth, NGOs/CBOs</p>	<p>VHF, other improved telecommunication systems.</p> <p>Rescue kits, vehicles equipments for clearance of roads and other related stuffs.</p>
Post disaster	<p>Short term measures: -</p> <ul style="list-style-type: none"> ✓ FIR of the disasters, the damages and the death cases. ✓ Assisting in collection of damage statistics of private properties. ✓ Maintaining law and order. <p>Long term measures: -</p> <ul style="list-style-type: none"> ✓ Close co-ordination with district administration and local/external NGOs in reconstruction and 		<p>Vehicle communication systems.</p>

	<p>rehabilitation process.</p> <ul style="list-style-type: none"> ✓ Assisting the district authority whenever the need arises. ✓ Periodical visits to the affected areas to ensure law and order 		
--	--	--	--

Responsibilities of other Line Departments: -

Designation of the officer	Duties to be performed in normal time	Duties to be performed after receiving 1 st warning	Duties to be performed after the disaster
Asst. Engineer/ AEE, Electrical, KPTCL/ PWD	<p>He should see that the field staff checks the electrical line and replace old materials used in the power supply.</p> <p>He should see that all had wiring in service connections are rectified.</p> <p>He should enumerate the diesel sale available and his jurisdiction and keep it available.</p> <p>He should see that trees, branches etc., fall on electrical lines are out and removed.</p> <p>The field staff should see that electrical supply in the places where landslides may be serving is cut off.</p> <p>The field staff should be in touch with local panchayats and inform the situation at frequent intervals.</p> <p>To provide diesel generators to hospital water works, control room collector's office in case of failure of powers.</p>	<p>On receipt of the 1st warning it should be communicated to all the sub ordinates staff.</p> <p>He should see that all the vehicles under his control be kept in perfect order.</p> <p>Alert the entire staff to return their headquarters and get in touch with immediate requirement.</p> <p>They should give wide publicity that houses consumers should arrange lanterns and battery light for use in case of power is out off.</p>	<p>Restoration of power lines on priority to:</p> <ol style="list-style-type: none"> 1) Hospital, water supply 2) Control room 3) Railway station and 4) To other office on priority as per list appended. <p>Live wires on ground should be removed promptly.</p> <p>Damaged or felled electrical poles should be immediately replaced and obstructions on roads should be get removed.</p>
Asst. Engineer/ AEE, Irrigation	<p>The branches to canal drain to be closed.</p> <p>The embankments should be strengthened.</p> <p>It should be checked whether the passage bridge and channels are in good condition.</p>	<p>1st warning should be communicated to all the sub ordinate staff and employees.</p> <p>They should be alerted to check whether the canals and drains are in proper condition to allow free flow of water.</p>	<p>Damages due to hazards to government properties, lives of man and cattle etc., should be assessed and reported to Panchayats, Sub-collector concerned immediately.</p>

	<p>The obstruction in the canals if any should be got removed immediately to be enabling free flow of water.</p> <p>The bocks and shutters of the canals are to be checked and satisfied that they are in good condition.</p> <p>Water supply into canals should be out off by closing the sluices.</p> <p>The canals and drains should be free from constructing and they should be made available for free discharge of drain water.</p>	<p>The situation tour should take their duty places and be readily available.</p>	
Fire Officers	<p>The Fire Engineers should alert and other vehicles should be kept in good working condition.</p> <p>Materials required for use in emergency should be indented for and kept in reserve.</p> <p>Message received from public on disaster for help should be immediately attended.</p> <p>Keep in touch with each of the other fire stations in the district.</p>	<p>The 1st warning should be immediately communicated to fire stations.</p> <p>The staff should be called on for duty. Full complement of the staff should be available for the vehicles should be obtained and kept in reserve.</p>	
Executive Engineer, Roads and Buildings	<p>Government buildings should be inspected and necessary repairs to be got executed to withstanding hazards affected.</p> <p>Script for slides, pamphlets and cultural programmers should be got prepared immediately.</p> <p>Arrangements should be made to obtain poster and films by addressing the Director through the Collectors.</p> <p>Public addresses equipment should be obtained kept ready.</p> <p>The community radio sets available in the villages</p>	<p>The 1st warning should be communicated immediately to all sub ordinate officers.</p> <p>Wide propaganda should be arranged.</p> <p>The sub divisional public relation officer should be available at their headquarter and got ready for disaster duty with short notice.</p> <p>Ensures that all community radio sets are in working condition.</p>	<p>Photographs of damages should be taken. The field staff should conveying formation regarding the quantum of disaster, loss of property, lives of men and cattle.</p> <p>They should be posted with up-to-date information and the information should be passed to the Collector immediately.</p>

	<p>should be ascertained.</p> <p>The names of hamlets where they are not available to be reported.</p> <p>The public should be fully educated regarding the precautionary measures and after disaster through available media.</p> <p>Specific duties should be assigned to the field staff.</p> <p>The field staff should proceed to the place of work allotted.</p>		
Regional Transport Officer	List of vehicles running condition to be requisitioned kept ready.	Availability of petrol, oils should be ensured.	Electricity department for restoration.
Motor Vehicle Inspector	The MVI/AMVI will report before ADM (Relief)	The RTOs and MVIs should be asked to serve requisition orders on owners of vehicles for duty.	Roads and buildings for clearance.
Civil Supplies Officers	The Asst. Engineer and Junior Engineers will remain alert.	Soon after receipt of 1 st warning all the public call officers to be informed to instruct the village panchayats, Post Master for dissemination of warning in the villages.	Restoration of Telephone lines to control room to Collector, Hospital, Fire Station, SP and other offices as per the list appended.
Divisional Manager, Telephone	<p>Based on the experience on the previous disasters sufficient number of vehicles should be procured and kept in district headquarters</p> <p>To contact all sub division control room and Collector's Office.</p>	<p>All telephone sets to be informed of disaster warning soon after the receiver is lifted from the book as in the case of new year's greetings and to request to telephone users to convey disaster warning to other public.</p> <p>Provision of vehicles</p>	

Synopsis of mitigation plan: -

Phase	Activities	Officials involved
Pre disaster plan	<p>Identification of disaster prone major accident hazard units and industries involving hazardous processes periodically and update.</p> <p>Hazard, risk and vulnerability (HRV) analysis has to be identified and reviewed periodically.</p> <p>All the identified major accident hazard units and industries involving hazardous process are required to develop a comprehensive on site emergency plan co-ordinating the resources available at the site against the HRV</p>	<p>Dept. of Factories</p> <p>Management, CDC</p> <p>Management, Dept. of Factories and Boilers</p>

	Mock rehearsals shall be schemed to assess the strength and weaknesses in the mitigation procedure.	Management Dept., District Crisis Group
	Hording showing the Do's and don'ts in the event of emergency shall be displayed at all strategic location around the plant to sensitize the public around the plant.	Management of Industries
	Periodical training on first aid fire fighting and casualty handling during emergencies shall be programmed.	Management Police, Fire Services, Dist. Commandant
	Identification of resources against the HRV	Management
	The vulnerability area shall be periodically checked for its integrity and safe working conditions.	Management, Directorate Fire Services, Factories
	Preparation of Resource directory showing the resources available in and around the industry.	Directorate of Factories, DCG
	Community awareness programmed shall be designed by distributing pamphlets, classes highlighting about the hazards and do's and don'ts in the event of emergency.	Management Police, Fire Services, Dist. Commandant
	Duties and responsibilities of 1 st responders' viz., Fire Services, Police, Health, Home guards, shall be clearly defined and shall be informed.	CDC, Police, Fire, Revenue
	Periodical evaluation of resources at the control room	CDC, Fire Services
	Identification of shelters, temporary shelter camps with accessibility and infrastructures	Revenue department
	Identification of routes, rallying posts, parking places	Police, Fire Services
	Listing and documenting the home guards required for law order, assistance to the police assistance at the temporary shelters	Dist. Commandant, Home guards
	Preparation of list of experts to seek their opinion during emergency mitigation	CDC, Dept. of Factories
	Ensuring proper functioning of warning and communication system. Updating of telephone numbers at the control room.	CDC, Revenue
	Identification and listing of hospital - infrastructure facilities	DHO
	Identification and listing of blood banks, medical shops, stockiest	DHO
	Identification and listing of vehicles required for immediate requisition	RTO
	Identification of listing of earth moving equipment, vehicles for transportation and documenting	RTO
	Identifying resources for temporary electricity and lighting arrangement, identification and listing of personnel and support system for immediate action	KPTCL
	Identifying NGOs for deployment to work at the rehabilitation centers and to derive resources	Revenue, CDC
	Identification of any pollution effects due from the disasters and to advice CDC on the next course of action	KSPCB

	Identification and supply of availability of potable water sources, water purification tablets, construction of temporary shelters and maintenance	PHE, Commissioner
	Identification of safe shelters for animals	Veterinary Dept.

Synopsis of response plan: -

Phase	Activities	Officials involved
During disaster	Disseminating information 1 st Responders.	CDC
	Keeping the control room active round the clock.	CDC
	Arrangement of vehicle and public address system for information dissemination.	Police
	Distributing of duties to the district level officials, field functionaries on need basis.	CDC
	Asking the people in the vulnerable areas to move to the shelters and to move their domesticated animals to shelter places and to co-operate with the volunteers and other officials engaged in similar activities.	Fire services, Police, Revenue, Veterinary Dept.
	Informing the hospitals to be ready to receive the injured persons for immediate medical aid, and arrangement of special medical need if required.	Health Dept.
	Constituting of mobile health teams to visit shelters.	Health Dept.
	Arrangement and deployment of Fire Services, emergency response vehicles, first aid fire fighting personnel.	Fire services
	Arrangement and deployment vehicles for evacuation of persons.	RTO
	Arrangement and deployment of Home guards for law and order to work in association with Fire services and police.	Commandant Home guards
	Arrangement of specialized equipment for mitigation .	RTO Management
	Arrangement and deployment of Police for maintaining law and order.	Police
	Traffic management and patrolling to the disaster site.	Police
	Provision of security at the shelter.	Police
	Arrangement for evaluation of water and air pollution due to the disaster.	KSPCB
	Management of deceased.	Revenue, Health

Synopsis of recovery and rehabilitation: -

Phase	Activities	Officials involved
Post disaster	Assessment of damages and preparation of comprehensive damage report.	CDC, Revenue, Management, KSPCB
	FIRE the disaster, the damages and the death cases.	Police
	Maintenance of Law and Order.	Police
	Emergency cleaning of debris to enable reconnaissance.	Management, Fire Service, Police
	Deployment of earth moving vehicles, cranes.	RTO
	Temporary supply of food and drinking water and medicines to the shelter.	Corporation, Health, Revenue
	Arrangement of shelter for animals and other requirements.	Veterinary
	Providing of temporary lighting facilities to the shelters and the disaster area.	KPTCL
	Deployment of Home guards and constables to maintain law and order.	Police, Dy. Commandant, Home guards
	Encouraging NGOs to carry restoration and reconstruction works.	Revenue
	Supervising all the activities	CDC
	Collection of progress reports and furnishing report to the Government.	CDC

CHAPTER –8

INSTITUTIONAL MECHANISM

AGENCIES & INFRASTRUCTURE

Introduction: -

The Revenue Administration for Shimoga district is headed by the Deputy Commissioner (DC) whose office is based at Shimoga. He is assisted by the Additional District Magistrate (ADM), also called the Head Quarter Assistant (HQA) of DC., stationed at Shimoga. There are two Assistant Commissioners for the District – one for Shimoga, Bhadravathi and Thirthahalli taluks, the other for Sagar, Hosanagar, Sorab and Shikaripur Taluks.

The taluks are headed by the Tahsildars who are based at the Taluk Head Quarters and report to respective Assistant Commissioners. Each Taluk is further divided into number of Nada Kacheries, which are headed by Deputy Tahsildars.

Agencies involved in Disaster Management: -

The Deputy Commissioner has the overall responsibility in handling any disaster in the district and is assisted by his team as described above. However, during any disaster, many activities have to be carried out at a short notice. Hence, the Deputy Commissioner needs to be ably assisted by other departments in the District. Keeping this in view, a District Crisis Management Group has been formed under the provisions of Environment Protection Act 1986 & Chemical Accidents-Emergency Planning Preparedness and Response.

The District Crisis Management Group for Shimoga comprises of members from various government departments, major industries and institutions in the district.

The members of District Crisis Management Group are as follows:

1. Deputy Commissioner, Shimoga District : Chairman
2. Head Quarters Assistant to Deputy Commissioner, Shimoga : Emergency Officer
3. Superintendent of Police, Shimoga : Member
4. District Commandant, Home guards and Civil Defence, Shimoga : Member

5. Divisional Fire Officer, Shimoga : Member
6. District Health Officer, Shimoga : Member
7. Deputy Chief Controller of Explosives, Shimoga : Member
8. Regional Environmental Officer, Shimoga : Member
9. Commissioner, CMC, Shimoga : Member
10. Regional transport Officer, Shimoga : Member
11. Executive Engineer, Public Health Engg. Dept, Shimoga : Member
12. Information and Publicity Officer, Shimoga : Member
13. Joint Director of Agriculture, Shimoga : Member
14. Trade Union Leader, Shimoga : Member
15. Joint Director of Agriculture, Shimoga : Member
16. Deputy Director, Animal Husbandry & Veterinary Services, Shimoga : Member
17. Executive Engineer, No.4, BRLBC, Bhadravathi : Member
18. Chief Engineer, KPC, Jog-Kargal : Member
19. Assistant Commissioner, Shimoga/Sagar : Member
20. Senior Inspector of Factories, Shimoga : Member Secretary

In addition to the above the following authorities have been included as permanent invitees:

1. Assistant Commissioner, Shimoga/Sagar Sub Division.
2. District Surgeon, McGann Hospital, Shimoga.
3. Executive Engineer, National Highways, Shimoga.
4. Superintendent Engineer, PWD, Shimoga.
5. Superintendent Engineer, MESCOM, Shimoga.

6. All the Tahsildars of the District.
7. All the Dy. SPs and CPIs in the District.
8. All the SI of Police Department

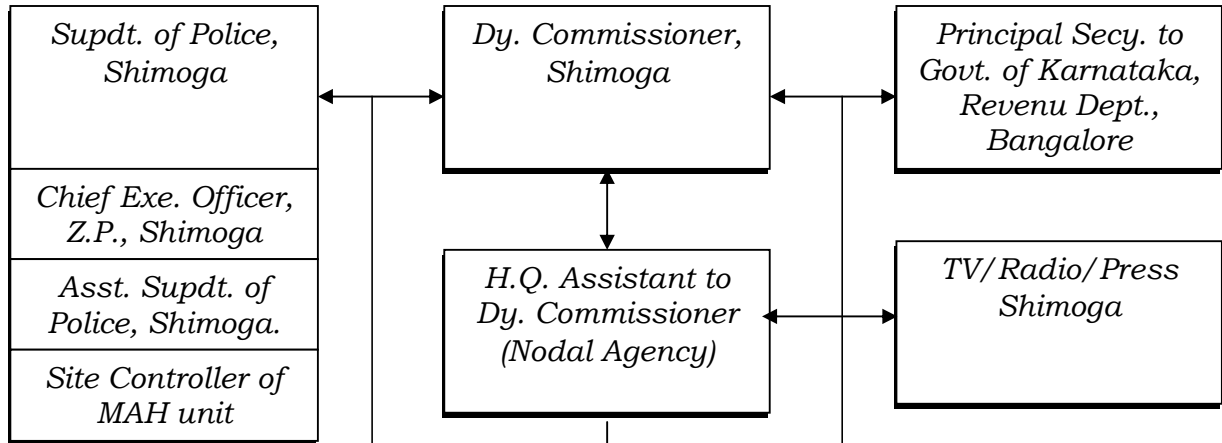
During any disaster, apart from the above member agencies, help may need to be mobilized from a number of non-governmental agencies like voluntary organisations, social service organisations private hospitals and private transport operators.

The departments and agencies, which will be involved in execution of the Disaster Management Plan are:

1. DC office/AC offices/Taluk offices.
2. Police Department.
3. Inspectorate of Factories.
4. District Fire Services.
5. Home Guard (Civil Defence Services)
6. Health Department.
7. Public Works Department.
8. Irrigation Department.
9. Food Department.
10. Drug Controller.
11. Meteorological Department.
12. ZP Engineering Departments.
13. Transport Department.
14. Voluntary & Social organisations.

OFF SITE EMERGENCY PLAN AT A GLANCE

CHART



Asst. Comr, Shimoga	Asst. Comr, Sagar.	Dvl. Fire Officer, Davanagere	Dist. Surgeon, Shimoga	Dist. Health Officer, Shimoga	Dy. Director of Factories Mangalore	Pollution Control Brd Shimoga
Asst. Dir. of Factories, Shimoga	Senior Geologist (M), DMG, Shimoga	RTO, Shimoga	Dy. Dir. Animal Husbandry	Supdt. Engineer, Shimoga	Exe. Engr, PHE, Shimoga	Bus/taxi Owners' association
Dist. Comdt., Home guards, Shimoga	Dist. Agrl. Officer Shimoga	Dy. Dhier Controller of Explosives, Mangalore	Executive Engineer, KEB.	Dir. Controller, KSRTC.	Dy. Dir. of Fisheries	Dist. Information Officer
Tahsildar, Shimoga	Tahsildar, Bhadravati	Tahsildar, Tirthahalli	Tahsildar, Sagar	Tahsildar, Soraba	Tahsildar, Shikaripura	Tahsildar, Hosanagar
Gen. Mgr. Telecom, Shimoga	Mutual Aid Industries	Voluntary Organization	Private Hospitals, Shimoga	Govt. Hospitals, Shimoga	Truckers Association, Shimoga	Dy. Dir. Public Instr, Shimga
Commr, CMC, Shimoga	Commr, CMC, Bhadravati	CO, TP, Thirthahalli	CO, TMC, Sagar	CO, TP, Jog-Kargal.	CO, TP, Soraba	CO, TP, Hosanagar
CO, TMC, Shikaripur	CO, TP, Shiralakoppa	Chief Engr., Civil, Linganamakki	Exe. Engr, No.4, BRLBC, Bhadravathi	Exe. Engr, UTP Dn. (Tunga) Shimoga		

**OTHER IMPORTANT DEPARTMENTS/OFFICERS INVOLVED IN DISASTER
MANAGEMENT**

Sl No	Designation of Office	Office Telephone No.	Residence Telephone No.	Fax/Mobile No.
1.	C.P.O., ZP	222289	221267	-
2.	Commissioner, City Municipal Council, Shimoga	226565	223222	-
3.	Commissioner, City Municipal Council, Bhadravathi	266356 262938	267062	-
4.	D.F.O.	272210	278425	-
5.	JD, Agriculture	272635	248415	-
6.	Deputy Registrar of Co-op. Dept.	222711	223198	-
7.	DDPI	223851	257369	-
8.	Dist Info. Officer	278638	277247	-
9.	EE, KPTCL	271100	273601	-
10.	EE, PWD	274942	271642	-
11.	EE, ZP	222936	222525	-
12.	Dist. Statistical Officer	222035	224428	-
13.	Dist. Youth Officer, NYK	220883	-	-
14.	DD, Animal Husbandry	222969	258458	-
15.	Dist Lead Bank Manager	223667	265377	-
16.	R.T.O	222209	254603	-
17.	Dist Health Officer	222382	249209	-
18.	Minor irrigation	229112	275311	-
19.	Dist. Sport & Youth Service	223328	218648	-
20.	Dist Treasury	279788	-	-
21.	DO, BCM	222129	274422	-
22.	D.S.W.O	270341	-	-
23.	Commandant Hoe Guards	222630	-	-
24.	Police control rooms	270100 100	-	-
25.	Fire Brigade	222888 100	-	-
26.	Ambulance	222404	-	-
27.	Mc. Gann Hospital	264176	-	-
28.	Red Cross	273727	-	-
29.	Railway Enquiry	222660	-	-
30.	Bus Enquiry	222244	-	-

**LIST OF REVENUE & OTHER OFFICERS INVOLVED
IN DISASTER MANAGEMENT**

Sl.No.	Designation of office	Office telephone No.	Residence telephone No.	Fax No.
1	Deputy Commissioner, Shimoga	271101 223770	271102 221866	-
2	C.E.O., Z.P.	217776	273060	-
3	H.Q.A.	221010	274788	-
4	Superintendent of Police	274000	270400	-
5	A.C., Shimoga	228204	223181	-
6	A.C. Sagar	226601	326602	
7	Tahasildar, shimoga	229312	220775	-
8	Tahasildar, Bhadravathi	267283	668097	-
9	Tahasildar, Thirthahalli	228239	228120	
10	Tahasildar, Sagar	226074	326169	-
11	Tahasildar, Sorab	272241	272290	
12	Tahasildar, Shikaripur	222239	722249	-
13	Tahasildar, Hosanagar	221235	521314	-

FIRE STATIONS:

Location of Fire Stations in Shimoga District:

Name of fire station	Charge Officer	Vehicle NO.	Total	Staffs designation	Phone No.
1. Shimoga	District fire officer – 01 Assistant Fire Station Officer – 01 Assistant Fire Officer – 01	CAG 1149 w/t CAG 948 w/t KA 14 8146 KA 14 513 Ambulance CKG 1069	05	LF – 04 FD – 05 FM – 15	222888 E-101
				Total – 24	
2. Bhadra vathi	Fire Station Officers – 01	KA 14 8098 w/t KA 14 8099 w/t CKG 985 TT	03	LF – 04 FD – 05 FM – 11	670418 E-101
				Total – 19	
3. Sagar	Assistant Fire Station Officer – 01	KA014.8097 w/t	02	LS--04 FD—01 FM—08	326800 E-101
				Total—13	
4. Sorab	Assistant Fire Station Officer – 01	KA04G-8096. W/T	01	LF—04 FD—04 FM—06	422400
				TOTAL 14	

I. District police strength:-

CIVIL									
SP	Addl. SP.	DSP	CPI	PSI	ASI	CHC	CPC	WHC	WPC
01	01	04	13	42	61	272	780	15	53
DAR									
RPI		RSI		ARSI		AHC		APC	
02		07		11		69		331	

II. Total No. Police vehicles available in the district.

1.	Ambassador car	-03	12.	Metoddor	-05
2.	Toyota Qualis	-01	13.	Maruthi Omini	-01
3.	Maruthi Zypsy	-03	14.	Swaraj Mazda	-01
4.	Jeeps	-48	15.	TATA Spacio	-01
5.	Tempotrax	-04	16.	Scooter	-03
6.	Mini Bus	-02	17.	Rajdoot Yamaha	-01
7.	Bedford Van	-05	18.	Yezdi M/C	-01
8.	TATA 807	-01	19.	Bullet M/C	-39
9.	TATA 407	-01	20.	Yamaha YBX	-04
10.	Cab king	-02	21.	Hero Honda Splendor	-01
11.	Tempo traveller	-05	22.	TVS Feiro	-03
Total					135

V. Communication systems available in the District: -

1. Total No. of Wireless sets - 177 (it includes 55 no. of Static wireless sets,
100 no. of Mobile wireless sets,
22 no. of spare wireless sets)

SHIMOGA RURAL CIRCLE & PS			
1.	CPI, SHIMOGA ® CIRCLE	273386	258869
2.	PSI (R) PS (L & O)	220386	259007
3.	PSI (R) PS (CRM)	220386	270779
4.	PSI, KUMSI PS	282332	
THIRTHAHALLI CIRCLE & PS			
1.	CPI, T'HALLI CIRCLE	228310	
2.	PSI, T'HALLI PS (L & O)	708333	
3.	PSI, T'HALLI (CRM)	708333	258914
4.	PSI, MALUR PS	245142	277079 (SMG)
BHADRAVATHI SUB-DVN			
1.	DSP, BHADRAVATHI	674252	670221
BHADRAVATHI TOWN CIRCLE			
1.	CPI, BDVT TOWN	666549	666568
2.	OLD TOWN PS L & O	666343	
3.	OLD TOWN PS, CRIME	666343	
4.	NEW TOWN PS, L&O	674313	
5.	NEW TOWN PS, CRIME	674313	
6.	TRAFFIC PS, BDVT-1	666289	
7.	TRAFFIC PS, BDVT-2	666289	663926
BHADRAVATHI RURAL CIRCLE			
1.	CPI, RURAL	666033	666883
2.	PSI, RURAL	666033	
3.	PSI, PAPER TOWN	670456	670920
4.	PSI, HOLEHONNUR PS	635494	
5.	RPI, DAR, BDVT	670495	
SAGAR SUB DIVISION			
1.	DSP, SAGAR	326082	326069
SAGAR TOWN CIRCLE			
1.	PI, SAGAR TOWN PS	326067	
2.	PSI, L&O, SAGAR TOWN	326067	

SAGAR RURAL-CIRCLE			
1.	CPI, SAGAR RURAL	326067	
2.	PSI, L&O	326194	
3.	PSI, CRIME	326194	
4.	PSI, KARGAL (08186)	340324	
5.	PSI, JOG	344733	
HOSANAGAR CIRCLE-CODE 08185			
1.	CPI, HOSANAGAR	521273	521273
2.	PSI, HOSANAGARA	521244	
3.	PSI, RIPPONPETE	582635	
SHIKARIPURA SUB-DIVISION CODE 08187			
1.	DSP, SHIKARIPURA	722422	521273
2.			
3.	CPI, SHIKARIPURA	722430	722304
4.	PSI, L&O	722430	
5.	PSI, CRIME	722430	
6.	PSI, SHIRALAKOPPA	734511	
SORABA CIRCLE-CODE 08184			
1.	CPI, SORABA CIRCLE	422122	422123
2.	PSI, L&O	422210	
3.	PSI, CRIME	422210	
4.	PSI, ANAVATTI	467135	
5.	KEB, VIZILENCE	240210	
6.	RAILWAYS	222974	

LIST OF POLICE OFFICER'S NAME AND TELEPHONE NUMBERS

Sl No.	Designation	Phone No.	
		Office	Residence
1.	S.P., SHIMOGA	274000	270400
2.	ADDL. S.P., SHIMOGA	270422	270900
3.	A.A.O	222514	258941
4.	PI. DSB. SHIMOGA	222514	257093
5.	PI. DCIB, SHIMOG	222514	
6.	RPI DAR. SHIMOGA	220387	254544
7.	PI (WIRELESS)	270100	258564
8.	PSI DSB SHIMOGA	222514	258903
9.	PSI COMP SECT	222514	277079
10.	PSI DCRB SHIMGOA	222514	EX-26-(37594)
11.	PSI DSA UNIT SMG	222514	EX-26
SHIMOGA SUB-DIVISION			
1.	DSP. SMG. SUB-DVN	223915	257670
KOTE CIRCLE			
1.	CPI, KOTE CIRCLE	224384	277011
2.	PSI, KOTE (L & O)	222384	
3.	PSI, KOTE (CRM)	222384	
4.	PSI, JAYANAGAR (L & O)	223042	
5.	PSI, JAYANAGAR (CRM)	223042	
6.	PSI, WOMEN PS, SMG	1098	252808
DODDAPETE CIRCLE & PS			
1.	CPI, DODDAPETE CIRCLE	273422	258869
2.	PSI, D'PETE PS (L & O)	220333	254294
3.	PSI D'PETE PS (CRM)	220333	
4.	PSI TRAFFIC PS-1	223194	259479
5.	PSI TRAFFIC PS-2	223194	

Forest Department

Sl No	Name of the Division	Designation & strength		
		Range Forest Officer	Forester	Guards
1.	Shimoga	06	43	59
2.	Sagar	11	95	161
3.	Bhadravathi	07	67	72
4.	Wild life, Shimoga	06	18	50
5.	S.F. Shimoga	01	03	0
	TOTAL	31	226	342

Transport Department:

Designation	Strength
1. Senior Inspectors	03
2. Inspectors	05
3. Other D-Group employees	12

N.C.C.:

20th Karnataka Battalion NCC unit is functioning covering Shimoga District with the Sub-units and Cadets strength as below:

Sl. No	Place	Associate NCC Officers	Cadets Strength
1	Shimoga	01	2105

CIVIL DEFENCE – HOME GUARDS

SHIMOGA District has 7 units of home guards for the district. The District Commandant heads the Home Guards Department and is supported by Deputy Commandant, instructors (two) and about 600 home guards, some of whom are specially trained in rescue and various other emergency fields of civil defence.

Following are the contact details of this department: -

Sl. No.	Designation	Contact No.
1	Commandant	222630 223330
2	Deputy Commandant	

The number of home guards in the Shimoga District is as follows: -

Name of Taluk	Men Home Guards	Women Home Guards	Total Number
1. Shimoga	105	44	149
2. Bhadravathi	127	44	171
3. B.R. Project	44	-	44
4. Thirthahalli	40	-	40
5. Sagar	125	-	125
6. Shikaripura	105	-	105
7. Joga	45	-	45
8. Hosanagar	44	-	44
9. Sorab	100	14	114
10. Shiralakoppa	65	-	65
11. Gajanur	44	-	44
Total	844	102	946

COMMUNICATION AND TRANSPORT:-

The Home guards depend on police for communicate and transportation requirement.

ROLES & DUTIES: -

District Commandant/Dy. Commandant will position themselves in the Control Room and keep themselves in continuous contact with the field officer/unit.

FIELD OFFICERS: -

Field officers would handle the emergency along with their guards, keeping in mind the safety of persons, property and environment.

Evacuated areas would need to be guarded against looting.

TRAINING: -

As the home guards form an important wing during any emergency operation, regular refresher training and mock drills need to be conducted on an annual basis when the full force compliment should attend compulsorily.

The rescue equipment for handling an emergency should include: -

1.	Fiber Boat of 4 men capacity with OBM	One
2.	Life Jackets	Two numbers

Statement showing the Home guard personnel trained in different aspects of Civil Defence.

Sl. No.	Particulars	Male home guards	Women home guards
1.	First – aid training	6	6
2.	Rescue Course	8	-
3.	Flood Rescue Course	15	-
4.	Fire Fighting Course	10	-
5.	Traffic Control and Crowd Control	8	2
6.	Weapon Training	6	-
7.	Unarmed combat training	-	-
8.	Wireless Operators Course	5	2
9.	Civil Defense Course	-	-
10.	Leadership Course	4	4
11.	Disaster Management Course	-	-
12.	Camouflage and concealment Course	-	-
13.	Unexploded Bomb detection and disposal Course	-	-
14.	Nuclear, Chemical and Biological warfare Course	-	-
15.	Radiological monitoring and sheltering Course	-	-
16.	Civil Defence Planner’s Course	-	-
17.	Maintenance of Essential Service Course	-	-
18.	Communication Course	-	-
19.	Civil Defense Wardens Course	-	-

Name of the Govt. Hospitals and Private Hospitals available in the District.

Sl. NO.	Taluk	Details of the Hospitals Govt.	Doctors available No.	Medical staffs No.	Phone No.	Mobile & Fax No.	No. of Bed available
1	2	3	4	5	6	7	8
1.	SHIMOGA	1) District McGann Hospital, Shimoga.	43	14	222404	271566	600
		2) CHC, Ayanur	2	10	235620		30
		3) PHC, Mattur	1	11	237596		6
		4) PHC, Gondichatna Halli	1	11	279980		6
		5) PHC, Haramagatta	1	11	245455		6
		6) PHC, Holalur	2	9	245440		16
		7) PHC, Harnahalli	22	9	230422		16
		8) PHC, Kumsi	1	9	282434		6
		9) Town PHC, Kote	1	3			6
		10) Thunga Nagar	1	-	273065		12
		11) Bapuji Nagar	1	2	270370		6
		12) Bommanakatte	1	2	248901		6
		13) Shriram Nagar	1	2	258303		6
		14) PHC, Vidyanagar	1	-			-
		15) PHC, Sigehatti	1	1			-
		16) PHC, Mandagatta	1	1	235055		-

2.	Bhadra vathi	1) General Hospital, Bhadravathi	7	12	666630	
		2) PHC, Holehonnur	2	7	635411	
		3) PHC, Arebilachi	2	8	636844	
		4) PHC, Agaradahalli	1	5	647670	
		5) PHC, Tallikatte	1	8		
		6) PHC, Bhadra Colony	1	6	661012	
		7) PHC, Antaragange	1	15	661260	
		8) PHC, Mydolalu	1	7	644495	
		9) PHC, S.K. Magge	1	6		
		10) PHC, Donabagatta	1	2	672038	
		11) Mobile Hospital, B.R. Project	1	1	661021	
		12) Town PHC, Aswath Nagar	1	2		
		13) Town PHC, Ujjanipur	1	2	673393	
		14) Town PHC, Nehru Nagar	1	2		
		15) PHU, Yadehalli	1	2		
		16) PHU, Marishetty Halli	1	2		

3.	Thirtha halli	1) General Hospital, Thirthahalli	11	7	709444	
		2) CHC, Kannangi	3	7	771909	
		3) PHC, Konandur	2	9	796310	
		4) PHC, Devangi	1	7	794215	
		5) PHC, Aralasureli	1	7	786310	
		6) PHC, Megharavalli	1	10	797795	
		7) PHC, Malur	1	10	715739	
		8) PHC, Agumbe	1	8	785731	
		9) PHC, Mandagadde	1	10		
		10) PHU, Araga	1	5		
		11) PHU, Hunchada Katte	1	3		
		12) PHU, Katagaru	1	5	713431	
		13) PHU, Harogulige	1	2		
		14) PHU, Yogimalali	1	-		
		15) PHU, Gutti Yadehalli	1	2		
		16) PHU, Betta Basavani	1	3		
4.	Sagar	1) General Hospital, Sagar			326076	
		2) CHC, Anandapuram	2	2	362422	
		3) PHC, Talaguppa	3	12	354134	
		4) PHC, Tumari	1	9	385100	
		5) PHC, Tyagarthi	1	17	333303	
		6) PHC, Avinahalli	1	19	337842	
		7) PHC, Kargal	2	12	340822	
		8) PHC, Shiravanthe	1	9	335503	
		9) PHC, Bandagadde	2	2	360469	

		10) PHU, Heggodu	1	4		
		11) PHU, Byakodu	2	5	383030	
		12) PHU, Aralagodu	1	5		
		13) PHU, Kagodu	1	5		
		14) PHU, M. Lingadahalli	1	2		
		15) PHU, Ullur	1	1		
5.	Soraba	1) General Hospital, Soraba	7	11	428216	
		2) PHC, Anavatti	2	9	451778	
		3) PHC, Chandragutti	1	8	462468	
		4) PHC, Jade	1	7	468849	
		5) PHC, Ulavi	1	12	452676	
		6) PHC, Ennekoppa	1	5	467085	
		7) PHC, Otur	1	9	422092	
		8) PHC, Hulthikoppa	1	6	456100	
		9) PHC, Shakunavalli	1	6		
		10) PHU, Gudavi	1	4		
		11) PHU, Hosabale	1	5	463006	
		12) PHU, Kuppagadde	1	4		
		13) PHU, Shigga	1	4	455856	
		14) PHU, Tattur	1	5	465111	
		15) PHU, Bharangi	1	4		
		16) PHU, Mudidoddi koppa	1	2		
		17) PHU, Harishi	1	2		

6.	Shikari Pura	1) General Hospital, Shikaripura	10	6	722412	
		2) CHC, Shiralakoppa	3	12	734501	
		3) PHC, ChikkaJogihalli	1	12	743429	
		4) PHC, Kaginelli	1	13		
		5) PHC, Sunnadakoppa	1	6	773207	
		6) PHC, Salur	1	8	765818	
		7) PHC, Thogarsi	1	8	753471	
		8) PHC, Kappanahalli	1	1	772285	
		9) PHC, Chikkajambur	1	5		
		10) PHC, Hosur	1	1		
		11) PHC, Malavalli	1	1		
		12) PHU, Hothanakatte	1	1		
		13) PHU, Harige	1	2	742394	
		14) PHU, Hithla	1	4		
		15) PHU, Maravalli	1	4	741257	
		16) PHU, Yalagere	1	4		
7.	Hosa Nagar	1) General Hospital, Hosanagar	8	22	521202	
		2) CHC, Nagara	2	6	583831	
		3) PHC, Ripponpet	2	11	582081	
		4) PHC, Yadur	1	11	568666	
		5) PHC, Haridravathi	1	7	572324	
		6) PHC, Huncha	1	9	562857	
		7) PHC, Maruthipura	1	1	572112	
		8) PHC, Kodur	1	5	567343	
		9) PHC, Nittur	1	5		
		10) PHC, Sampekatte	1	3		
		11) PHC, Sonale	1	4		

Sl. NO	Taluk	Details of the Hospitals Private	Doctors available No.	Medical staffs No.	Phone No.	Mobile & Fax No.	No. of Beds
1	2	3	4	5	6	7	
1.	SHIMOGA	1) Usha Nursing Home, Ravindra Nagar, Shimoga	05	15	223355	9844122023 220155	50
		2) Sri Manjunatha Scans, Park Extn., Shimoga	01				
		3) Sri Dutta Hospital, Tilak Nagar, Shimoga	02	09	222860	9448135160	15
		4) Savithri Scans, Kayaka Complex, Jewel Rock Road, R.M. Road, Shimoga	01	01	220351	9448337419	
		5) Aparna Ultra Sound Clinic, Shimoga	01	02	224850	9845539555	
		6) Nandi Scanning Centre, No.61/2, 1 st Parallel Road, Durgigudi, Shimoga	01	03	277154	-	-
		7) Subbaiah Hospital, Kuvempu Road, Shimoga	04		224800 224822		25
		8) Nanjappa Trust Hospital, Kuvempu Road, Shimoga	24	120	221003	274612	150
		9) Vivekananda Hospital, Tilak Nagar, Shimoga	03	25	224350	-	50
		10) Sahyadri Hospital, O.T. Road, Shimoga	04	10	222758	9844420020	19

	11) Ravipali Clinic & Maternity Nursing Home, Jail Circle, Durgigudi, Shimoga	04	20	223773	9448124773	20
	12) Prabha Diagnosis Centre, Mallikarjuna Nursing Home, Jewel Rock Road, Shimoga	04	22	279137 220170	9448127913	
	13) Gutti Nursing Home, Kuvempu Road, Shimoga	03	13	223632	9343310450	15
	14) Sagar Nursing Home, Kuvempu Road, Shimoga	02	06	224970	9844126889	10
	15) City Hospital, R.M. Road, Shimoga.	02	38	220170	9448127913	25
	16) Nirmala Hospital, Rajendra Nagar, Gopal Gowda Road, Shimoga.	03	06	223727		25

2.	Bhadra vathi	1)	Nirmala Hospital, Bhadravathi			666662	
		2)	Bhadra Nursing Home, Gandhinagar, Bhadravathi			666403	
		3)	Durga Nursing Home, B.H. Road, Bhadravathi			667225	
		4)	Sharada Nursing Home, B.H. Road, Bhadravathi				
		5)	Meena Nursing Home, T.K. Road, Bhadravathi			666665	
		6)	Manjunatha Nursing Home, B.H. Road, Bhadravathi			666118	
		7)	V.I.S.L. Hospital, Bhadravathi			671620	
3.	Sagar	1)	Bhagavath Nursing Home, Sagar			320771	
		2)	Chandini Hospital, Chamarajpet, Sagar				
		3)	Sagar Nursing Home, Vinobanagar, Sagar				
		4)	Yalamali Nursing Home, Chamarajpet, Sagar			326378	

		5) Sanjivini Hospital, J.C. Road, Sagar			326343	
		6) Padmai Hospital, J.P. Road, Sagar			326990	
		7) Karnataka Power Corporation Hospital, Kargal				
4.	Shikari pura	1) Mahantha Clinic, Shiralakoppa			958187	
		2) Vikram Nursing Home, O.T. Road, Shikaripur				
5.	Thirtha halli	1) Anuradha Nursing Home, Thirthahalli			708238	
		2) Manasa Nursing Home, Chatrakeri, Thirthahalli				
		3) Melige Hospital, S.R.R. Mill Road, Thirthahalli			709177	

Name of the Hospital (Govt. and Private Institutions) where, Blood Banks are available in the District:

Sl. NO.	Taluk	Name of the Hospital or Private Institutions where Blood Banks are available	Phone No.	Mobile & Fax No.
1	2	3	6	7
1.	Shimoga	McGann Hospital, Shimoga	222406	271566
		Rotary Club (Regd) Shimoga	274333	
		Red Cross Organization, Shimoga	273727	
2.	Thirthahalli	General Hospital, Thirthahalli		

Name of Govt. Hospitals and Private Institutions, where Ambulances are available in the District:

Sl. NO.	Taluk	Name of the Hospital or Private Institutions, where Ambulances are available	Vehicle No.	Phone No.	Mobile & Fax No.
1	2	3	4	6	7
1.	Shimoga	Nanjappa Hospital, Shimoga	CTS 135	221003	
		Malenadu Hospital, Nidige	KA 09 9232	246800 246724	
		McGann Hospital, Shimoga	KA 01 G 8201 KA 14 G 0571 KA 14 G 455	222404 271566	
2.	Bhadra vathi	VISL Hospital, Bhadravathi	02	271620	
		MPM Hospital, Bhadravathi	02	270003	
		Govt. Hospital, Bhadravathi	02		

CHAPTER –9

RESPONSE PLAN

FUNCTIONS OF AUTHORITIES**STANDARD OPERATING PROCEDURES****Authorities/Agencies involved: -**

Revenue

Police

Fire Services

Commandant, Home Guards

RTO

Health Department

Karnataka State Pollution Control Board

Panchayat Raj Engineering

KPTCL

District Crisis Group

Veterinary Department

NGOs

Revenue Authorities: -

- 1) Activating of various NGOs/Voluntary Organizations for necessary materials.
- 2) Providing adequate compensation to loss of life and property.
- 3) Declaration of all clear signals.

To effectively manage the emergency without ambiguity, it is required to entrust individual responsibility and describe them in brief. Accordingly the following emergency plan has been draw up.

Function of Assistant Commissioner, Shimoga/Sagar: -

- 1) He will be the overall in charge of Rescue shelter/Rallying post and parking yards.
- 2) He will ensure adequate food and clothing in co-ordination with Dy. Director, Food and Civil Supplies, Voluntary Organizations, Individual Persons as deemed necessary in his option.
- 3) He will also ensure proper medical aid (first aid as well as shifting of affected persons to hospitals, etc) in co-ordination with District Health Officer and District Drug Controller.
- 4) He will ensure adequate security and safety in co-ordination with SP (Law & Order), Shimoga and Dy. SP, Shimoga as the case may be.

In addition to these responsibilities, the AC will assist the CEC in all other matters as the case may be.

Function of Tahsildar, Shimoga/Bhadravathi/Thirthahalli/Sagar/Shikaripur/Hosanagar/Sorab: -

- 1) He will look after all the facilities required at rescue shelter/rallying post like food, clothing, medical aid, water, electricity, sanitation and other basic necessities in co-ordination with respective Government Agencies, as well as voluntary organizations.
- 2) He will manage and arrange for any other requirements on need basis at that point of time in co-ordination with respective government authorities.
- 3) He will alert all his sub ordinates and utilize their services to manage the rescue shelter/rallying post.
- 4) His actions will be in concurrence from AC/DC.

Functions of Police Services: -

The main function of police authorities would be to maintain law and order, regular patrolling of affected areas, establishes rescue/safe routes in advance for timely response, cordoning off the area, control of traffic, shifting of all vehicles to the parking yards. To render assistance in controlling and fighting disasters, salvage operations, rendering first aid and medical help, shifting of the affected to rallying posts/rescue shelters. Another important function would be identification of the deceased, informing their relative, removal and disposal of dead bodies. Finally, preparing the list of missing persons and take steps to trace them. The police authorities will also work with NGOs and other service organizations when needed.

Circle Inspector (Law and Order) (For city limits): -

- 1) The office will be overall in charge of the functions of Police Department in case of offsite emergency. He will receive the communication and instructions from CEC from time to time.
- 2) On receiving the information about the emergency from CEC, the officer will rush to the incident spot and oversee law and order, organize for additional requirement of men and Home Guards if required.
- 3) Receive information from the site in charge and divisional fire officer or his deputy available at site for appropriate and necessary rescue operation.
- 4) Arrange for necessary transportation of vehicles in co-ordination with RTO and in charge of parking yard for evacuation of people as well as critical cases.
- 5) Ensure that adequate numbers of vehicle are provided, fitted with public address system and wireless to the convoy team.
- 6) Arrange for necessary ambulance/medical facilities in co-ordination with District Health Officer/Deputy Director, Animal Husbandry for evacuation of people and livestock respectively.
- 7) In confirmation with CEC, arrange for removal of dead bodies (if any) and will pass on the information to the relatives of the decease and will ensure

disposal of dead bodies after conducting postmortem in co-ordination with DHO.

- 8) Arrange for maintaining law and order at the site of emergency, rescue shelter parking yards, main roads leading to emergency site, etc., pass on the information to the CEC about actions on various fields.

Police Inspector, Shimoga/Bhadravathi: -

- 1) The Officer will receive information from the SP or in charge of factory and immediately rush to the site along with maximum possible personnel. He shall help fire-fighting personnel in rescue operations.
- 2) In view of close proximity of police station to the industrial area, take immediate control of the site and rescue operation in co-ordination with site in charge.
- 3) Alert all the sub ordinate officers coming under his jurisdiction and ensure their availability at the site of emergency to maintain Law & Order, traffic, rescue, salvaging etc., till such time the full emergency operation comes into action.
- 4) Ensure that the information is passed on to the superior officers and necessary instructions are received and adhered to.
- 5) Ensure that all the anti social elements are identified and rounded off if required.

Police Inspector, Shimoga: -

- 1) The officer will receive information from SP, Shimoga.
- 2) He will immediately rush to the site of incident and conduct on the spot inspection. Obtain first hand information.
- 3) Ensure that information is passed on to the superior officers and necessary instruction are received and adhered to.
- 4) Convey the message on the extent of leakage, extent of area affected, the ground situation, the scenario prevailing in and around the water works.

- 5) Ensure that, he himself and his personnel are equipped with necessary personal protective equipment. The recommended PPE are cartridge type respirators for short term exposure and the pressurized airline respirators for long term exposure.
- 6) Take immediate steps to inform the traffic police.
- 7) Alert all the sub ordinate officers and ensure their availability at the site of emergency to maintain law and order, traffic, rescue, salvaging, etc. Till such time, the full emergency operation comes into action.
- 8) Ensure that all the anti-social elements are identified and rounded up, if requires.

Function of Inspector (Traffic), Shimoga: -

- 1) The SP, Traffic will be the overall in charge of traffic management who is assisted by Dy. SP, Traffic in case of offsite emergency.
- 2) Receive the communication of offsite emergency from CEC and disseminate the information to all the functionaries and mobilize required force and put them into action for managing various traffic points, routes, etc.
- 3) For each industry, separate routes are identified as normal route and emergency route.
- 4) Mobilize necessary police personnel/vehicles to man and control traffic on various roads identified as safe routes and also take measures to divert normal traffic away from the emergency routes identified.
- 5) Ensure available of adequate number of vehicles fitted with public address system/wireless etc. and directly supervise manning of routes and parking yards.
- 6) Initiate action to ensure adequate number of skilled drivers in consultation with RTO, KSRTC, Home guards and Truckers Association etc.
- 7) The SP will initiate action on his own only under exceptional circumstances; However, his action shall be communicated to his superiors and should be confirmed with CEC.

8) Any other action as deemed necessary base on the circumstances.

Functions of Fire Services, Shimoga: -

- 1) The Regional Fire Office is located at Shimoga.
- 2) The Regional Fire Officer and the Divisional Fire Officer are responsible to fight and control the fire, leakage, spillage, etc., with proper instructions and guidance.
- 3) Rush to the site of emergency immediate after the receipt of information from the site Controller or on emergency call.
- 4) Establish safe routes in advance for rushing to site and ensure best response time to minimize damage.
- 5) Workout advance plan for requirement of resources like fire tenders, trained personnel, protective equipment and the ways to meet extra requirements if any.
- 6) Assist the onsite emergency personnel in fighting emergency, rescuing injured/affected people trapped in dangerous zones and participate in salvage operation.
- 7) Assist medical/police personnel in imparting first aid.
- 8) Ensure availability of adequate water supply through KIADB authorities.
- 9) Maintain constant contact and communicate the message to the CEC with regard to the control measures undertaken, salvage operation, rescue methods, etc. And any other information required by the CEC on continuous basic.

Take any other appropriate actions as deemed necessary in control of emergency.

Functions of Police Inspector/Sub Inspector, Shimoga: -

They will receive orders from the DSP and act accordingly the Police Inspector will assume the charge of DSP in the absence of the DSP till such time the superior officer arrives at the place of accident and takes control then onwards, he will continue to receive the orders from the superior officers and act accordingly.

Functions of Police (Traffic), Shimoga: -

- 1) The officer will be overall in charge of parking yard and for managing, controlling and arranging sufficient number of vehicles.
- 2) Ensure that adequate number of trucks, buses and other mode of transport vehicles are arranged for rescue operation in co-ordination with RTO.
- 3) Ensure that adequate communication vehicles are arranged in co-ordination with various police authorities.
- 4) Motor Vehicle Inspector from RTO department will be assisting Inspector of Police (Traffic) in managing parking yards.
- 5) Assist the DSP, Police Inspector - Traffic in mobilizing adequate number of skilled drivers in consultation with RTO, KSRTC, Truckers Associations and Home guards etc., as the case may be.

Functions of Fire Station Officer, Shimoga: -

A fire station is established at Shimoga. The Fire Station can cater to the immediate need of the plant, but certainly not adequate to manage the emergency assumed in this document. Therefore,

- 1) On receipt of fire call, rush to the site of incident with all crewmembers and equipment and start fighting the fire.
- 2) Immediately send distress call to all other fire stations for additional reinforcement. Contacts the Divisional Fire Officer and informs him about the severity of the fire, the kind of assistance required, etc.
- 3) Continue to receive the necessary information from his superior officers and the DSP and adhere to the instructions.
- 4) Assist the police, Home guards and other Rescue Team the rescue evacuation of persons, salvage, etc.
- 5) Continue to be inaction till such times the divisional fire officer or his deputy arrives at the place of incident and takes charge. From there onwards, he will continue to assist the officials.

Function of Health and Medical Services, Shimoga: -

- 1) District Health Officer (DHO) will be overall in charge of health and medical services to be rendered at the site of emergency or at various rescue shelters, affected places, hospitals, pathology laboratories, etc.
- 2) On receiving the information from CED, he will contact all Hospital Superintendents, Drug Controller, Blood Banks for mobilization of required ambulances/Doctors/Nurses/Medicines/life saving drugs, blood etc.
- 3) Rush to the site, assess the extent of severity and establish adequate (Temporary Medical Centre). Ensure hygienic conditions at the rescue shelters cum rallying posts, temporary medical centers. Take appropriate action in shifting affected persons to proper hospitals in Shimoga and provide appropriate treatment.
- 4) Arrange for removal of dead bodies, if any, after post-mortem and disposal of the same, in consultation with CEC and DCP.
- 5) Render advice to CEC on precautionary measures to be taken by public in affected sites/villages, rescue shelter cum rallying posts to prevent the outbreak of epidemic diseases.
- 6) If necessary, he should undergo training to handle the wireless apparatus for effective communications.

Functions of Veterinary Service, Shimoga: -

- 1) Deputy Director of Animal Husbandry will be the overall in charge for treatment of affected animals at site/hospital in co-ordination with police/voluntary organizations and revenue authorities.
- 2) On receiving information from CEC, he will rush to the site and activate the Temporary Medical Centre (TMC) at appropriate places in consultation with CEC.

- 3) Dy. Director will also co-ordinate with Assistant Commissioner/RTO/DCP (L70)/Inspector of Police (Traffic), for arranging necessary vehicles for shifting of animals, if required.
- 4) The officer will be provided with one Police Officer with adequate number of Police Personnel and Home guards to ensure the orderly treatment and management of the Temporary Medical Center.
- 5) The officer will identify the drug stores and ensure the supply of adequate and necessary drugs through the Drug Control Authorities.

Functions of RTO, Shimoga: -

- 1) The RTO will be the overall in charge for providing number of rescue vehicles like trucks, buses, cars or any other type of transportation vehicles to emergency site, rescue shelter cum rallying post etc., for transportation of human beings as well as animals.
- 2) Receive information from CEC and act accordingly.
- 3) Mobilize all possible resources in arranging transportation vehicles in co-ordination with KSRTC, Truckers Association, Travel Agencies, etc, also ensure availability of adequate number of skilled drivers and advise the Inspector (Traffic).
- 4) Workout the requirement of heavy earth moving equipment like cranes etc., and mobilizes the same in co-ordination with such agencies/parties.
- 5) Depute adequate numbers of Motor Vehicle Inspectors for assisting Inspector of Police, Traffic (in charge of parking yard), and Rescue Shelter cum rallying post, at the site of emergency.

Functions of Karnataka State Pollution Control Board, Shimoga: -

- 1) On receiving information from CEC, the Environmental Officer will mobilize all possible resources at his disposal and keep the laboratory functioning for analysis of pollutants, emissions, etc.

- 2) Rush to the site, collect the samples, analyze the pollutants and the likely effect on human life/environment and inform the CEC about the same and the corrective actions to be taken to prevent further damage.
- 3) Act as an expert and advice the CEC about the kind of message to be disseminated to the public and press, etc, on pollution matters.

Function of Experts of District Crisis Group (DCG): -

- 1) All the member of the DCG will be communicated about the emergency.
- 2) On receipt of emergency communication, they will immediately inform the control room about the place of their availability and simultaneously report to the CEC.
- 3) They will receive necessary instructions from the CEC and act accordingly.
- 4) They will render adequate and timely technical guidance and assist CEC and other agencies involved in the control of emergency.
- 5) They will also advise CEC on the message to be given to Public/Press on technical matters.

Functions of KPTCL, Shimoga: -

- 1) The Executive Engineer will be responsible for all electrical power supplies and illumination of places like site of incident, rescue shelter, rallying posts, parking yard, temporary medical centers, emergency route, etc.
- 2) In case of need to establish the temporary power supply points he will do so as advised by CEC and ensure adequate continuous power supply.
- 3) Assist any other agency such as water works, PHE as and when needed.

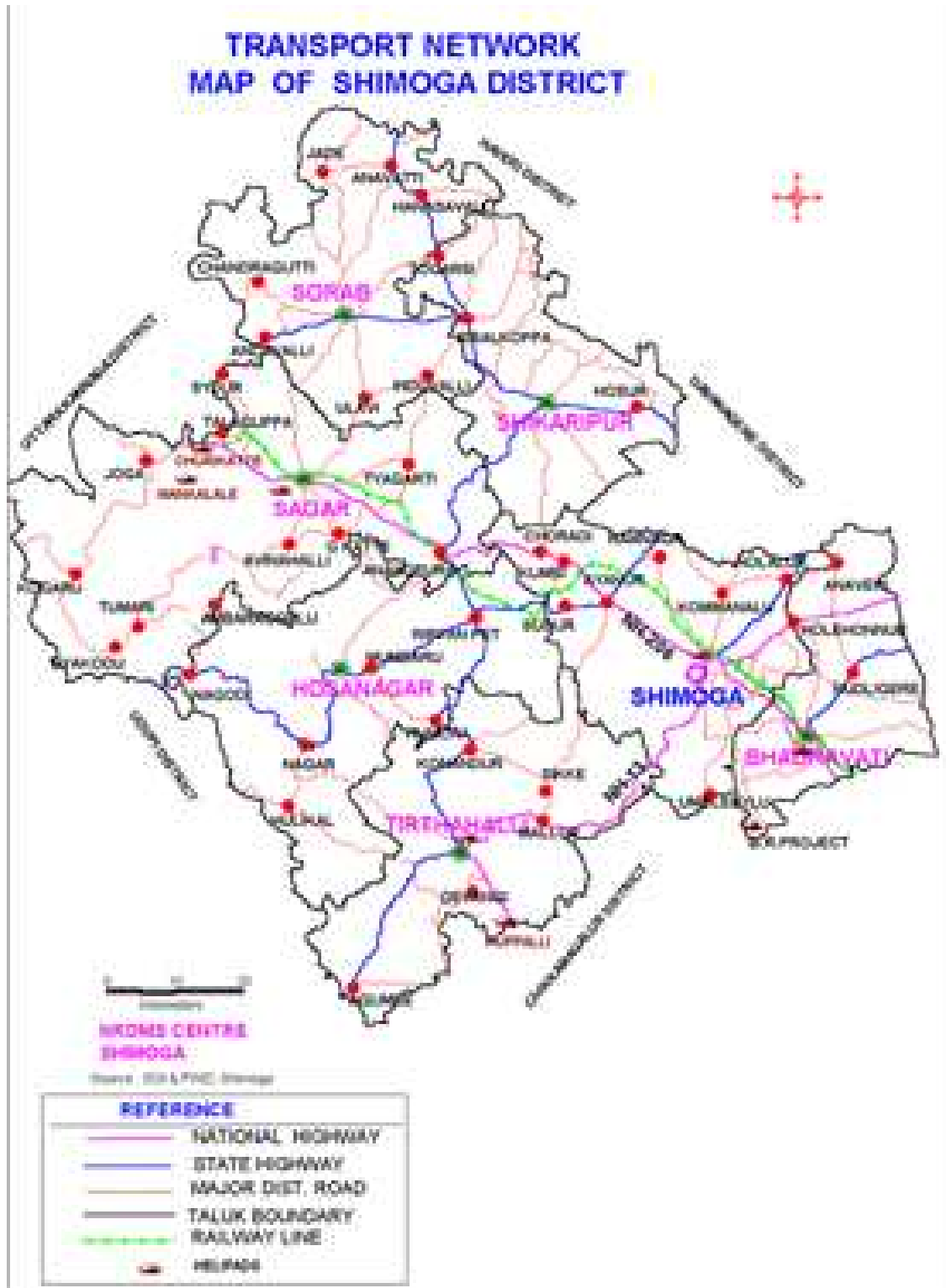
Functions of Panchayat Raj Engineering, Shimoga: -

- 1) The Executive Engineer will be over all in charge for providing adequate sanitation facilities such as dry latrines, soak-pits, etc. at the temporary rescue shelters.
- 2) Ensure maintenance of hygienic conditions at all such places including the site of incidence.
- 3) Ensure adequate supply of potable water to all places such as rescue shelters cum rallying post, parking yard, and temporary medical centers.
- 4) Assist other agencies as advised by CEC as and when needed.

CHAPTER –10

BASIC MAPS

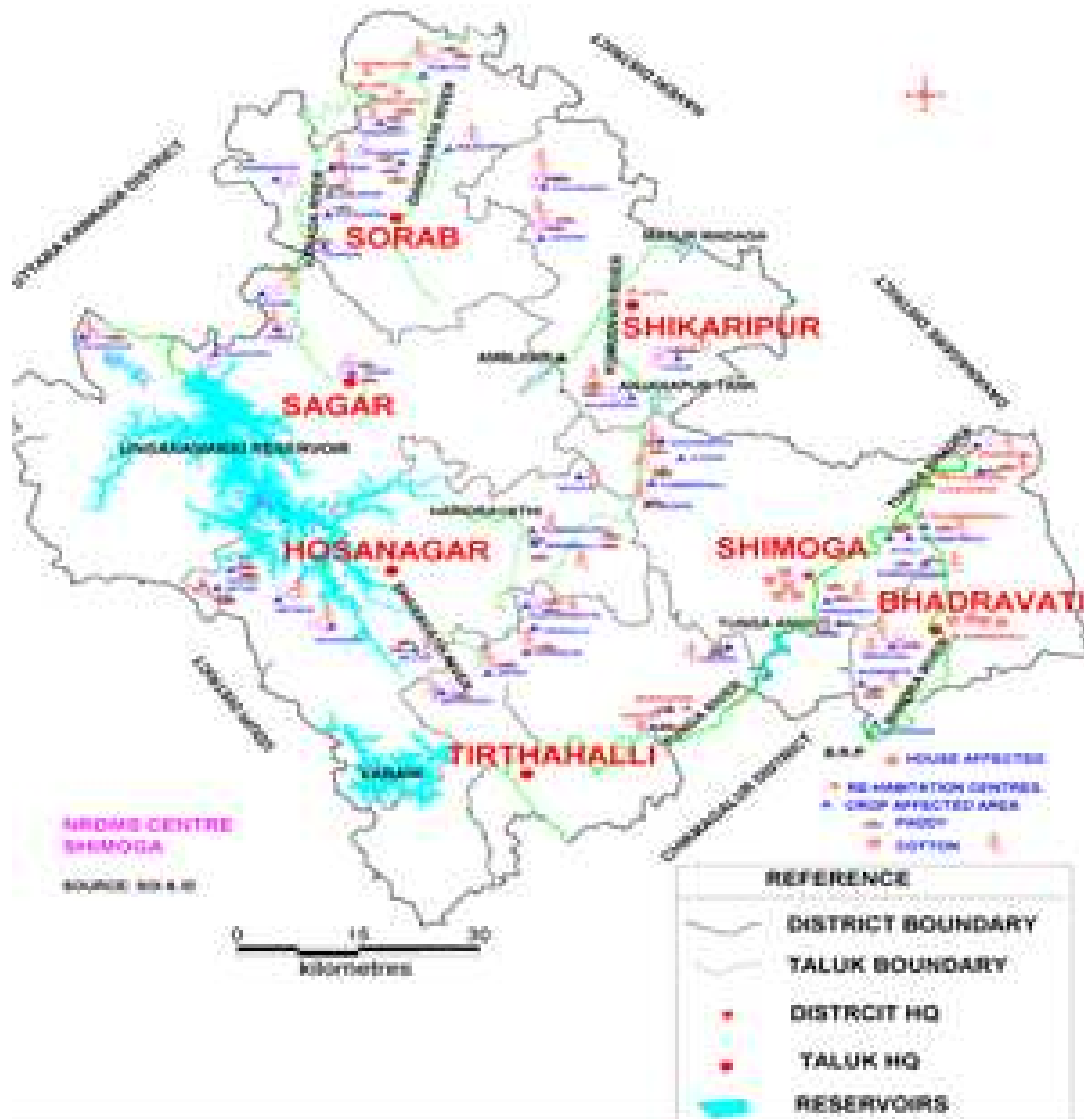




SLOPE MAP OF SHIMOGA DISTRICT



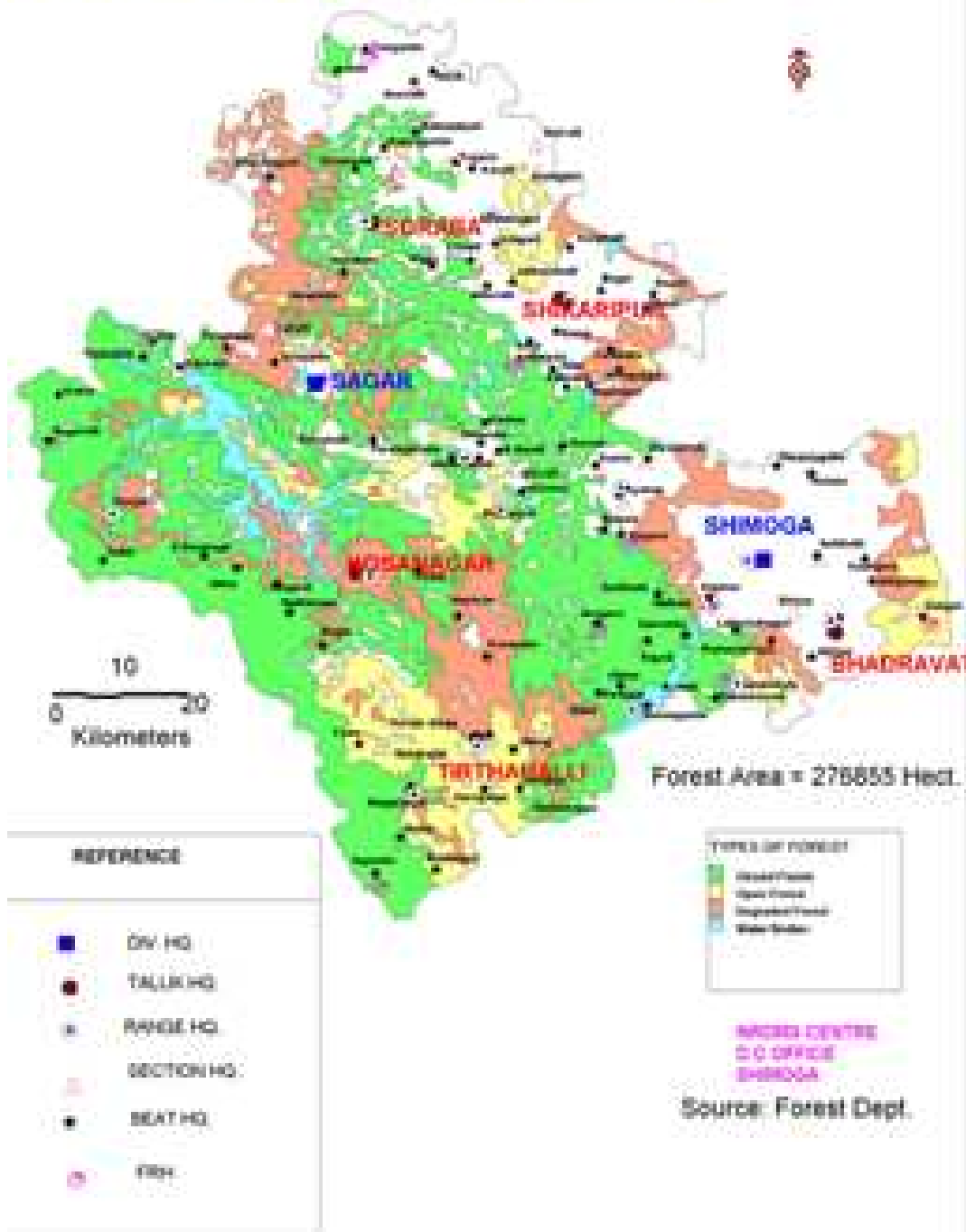
FLOOD AFFECTED LOCATION MAP OF SHIMOGA DISTRICT



GEOLOGICAL AND MINERAL MAP OF SHIMOGA DISTRICT



FOREST MAP OF SHIMOGA DISTRICT





ANNEXURES

CONTACT PERSONS AND ADDRESSES

ANNEXURE – 1**DETAILS OF OFFICERS OF DCG**

Sl. No	Name of the Member	Designation	Office.	Resi
1	Pankaj Kumar Pandey	Dy. Commisioner	271101	271102
2	A.S.Nirvanappa	H.Q.Asst to DC	221010	274788
3	L.C Ganigar	Ex. Engineer ZPE	261401	261401
4	Murugan	Suptd. of Police	274000	270400
5	G. Parameswarappa	DH & CD Commdt.	222630	223330
6	M.R Narasimha murthy	District fire Officer	222888	229733
7	Devarajaiah	District Information Officer	278638	277247
8	Dr.Thippesh	Dist Health Officer	222382	249209
9	Shanmukappa	Dist Env.Officer	260096	260014
10	Jayanna	Commissioner, CMC	222414	223222
11	Shivamurtappa	Dist. Agriculture Officer	272635	259911
12	Mallikarjuna	R.T.O	222209	254607
13	S.B Parameswarappa	Safety specialist	271621	-
14	Dr.Sasidharan	OHS specialist	271621	
15	Union leaders :			
	D.S Balaraj,	MPM, Bhadravathi	270201	
	H.S Basappa	VISL, Bhadravathi	271621	
16	Repsv of MAH units			
	K.Ravi	General Manager, MPM	270664	271091
	M.S Thakur	GM works, VISL:	271667	266731
	Vijaykumar	Manager (OPM)IOC	246112	

17	S.L Gowda	President, MPM	270201	
18	Dr.N.R Nagaraj	AC, Shimoga	222204	223181
19	Raju Mogavir	Tahsildar, Shimoga	279312	220775
20	Siddaramappa	ASP, Shimoga	274422	270900
21	Chandrashekar.B.R	DSP, Shimoga	223195	257670
22	Santhosh kumar	DSP, Bhadravathi	274852	270221
23	Siddalingappa.V.S	Circle Inspector, Shimoga (Rural)	273386	258869
24	Thirtharaju	Circle Inspector, Bhadravathi	266549	266568
25	K.Shivakumar	Divl, Fire Officer	227328	226734
26	Dr. N.S. Basavaraju	Dy director, Animal Husbandary, Smg	222969	223821

ANNEXURE – II

DETAILS OF CHIEF EXECUTIVES OF NEIGHBOURING INDUSTRIES OF INDIAN OIL CORPORATION Ltd., MACHENAHALLI, SHIMOGA

Sl. No	Name & address of the Industry	Name & Designation of the person	Telephone	
			Office.	Resi
1	M/s Shanthala Ductile & Grey Iron Foundry, Machenahalli.	Sri Rudregowda, Managing Director	246144 246176 246231	
2	M/s Malnad Gas Point, Machenahalli.	Sri Kiran, Managing partner	246146	270062
3	M/s Malnad Alloys and castings , Machenahalli.	Sri H.C Ravindranath Managing Director	246141	225131

ANNEXURE – III**DETAILS OF CHIEF EXECUTIVES OF NEIGHBOURING INDUSTRY
NEIGHBOURING INDUSTRIY M/S. VISP, BHADRAVATHI**

Sl. No	Name & address of the Industry	Telephone	
		Office.	Resi
1	M.P.M. Ltd, Kagada Nagar, Bhadravathi	270664	271091
2	M/s. Southern Gas Ltd., Paper Town, Bhadravathi	266261	266397
3	M/s. Anudeep Carbonates P Ltd, Anekoppa Village, Bhadravathi	270004	268899

ANNEXURE – IV**DETAILS OF CHIEF EXECUTIVES OF NEIGHBOURING INDUSTRY
NEIGHBOURING INDUSTRIY M/S. MPM Ltd, BHADRAVATHI**

Sl. No	Name & address of the Industry	Telephone	
		Office.	Resi
1	M/s. VISP, Bhadravathi	271667	266731
2	M/s. Southern Gas Ltd., Paper Town, Bhadravathi	266261	266397
3	M/s. Anudeep Carbonates P Ltd, Anekoppa Village, Bhadravathi	270004	268899

ANNEXURE – V**DETAILS OF MEDICAL SHOPS & MAJOR CHEMISTS AND DRUGGISTS**

Sl. No.	Name & address of the drug shop	Name of the person to be contacted	Telephone Nos.
1.	City Drug House, City Hospital, RMR Road, Shimoga.	Smt. Grace Shanta Kumar	220170
2.	Siddeshwara Drug House, Kottureswara Hospital, 1 st Cross, Achyuta Rao Extension, Shimoga.	Smt. G. Chennamma	221432
3.	Gutthi Medicals, Gutthi Nursing Home, Kuvempu Road, Shimoga.	Smt. Vasantha	223632
4.	Dhanya Medicals, Sri Basaveswara Nursing Home, Tilak Nagar, Shimoga	Nageshappa	220535 278541
5.	Vivekananda Medicals, Vivekananda Hospital, Tilak Nagar Main, Shimoga	R. Gangadhar	270158
6.	Subbaiah Medicals, Subbaiah Hospital, Shimoga	Hrishikesh. G.S.	
7.	Sagar Medicals, Sagar Nursing Home, Achyut Rao Layout, Shimoga	Smt. Gayatri	
8.	Sargin Medicals, C.S. Nursing Home Premises, LLR Road, Shimoga	Srinivas Kamat	
9.	Sangeeta Medicals, Hegde Health Complex, Park Extension, Shimoga	Ravindranath Shenoy	
10.	Nirmala Medicals, Nirmala Nursing Home, 100 ft. Road, Shimoga	Mohd. Rafiulla	223727
11.	Chetana Medicals, II Cross, Tilak Nagar, Shimoga.	Hari Shanker	
12.	Neha Medical, II cross, Tilak Nagar, Shimoga	Ravi Kumar	221089
13.	Vijetha Medical, Mallikarjuna Nursing Home, Jewel Rock Hotel Road, Shimog	Mirza Akber Ali	223580
14.	Usha Medicals, Usha Nursing Home, Soulanga Road, Shimoga	Sreekanta	223355

ANNEXURE – VI**DETAILS OF FIRE STATION**

Sl No.	Name of the place	Phone	No. of vehicles	No. of Crew Members	Dist. From plant	Anticipated response time
1.	Shimoga fire station	222888 101	02-W, T	08	20 km	30 min
			01-W, L	04	12 km	20 min
			01-W, T	04		
			01-AMB	04		
2.	Bhadravathi fire station	270418 101	02-W, T	04	02 km	10 min
			01-T, T	04	10 km	20 min
3.	Sagar fire station	226800 101	02-W, T	04	80 km	60 min
			01-T, T	04	70 km	60 min
4.	Soraba fire station	222400	01-W, T	04	80 km	60 min
					70 km	60 min

ANNEXURE – VII**DETAILS OF AUTHORITIES OF CMC, SHIMOGA AND BHADRAVATHI**

Sl. No.	Name & design. of the authorities	Telephone	
		Office	Residence
1.	President	222414 278361	272354
2.	Commissioner	222414	270428
3.	Asst. Exe. Engineer	222638	
CMC, Bhadravathi: -			
1.	President	267888	276846
2.	Commissioner	276283	268097
3.	Asst. Exe. Engineer	266189	266453

ANNEXURE – VIII**DETAILS OF VOLUNTARY ORGANISATIONS**

Sl. No.	Name of the organization and person incharge	Phone no.
1.	Dr. Y.S. Manjunath, River Side Rotary Club, Shimoga	984403368
2.	Dr. Parameshwar, Rotary Club, Mid Town	984453945
3.	Sri Kadidal Gopal, Rotary Shimoga East	984553707
4.	Diwas, Rotary Club, Shimoga North	984400850
5.	Patil Kulkarni, Rotary Club, Shimoga Central	944815454
6.	Dattatreya, Rotary Club, Shimoga	944814725
7.	Veeranna Gouda, Rotary Club, BdvT	944803924
8.	Seetaram, Rotary Club, BdvT	984535405
9.	Dr. Ganesh Bidarikoppa, Rotary Club, Bhadravathi	223773

