

District Disaster Management Plan (DDMP)



Year – 2021

**District -
Ahmedabad**



**District Emergency Operation Centre,
Collector Office, Ahmedabad.**
Gujarat State Disaster Management Authority.





**District Emergency Operation Centre,
Collector Office, Ahmedabad.**
Gujarat State Disaster Management Authority.



**District Emergency Operation Centre,
Collector Office, Ahmedabad.**
Gujarat State Disaster Management Authority.



Preface:

In recent years, the Government of Gujarat has been giving increased focus towards the Disaster Management and related aspects. As a part of Disaster Risk management, all the villages, Taluka and city in the Ahmedabad district have prepared their Disaster Management Plans and are being updated every year.


The District Disaster management Plan is a summary document giving the details about the hazards, its history, vulnerability analysis, risk assessment and flood management strategy and mitigation plan. It also outlines the flood response plan, warning system, communication system, search, rescue, relief operations and contingency plans.

We have tried to include the District related information, Risks and Preparedness against risks, responses at the time of disasters as well as Disaster Management and strategy during the disasters all etc for Ahmedabad District. This plan is updated periodically and also we are improving it through our draw backs, errors and new lessons learnt.

I hope this document shall go a long way in helping the district administration in tackling the disaster situation in a systematic and smooth manner.

Date: 16/06/2021

Place: Ahmedabad


(Sandip Sagale)
District Collector
Ahmedabad

-// 3 //-

Index

Section	Contents – (Part-1)	Page
1	Chapter-1 Introduction :	4-7
2	Chapter – 2 Hazard Vulnerability and Risk Assessment :	8-13
3	Chapter - 3 Institutional Arrangements :	14-19
4	Chapter – 4 Prevention and Mitigation Measures :	19-23
5	Chapter – 5 Preparedness Measures :	24-33
6	Chapter - 6 Response measures (Multi-Hazard) :	33-41
7	Chapter – 7 Recovery Measures:	42-44
8	Chapter – 8 Financial Arrangements:	45-46
9	Chapter – 9 Maintenance of Plan :	47
Section	Contents – (Part-2)	Page
	Annexures :	48
1	District Profile :	49-52
2	Details of coastal villages	53-57
3	Resources provided by Govt. at various level	58-59
4	Rainguage Machine details	60
5	List of chemicals and their antidots	61
6	Heatwave action plan	62
7	Evacuation Plan	63
8	Shelter Management Plan	64
9	Medical and Hospital Management Plan	65
10	Media Management Plan	66
11	Relief and Rehabilitation on Norms	67-71
12	Format(Reports, Daamge and Loss assessment)	72-74
13	SOP of various disaster	75-87
14	Projects for prevention of disasters	87-88
15	Indicators	89
16	Contact Directory	90
1	Gujarat State's District Level Emergency Contact Nos.	91
2	District Level Officer's Telephone Nos.	92-93
3	List of Taluka Level Important Phone Numbers	93-95
4	Detail & Contacts of Liaison Officers	95
5	List of Trained Aapda Mitra Volunteers of Ahmedabad District	96-98
17	List of MAH Units	99-103
18	Flood Prone Villages Due To Sabarmati River	104-110
19	SOP For Covid For Home	111-114
20	Taukte Cyclone-2021	115
10	Control Room Nos.	116-117
11	Maps	118-123.

CHAPTER-1

• Introduction:

The Government of Gujarat has envisaged the development of a holistic approach designed to manage disasters on a more proactive basis. The approach involves formulating a comprehensive policy on all phases of disaster management, and addresses the entire gamut of disasters arising from natural and manmade causes.

District Administration is primarily responsible for disasters/crisis management including prevention and mitigation. The existing Circulars of State Relief Manual guides the entire process of administration for relief and recovery in the State. These Circulars mainly address post-disaster events and the scope is limited to some of the natural hazards – floods, droughts & earthquake.

The Ahmedabad District is prone to many natural and man-made disasters. Natural disaster vulnerability of the District is presented in the Vulnerability Atlas of Gujarat prepared by GSDMA (Gujarat State Disaster Management Authority). The Atlas covers hazard vulnerability of the District to flood, wind and earthquakes.

Aims and Objectives

The aims and objectives of the Plan is to minimize the loss of lives and social, private and community assets because of natural and manmade disasters –

1. To assess the risks and vulnerabilities associated with various disasters.
2. To develop appropriate disaster prevention and mitigation strategies.
3. To provide clarity on roles and responsibilities for all stakeholders concerned with disaster management so that disasters can be managed more effectively.
4. To develop and maintain arrangements for accessing resources, equipment, supplies and funding in preparation for disasters that might occur.
5. To ensure that arrangements are in place to mobilize the resources and capability for relief, rehabilitation, reconstruction and recovery from disasters.
6. To create awareness and preparedness and provide advice and training to the agencies involved in disaster management and to the community.
7. To strengthen the capacities of the community and establish to maintain effective systems for responding to disasters.
8. To carry out restoration and rehabilitation measures soon after the disaster strikes.

Evolution of the Plan

District Administration prepares plan using guidelines & ensures that these are constantly reviewed and updated. Ahmedabad District prepared in advance, designate evacuation areas for use in emergencies and defines plans for providing essential services to those areas, when in use.

While preparing a District Disaster Management Plan for Ahmedabad District, the data collected at various levels were collated and on top of that was added with the Line department data. All this is make available with the in-house developed IT system 'State Disaster Resource Network [SDRN]'. It gives information access to all the officials at Taluka, District and state Secretariat level.

How to use the plan

The District Disaster Management Plan has included all functions pertaining to disaster prevention, mitigation, preparedness, response, relief, recovery and rehabilitation. This Plan can apply to disaster management administration for all possible hazards that the District is prone to.

For efficient execution of the District Disaster Management Plan, the Plan has organized as per following four stages of the Disaster Cycle. (1) In Non disaster stage: Activities include disaster mitigation, leading to prevention & risk reduction. (2) In Before disaster stage: Activities include preparedness to face likely disasters, dissemination of early warnings. (3) In During disaster stage: Activities include quick response, relief, mobilization of search & rescue, damage

assessment. (4) In After disaster stage: Activities include recovery & rehabilitation programs in disaster affected areas.

The District Disaster Management Plan can be utilised but not limited for:

1. To integrate disaster risk reduction into sustainable development policies and planning;
2. To develop and strengthen institutional mechanisms and capacities to build resilience to hazards;
3. To systematically incorporate all international, regional, national and local disaster risk reduction strategies and approaches into the implementation of emergency preparedness, response and recovery.
4. To achieve a comprehensive, all hazard, all agencies approach by achieving the right balance of prevention, preparedness, mitigation, response and recovery;
5. Prepare communities to ensure that they are fully equipped to anticipate and respond to disaster events.
6. To promote a transparent, systematic and consistent approach to disaster risk assessment and management.
7. A multi-stakeholder participatory approach including community participation at all levels
8. Develop a database and information exchange system at regional level.

Authority for the plan

The Gujarat State Disaster Management Act of 2003 authorizes the collector to secure cooperation and assistance from other parties in efforts to avoid or reduce the impact of disasters.

The Collector (Specifically) and Government authorities (generally) are responsible for managing hazards and disasters, which affect a district, with support from GSDMA, the relief commissioner and other public and private parties as, may be needed.

Stakeholders and their responsibilities

The roles, responsibilities and obligation of the Collector and other Stakeholders are set out in detail in the Act and are considered as part of this plan.

Clause 26 of Chapter X. (THE GUJARAT STATE DISASTER MANAGEMENT ACT, 2003)

- (1) Each department of the Government in a district shall prepare a disaster management plan for the district and the Collector shall ensure that such plans are integrated into the disaster management plan for the whole of the district.
- (3) A department of the Government shall subject to the supervision of the Collector -
 - (a) prepare a disaster management plan setting out the following, namely :-
 - (i) the manner in which the concept and principles of disaster management are to be applied in the district;
 - (ii) role and responsibilities of the department of Government in terms of the disaster management plan of the State;
 - (iii) role and responsibilities of the department of Government regarding emergency relief and post disaster recovery and rehabilitation;
 - (iv) capacity of the department of Government to fulfil its roles and responsibilities;
 - (v) particulars of disaster management strategies; and
 - (vi) contingency strategies and emergency procedures in the event of a disaster, including measures to finance the strategies;

Approval of the Plan

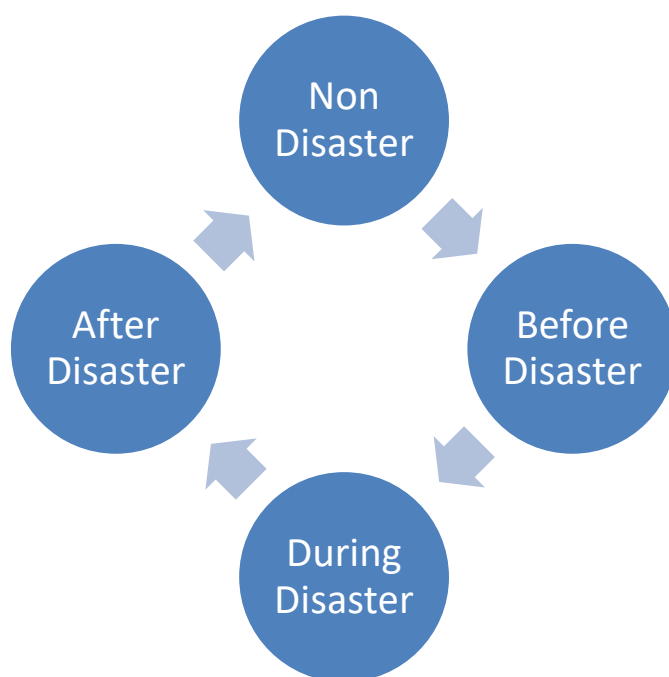
The Line Departments and other Stake Holders of District submits a copy of its disaster management plan, and of any amendment thereto to the Collector for Approval of that Plan.

The Collector shall submit a copy of the district disaster management plan, and of any amendment thereto to the State Disaster Management Authority and the Relief Commissioner for Approval of the Plan.

Plan review and updation

The Line Departments and other Stake Holders of District should: regularly review and update the Plan and submit a copy of its disaster management plan, and of any amendment thereto to the Collector. The Same Compiled DDMP document should: regularly update and submits updated copy to Disaster Management Authority and State Relief Commissioner for Review.

Normally, The District Disaster Management Plan of District is updated twice in a year for Review and Updation. It is likely to be prepared in Pre-Monsoon phase in month of May and it is updated in Post Monsoon phase likely to be in month of November every year.



CHAPTER – 2 – Hazard Vulnerability and Risk Assessment :

Matrix of Past disasters in the district

- **1. Earthquake (January-2001)**

Earthquake -2001 affected 30,000 population of 20 villages Houses under G5 Category for Reconstruction in Ahmedabad District viz. Ahmedabad(city), Dholka, Viramgam, Bavla

- **2. Cyclone**

No Sevier cyclone strike Ahmedabad district during last 10 years.

- **4. Heavy Rain (July-2017)**

In Year 2017, mainly 4 Talukas Ahmedabad city, Daskroi, Dholka & Dhandhuka were affected due to Heavy Rain. Total 64 Villages affected due to heavy rain. About 10,000 people of 2081 families were affected. 20 people died during monsoon season. More than 950 houses were damaged.

Drought (2018-19)

Drought occurs in year 2018-19, due to lack of insufficient rain, Scarcity declared in 3 talukas of Ahmedabad District.

6. Fire

Ahmedabad city has large number of Industries & Congested area. Every now & than fire incidents occurred in those industries.

7. Heat Wave

Heat Cave conditions were prevailed in entire Ahmedabad district mainly in city area for more than 10 days in the month of May holding Temperature more on 45' Centigrade. Highest Temperature for Ahmedabad was Recorded 46 centigrade.

8. Stampede

There is organizing Rathyatra of Lord Jagannath on Ashadh sud Bij. There could be a situation of Stampede in Rathyatra. About two lacs people gathered on the way of Rathyatra. Entire planning done by DM office, AMC & CP office. Fortunately no any major accident occurred in Rathyatra since last ten years.

One more public gathering event organize in Vautha village of Dholka taluka. A Five days fair organize during Kartak Sud Agiyaras to Punam. About five lacs people gathered during those days. No any major incident occurred since last ten years.

Hazard Risk Vulnerability Assessment (HRVA) – Authority that carried out HRVA:

The threat (risk) and possible impact (vulnerability) which can be actualized from these hazards ranges from minor impacts affecting one village to events impacting larger than the state alone.

The table below summarizes the results of an analysis of hazard, risk and disaster impact in Ahmedabad. This analysis indicates that disaster planning at the Ahmedabad district level should

first focus on the functional response to the High winds and Sea surge. The functional responses to these events have links to the response to floods, hail storms and dam failure. Typical responses to these disaster events also can apply to fire, industrial accidents, failure of critical infrastructure and building collapse.

Hazards	Probability Rating	Impact Rating	Vulnerability Ranking	Vulnerable Areas/Taluka
Earthquake	3	5	15 (High)	Zone- III : Entire District
Flood	3	3	9 (Moderate)	Ahmedabad city, Daskroi, Dholka, Dhandhuka, Dholera.
Fire	3	3	9 (Moderate)	Ahmedabad City, Bavla, Daskroi
Industrial Accidents	3	2	6 (Moderate)	Ahmedabad city, Bavla, Daskroi
Drought	2	3	6 (Moderate)	Viramgam, Detroj, Mandal
Food Poisoning	2	2	4 (Low)	Any Where in District
Epidemics	2	2	4 (Low)	Any Where in District
Building Collapse	2	1	2 (Moderate)	Any Where in District, Mainly in city area

Tool and methodology used for HRVA:

All events or activities carry some risk and are associated with some level of vulnerability. Risk and vulnerability ranking is the process of assigning scores to the risk and possible impact of hazards to be able to compare the likely vulnerability and make informed management decisions about which hazards are of greatest concern and when planning and preparation efforts should be directed. A risk and vulnerability ranking process has accomplished in five steps.

1. Identify the Hazards of Concern: Complete the hazards column for the above mentioned table. Typical hazards have already been identified, but these should be confirmed at this step and additional hazards added as appropriate.
2. Assign the Probability Ratings: Assess the probability-or "livelihood" of each hazard by reaching a consensus on probability and then assign each hazard a "Probability Level," as indicated in above Table.
3. Assign the Impact Ratings: Assess the potential magnitude or impact of each hazard and assign each "Impact Level" in above table. Enter the impact score for each hazard in the table in Step 1.
4. Assign "Vulnerability" Ranking: Multiply probability and impact scores in table in Step 1. The resulting score indicates the vulnerability ranking. Scores above 12 indicate high vulnerability; score between 6 & 12 indicate medium vulnerability and score below 6 indicate low vulnerability.
5. Identify Areas with Highest Vulnerability: Once vulnerability ranks had identified, the locations and populations considered most vulnerable was identified. This aids in knowing where disaster assistance may be most needed, as well as providing a quick indication of where vulnerability reduction efforts could be most productive.

List of hazards with probability to be addressed in this plan:

Ahmedabad has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, Drought, Road accident, Industrial accident and Earthquake have been recurrent phenomena. Entire District Fall in to Seismic Zone-III for Earthquake, 1 Coastal Taluka is prone to Cyclone, 4 Taluka are Prone to Flood.

Sr.	Type of Disaster	Last Impact (frequency) Month / Year	Intensity (magnitude)
1	Earthquake	January-2001	Heavy
2	Flood	June-2017	Medium
3	Cyclone	November-1982	Low
4	Heavy Rain	July-2017	Medium
5	Drought	2018-19	Medium
6	Fire	-	Medium
7	Heat Wave	Last 5 Years	Heavy
9	Accident	Every Year	Medium

Resource analysis: (Analysis and outcome).

Resources Provided by Govt. at Various Levels.

(A) Rescue Kits / Ropes / Generators

Detail of Resources	Life Saving Jacket	Life Buoy	200 Feet Ropes	100 Feet Ropes	Generator
Total	228	168	22	44	11

(B) Fire Fighter / Water Browsers / Boat Details

S.NO.	Type of Vehicle	No. of vehicles		S.NO.	Type of Vehicle	No. of vehicles
1	W.T.TYPE'B'	12		18	Air Boat Trolley	1
2	MINI W.T.	11		19	Light Mast comp.	1
3	Water Bouser	42		20	DCP tender	1
4	Eme.Tender	5		21	CRANE 45ton	1
5	High vol.pump	3		22	BUS	1
6	Foam Tender	1		23	Fire truck	1
7	Tata 207 IL	3		24	BULLET fire	4
8	commu.van	1		25	VAN	1
9	R.R.V.Scorpio	1		26	P.P.V.	1
10	E.R.V.Scorpio	1		27	JEEP	1
11	Mini rescue vehi.	2		28	Hy. Pl. 80	1
12	Hydrau.platform	1		29	AMBULANCE	26
13	T.T.L.	1		30	DEAD BODY VAN	22
14	Transport Bus	1		31	MINI HI PRESS FIRE TENDER	6

15	Hook armloader	1		32	WATER TENDER TYPE B	3
16	Tralor	1				
17	E.M.T.	1				
18	Air Boat Trolly	1				

All District level officers, Sub-Divisions and Talukas have been provided with Telephone connection, Fax Machine, Computers with peripherals, Vehicle, emergency lights and Generator.

All Police Stations/Out Posts have Telephone connection or VHF Communication facilities.

All Fire stations of the District are equipped with the basic resources for search and rescue operations. State Government has provided Water Bouzer, Boat and also provided Emergency Lighting System and Motorcycle Water Mist to Most of Nagarpalikas of District.

Capacity Analysis:

In case of Ahmedabad District, considering the potential hazards and existing vulnerabilities, the current capacity of the district is just Medium, in terms of inventory, and the availability of resources (man & material) and utility point of view. The key details of the inventory and resources are in annexure.

Considering the profile of the district it is analyzed that sufficient resources are not available within the rural area. Material resources, monitory resources and human power are not sufficient to manage any larger calamities.

Outcome & recommendations of hazard, risk, vulnerability and capacity analysis.

A number of special programs are in operation for mitigating the impact of natural disasters and local communities have developed their own indigenous coping mechanisms. In the event of an emergency, the mobilization of community action supported by NGOs, add strength to the national disaster management capacity.

Despite initiating various disaster mitigation measures, there has been little improvement. Accordingly, Ahmedabad District has taken initiatives for linking disaster mitigation with development plans, promote the application of effective communication systems and information technology, insurance, extensive public awareness and education campaigns, involve the private sector and strengthen institutional mechanisms and international community cooperation.

- **Hazard analysis:**

A detailed analysis of the hazards likely to impact the state will be carried out by the Department of Disaster Management, in consultation with the DMC of the state H.C.M. RIPA and experts from the field. Hazard assessment is concerned with the properties of the hazard itself. The Vulnerability Atlas of Gujarat, developed by BMTPC, Govt of India, will be used as the baseline for all analyses. The State Disaster Management Authority shall take all appropriate steps to complete a comprehensive hazard assessment of the State.

Primary Hazards:

- **Flood:**

River flooding is a regular hazard faced by the State. All the major river systems in the State are vulnerable to flooding, as captured in the Vulnerability Atlas. The urban areas face flooding primarily due to drainage failures and increased run-off loads in hardsurfaces. The flood

hazard of the State will be assessed comprehensively by way of analysis of flood return periods, topographic mapping and height contouring around river systems together with estimates of capacity of hydrology system and catchment area, analysis of precipitation records to estimate probability of overload and other scientific methods. An analysis of the flood proofing methods currently in place and their lacunae will also be carried out for identification of flood hazard.

- **Earthquakes:**

The State is located in Zone-V of seismic vulnerability as captured in the Vulnerability Atlas. While earthquakes cannot be predicted, a detailed mapping of seismic fault systems and seismic source regions, quantification of probability of experiencing various strengths of ground motion at a site in terms of return period for an intensity will be carried out and appropriate regulations put in place to decrease the vulnerability of built environment.

- **Drought:**

Low rainfall coupled with erratic behavior of the monsoon in the state make Gujarat the most vulnerable to drought. Of all the natural disasters, drought can have the greatest impact and affect the largest number of people. Drought invariably has a direct and significant impact on food production and the overall economy. Drought, however, differs from other natural hazards. Because of its slow onset, its effects may accumulate over time and may linger for many years. The impact is less obvious than for events such as earthquakes or flood but may be spread over a larger geographic area. Because of the pervasive effects of drought, assessing their impact and planning assistance becomes more difficult than with other natural hazards.

- **Fire:**

Fires may be caused due to earthquakes, explosions, electrical malfunctioning and various other causes. The State shall take up detailed assessment of fire hazards like preparation of inventories/maps of storage locations of toxic/hazardous substances, provision and regular maintenance of firefighting equipment, identification of evacuation routes, fail-safe design and operating procedures, planning inputs, transportation corridors etc.

- **Cyclone:**

In meteorology, a cyclone is an area of closed, circular fluid motion rotating in the same direction as the Earth. This is usually characterized by inward spiralling winds that rotate counter clockwise and clockwise of the Earth. Most large-scale cyclonic circulations are centred on areas of low atmospheric pressure. The largest low-pressure systems are cold-core polar cyclones and extra tropical cyclones which lie on the synoptic scale.

At a community level, the GSDMA has proposed to provide temporary cyclone shelter. There are 1 identified sites to construct Cyclone Shelter on Coastal Belt of Ahmedabad District Dholera Block. These shelters will be, with built-in safety against high wind velocity and heavy rainfall and within easy reach of the people most affected. Educational buildings or places of worship may also be designed as cyclone shelters, for evacuation and temporary occupation.

A number of special programs are in operation for mitigating the impact of natural disasters and local communities have developed their own indigenous coping mechanisms. In the event of an emergency, the mobilization of community action supported by NGOs, add strength to the national disaster management capacity.

- **Thunderstorm And Lightning**

Thunderstorm, a violent, short-lived [weather](#) disturbance that is almost always associated with lightning, thunder, dense clouds, heavy rain or hail, and strong, gusty winds. Thunderstorms arise when layers of warm, moist air rise in a large, swift updraft to cooler regions of the [atmosphere](#). There the moisture contained in the updraft condenses to form towering cumulonimbus clouds and, eventually, precipitation. Columns of cooled air then sink earthward, striking the ground with strong downdrafts and horizontal winds. At the same time, electrical charges accumulate on cloud

particles (water droplets and ice). Lightning discharges occur when the accumulated [electric charge](#) becomes sufficiently large. Lightning heats the air it passes through so intensely and quickly that [shock waves](#) are produced; these shock waves are heard as claps and rolls of thunder. On occasion, severe thunderstorms are accompanied by swirling vortices of air that become concentrated and powerful enough to form [tornadoes](#).

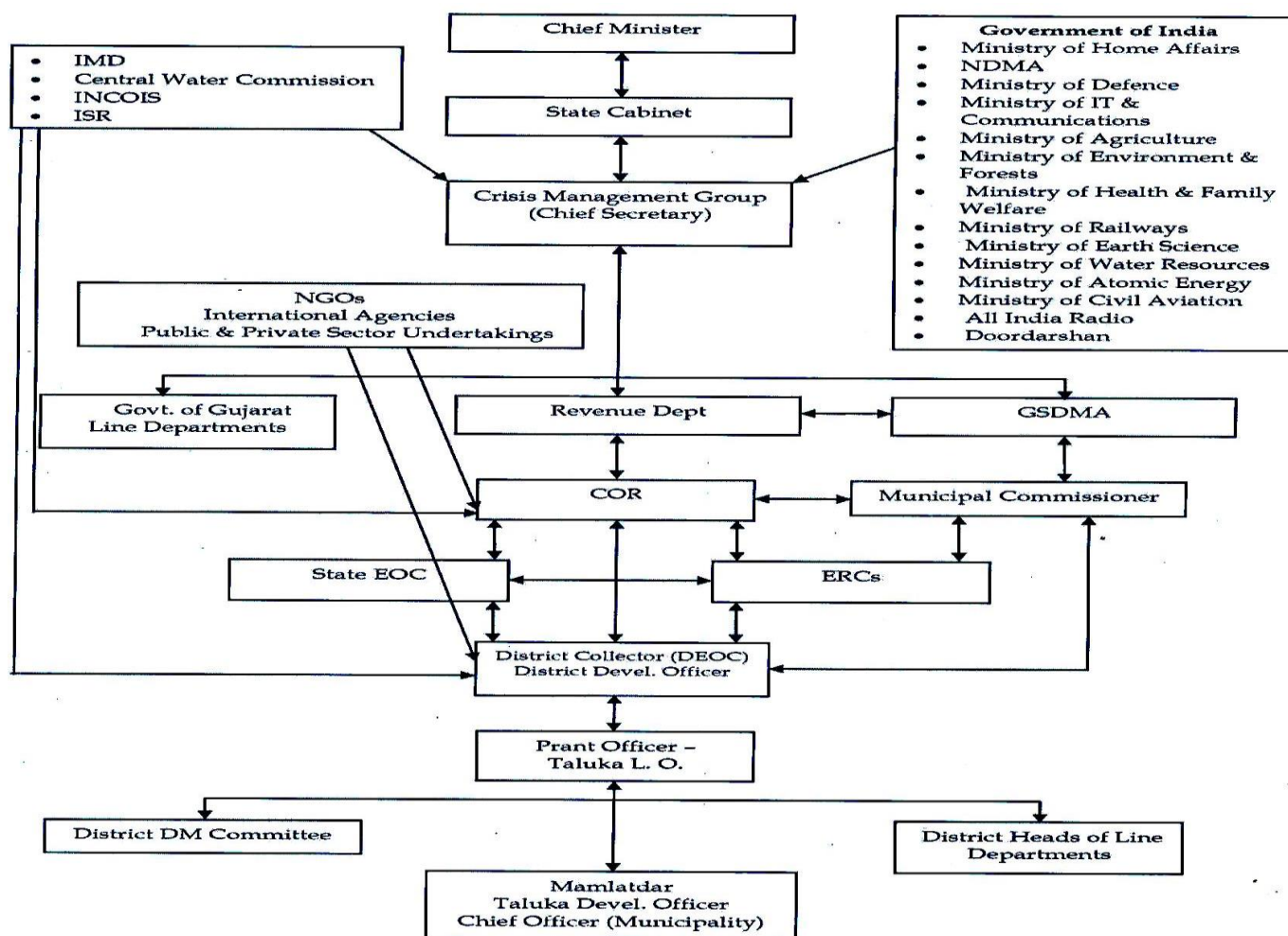
CHAPTER - 3

Institutional Arrangements:

D.M. organizational structure in the state.

In order to achieve its objective of institutionalising a disaster management ('DM') framework in the state, the GoG has established a nodal agency, namely the Gujarat State Disaster Management Authority, to facilitate, coordinate and monitor disaster management activities and promote good disaster management and mitigation practices in the state. The establishment of the GSDMA is a key element in the overall disaster management policy of the State Government. The GoG also proposes to introduce legislation in the form of a Gujarat State Disaster Management Act to provide a legal framework for disaster management in the state.

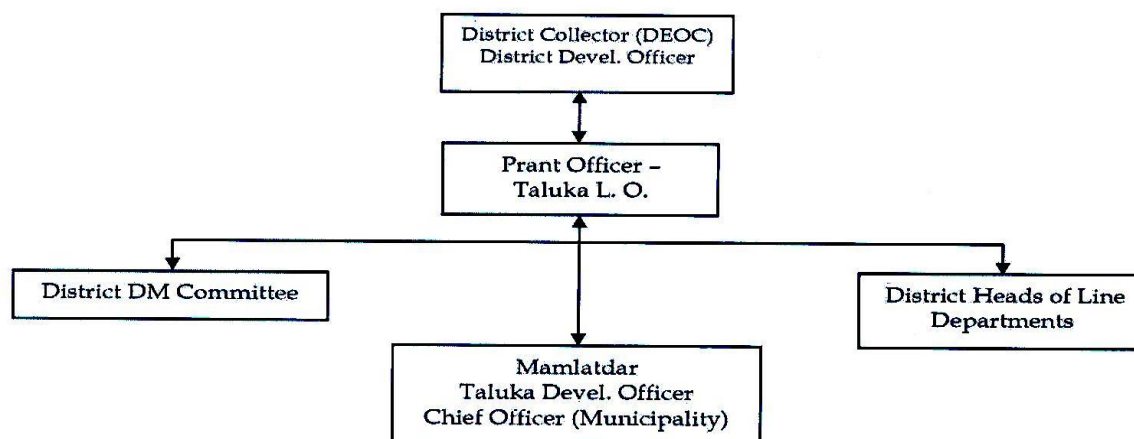
In order to carry out the prescribed activities contained within this policy, the GoG has defined a framework of operation for the agencies that play a key role in disaster management.



D.M. organizational structure in the district.

The DM structure in the District is as per the Gujarat State Disaster Management Act – 2003. The District has existing institutional arrangements in place for addressing the roles / responsibilities envisaged through the provisions.

The District Collector is responsible for coordinating all disaster management activities at the district level. The Collector shall approve a district disaster management planning and review all measures relating to preparedness and response to various hazards. In times of disasters, District Collector may constitute a District Relief Committee to oversee management of relief.



District Crisis Management Group (Task Force).

District is Responsible for assuring specific operations according to objectives and plans to address the immediate impacts of the incident. District Crisis Management Group (Taskforces) will deal with specific functional tasks, such as search and rescue, the provision of water or shelter. The composition and size of these taskforces depends on the nature of the incident.

The District administration of Ahmedabad has identified 16 expected task forces for key response operation functions that are described below. Additional taskforces can be added under the operations section as needed by the circumstances of a disaster. Each Taskforce is led by one organization and supported by other organizations.

Emergency Taskforce	Functions & Co-ordination with of Control Rooms
1. Coordination and Planning	Coordinate early warning, Response & Recovery Operations
2. Administration and Protocol	Support Disaster Operations by efficiently completing the paper work and other Administrative tasks needed to ensure effective and timely relief assistance
3. Warning	Collection and dissemination of warnings of potential disasters
4. Law and Order	Assure the execution of all laws and maintenance of order in the area affected by the incident.
5. Search and Rescue	Provide human and material resources needed to support local evacuation, search and rescue efforts.
6. Public Works	Provide the personnel and resources needed to support local efforts to re-establish normally operating infrastructure.
7. Water	Assure the provision of sufficient potable water for human and animal consumption (priority), and water for industrial and agricultural uses as appropriate.
8. Food and Relief Supplies	Assure the provision of basic food and other relief needs in the affected communities.
9. Power	Provide the resources to re-establish normal power supplies and systems in affected communities.
10. Public Health and Sanitation	Provide personnel and resources to address pressing public health problems and re-establish normal health care systems.
11. Animal Health and Welfare	Provision of health and other care to animals affected by a disaster.
12. Shelter	Provide materials and supplies to ensure temporary shelter for disaster-

Emergency Taskforce	Functions & Co-ordination with of Control Rooms
	affected populations
13. Logistics	Provide Air, water and Land transport for evacuation and for the storage and delivery of relief supplies in coordination with other task forces and competent authorities.
14. Survey (Damage Assessment)	Collect and analyse data on the impact of disaster, develop estimates of resource needs and relief plans, and compile reports on the disaster as required for District and State authorities and other parties as appropriate.
15. Telecommunications	Coordinate and assure operation of all communication systems (e.g.; Radio, TV, Telephones, Wireless) required to support early warning or post disaster operations.
16. Media (Public Information)	Provide liaison with and assistance to print and electronic media on early warning and post-disaster reporting concerning the disaster.

The specific response roles and responsibilities of the taskforces indicated above is that these roles and responsibilities will be executed and coordinated through the ICS/GS system. For example, in flood, search & rescue would come under the Operations section, Transport would come under the Logistics Section and Public Information under the Public Information Unit.

The District CRISIS Management Group & COMPOSITION of the TASKFORCES:

No.	Task Force	Taskforce Leader	Supporting members/ Organizations
1.	Planning and Coordination	Collector	DDO, SP, Chief Officer, RAC and Mamlatdar
2.	Administration & Protocol	Collector	DDO, SP, Chief Officer, RAC and Mamlatdar
3	Damage Survey/ Assessment	Collector	DIC, Dy. DDO, Ex. Engr., R&B, DAO, Fisheries
4	Warning	RAC	Disaster Mamlatdar, Control Room, District Information Officer (DIO)
5	Communications	RAC	Dy. Mamlatdars, Mobile Operators, TV, Radio, Port Office, GMB, Police, Forests
6	Media	District Information Officer	Information Department, Print, Media, TV, Journalists, NGOs
7	Logistics	DDO	RTO, DSO, FPS, Private & Public sector, Municipal water supply board, Mamlatdar, Dist. Supply Mamlatdar
8	Law & Order	SP	Dy. SP, Home Guards Commandant, NGOs, Paramilitary and Armed Forces
9	Search & Rescue	Dy. Collector Civil Defence	Mamlatdar, TDO, Police, Executive Engr., Fire Brigade, RTO, State Transport, Health Deptt.
10	Public Works	Ex. Engr. R&B (State)	Irrigation, Ex. Engr., Panchayat, NGOs, Water Supply Board, Municipalities, Home Guards, Police
11	Shelter	Dist. Primary Edu. Officer	School Principal, Teachers, Health, PHC, State Transport, Water Supply, RTO, Mamlatdar, TDO.
12	Water Supply	Ex. Eng. GWSDB & Water Works	Dy. Ex. Engr., Talati, Mamlatdar, TDO, Health, Dy. Engineer
13	Food & Relief	Dist. Supply	FPS, PDS, Mamlatdar, NGO, RTO, State Transport,

No.	Task Force	Taskforce Leader	Supporting members/ Organizations
	Supplies	Officer	Municipality, DRDA, Police, Home guard
14	Power	Supt. Engr. GEB	Ex. Engr., Dy. Engr. Technical, GEB, Transport
15	Public Health & Sanitation	Chief District Health Officer (CDHO)	Supt. Govt. Hospital, Municipality, PHCs, CHCS, Red Cross, Fire Brigade, Civil Defence, R&B, NGOs, Doctors, TDO, Mamlatdar
16	Animal Health & Welfare	Dy. Director Animal Husbandry	Veterinary Inspector, NGOs

District Disaster Management Committee

District Disaster Management Committee is the high-powered committee at District level to look after disaster management and emergency response. This committee is chaired by the Collector with all Policy Makers from the District/Nodal Officer of each line department/ADM /SDMs and nodal officers from various Organizations as its members. ADM is the convener of District Disaster Management Committee (DDMC). A District Project Officer (DPO) has been appointed by GSDMA in the district to look after the day-to-day affairs of disaster management along with Mamlatdar Disaster Management in the district. The DDMC members meets to prevent and mitigate crisis situation in district. Minutes of DDMC meeting shall circulated among the members. Each of the DDMC members is member of the Emergency Support Functions (ESFs) in the district.

Incident Response System in the State

In any disaster response, the initial efforts would always be taken by the District Administration. However, when Districts are overwhelmed in any situation, the support necessarily has to come from the State level. There is a formal Incident Response System in the State. The GSDM Act 2003 empowers Commissioner of Relief to be the Incident Commander in the State and District Collector in the respective districts. The detail on the Incident response structure of the State is mentioned in Para 3.1 in chapter 3.

Incident Response System in the District.

The District Magistrate is the chairman of the DDMA as per the Act. The roles and responsibilities of the members of the DDMA have decided in advance in consultation with the concerned members. The roles of other line departments also have clearly described in DDMP and circulated the copy of same to all.

The IRS however depend on the nature of the disaster. In case of flood and earthquakes reaching the affected area, rescuing the affected people and providing relief to them is the main task of the responders. People have to leave their home in a hurry and they are not able to take away their valuables. These abandoned houses become vulnerable. The relief materials while being transported also become prone to loot. In such cases, Police and the Armed Forces are the best suited to handle and lead the operations section. In case of fire at Corporation and Nagarpalika level, it has the Fire Officer who are appropriate officer to handle the situation. In case of health related disaster, it would be the District Chief Medical Officer and so on.

Some of the natural hazards have a well-established early warning system. District also has a functional 24 x 7 EOC / Control Room. On receipt of information regarding the impending disaster, the EOC informs the District Collector, who in turn will activate the required IRT and mobilise resources. The scale of their deployment will depend on the magnitude of the incident.

In case of Sub-Division, Taluka, the respective heads, i.e. TDO, Mamlatdar and BHO will function as the IC in their respective IRTs. During the pre-disaster period, the Collector has ensure

capacity building of IRT members in their respective roles and responsibilities.

In case when central teams (NDRF, Armed Forces) are deployed, the DM will ensure resolution of all conflicts. For this purpose he may attach a representative of such agencies in the DEOC where all conflicts can easily be resolved at the highest level. The DM works in close coordination with DEOC and report to State Relief Commissioner and CEO-GSDMA.

EOC setup and facilities available with the location

The District Control Room (DEOC) is located at District Collector's Office. It is also the central point for information gathering, processing and decision making more specifically to combat the disaster. Most of the strategic decisions are taken in this control room with regard to the management of disaster based on the information gathered and processed. The Incident Commander takes charge at the District Control Room and commands the emergency operations as per the Incident Command System organizational chart.

• Facilities at District Control Room

The District Control Room (DEOC) is equipped with but not limited to the following items:

- 3 Telephones Lines and Fax
- 1 VHF Set
- Satellite phone
- Five PCs with GSWAN based e-mail, web site facilities and Printers
- Conference table with Chairs in Conference Hall
- District Disaster Management Plan and District's Communication Plan
- 3 TVs for updated News telecasts.
- Projector with Screen and 2 Portable Emergency Lightning Systems.

Alternate EOC if available and its location

The Taluka Level Control Rooms are located at the Office of Mamlatdar. The Liaison Officers of the respective Talukas takes charge of the Control Room in any emergency. The respective Liaison Officers coordinates between the task group members working at disaster sites and TEOC for mobilization of resources and dissemination of instructions received from DEOC.

Public and private emergency service facilities available in the district

Following Public and Private Emergency Services Facilities is available in Ahmedabad:

1. 108 EMRI Ambulance have their Spot in every Taluka Hq. and all Cities.
2. Ahmedabad Municipal Corporation has their Equipped Fire and Emergency Service.
3. All Nagarpalika have their Fire Fighting Equipments and Staff.
4. R&B, S.T., Forest, Health, Irrigation and Police Department have their limited Emergency Services to co-ordinate during Emergency Situation in District.

(GSDMA) has also provided fire & emergency equipment to Municipal Corporations, Municipalities and the Emergency Response Centers to respond immediately after a disaster.

Forecasting and warning agencies

The meteorological department undertakes observations, communications, forecasting and weather services. During the cyclone and flood seasons, the State Government keeps close contact with the IMD – Ahmedabad office for weather related forecasts.

Earthquakes occurring in the State which are of magnitude 3.0 and above on Richter scale are also reported by the IMD and ISR to the District Authority immediately.

Initially the District Control Room based at DEOC plays an active role on disseminating of Forecast and Warnings to line departments, Taluka-City level control Rooms and also ensures to reach with widely spread mass public through Local Media.

DEOC Personnel are well trained on observing IMD weather Satellite images, animated movement of Clouds, Weather Predications, Hourly Predictions and Costal advisories on daily basis. If certain critical warning issued by metrology department then it is immediate forwarded to SDMs, Mamlatdars, TDOs and COs for further actions.

Alternatively Ahmedabad Agriculture University has their own Forecasting and Warning department who shares their advisories and warnings by e-mail periodically.

CHAPTER – 4

Prevention and Mitigation Measures:

Prevention measures in development plans and programs:

Individual and Community Level:

Preventive actions have to be taken before a disaster to reduce the likelihood of a disaster (risk reduction) or the level of damage (vulnerability reduction) expected from a possible disaster. Vulnerability reduction is given priority over a risk reduction. The district can avail itself of four mechanisms (singularly or together) to reduce risk and vulnerability;

- Long term planning for mitigation, preparedness and prevention investments in district,
- Enforcement of regulations, particularly building and safety codes and land use plans,
- Review and evaluation of development plans and activities to identify ways to reduce risks and vulnerability, and,
- Capacity building, including warning, the provision of relief and recovery assistance and community-level identification of risk and vulnerability.

The Collector, assisted by the District Development Officer, is responsible for developing plans and activities to effect mitigation, preparedness and prevention using the mechanism noted above. Base on the interim assessment of risk and vulnerabilities, the Ahmedabad District will focus on the following areas for mitigation, preparedness and prevention;

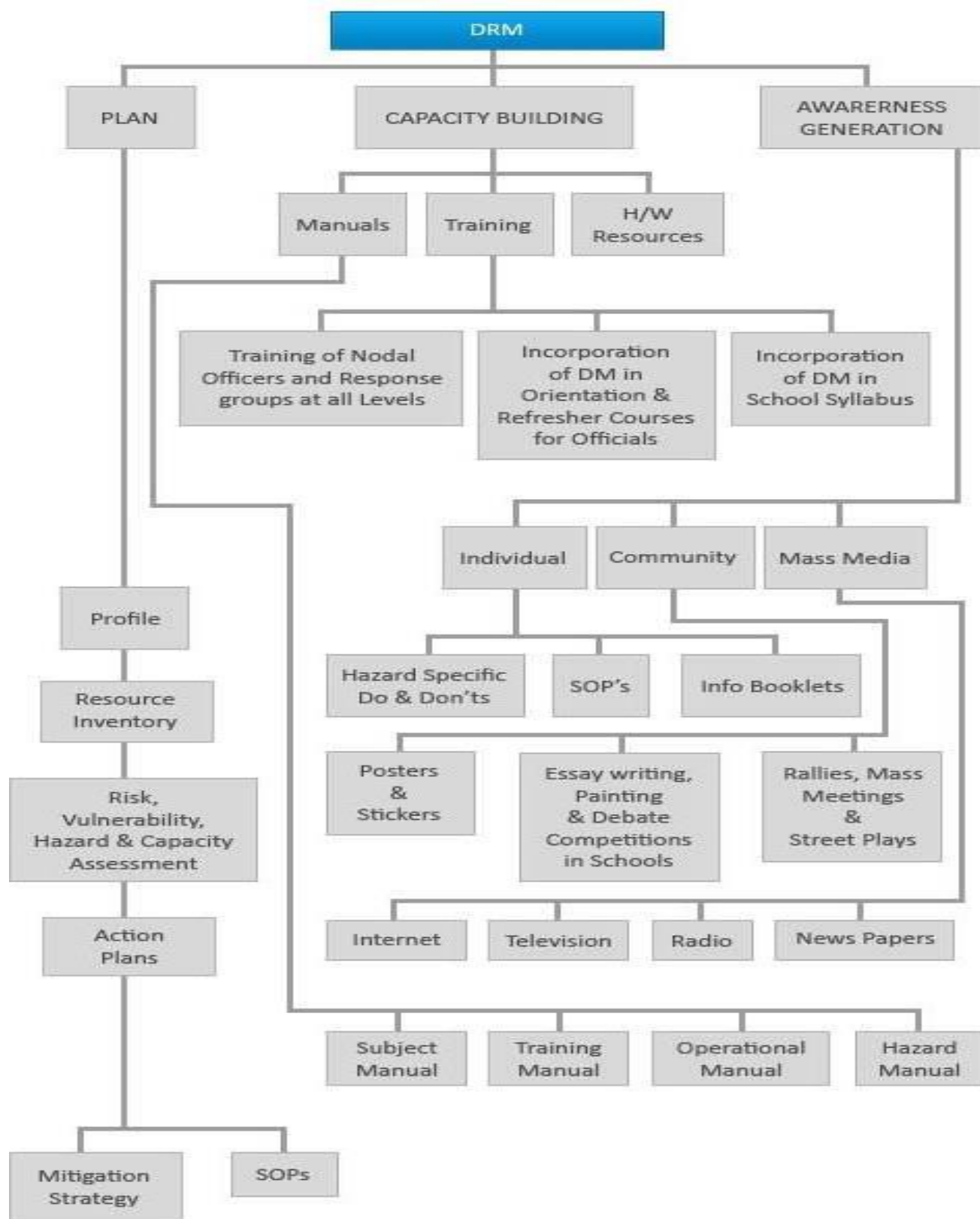
- Resilience of lifeline systems (water, power and communications)
- Reduction in disaster impact on health care facilities, schools and roads
- Vulnerability reduction in flood-prone areas
- Vulnerability reduction to high winds
- Improvement of off-site Preparedness near Industrial sites.

Special projects proposed for preventing the disasters

Disaster Risk Management Programme (DRM) has taken strong roots at various levels of administration in Gujarat. The Department of Revenue & Disaster Management is the nodal Department in Government of Gujarat that handles the subject with GSDMA.

Disaster Management Committees are formed at various levels and are assigned the task of implementing the programme. Representation for these committees are drawn from elected representatives, officials of line departments, professional bodies, Civil Defence, NGO and CBO representatives and local opinion leaders.

Major Activities are being carried out under DRM program are Plan Development at Various Levels, Emergency Resources Database maintain through SDRN / IDRN, Capacity Building through Trainings & Resource Mobilisation, Disaster Awareness through Orientations, Campaigning, Media Management and IEC distribution. Coordinate District Administration for all Disaster Management Activities with expertise knowledge, logistics and fund allocation.



Hazard-wise mitigation measures

In the face of increasing menace of hazards, mitigation would remain the key and the most effective strategy to reduce the risks of these hazards. District has its own mitigation strategy according to its own risks, resources and capabilities. In District Ahmedabad, there shall be two approaches in disaster mitigation viz. structural mitigation and non-structural mitigation.

Structural mitigation measures generally refer to capital investment on physical constructions or other development works, which include engineering measures and construction of hazard resistant and protective structures and other protective infrastructure.

There are several mitigation activities which will be common for all natural hazards (as discussed in previous chapter). The same are describe below.

i) Town Planning Acts and their related provisions:

The Department of Disaster Management, being a member of all regulatory bodies will coordinate with the Town & Country Planning Board and constitute a committee of experts to evaluate the provisions of the State Town Planning Act in place. The Committee will consist of experts from the fields of disaster management, town and country planning and legal experts and will be chaired by the State Relief Commissioner.

ii) Government-sponsored programmes and schemes:

The State Planning Department will prepare a report on the government sponsored programmes and schemes running in the State and how far each programme/scheme addresses the issue of disaster management and submit to the government. The Disaster Management Group which is constituted under the chairmanship of the Chief Secretary with Secretaries of the Departments of Disaster Management, Urban Development, Rural Development, Health, Home, Finance, Science & Technology, Transport, and Agriculture to evaluate and suggest disaster mitigation measures to be incorporated.

iii) Building Bye-laws and their implementation:

Proper conceptualization, risk evaluation, proper designing, construction and maintenance of houses and building are all disaster reduction measures. Compliance to building guidelines and codes covering all aspects of disasters needs to be addressed by building codes and bye-laws and these need to be uniform as far as possible. The situation warrants a high degree of coordination between the organizations involved in the formulation of the building codes. The State Urban Development Department/Urban Local Bodies will put in place appropriate techno legal regime and take steps to enhance the capacity of Urban Local Bodies to enforce the compliance of techno-legal regimes. The Urban Local Bodies will ensure stringent implementation of BIS codes and disaster resistant construction practices. Disaster resistant codes and standards will be made a part of the building byelaws and regulations and enforced by the ULBs. The Department of Urban Development will identify a competent authority to certify the disaster resistant components in public buildings.

Hazard-wise non-structural mitigation measures

The non structural mitigation is basically framed in such a way that the population of the district will be sensitized on disaster management and their capacity is developed to cope up with a hazardous situation. District Ahmedabad has specific plan for non-structural mitigation measures which is an ongoing process in various spheres of life.

Non-structural measures refer to awareness and education, policies techno-legal systems and practices, training, capacity development etc. The technical guidelines, design and training manuals should incorporate suitable disaster risk mitigation measures. There are several non-structural mitigation activities which will be common for all natural hazards.

i) Capacity Building for Mitigation:

Recognizing the importance of human resource development and capacity building for effective disaster mitigation, the State will take appropriate steps to develop training curriculum for officials in all sectors at all levels. The SPIPA in collaboration with the Gujarat Institute of Disaster Management and training institutes in related sectors like health etc will develop the

required modules and capsules for conducting training at all levels. Efforts will be made by the state government to effectively train engineers, architects, masons etc on disaster mitigation and also create a pool of master trainers for training of the DMC's and DMTs in the state. The District Level Training Institutes, DEOC, BRCs, CHCs etc. will be utilized for training of district, taluka and village level officials in disaster management.

ii) Awareness generation on disaster mitigation:

Creating awareness among the community through disaster education, training and information dissemination and thus empowering them to cope with hazards are all mitigation strategies. The Disaster Management Cell will develop a Mass Media Campaign for taking up large-scale awareness generation bringing out specific do's and don'ts through audio, video and print media as well as publicity through pamphlets, posters, bus back panels at all levels. The District Project Officer will ensure that all these publicity materials are prominently displayed at buildings like PHCs, Community Centres, Schools and such other common places where villagers normally congregate for community activities.

iii) Role of local self-governments in mitigation:

Local self-government institutions like PRIs and ULBs will be the focal points for mitigation at the village and city levels. Members of the PRIs and ULBs will be involved in all preparedness and mitigation measures. Members of the PRIs and ULBs will coordinate the functioning of the DMCs and the DMTs in DM plan preparation, preparation and maintenance of resource inventory, conducting mock drills etc. During disasters also, they will coordinate with the district and taluka administration for evacuation, response, relief distribution etc.

Specific projects for vulnerable groups

NCRMP:

Gujarat being prone to cyclones, it is the topmost priority of the State Government to reduce the effect of cyclone and minimize the loss to property and lives in the coastal regions of the State through creation of suitable infrastructure. Gujarat has therefore been included in the NCRMP initiated by the National Disaster Management Authority and funded by the World Bank. A Multy Purpose Cyclone Shelter has been constructed in Rahtalav village of Dholera taluka

Gujarat School Safety Initiative:

With the view of building capacities for disaster resilience, Gujarat School Safety Programme is a capacity building programme which aims at strengthening of the capacity of school community and it further builds a disaster safety culture among the most vulnerable section of the society, that is, children. Under this programme, Gujarat School Safety Week is celebrated for awareness among school children. Gujarat State Disaster Management Authority has successfully celebrated Gujarat School Safety Week 2019 in all the Government Primary Schools.

CHAPTER – 5

Preparedness Measures :

Identification of stakeholders involved in disaster response

Preparedness measures go hand in hand for vulnerability reduction and rapid professional response to disasters. Experience has shown that destruction from natural hazards can be minimized by the presence of a well functioning warning system, combined with preparedness on the part of the vulnerable community. A community that is prepared to face disasters receives and understands warnings of impending hazards and has taken precautionary and mitigation measures will be able to cope better and resume their normal life sooner. The State will make concerted efforts to put in place a mechanism focused towards preparedness at all levels, for all disasters that the State is vulnerable to. The effort will be to reduce loss of lives, livelihood and property to the extent possible in the event of a disaster.

a) State Level:

At the state level, Search & Rescue teams will be constituted from the State Police and will be provided with state-of-the-art equipment for immediate response. The State Home Department will designate the units for conversion into Specialist Response Teams (SRTs). The State will also designate training centres for training the SRTs and nominate key personnel within the Police Training Colleges and Fire Training Institutes as trainers and train them at the national level. These trainers will then impart training to the SRTs.

b) District Level:

Subsequently, Specialized Response Teams at the district level will be designated from the district level Police and Fire Service personnel and equipped for immediate response in any disaster within the district. In the event of a request from a neighbouring district these teams will be authorized to operate under the direction of the Collector of that district.

c) On-site teams:

Disaster Management Teams (DMTs) at the village level will operate as Incident Management Teams and will be trained to perform immediate rescue and first-aid operations in a disaster situation. A systematic approach should be evolved to ensure proper coordination between the SRTs and DMTs.

Formation of persons and training for -

Ahmedabad District administration has identified several stake holders from line departments, corporate sectors, NGOs and volunteers in disaster risk management activities. Students, teachers, home guards, police personnel, NCC and NSS students were also involved in trainings. District officers and community were also oriented on their services so that they can give their service at the time of any emergency.

(i) Search & rescue:

It is the duty of the DDMA to provide specialized life saving assistance to district and local authorities. In the event of a major disaster or emergency its operational activities include locating, extricating and providing on site medical treatment to victims trapped in collapsed structures. In the event of any disaster the Home Guards along with the support of the Police dept. form teams to locate injured and dead and try to rescue the ones in need. There are other bodies too that help these departments in this work, like the PWD, Health dept, Fire dept and also the people that voluntarily formed as teams to help the ones in need. Proper training for search and rescue process needs to be undertaken so as to minimize the time taken in rescuing someone. Also proper methodology and resources are needed to carry out a search & rescue mission.

(ii) Early Warning:

The early warning systems for different disasters should be in place so that the concerned administrative machinery and the communities can initiate appropriate actions to minimize loss of life and property. These should give an indication of the level of magnitude of the mobilization required by the responders. The goal of any warning system is to maximize the number of people who take appropriate and timely action for the safety of life and property. All warning systems start with the detection of the event and with their timely evacuation. Warning systems should encompass three equally important elements viz detection and warning, dissemination of warning down to the community level and the subsequent quick response.

The State acknowledges the crucial importance of quick dissemination of early warning of impending disasters and every possible measure will be taken to utilize the lead-time provided for preparedness measures. As soon as the warning of an impending calamity is received, the EOCs at the State, District and Taluka levels will be on a state of alert. The Incident Commander will take charge of the EOC and oversee the dissemination of warning to the community. The District Collector will inform the District Disaster Management Committees who will alert the block and Village level DMCs and DMTs to disseminate the warning to the community. In situations of emergency, the District Collector will use his own discretion on the preparedness measures for facing the impending disaster.

(iii) Evacuation:

Evacuation is a risk management strategy, which may be used as a means of mitigating the effects of an emergency or disaster on a community. It involves the movement of people to a safer location. However, to be effective, it must be correctly planned and executed. The process of evacuation is usually considered to include the return of the affected community.

On the basis of assessment of the severity of the disaster, the State Relief Commissioner (Incident Commander) shall issue appropriate instructions on actions to be taken including evacuation to the District Collector, who will then supervise evacuation. At the village level, members of the VDMCs and DMTs or village level will coordinate the evacuation procedures to the pre-designated relief centres, taking special care of the vulnerable groups of women, children, old people etc. according to the plans laid down earlier.

(iv) Damage & Loss Assessment:

Immediately after the disaster there is an urgent need of damage assessment in terms of loss of life, injury and loss of property. The objectives of damage assessment are to mobilize resources for better rescue and relief, to have detailed information of damage extent and severity of disaster and to develop strategies for reconstruction and restoration facilities.

Immediately after a disaster event, damage assessment will be conducted in 2 phases viz. Rapid Damage Assessment and Detailed Damage Assessment.

Rapid Damage Assessment (RDA):

Rapid Damage Assessment shall emphasize on a rapid appraisal of the situation and extent of damage to provide resources for effective relief and rescue. Rapid Damage Assessment (RDA) will be conducted at the local level, where the disaster has occurred. The RDA team will be headed by the local Incident Commander and will comprise of the Talti, CMO of the Sub-Division Hospital, Junior Engineer PWD, and some prominent local persons may be involved at the discretion of the local Incident Commander. The RDA team will report to the District Collector its assessment of the damage. The RDA will be conducted according to a proforma/format developed by the State Disaster Management Authority.

Detailed Damage Assessment (DDA):

Detailed Damage Assessment will be done at the district level during the recovery stage involving skilled personnel. The aim of this assessment is to estimate economical and financial aspects of damage, the detailed building damage, agricultural damage, and property damage and also to propose retrofitting or strengthening. The DDA team will be headed by the District Collector and will comprise of the District Relief Officer, Executive Engineer PWD, Chief Medical Officer of the affected district, members of prominent NGOs working in the district and any other expert at the discretion of the District Collector. The DDA team will also have two external observers from the State Disaster Management Authority and DMC Cell of the State ATI respectively. The team will assess the damage on the basis of the format developed in advance by the State Disaster Management Authority in consultation with the DMC Cell of the State ATI and eminent experts in the field.

Training need analysis

Training Analysis is most often used as part of the system development process. Due to the close tie between the design of the system and the training required, in most cases it runs alongside the development to capture the training requirements.

GIDM has analysed education, training and information needs through interviews and conversations with stakeholders in different parts of Gujarat.

The training need analysis is done considering variable factors of intensity, affected population and severity of damage need to be quickly assessed based on which government and non-government agencies can allocate and deploy relief. All the government line departments who have a stake in different phases of the disaster management will have to identify their roles and carry out training need analysis of their personnel.

Arrangements for training and capacity building

Training on search and rescue, rehearsals, evaluation and inventory updation for response activities will be carried out during normal time. District collector will ensure that all the DDMC members acquires knowledge and skills to perform their assigned role through regular refresher trainings. Basic and detailed training modules in disaster preparedness have been incorporated along with training methodologies for trainers, for community preparedness and manuals for training at district, block, panchayat and village levels.

For capacity building several Search & Rescue and First aid trainings organized for beneficiaries, disaster management teams and committee members to be trained at village, city, taluka and district level.

Activity	Responsibility
1. Training to civil defense personal in various aspect of disaster management 2. Training to home Guards personal in various aspect of disaster management including search and rescue	<input type="checkbox"/> Home Dept. <input type="checkbox"/> Commandant General Home Guards <input type="checkbox"/> Director Civil Defense <input type="checkbox"/> GSDMA/GIDM
3. Training to NCC and NSS personal in various aspect of disaster management	<input type="checkbox"/> Education Dep. <input type="checkbox"/> Director NCC <input type="checkbox"/> GIDM
4. Training to educational and training	<input type="checkbox"/> NIDM

institutions personal in various aspect of disaster management	<input type="checkbox"/> GSDMA/GIDM
5. Training to civil society, CBOs and corporate entities in various aspect of disaster management	<input type="checkbox"/> NIDM <input type="checkbox"/> GSDMA/GIDM <input type="checkbox"/> NGOs
6. Training to fire and emergency service personal in various aspect of disaster management	<input type="checkbox"/> NIDM <input type="checkbox"/> UDD <input type="checkbox"/> Municipal Corporation <input type="checkbox"/> GSDMA/GIDM
7. Training to police and traffic personal in various aspect of disaster management	<input type="checkbox"/> NIDM <input type="checkbox"/> GSDMA/GIDM <input type="checkbox"/> Home Dept. <input type="checkbox"/> Police training Institute
8. Training to State Disaster Response Force (SDRF) Teams in various aspect of disaster management	<input type="checkbox"/> NIDM/NDRF <input type="checkbox"/> Home Dept. <input type="checkbox"/> Addl. DGP (Arms) <input type="checkbox"/> Addl. DGP (Training) <input type="checkbox"/> GSDMA/GIDM
9. Training to media in various aspect of disaster management	<input type="checkbox"/> NIDM <input type="checkbox"/> Information Dept. <input type="checkbox"/> Information Training Centre <input type="checkbox"/> GSDMA/GIDM
10. Training to govt. officials in various aspect of disaster management	<input type="checkbox"/> NIDM <input type="checkbox"/> GSDMA/GIDM <input type="checkbox"/> Departmental Training Institutes
11. Training to engineers, architects, structural engineers, builders and masons in various aspect of disaster management	<input type="checkbox"/> Departmental Training Institutes under R & B and Irrigation Dept. <input type="checkbox"/> NIDM <input type="checkbox"/> GSDMA/GIDM

5.5 Activation of Incident Response System in the district

There is a formal Incident Response System in the State. The GSDMA Act 2003 empowers Commissioner of Relief to be the Incident Commander in the State and District Collector in the respective districts. The detail on the disaster response structure is mentioned in Para 9 in chapter 1.

The NDMA guidelines provide for emergency organizations where different departments, agencies and even private resources (e.g. industries) temporarily align their priorities with the emergency response objective under a unified command. This system is called Incident Response System (IRS) and discussed in detail in the text. It is important to recognize that organization under the IRS and the existing structures of the LCG and DCG are not in conflict although there can be differences in terminologies for some positions in the emergency organization. The IRS gives an emergency organization structure called Incident Response Teams (IRTs) that are pre-designated as per the identified emergency scenarios. While there is a general structure, IRTs are not prescriptive about who must fulfil what position or role instead the decision rests with the local or district level authorities. Therefore the organizations and people that are given specific roles as per existing LCG and DCG structure can be given similar roles or positions in the IRT structure and a coordination between IRTs as per IRS and those as per existing LCG/DCG structures is achieved. The IRS provides additional advantages of being scalable by including additional and higher levels of response in the same unified command structure being flexible by transferring command and other sections of IRS to qualified people as scale and nature of emergency changes,

and with a unified command so that there is one authorized, and accountable (technically qualified) incident commander and the command can be transferred up as the scale of emergency increase. The IRS also requires documentation of decisions, actions, and learning so that not only continuous improvement can be achieved but also accountability is fixed.

A traditional command structure exists in the administrative hierarchy which manages disasters in India. It has been planned to strengthen and professionalise the same by drawing upon the principles of the ICS with suitable modifications. The ICS is essentially a management system to organise various emergency functions in a standardised manner while responding to any disaster. It will provide for specialist incident management teams with an incident commander and officers trained in different aspects of incident management, such as logistics, operations, planning, safety, media management, etc. It also aims to put in place such teams in each district by imparting training in different facets of incident management to district level functionaries. The emphasis will be on the use of technologies and contemporary systems of planning and execution with connectivity to the joint operations room at all levels.

Protocol for seeking help from other agencies...

(State Government, Govt. of India, NDRF, SDRF, Army, Navy and Air Force etc...)

For the management and control of the adverse consequences of any disaster will require coordinated, prompt and effective response systems at the central and state government levels, especially at the district and the community levels.

There are various agencies / organizations / departments and authorities that constitute a core network for implementing various disaster management related functions / activities. It also includes academic, scientific and technical organizations which have an important role to play in various facets of disaster management. These agencies (State Government, Govt. of India, NDRF, SDRF, Army, Navy and Air Force) shall be called upon to assist the civil administration only when the situation is beyond the coping capability of the State Government.

Checking and certification of logistics, equipments and stores

Certification of logistics: the process of response includes personnel, equipments, vehicles, facilities...etc, all of which will depend upon the acquisition, transport, and distribution of resources, the provision of food and water, and proper medical attention. The Logistic section is responsible for all task and functions related to provision of material and other resources needed for operations and the physical and material support and operation of the incident management team. This section includes transportation taskforce established to support disaster operations. Logistics tasks are through the following units: 1. storage and supply, 2. Facilities, 3. staff support, 4. communications, 5. transportation (include ground, air water).

Operational check-up of Warning System

The goal of any warning system is to maximize the number of people who take appropriate and timely action for the safety of life and property. All warning systems start with the detection of the event and with their timely evacuation. Warning systems should encompass three equally important elements viz detection and warning, dissemination of warning down to the community level and the subsequent quick response. Experience has shown that destruction from natural hazards can be minimized by the presence of a well functioning warning system. Operational check-ups of warning system in district have been done annually by concerned departments and also during mockdrills initiate during monsoon.

Operational check-up for Emergency Operation Centre

Apart from Disaster Management developments, District have its Emergency Operation Centre (DEOC) has been started functioning in the Collector Office of Ahmedabad with all sophisticated equipments and most modern technologies for disaster management. The Additional Collector of District Ahmedabad is empowered as a Nodal Officer of DEOC and is responsible for Operational check-up for Emergency Operation Centre that includes....,

1. Ensure that all equipments in the EOC are in working condition;
2. Collection data on routine basis from line departments for disaster management
3. Develop status reports of preparedness and mitigation activities in the district;
4. Ensure appropriate implementation of District Disaster Management Plan
5. Maintenance of data bank with regular updating
6. Activate the trigger mechanism on receipt of disaster warning/occurrence of disaster

Seasonal inspection of facilities and critical infrastructure

The above all responsible Departments / Personnel shall have to carry out periodic inspection of such facilities through their respective control rooms at the frequency set by them and maintain records on the same.

Normally as a pre-monsoon drive in month of April-May, an instruction passed to all departments to carry out seasonal inspections and submit report to DEOC before the pre-monsoon meeting held at collector office chaired by District Collector. Based on report received from agencies, a compiled and consolidate report of all Facilities and Critical infrastructure has been submitted to State EOC every year.

Command and coordination – identification of quick response teams

Command and coordination of quick response teams establishes the framework within which a single leader or committee can manage the overall disaster response effort. A single Incident Commander is responsible for the successful management of the response during operational period in an area. If the incident grows in size and extends throughout many jurisdictions, multiple incident commanders can be useful with an area command authority may be established to coordinate among the incidents. Incident Commander requires the following Command Staffs to support him, which are as followings,

1. Public Information Officer – the single media point of contact
2. Safety Officer – Responsible for identifying safety issues and fixing them, he has the authority to halt an operation if needed.
3. Liaison Officer – Point of contact for agency to agency issues.

If the local authorities does not have the capacity to play an efficient role at local level to identification of quick response teams and the requirements for field information and coordination.

The DEOC will therefore need to send its own field teams and through them establish an Incident Command System. The system will comprise:

1. Field command
2. Field information collection
3. Inter agency coordination at field level
4. Management of field operations, planning, logistics, finance and administration

NGOs and other stakeholders coordination – Activate NGO coordination cell

Local community groups and voluntary agencies including NGOs should actively assist in prevention and mitigation activities under the overall direction and supervision of the Collector. They should actively participate in all training activities as may be organised and should familiarise themselves with their role in disaster management.

It is a duty of every citizen, NGOs and stakeholders to assist the Collector or such other person entrusted with or engaged in disaster management whenever his aid is demanded generally for the purpose of disaster management.

NGOs of District are working on targeted community or limited to certain specific areas. They are coordinating with district EOC only on direct approach or on allocation of specific tasks.

Seasonal preparedness for seasonal disasters like flood and cyclone

While analyzing the past experiences pertaining to various natural disasters, communities develop the seasonality calendar based on the occurrence of disaster events. In the calendar below prepared by the community show the month of the disaster occurrence & month for preparedness.

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Flood					√	√	√	√	√			
Cyclone			√	√	√					√	√	

Main Seasonal Preparedness Strategies:

1. Mapping of the flood prone areas is a primary step involved in reducing the risk of the region. Historical records give the indication of the flood inundation areas and the period of occurrence and the extent of the coverage. Warning can be issued looking into the earlier marked heights of the water levels in case of potential threat.
2. The onset of cyclones is extensive and often very destructive. A hazard map will illustrate the areas vulnerable to the cyclone in any given year.
3. The map is prepared with data inputs off past climatologically records, history of wind speed, frequency of flooding etc.
4. Land use control will reduce the danger of life and property when waters inundate the flood plains. In areas where people already have built their settlements, measures should be taken to relocate to better sites so as to reduce vulnerability. No major development should be permitted in the areas which are subjected to high flooding. Important facilities should be built in safe areas.
5. Construction of engineered structures in the flood plains and strengthening of structures to withstand flood forces and seepage. The buildings should be constructed on an elevated area. If necessary build on stilts or platform. They should be wind and water resistant. Protect river embankments. Communication lines should be installed underground. Provide strong halls for community shelter in vulnerable locations.

6. Flood Control aims to reduce flood damage. Measures such as reforestation, protection of vegetation, clearing of debris, conservation of ponds and lakes, etc.
7. Structural measures include storage reservoirs, flood embankments, drainage channels, anti-erosion works, detention basins, etc. and non-structural measures include flood forecasting, flood proofing, disaster preparedness, etc.

Community awareness, education and preparedness

Community is the first and last to face the disaster. Equipping them, educating and preparing them for the recurring disasters are of vital importance. The most vulnerable areas are to be identified and periodic awareness programme are to be provided at the Ward level, Panchayat level, Educational Institutions, Social Organizations etc. It is essential to examine the various methods in which the community can be effectively involved in planning for disaster management. A community which is aware and well equipped to handle disasters will boldly face them.

Community awareness will be raised regarding do's and don'ts with the involvement of Panchayati Raj institutions and CBOs. Revenue department will be the nodal agency for this activity. Increasing community awareness about the mitigation measures that can protect the lives and properties from the hazards.

Community Awareness on Various Disasters can be classified in 1. Construction of Earthquake Resistant Structures, 2. Retrofitting the weak structures, 3. House insurance, 4. construction of embankments for flood control, 5. Rehabilitation of people in safe lands, 6. development of plans for shifting people from vulnerable area to safer area etc. The Community awareness task can be performed by, Advertisement, hording, booklets, leaflets, banners, shake-table, demonstration, folk dancing and music, jokes, street play, exhibition, TV Spot, radio spot, audio-visual documentary and school campaign.

Community warning system

It is often observed that communities living in remote and isolated locations do not receive timely and reliable warnings of impending disasters. Hence, it is necessary to have robust and effective early warning systems, which can play crucial role in saving lives and limiting the extent of damage to assets and services. Outreach and reliability of warnings are key factors for planning and implementing response measures. Post disaster advisories like information on rescue, relief and other services are important to ensure law, order, and safety of citizens. A community that is prepared to face disasters, receives and understands warnings of impending hazards and can able to cope better and resume their normal life sooner.

Community Warning Action Plan	Flood	Cyclone	Chemical and industrial accidents	Tsunami
Existing Community warning system	Irrigation department / IMD ↓ Collector ↓ Mamlatdar/TDO ↓ Villages	IMD ↓ Collector ↓ Mamlatdar/TDO ↓ Villages	Industrial Association/ industries ↓ DCG ↓ LCG ↓ Mamlatdar	IMD ↓ Collector ↓ Mamlatdar/TDO ↓ Villages

Responsible Agency for warning dissemination	Mamlatdar office/TDO	Mamlatdar office/TDO	Mamlatdar office/TDO	Mamlatdar office/TDO
--	----------------------	----------------------	----------------------	----------------------

Procurement (Tents, blankets, tarpaulins, equipment etc.)

Facilitating procurement related to disaster management of materials, equipment and services in connection with the disaster management and ensuring their quality is lies with the State authority. At present District has no fund or any instructions to procure such things locally. State authority has the power to authorize the departments or authorities concerned, to make emergency procurement of provisions or materials for rescue and relief in a threatening disaster situation or disaster, or alternatively can arrange for centralise procurement of additional relief material required for relief operations (on the basis of need assessment).

SDRN updation

SDRN (State Disaster Resource Network):

The State Disaster Resource Network (SDRN) system has three layers namely Village, Municipality and Taluka. The level specific data is collected in the standard disaster management plan format and uploaded in to the system either at taluka or district level. The centrally stored database in the server located at GSDMA, Gandhinagar can be accessed through internet portal (http://117.239.205.164/SDRN_NEW/Login.aspx) and GSDMA Web Site (www.gsdma.org).

Each user of all talukas of the State has been given unique username and password through which they can perform data entry, data updation on SDRN for their Village, Taluka or City. Status reports are also generated showing the status that how many forms, records are entered on SDRN. The Village level officers should be contacted to know the status of the shelters with the capacity of the shelter and other available facilities at the site.

Protocol and arrangements for VIP visits

It is important to immediately inform VIPs and VVIPs on impending disasters and current situation during and after disasters. Appeals by VIPs can help in controlling rumours and chaos during the disaster. Visits by VIPs can lift the morale of those affected by the disaster as well as those who are involved in the response. Care should be taken that VIP visits do not interrupt rescue and life saving work. Security of VIPs will be additional responsibility of local police and Special Forces. It would be desirable to restrict media coverage of such visits, in which case the police will liaise with the government press officer to keep their number to minimum.

Media management / information dissemination

Media management utilised to ensure precise communication of the impact of disaster and relief measures being taken and generate goodwill among community and other stakeholders. Ensure that the information about progress of rescue and relief is provided to media/public in an organized manner at least twice a day. Establish help lines for facilitating communication between the victims and their relatives residing outside the affected area/s. Establish Information Centres at strategic locations for providing information about persons evacuated to the relief centres/hospitals. Establish Media/Press Centre for media management and information dissemination.

Ensure that the information to media/general public about the response of the State Government is released in an organized manner along with following points.

1. Broadcast programs to raise people's awareness of disaster prevention measures
2. Develop news sources in emergency situation
3. Publicize station frequency
4. Broadcast public planning meetings
5. Compile local knowledge on signs of impending disaster and share it with community
6. Broadcast emergency evacuation announcements
7. All announcements broadcast in a reassuring and calm manner

Documentation

Documentation of all response/relief and recovery measures should be done with –

- Documentation of disasters and to make it available in easy accessible format
- Undertake research studies and application of outcomes in disaster management practices
- Documenting field data, experience and indigenous technological knowledge from local community
- Development of plan by using available resources like SDRN, IDRN, etc.
- Assimilate all reports and transaction of information during the disaster for easy documentation

CHAPTER - 6

Response measures (Multi-Hazard):

Response measures are those which are taken instantly prior to, and following, a disaster aimed at limiting injuries, loss of life and damage to property and the environment and rescuing those who are affected or likely to be affected by disaster. Response process begins as soon as it becomes apparent that a disastrous event is imminent and lasts until it is declared to be over.

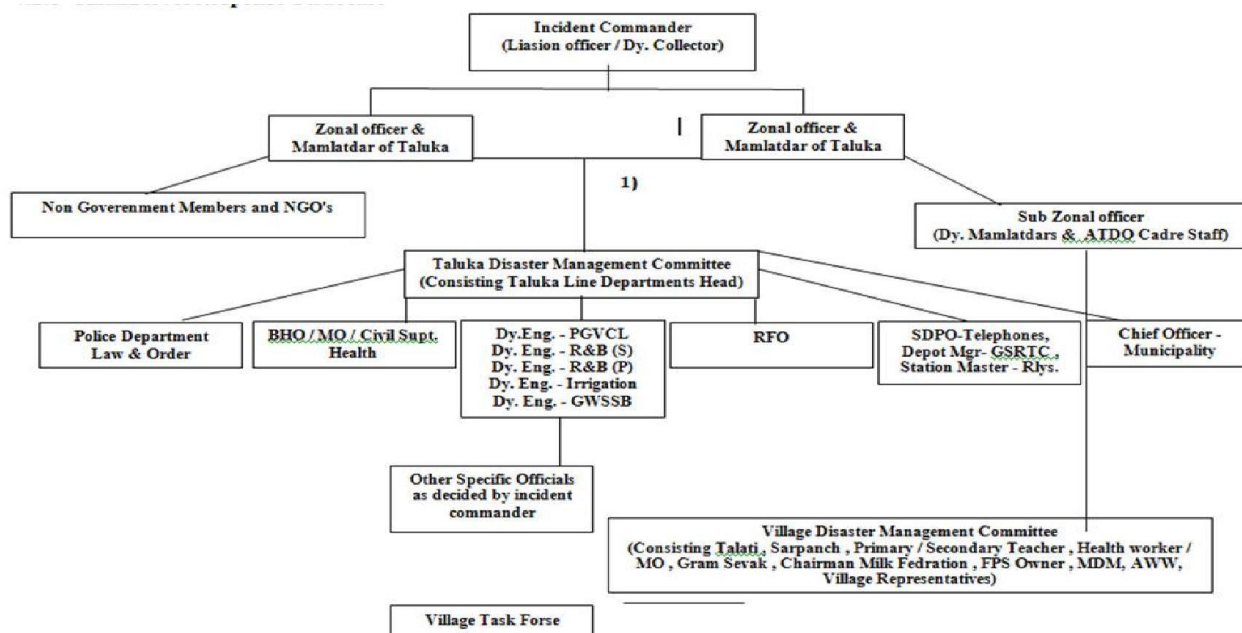
Since response is conducted during periods of high stress in a highly time-constrained environment and with limited information and recourses (in majority of the cases), it is by far, the most complex of four functions of disaster management.

Response includes not only those activities that directly address the immediate needs, such as search and rescue, first aid and shelters, but also includes systems developed to coordinate and support such efforts. For effective response, all the stakeholders need to have a clear vision about hazards, its consequences and actions that need to be taken in the event of it.

Response flow chart

The Revenue Department of the State is the Nodal Department for controlling, monitoring and directing measures for organizing rescue, relief and rehabilitation. All other concerned line departments should extend full cooperation in all matters pertaining to the response management of the disaster whenever it occurs. The State EOC, ERCs and other control rooms at the State level as well as district control rooms should be activated with full strength. The State Government may publish a notification in the official gazette, declaring such area to be disaster-affected area under

GSDMA Act (Section 32 (2) (a))



Warning and alert

On the receipt of warning or alert from any such agency which is competent to issue such a warning, or on the basis of reports from District Collector of the occurrence of a disaster, the response structure of the State Government will be put into operation. The Chief Secretary/Relief Commissioner will assume the role of the Chief of Operations during the emergency situation.

The details of agencies competent enough for issuing warning or alert pertaining to various types of disasters are given below;

Disaster	Agencies
Earthquakes	IMD, ISR
Floods	IMD, Irrigation Department
Cyclones	IMD
Tsunami	IMD, ISR, INCOIS
Drought	Agriculture Department
Epidemics	Health & Family Welfare Department
Industrial & Chemical Accidents	Industry, Labor & Employment Department, DISH
Fire	Fire & Emergency Services

District CMG meeting

The Collector & DM is responsible to hold regular CMG meetings on disaster management including government, NGOs and private sectors. The CMG Committee held various meeting and had detailed interaction with members and management of Crisis. The Ahmedabad District level Pre-Monsoon and CMG Meeting for all District level departmental heads along with Mamlatdars, Chief Officers and TDOs was called on 18-05-2018, chaired by Collector-Ahmedabad, DDO-Ahmedabad and Resident Additional Collector-Ahmedabad.

Activation of EOC

The disaster response is led by the District Emergency Operation Centre (EOC) under the

command and control of the District Collector. It is also the central point for information gathering, processing and decision making more specifically to combat the disaster. Most of the strategic decisions are taken in this control room with regard to the management of disaster based on the information gathered and processed. The Incident Commander takes charge at the District Control Room and commands the emergency operations as per the Incident Command System organizational chart.

Emergency Operation Centre (EOC) of District is operational at collector office, Ahmedabad and is operational on 24x7 round the clock for 365 days in 3 shifts of 8 hrs with the help of staff deputed from local government offices. Control rooms of line departments and Taluka EOCs (located at the Office of Mamlatdar) are active from 1st June for Monsoon Season and will be operational till 30th November. The Liaison Officers of the respective Talukas shall take charge of the Control Room. The respective Liaison Officers shall coordinate between the task group members working at disaster sites and TEOC for mobilization of resources and dissemination of instructions received from TEOC/DEOC.

Response planning, preparedness, assumption – Quick assessment of damages / need

Response planning:

Response planning can help mitigate the destructive effects of a disaster by ensuring timely and effective provisions of humanitarian aid to those most in need. “Time spent in disaster response planning equals time saved when a disaster occurs”. Effective response planning requires realistic identification of likely response functions, assignment of specific tasks to individual response agencies, identification of equipment, supplies and personnel required by the response agencies for performing the assigned tasks.

Considering all this points, this response plan has been developed. For the first time Incident Command System (ICS) has also been introduced in response plan along with the resource inventory that is directly linked to the website. In fact, during disaster the ICS management tool will be more effective to handle the situation in proper way within limited time. The plan incorporate multi level institutional as well as Response plan mechanism at district level.

Preparedness:

Preparedness measures go hand in hand for vulnerability reduction and rapid professional response to disasters and assist all the government departments to plan and prioritise preparedness activities while ensuring active community participation. Preparedness actions are to be taken before a disaster to reduce the probability of a disaster (risk reduction) or the level of damage (vulnerability reduction) expected from a possible disaster. Vulnerability reduction is given priority over a risk reduction that is preparedness.

The main objectives of various preparedness measures are: -

- i) Minimizing the loss of human lives.
- ii) Minimizing the loss of livestock.
- iii) Minimizing the loss to property and infrastructure.
- iv) Minimizing ill effects on the health of affected population.
- v) Bringing the human activities in the locality to normal condition soon after.

In situations of emergency, the District Collector will use his own discretion on the preparedness measures for facing the impending disaster.

Situation Assumptions:

1. There would be a congestion in the network because of increased calls to control rooms due to panic created in the community.
2. The initial reports on damage may not give a clear picture of the extent of damage to communication network.
3. The affected site may cut off from the state control rooms and the officials on site and find difficulty in communicating to the District/State EOC.
4. Police wireless network will only be the reliable communication network till the other communication networks are fully restored.
5. Local community task forces will initiate search and rescue at residential level.
6. Spontaneous Volunteers and QRT will require coordination
7. Access to affected area will be limited
8. Some site may be accessible only through air route
9. Most of the buildings would be damaged and would not remain safe for citizens.
10. Many structures would be damaged and there would be an urgent need to evacuate.
11. There would be panic and people will gather at a place.
12. The crowds may go out of control or Riots may also take place.
13. Emergency Medical services will be required by affected population.
14. Likely outbreaks of epidemic diseases after the disaster.
15. Hospital services would be affected.
16. Existing water storage bodies will be damaged and unusable.
17. There would be an urgent need of water to assist victims in rescue operation.
18. Break down of sanitation system.
19. Contamination of water due to outflow from sewers or due to breakage of water pipelines.
20. The communication with affected area may be partially impaired.
21. The movement of relief supplies will create congestion in the transportation services.

Quick assessment of damages and need:

Various spatial data with socio-economic, housing, infrastructure and other variables that can provide a quick assessment of the risks and vulnerabilities of disasters based on which appropriate mitigation strategies can be developed. Based on primary data...

1. IC will call and activate the District Quick Response Team. Will done Quick Assessment of the S & R operations through Aerial surveys.
2. The Nodal Officer from Police will activate the Quick Response teams and will done Quick assessment of law and order situation in affected areas.
3. GWSSB nodal officer will activate their quick response teams for Quick assessment of water line damage and Quick assessment of water contamination levels and taking steps to restore clean drinking water.
3. Chief Officers, TDOs and Taluka Mamlatdars will do Quick assessment of

damaged areas and areas that can be used for relief camps for the displaced population. Coordinate with the Government agencies for quick assessment of evacuation needs such as the number of people to be evacuated and mode of evacuation

4. DDO of district will make a quick assessment of the damages and losses caused by the disaster in the affected area as regards the population, agriculture, infrastructure, livelihoods and environment.
5. DEOC will Instruct Quick Assessment Task Force to submit preliminary need and loss assessment report of the affected areas.

Warning dissemination

The dissemination of warning is the most critical function in order to give early warning to the community. It has to be fast in order to give reasonable amount of time for communities to prepare for any eventuality. Due consideration has to be given to the points mentioned below before sending across the information.

1. Warning dissemination will be done to all the important stakeholders (as given below in the information dissemination format) at the Panchayat level in rural areas and Nagarpalika level in urban areas for early warning communication.
2. Making use of the fastest means to communicate the message in the most lucid manner so as to prevent spread of rumour and panic among the masses.
3. Bulk Voice SMS Service is the best means of communication to large masses without any effort and within no time. A voice recorded message from the District Magistrate from official number shall be sent to the database of numbers identified for information dissemination with the help of Mobile service providers & Telephone department.
4. DEOC will incorporate to arrange dissemination of information through various means of communication such as Radio, TV, Cable Network, and SMS about warnings to districts/areas which are likely to be hit by disasters.
5. Dist. Collector and Information Dept. will Ensure dissemination of information to remote areas by local means. They will also ensure that local TEOC help lines are opened and effectively managed for public information, guidance and rumour control.

As soon as the warning of an impending calamity is received, the EOCs at the State, District and Block levels will be on a state of alert. The Incident Commander will take charge of the EOC and oversee the dissemination of warning to the community. The District Collector will inform the District Disaster Management Committees who will alert the block and Village level DMCs and DMTs to disseminate the warning to the community.

Resource mobilization

Taluka authority will try their best to contain the situation with the available local resources. However, if they find that the situation is beyond their control and the district level resource mobilization is required, they will seek the help of their superiors or call the meeting of Disaster Management Committee.

Through online SDRN computerized and web based IT solutions can be used for resource mobilization and deployment of trained members. This decentralized system presents many advantages such as the easy availability of the resources and plans at all levels, minimum duplication and time saving and finally the visual data reports generation that assists in gap analysis and resource mobilization.

Seeking external help for assistance

TEOC will inform DEOC if external help/resources are needed. District Collector will decide if any external help (out of district) is required for immediate priorities. If required, liaise with the state, national and international agencies for mobilization of additional resources and will make arrangement to avail the external helps to manage to disaster.

First assessment report

DEOC instruct Quick Assessment Task Force to submit preliminary need and loss assessment report of the affected areas. Quick assessment Team will submit First Assessment Report to District Collector duly signed by Taluka Liaison Officer. DEOC will collect preliminary first assessment report from the onsite EOCs and submits district's compiled report to State EOC.

To make a first assessment report of damage, the assessment report will contain the following basic elements or activities...

1. Human and material damage
2. Resource availability and local response capacity
3. Options for relief assistance and recovery
4. Needs for national / international assistance

Media management / coordination / information dissemination

Media management:

The role of media (print & electronic), in informing the people and the authorities during emergencies becomes critical, especially the ways in which media can play a vital role in public awareness and preparedness through educating the public about disasters; warning of hazards; gathering and transmitting information about affected areas; alerting government officials, helping relief organizations and the public towards specific needs; and even in facilitating discussions about disaster preparedness and response. During any emergency, people seek up-to-date, reliable and detailed information. Collector office Ahmedabad has established an effective system of collaborating with the media during emergencies. Both print and electronic media is regularly briefed at predetermined time intervals about the events as they occur and the prevailing situation on ground. A similar set up is also active at the Taluka Control room at Mamlatdar office.

Information dissemination and Coordination:

Dissemination of information is the prime duty of information department in coordination with DEOC, Revenue and District Panchayat offices during any emergency. Functions of information department during Emergency are...

1. Collect correct information from authorities onsite.
2. Keep the list of persons rescued with full details.
3. Keep the list of persons missing.
4. Keep the no. of dead bodies and the locations they have been kept.
5. Keep a track of which team is positioned with location.
6. Make use of the public address system to call anyone.
7. Schedule working in short duration Evacuation & Shelter.

8. Establish Press Centre for media management and information dissemination
9. Ensure that the information to media/general public about the response of the State Government is released in an organized manner.
10. Organize media briefing twice a day at predetermined intervals.

Emergency Response Functions:

(Evacuation, Search and Rescue, Cordoning the area, Traffic control, Law & order and safety measures, Dead body disposal, Carcass disposal)

Effective response planning requires realistic identification of likely response functions, assignment of specific tasks to individual response agencies, identification of equipment, supplies and personnel required by the response agencies for performing the assigned tasks. Response functions essentially outlines the strategy, resources needed, evacuation, search & rescue, etc.

Evacuation:

In many emergencies, local authorities would set up public shelters in schools, municipal buildings and places of worship. While they often provide water, food, medicine and basic sanitary facilities.

Search and Rescue:

At district level whatever help would be required during disaster that will be immediately informed to the various departments by the district collector and possible support NGOs and other line agencies in the district would be tapped up. If the District Collector thinks that it cannot cope with the disaster then he can ask help from the defence and paramilitary force.

Cordoning the area:

SDM and Police department will cordoning off affected areas for restricting entries of rail or road traffic and instruct to cordon affected areas and setting up of check posts to control entry and exit. The DSP will send instructions for the cordoning off of the area. People should not be allowed access anywhere close to the site of the disaster.

Traffic control:

The Superintendent of Police will co-ordinate the work of Traffic control and Traffic arrangements towards the disaster affected areas. Traffic cell also has responsibility for the ground transportation of personnel, supplies, and equipment and make alternate arrangements to open the roads to traffic at the earliest.

Law & order and safety measures:

Collectorate and SP office is responsible for assuring the execution of all laws and maintenance of order in the area affected by the incident. The law and order section incorporates law and order taskforce which may be created to deal with a disaster with sufficient safety measures. It will arrange law and order against theft in the disaster affected area and co-ordinate with the search and rescue operations. It will also arrange for security at the relief camps/relief material storages. It is also responsible to maintain law and order at the time of distribution of relief material.

Dead body disposal:

The health department will immediately start the procedure for post mortem of the dead persons as per the rules. Disposal of dead bodies is to be carried to prevent the outbreak of epidemics. Arrangement should be made to issue death certificates of the deceased to the relatives.

Carcass disposal:

The animal husbandry departments with necessary equipments in case of cattle death are there in the affected areas for the disposal of carcass with a view to restoration of public life and result oriented work.

Humanitarian Relief and Assistance:

[Food, Drinking Water, Medicines, Trauma care, Clothing, Other essential needs, Shelter Management, Providing helpline, Repairs and restoration of basic amenities (e.g. water, power, transport etc), Management of VIP visits]

The Indian government uses the terms “humanitarian assistance” or “disaster relief” to refer to activities that address human suffering caused by natural disasters like cyclones, droughts, earthquakes or floods. Humanitarianism lies at the heart of Indian spiritual and cultural values. Hinduism, Buddhism, Islam and Sikhism all espouse solidarity with the suffering and giving without expectations for return. The Hindu term daan, for example, emphasizes the selfless nature of giving. In fact, the sacred Hindu scripture Bhagavad Gita preaches that “there should be no motive in charity and there should be no aim, direct or indirect”. These spiritual traditions influence the humanitarian impulses of Indian decision makers. India conceives humanitarian assistance as “extending sympathy” to the disaster-affected. Because of India’s deep cultural tradition of giving, the population generally endorses relief efforts by the government.

UN agencies and international NGOs will be operating in the country at the time of the disaster event and will be allowed to provide humanitarian assistance to people in the affected area in coordination with the concerned Ministries/Departments and the State Government under existing protocol in place. Guidelines of the IFRC on international humanitarian assistance will be the guiding factor in facilitating external assistance. External assistance will be provided in a responsible and coordinated manner to minimize its impact on local resources as well as ensure good quality and accountability standards.

In case of large scale emergency collector will establish relief coordination centre at the airport, railway station, etc. for arrival of Search & Rescue and Medical Teams coming for humanitarian aid.

Reporting:

The occurrence of disaster may be reported by the concerned monitoring authority to the District Collector by the fastest means. On the basis of reports from District Collector of the occurrence of a disaster, the response structure of the State Government will be put into operation.

Information management:

Control room is a nodal centre in terms of disaster Management which performs the function of collecting and transmitting information to the appropriate places and people. Therefore Control room has to be equipped with the latest telecom communication facilities. All the important information of the district administration in case of emergency is also available in the control rooms. The control room is connected with all the line departments, collectorate, NGOs, police control room, and block control room which is connected to village task force and irrigation control room. Collector controls all the information flow through control room in the district and with the state authority.

Situation reports:

All the situation reports of area, village, city or taluka received at the SDM or DEOC will be communicated to the Nodal officer, who based on the available information, if seems fit, will activate DEOC in the emergency mode.

Resident Additional Collector will report the occurrence of emergency to Collector, Relief Commissioner, GSDMA and SEOC. By receiving through Taluka Control rooms, DEOC will constant reporting of pre and post disaster work to SEOC and GSDMA.

Village Talatis are responsible to submit situation/action taken report immediate to Mamlatdar and TDO. Mamlatdars, TDOs and Chief Officers are responsible to communicate the immediate emergency as well as updated situations to Liaison officers, SDMs and Resident Additional Collector and detail report should submit to DEOC in time manner.

Death, Casualty, Emergency & Primary reports should submit immediate with Top Priority in Primary Situation Report format developed by SEOC. ABCD, MHA, Detail Emergency update reports should submit on Daily Basis by Taluka Mamlatdar and District Panchayat to DEOC and same compiled report should reach to SEOC.

Media release:

The State Government has established an effective system of collaborating with the media during emergencies. At the State Emergency Operation Centre (SEOC), a special media cell has been created which is made operational during emergencies. Both print and electronic media is regularly briefed at predetermined time intervals about the events as they occur and the prevailing situation on ground. A similar set up is also active at the District Emergency Operation Centre (DEOC) of collector office at district.

Demobilization and winding up:

An emergency plan is not complete without specific demobilization and post-incident winding up review procedures. Specific demobilization guidelines provide organized and agreed-to procedures to help facilitate and more organized and expedited return to normal operating conditions, and help to minimize costs by standing down response resources in a timely manner.

Issues to consider for demobilization include: 1. Do not release or demobilize response resources unless approved by the On-Scene Incident Commander, 2. Assign personnel to identify surplus resources and probable resource release times, 3. Establish demobilization priorities, 4. If necessary, develop a Disposal Plan for the disposal of hazardous materials or wastes, as necessary and 5. Plan for equipment repair and maintenance services, as necessary.

(i) Documentation:

Documentation of an emergency incident is a critical part of an emergency plan. Documentation must be specific to the incident. However, the following topics can provide guidance as to necessary documented information: 1. When/where did incident take place, 2. Was an evacuation called for, and if so, how much time was required to evacuate all personnel?, 3. Were communication methods effective?, 4. Did on-site equipment satisfy equipment needs? If not, what additional equipment was brought to the site?, 5. Did local jurisdictions assist in the emergency response? If so, did they offer suggestions for improvement?

(ii) Success stories:

Developing a success story requires the right questions, through the eyes of an individual or several individuals, of positive impact. The key questions and steps are as follows. 1. Provide Background Information, 2. Describe the activity, 3. Give Details of What Happened in the Activity, 4. Give the Results Achieved as a Consequence of the Activity, 5. Give a Quote from the Participant, 6. Labeling Pictures and Writing Captions.

(iii) Lessons for future

Each organization will provide activities undertaken and lessons learned report during any disaster response operations. The lessons learnt from the past will be utilised while updating the plan, formulating DM strategy, for future references and for training purposes.

CHAPTER – 7

Recovery Measures:

Recovery is defined as decisions and actions taken after a disaster with a view to “restoring or improving life and assets of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk. Recovery and reconstruction (R&R) or comprehensive rehabilitation is the last step in cycle of disaster management. In addition, this is the phase of new cycle, where the opportunity to reconstruction and rehabilitation should be utilised for building a better and more safe and resilient society.

General Policy Guidelines:

A plan of recovery will help better coordination between various development agencies. Damage Assessment and Needs Assessment shall be the basis of recovery planning. Various Sectors for recovery process may be -

- Essential Services- Power, Water, Communication, Transport, Sanitation, Health
- Infrastructural: Housing, Public Building and Roads
- Livelihood: Employment , Agriculture, Cottage Industry, Shops and Establishments

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

The approach to re-construction and recovery is guided by the National Disaster Management Policy 2009 of which salient clauses / sections are stated in the following para.

Section 9.1.1 of the NPDM states that - the approach to the reconstruction process has to be comprehensive so as to convert adversity into opportunity. Incorporating disaster resilient features to 'build back better' will be the guiding principle. The appropriate choice of technology and project impact assessment needs to be carried out to establish that the projects contemplated do not create any side effects on the physical, socio-cultural or economic environment of the communities in the affected areas or in their neighbourhood. Systems for providing psycho-social support and trauma counselling need to be developed for implementation during reconstruction and recovery phase.

Section 9.2.1 of NPDM states that - Reconstruction plans and designing of houses need to be a participatory process involving the government, affected community, NGOs and the corporate sector. After the planning process is over, while owner driven construction is a preferred option, contribution of the NGOs and corporate sector will be encouraged. Reconstruction programme will be within the confines and qualitative specifications laid down by the Government.

Section 9.3.1 states - Essential services, social infrastructure and intermediate shelters/camps will be established in the shortest possible time. For permanent reconstruction, ideally, the work including the construction of houses must be completed within two to three years. Concerned Central Ministries/Departments and the State Governments should create dedicated project teams to speed up the reconstruction process.

Section 9.3.2 of NDMP states - that - Contingency plans for reconstruction in highly disaster prone areas need to be drawn out during the period of normalcy, which may include architectural and structural designs in consultation with the various stakeholders.

As per the section 9.5.1 of NPDM – the State governments will have to lay emphasis on the restoration of permanent livelihood of those affected by disasters and special attention to the needs of women-headed households, artisans, farmers and people belonging to marginalised and vulnerable sections.

Detailed damage and loss assessment

The moment an emergency condition subsides, rapid and thorough Detailed damage and loss assessment is to be conducted to know the overall damage to critical public facilities, homes, businesses and other services within the affected area(s); and to determine whether those damages are sufficient to warrant emergency assistance.

A detailed assessment must be conducted before commencing reconstruction and rehabilitation activities. The relevant Government departments and local authorities shall initiate detailed assessment at their respective level for damages sustained in housing, industry/services, and infrastructure, agriculture, health / education assets in the affected regions. Immediate recovery can continue from a day to two months, depending upon the extent of damage.

The assessment teams are to report the following information to the Disaster Management Department in the Office of Collectorate for further action.

- Boundaries of the disaster(s). ☐ Access point(s) to the disaster area(s).
- Status of the transportation system. ☐ Status of communication system
- Disaster casualty information ☐ Status of medical systems
- Shelter / mass care information ☐ Damage to utility system
- Status of critical facilities ☐ Status of security within the affected area(s)

Information on the humanitarian organisations within the area(s)

Conducting Detailed damage and loss assessment in the aftermath of sever incident includes, Individual damage assessment as well as Public Damage assessment which includes (but not limited to) 1. Damage to road, streets and bridges, 2. Damage to water control facilities such as drainage system, water channel etc., 3. Damage to public buildings and equipment, 4. Damage to public utilities, 5. Damage to parks and recreational sites and 6. Managing Debris.

Recovery has two phases i.e. Short term and Long term Recovery. Class I officers from various line departments are deputed as Liaison Officers for each Taluka, and they are responsible for monitoring and working with the local administration in both phases of recovery operations under the guidance of the District Collector.

Short-term recovery program

Short-term recovery phase starts during the first hours and days after an emergency event. The principal objectives are to restore the necessary structural [facilities, critical systems/ infrastructure, roadways and grounds] and non-structural, (power, water, sanitation, telecommunications).

The Short-term recovery with urgent measures to be undertaken includes the following:

- a) Roads and Bridges: This covers construction of all critical roads and bridges necessary to provide connectivity with immediate effect.
- b) Drinking Water Supply: Restoration of Drinking Water supply has to be done by setting up of new hand pumps, tube wells or setting up of piped water supply in areas with no access to potable water. In case of floods, setting up of raised hand pumps is required.
- c) Electricity: Restoration of power supply is also critical to immediate recovery.
- d) Communication Network: After disasters, communication networks may be disrupted. The networks of mobile services providers have to be put back in operation at the earliest to make search and rescue easier, as well as to expedite coordinated response measures.
- e) Reconstruction & Repair of Lifeline Buildings: Lifeline buildings are those necessary to keep the administrative machinery functioning despite the damage by disaster have to be repaired on priority.

- f) **Rehabilitation:** In case there is a major damage from earthquake or flooding, a large segment of the population may have to be rehabilitated to new locations on a temporary basis. Communities will have to be supported with relief shelter.
- g) **Mass Care/Sheltering and Housing:** The management of relief shelters is continued from the response phase to the immediate recovery phase. During this period, the number of victims must be identified for whom construction of houses under Indira Aawas Yojna & Sardar Awas Yojna shall be sanctioned.
- h) **Food:** Supply of food in relief phase is more important. It becomes important to elicit support from various NGOs, Grain merchants and volunteers.
- i) **Debris Removal and Disposal of Dead Bodies:** Removal of debris or trees from transportation routes for effective rescue and relief measures.
- j) **Drainage and Sewage:** Drainage and sewage systems will have to be quickly re-established to decrease inundation from floods, spread of diseases and epidemics and maintaining hygiene.
- k) **Health Care:** First Aid and Emergency Health care has to be provided at the earliest. In case the health care centers are affected by the disaster, temporary medical relief camps need to be installed while the building is retrofitted or reconstructed. Mobile Medical Units have to be pushed into action for immediately health care close to the community.

Long-term recovery program

Long term recovery efforts must focus on redeveloping and restoring the socio-economic viability of the disaster area(s). The reconstruction phase requires a substantial commitment of time and resources by government and non-governmental organisations. Important to note here is that much of this commitment would be beyond the scope of traditional emergency management activity programmes. The activities involved would most often be the result of a catastrophic event that has caused substantial, long term damage over a very large area. These efforts include:

1. Long term reconstruction of public infrastructures and social services damaged by the disaster.
2. Re-establishment of adequate housing to replace that which has been destroyed.
3. Restoration of jobs that was lost.
4. Restoration of the economic base of the disaster area(s)



Financial Arrangements:

To ensure the long-term sustenance and permanency of the organisation funds would be generated and deployed on an ongoing basis. There are different ways to raise the fund in the State as described below.

Financial resources for implementation of plan:

(According to ACT No. 53 of 2005 – the Disaster Management Act, 2005, Chapter IX, Finance, Account and Audit.) 48-Establishment of funds by the State Government :

The State Government shall immediately after notifications issued for constituting the State Authority and the District Authorities, establish for the purposes of this Act the following funds, namely :-

- a) the fund to be called the Disaster Response Fund;
- b) the fund to be called the Disaster Mitigation Fund;

(i) National, State and District Disaster Response Fund:

- * The Ministry of Finance has allocated funds for strengthening Disaster Management Institutions for capacity building and response mechanisms, as per the recommendation of 14th Finance Commission.
- * To carry out Emergency Response & Relief activities after any disaster the State Disaster Response Fund is made available to Commissioner of Relief, Revenue Department under which the Central Government will share 75% and the Govt. of Gujarat has to share 25%.
- * To provide for relief for famine, drought, floods and other natural calamities, Response Fund are provided in the state budget under the head “2245-Relief on account of Natural Calamities”. Besides establishment charges, funds are provided for the grant of gratuitous relief in the shape of concessional supply of food, cash payment to indigent persons, cash doles to disabled supply of seed, fodder, medicines, prevention of epidemics, provision for drinking water, transport facilities for goods and test relief works as at District level.

(ii) National, State and District Disaster Mitigation Fund:

- * At the National level, Prime Minister’s Relief Fund was created shortly after Independence with public contribution to provide immediate relief to people in distress for Disaster Mitigation:
 - a. Immediate financial assistance to victims and next of kin.
 - b. Assist search and rescue.
 - c. Provide Health care to the victims.
 - d. Provide Shelter, food, drinking water and sanitation.
 - e. Temporary restoration of roads, bridges, communication facility and transportation.
 - f. Immediate restoration of education and health facilities.
- * At the state level, provisions have been made to provide immediate support to the distressed people affected by natural calamities and road, air and railways accidents under the Chief Minister’s Relief Fund for Disaster Mitigation.

(iii) Financial sources available for different components of disaster management

Name	Purpose	Financial Arrangements	Activities	Nodal Agency
NDRF (NCCF)	Relief Assistance	100% Central Government	Cash and kind relief	Revenue Department
SDRF (CRF)	Relief Assistance	75% Centre, 25% State	Cash and kind relief	Revenue Department
Planning Commission (14th Finance Commission)	Capacity Building	100% Centre	Training, Awareness Generation, IEC Material, Mock drills.	Revenue Department
State Fund	Capacity Building	100% State	Training, Awareness Generation, IEC Material, Mock drills.	GSDMA
Line Department Funds	Preparedness and Mitigation	Budgetary Allocation	Activities falling in purview of departments for DRR, Preparedness and Mitigation	Line Departments
District Planning Fund	Any Public works	MP and MLA aid and grants	Preparedness, Mitigation capacity building, recovery	Local Bodies, Line Departments
External Institutional Funding	Projects on DRR, Recovery, Mitigation and Preparedness	Total external or bilateral or multilateral arrangements	Infrastructure up-gradation Technological interventions and technical studies DRR projects.	Revenue Department
Donor	Any	Total Donation in cash and kind	Any	DDMA / GSDMA
CSR	Corporate	2% of Profit	Any	Charity Commissioner and Corporate
Appeal	Immediate Relief	Fully or Partially external funds	Immediate relief, reconstruction	DDMA / GSDMA

CHAPTER – 9

Maintenance of Plan:



Plan maintenance is a dynamic process of updating the plan on a periodic basis. The backbone of maintaining the plan is carrying out mock drills and updating the plan based on lessons learnt thereof. This is a method of identifying the gaps and putting in place a system to fill the same. Regular updating of stakeholder details, contact numbers and resource inventory is another inherent and essential function of plan maintenance.

Authority for maintaining and reviewing the plan:

(According to ACT No. 31 of 2005 – The Disaster Management Act, 2003, Chapter IV, District Plan.) the District Plan.-

- (1) There shall be a plan for disaster management for every district of the State.
- (2) The District Plan shall be prepared by the District Authority, after consultation with the local authorities and having regard to the National Plan and the State Plan, to be approved by the State Authority.
- (4) The District Plan shall be reviewed and updated annually.
- (5) The copies of the District Plan referred to in sub-sections (2) and (4) shall be made available to the Departments of the Government in the district.
- (6) The District Authority shall send a copy of the District Plan to the State Authority which shall forward it to the State Government.
- (7) The District Authority shall, review from time to time, the implementation of the Plan and issue such instructions to different departments of the Government in the district as it may deem necessary for the implementation thereof.

The Plan should be maintained and reviewed regularly, based on inputs as under:

- (a) Drills and Rehearsals
 - (b) Recommendations from all Depts. in their Annual DM Report
 - (c) Lessons learnt from Disasters in other Districts, States and countries
 - (d) Directions from GSDMA, Ministry of Home Affairs, NDMA, Government etc...
- (i) **Schedule for updation & revision of plan,**

DDMC shall compile its learning and proposed new mechanisms for improvement in updation of plan for the capacity to deal with disasters.

Schedule for updation of plan: Every year as a part of pre monsoon, DDMC will update plan in the month of May-June and will revise in the month of October-November every year.

(ii) **Schedule for Mock Drills**

The district police department, Home guards, Civil Defence personnel, Fire Service officials, SRTs, QRTs, DMCs and DMTs will undergo periodic mock drills for different disasters, coordinated by the District Collector at the district level and by the Relief Commissioner at the State level. It is mandatory to have mock-drills at least twice in a year for fire and earthquake.

Annexure

ANNEXURE – 1

DISTRICT PROFILE:

- **Ahmedabad District Profile**

Ahmedabad District consists of 15 talukas (1) Maninagar (2) Asarva (3) Vatva (4) Sabarmati (5) Vejalpur (6) Ghatlodiya (7) Daskroi (8) Sanand (9) Dholka (10) Bavla (11) Viramgam (12) Detroj-Rampura (13) Mandal (14) Dhandhuka (15) Dholera . There are 1 corporation, 1 cantonment area and 7 municipalities Bareja, Dholka, Bavla, Sanand, Dhandhuka, Bopal-Ghuma and Viramgam.

With total Area of 8087 sq.k.m. Ahmedabad is geographically at the centre of Gujarat, situated between 21.6 to 23.4 north latitude and 71.6 to 72.9 east longitude. Total population of District is 74,86,573 (2014).

Ahmedabad District is surrounded by Kheda District in the east, Mehsana in the north, Anand District in the south and Surendranagar in the west. 15 talukas of the District include 556 villages, 1 corporation, 1 cantonment area and 7 municipalities.

History

Ahmedabad is the largest city in the State of Gujarat and the Seventh- largest urban agglomeration in India, with a population of almost 74 lakhs (7.4 Million). City is Located on the banks of the River Sabarmati. The city is the administrative centre of Ahmedabad district, and was the capital of Gujarat from 1960 to 1970; the capital was shifted to Gandhinagar thereafter. The city was at the forefront of the Indian independence movement in the first half of 20th century. It was the epicentre of many campaigns of civil disobedience to promote workers' right, civil rights and political independence. Mahatma Gandhi also established Gandhi Ashram on the bank of river Sabarmati and selected Ahmedabad as his "Karmabhumi".

The city was founded in 1411 to serve as the capital of the Sultanate of Gujarat, by its namesake, Sultan Ahmed Shah. Under British rule, a military Cantonment was established and the city infrastructure was modernized and expanded. It was part of the Bombay Presidency during the British rules in India. Kankaria Lake, in the neighbourhood of Maninagar, is an artificial lake developed by Qutb-ud-din Aibak, the Sultan of Delhi, in 1451 A.D. The city is also called Karnavati, a name for an older town that existed in the walled area.

Ahmedabad remained the most important city in the Gujarat region. The City established itself as the home of a booming textile industry, which earned the nickname "The Manchester of India." With the creation of the state of Gujarat in 1960, Ahmedabad gained prominence as the political and commercial capital of the state. Once characterized by dusty roads and congested localities, the city is witnessing a major construction boom and population increase. A rising centre of education, information technology and scientific industries, Ahmedabad remains the cultural and commercial heart of Gujarat, and much of western India. Since 2000, the city has been transformed through the construction of skyscrapers, shopping malls and multiplexes.

The BRTS and the Sabarmati River Front development project are also under progress. Kankaria Lake, Siddi Saiyad's Jali, Jama Masjid, Roza of Sarkhej are the historical monuments/places situated in the city. Gandhi Ashram, Abhay Ghat (Samadhi of Late. Prime Minister Shri Moraraji Desai) Science City, Vaishnovdevi Temple, ISCON Temple are also famous for the tourists attraction. Lothal, Step-Well of Adalaj & Akshardham Temple are also very famous tourist places nearby. A famous Swaminarayan Temple is also situated in Sarangpur of Barvala Taluka of Botad District, which is a newly created district from parts of Ahmedabad and

Bhavnagr. Nal Sarovar Lake is also a famous Bird Sanctuary where migratory birds from Central Asia visit every year in winter season, is situated in the Ahmedabad District.

- **Location of District:**



- Administrative Set up:**

Sr.no	Name of Taluka	No.of Villages
1	Asarva	10
2	Maninagar	10
3	Vatva	14
4	Vejalpur	11
5	Sabarmati	14
6	Ghatlodiya	15
7	Daskroi	64
8	Sanand	68
9	Bavla	48
10	Dholka	71
11	Dhandhuka	40
12	Viramgam	33
13	Detroj	68
14	Mandal	54
15	Dholera	37
Total		556

Land formation

The land of Ahmedabad is mostly flat. Forest area of Ahmedabad district is 11.37 sq. Km. Irrigated area is 892.55 SQ. km and non-irrigated area is 4556.82 Sq. km.

- Rainfall**

Sr.no	Name of Taluka	2015	2016	2017	2018	2019	2020
1	City (West)	615	574	1049	418	852	925
	City (East)						
2	Daskroi	302	416	647	245	726	514
3	Sanand	701	524	1007	304	957	915
4	Bavla	382	453	1024	377	965	616
5	Dholka	310	381	491	290	931	445
6	Dhandhuka	477	514	728	395	1095	489
7	Viramgam	518	277	594	173	498	817
8	Detroj	403	337	644	233	496	560

9	Mandal	358	270	468	113	441	801
10	Dholera	515	442	555	366	762	683

Rivers and Dams:

The Most Popular Rivers of Ahmedabad District are (1) Sabarmati (2) Shedi (3) Vatrak (4) Mazum (5) Meshvo (6) Bhogavo and (7) Hathmati (8) Khari. Besides those, some small rivers like Mazum, Shedhi. Only Sabarmati is passing across the District.

Only one Barrage is situated in Ahmedabad is Vasna barrage. It is an Irrigation project situated on Sabarmati River.

(1) Sabarmati (2) Shedi (3) Vatrak (4) Mazum (5) Meshvo (6) and (7) Khari rivers are gathered at Vautha village of Dholka Taluka. Bhogavo river originate from Surendranagar district. Sometimes due heavy rain in Surendranagar it could be flooded and affect some villages of Dholka, Dhandhuka and Dholera taluka.

ANNEXURE - 2

Detail of Coastal Villages

Sr	Taluka	Name of Village	Distance from Sea	Population
1	Dholera	Dholera	20	1616
2		Navagamkarna	10	562
3		Gogla	08	1245
4		Khun	17	1628
5		Mahadevpura	14	1211
6		Bhangadh	14	1733
7		Zankhi	13	526
8		Buranpur	07	784
9		Kamatalav	10	1533
10		Rahtalav	4.5	1395
11		Mingalpur	12	2133
12		Valinda	12	1115
13		Dhanala	17	726
14		Anandpur	14	581
15		Pipli	09	1660
16		Ambli	10	1962
17		Kadipur	17	923
18		Bhimtalav	13	141

(A) Medical Facilities available in District

S. N	Health facility	No.
1	Medical college	2
2	District Hospital	1
3	Sub District hospital	2
4	PHCs	40
5	PHCs 24*7	19
6	CHCs	09
7	CHCs FRU	5
8	Sub Centers	216
9	Govt. Dispensary	0
10	Mobile Health Unit	1
11	Grant in Aid Hospital	11

Rapid Response Team

Name	Office	Fax No.	Mobile No.	E-mail id	Designation
Dr. Parmar	079-25507076	079-25507076	9687679006	cdho.health.ahmedabad3@gmail.com	I/C- CDHO
Dr Pinaben Soni	079-27664359	-----	7567897487	cdmo.health.ahmedabad3ola@gmail.com	I/C- CDMO Sola
Dr.Gautam Nayak	079-25507076	079-25507076	9099039329	rcho.health.ahmedabad@gmail.com	RCHO
Dr. Chintan Desai	079-25500107	079-25500107	9099064030	emoahmedabad3@gmail.com	DSO & EMO
Dr. Mahendra Parikh	079-25500107	079-25500107	9099064723	emoahmedabad3@gmail.com	Epidemiologist (APM IDSP)
Mr. N. L. Rathod	079-25507569	-----	9099064008	dmo.health.ahmedabad@gmail.com	DMO / Entomologist
Dr. Swami Kapadia	079-25502441	-----	7069077670	ahmedabadquality11@gmail.com	QAMO
Dr Devang Raval	079-22683721	-----	9426366318	-----	Public Health Expert (BJMC)
Dr.Parul Bhatt	079-27664359	-----	7567897527	Parulbhatt30@yahoo.com	HOD Medicine Sola Civil
Dr. Nehal Patel	079-27664359	-----	7567897517	Nehalpatel1977@gmail.com	HOD Paediatrics Sola
Dr Bhanu R Desai	079-27664359	-----	9979842156	cs-ahdgujarat.gov.in	Clinician Paediatrics
Dr Nidhi Sud	079-27660275 ext. 305	-----	9429069369	sola.microbiology@gmail.com	HOD Microbiologist Sola Civil
Dr Mahendra Vegad	079-22681024 079-22680074	079-22683067	9409604543	mcahd@gujhealth.gov.in	HOD Microbiology BJMC
Mr.Bharat Patel	079-25507076	-----	9099064041	pharmacist.health.ahmedabad@gmail.com	District Pharmacist

Hospital Number		
1	Civil hospital, Asarwa	22683721/22,22681379
2	Rajastan Hospital , Sahibaug	22866312/13
3	Gulabbai Hospital, Kalupur	22139055
4	Dr.Jivaraj Maheta helth foundation	26639839-42
5	Krishna Heart Institute, Ghuma	99099977099,02717-234600
6	Mediserj Hospital, Mithkhari	26441401/02
7	S.A.L. HosptialsSALf	26845600
8	Shrey Hospital, Navargpura	26468620
9	C.H.Nagari Eye Hospital	26466724/0176
10	Struling Hospital, Gurukul	27481415/5767
11	Apolo Clinic, Ghatlodiya	66701811
12	V.S.Hospital, Hownhall	26577621-25
13	Gujarat Banj Hospital, Junavadaj	27556665,27560499
14	Sardaben Hospital, Sarspur	22924261
15	Karnavati Hospital, Elisbrige	26575500
16	Ashar Hospital, Sahibaug	25621366
17	Patva Narsing Home, Paldi	26589686
18	Child Care Hospital, Memnagar	27911110
19	Prena Hospital, Dr.House	26464054
20	Chandrmani Hospital, Shahibaug	22866789
21	Nidhi Sarjical Hospital, Navavadaj	27642122
22	E.S.I.S General Hospital	22742681
23	Civil Hospital, Sola	27664355 27664359
24	M.P.Shah Cancer Hospital, Asarwa	22688000
25	Samjuba Hospital,	22741012

	Bapunagar	
26	L.G.Hospital, Maninagar	25461380

Blood Bank		
1	Indian Red Cross Socity	26650855,26651833
2	RedCross	26651833
3	Green Cross	26577588,26588824
4	Kanavati Blood Bank	27479742,27415150
5	prathma blood bank	26611863,26607762

ANNEXURE - 3

Resources Provided by Govt. at Various Levels.

(A) Life Jackets / Life Buoy / Ropes / Generators

Sr.	Name of Taluka	Life Saving Jacket	Life Buoy	200 Feet Ropes	Generator
1	Dhandhuka	20	20	10	1
2	Dholka	20	15	10	1
3	Bavla	20	20	10	1
4	Sanand	20	20	05	1
5	Viramgam	45	45	10	1
6	Mandal	15	10	05	1
7	Detroj	10	10	05	1
8	Daskroi	50	50	10	1

9	Dholera	-	-	-	-
---	---------	---	---	---	---

(B) Fire Fighter / Water Browsers / Boat / Life saving Jacket/Ring/Rope

Sr	Name of Nagar Palika	Fire Fighter	Water Browser	Boat	Motorcycle Water Mist	Life saving Jacket	Ring	Rope	Dwatering pump
1	Dholka	1	2	1	1	4	4	4	2
2	Viramgam	1	2	-	1	4	4	4	2
3	Sanand	1	2	-	1	4	4	4	3
4	Bavla	1	1	-	1	4	4	4	3
5	Bareja	1	1	-	-	4	4	4	1
6	Dhandhuka	1	2	-	1	4	4	4	3

ANNEXURE - 4

Rain Gauge Machines available each Taluka.

Sr.	Name of Taluka	Type of Rain Gauge	Place / Office
1	Daskroi	Simple Measure	Municipality, Bareja
2	Bavla	Automatic	Mamlatdar Office,Bavla
3	Detroj	Simple Measure	Mamlatdar Office, Detroj
4	Dhandhuka	Simple Measure	Mamlatdar Office, Dhandhuka
5	Dholera	Simple Measure	Mamlatdar Office, Dholera
6	Virangam	Simple Measure	Mamlatdar Office, Virangam.
7	Sanand	Simple Measure	Mamlatdar Office, Sanand
8	Dholka	Simple Measure	Mamlatdar Office, Dholka
9	Mandal	Simple Measure	Mamlatdar Office,Mandal.

ANNEXURE - 5

List of Chemicals and their Antidotes

Sr.	Chemicals	Antidotes
1	Acid & Sulphur Oxide	Sodium Hydro- Carbonate (4% Conc.) Milk, Lime Juice, Milk of Magnesia.
2	Ammonia	Skin: Wash with Lactic Acid, Apply soframycin. Eye: Benoxynate Novacin-0.4% Conc. Throat : Smelling Ethanol or Ether
3	Benzene, Zylene, Toluene	Wash the skin area plenty of water if affected. Fresh air / Oxygen, 0.1 mg/kg slowly through injection rest in bed. Don't apply Epinefrin, Ifridin etc. Don't apply milk, vegetable oil or alcohol.
4	Bleaching Solution	Milk, Ice cream, eggs, milk of magnesia, aluminium hydroxide gel. Do not give acid antidotes.
5	Boric acid and boron derivatives	Epicake solution and activated charcoal. If vomited give 5% dextrose through injection.
6	Bromates or Cosmetics	Sodium thio sulphate 1ml/ kg 10% solution through injection.
7	Cadmium	Calcium dysodium editate through injection.
8	Carbon monoxide	Pure oxygen through mask. 20% mennytole (1gm/ kg) prednisolon 1 mg/kg through injection.
9	Cyanides and thio cynates insecticides	Methelene blue or kelocynere injection. If go through respiration smelling amale nitrite (3% solution) and sodium thio sulphate (25% solution) through injection.
10	DDT (Helogenated Insecticides)	Epicake syrup, Activated charcoal, saline cathartic diazepam (10 mg slowly through injection, wash the skin through water and soap). Give pure oxygen if problem in respiration.
11	Di- chloro methane	Hydrocortisone (200mg at every 4 hrs.) Aspirin and if pneumonia gives antibiotics.
12	Ethanol	2 gm sodium bi carbonate in 250ml water. Diazepam 10mg through injection. I injury in eye or skin wash plenty of water.
13	Heavy metal compounds	Activated carbon.
14	Hydrogen sulphide, others sulphides and Marcaptans.	Put the patients at clean air or pure oxygen. Smelling the drops or Ether or Ethanol. Amyl nitrite or Sodium Nitrite, pyridoxine 25mg/ kg or 10% Urea 1 gm/ kg through injection.
15	Iodine & its compounds	Milk, epinefin, 1% sodium thio sulphate solution 100ml by oral.
16	Irons salts	Concentrative dyferoxemine therapy.
17	Magnesium Salts	Calcium gluconate 10% solution 1ml/kg through injection.
18	Manganese	Calcium editate
19	Naphthalene	Keep the urinal Alkaline by giving the Sodium bicarbonate at every four hour. Furosemide 1 ml/ kg in liquid.
20	Nitrogen Oxide	Prednison or prednisolon 5 mg at every 6 hours.
21	Phosphours, Phosgene and phophide	Calcium gluconate 10% of 10 ml through injection, 5% glucose in water, travesty (10% invert sugar) through injection.
22	Potassium permanganate	Hot milk, methelene blue (1% solution), ascorbic acid (5% solution)
23	Silica and asbestoses dust	Dust level should be minimize, use airline respirator, dust collector and local ventilation.
24	Tobacco and Nicotine	Do vomiting, Etropin (full dose), if problem in respiration give pure oxygen.

ANNEXURE – 6

Heat Wave Action Plan:

Heat-wave is a condition of atmospheric temperature that leads to physiological stress, which sometimes can claim human life. Heat-wave is defined as the condition where maximum temperature at a grid point is 3°C or more than the normal temperature, consecutively for 3 days or more. World Meteorological Organization defines a heat wave as five or more consecutive days during which the daily maximum temperature exceeds the average maximum temperature by five degrees Celsius. If the maximum temperature of any place continues to be more than 45° C consecutively for two days, it is called a heat wave condition.

Key strategies

The heat-wave action plan is intended to mobilize individuals and communities to help protect their neighbours, friends, relatives, and themselves against avoidable health problems during spells of very hot weather. Broadcast media and alerting agencies may also find this plan useful. Severe and extended heat-waves can also cause disruption to general, social and economic services. For this reason, Government agencies will have a critical role to play in preparing and responding to heat-waves at a local level, working closely with health and other related departments on long term strategic plan.

- ☐ Establish Early Warning System and Inter-Agency Coordination to alert residents on predicted high and extreme temperatures. Who will do what, when, and how is made clear to individuals and units of key departments, especially for health.
- ☐ Capacity building / training programme for health care professionals at local level to recognize and respond to heat-related illnesses, particularly during extreme heat events. These training programmes should focus on medical officers, paramedical staff and community health staff so that they can effectively prevent and manage heat-related medical issues to reduce mortality and morbidity.
- ☐ Public Awareness and community outreach Disseminating public awareness messages on how to protect against the extreme heat-wave through print, electronic and social media and Information, Education and Communication (IEC) materials such as pamphlets, posters and advertisements and Television Commercials (TVCs) on Do's and Don'ts and treatment measures for heat related illnesses.
- ☐ Collaboration with non government and civil society: Collaboration with non-governmental organizations and civil society organizations to improve bus stands, building temporary shelters, wherever necessary, improved water delivery systems in public areas and other innovative measures to tackle Heat wave conditions.

Identification of Colour Signals for Heat Alert:

Red Alert (Severe Condition)	Extreme Heat Alert for the Day	Normal Maximum Temp increase 6° C to more
Orange Alert (Moderate Condition)	Heat Alert Day	Normal Maximum Temp increase 4° C to 5° C
Yellow Alert (Heat-wave Warning)	Hot Day	Nearby Normal Maximum Temp.
White (Normal)	Normal Day	Below Normal Maximum Temp.

ANNEXURE – 7

Evacuation plan:

On the basis of assessment of the severity of the disaster, the State Relief Commissioner shall issue appropriate instructions on actions to be taken including evacuation to the District Collector, who will then supervise evacuation.

The District Collector will give direction to the Liaison Officers, Dy. Collector and all concerned departments for evacuation based on situation. This will be carried out by the Revenue department, Local police & District Panchayat department.

At the village level, members of the VDMCs and DMTs or village level will coordinate the evacuation procedures to the pre-designated relief centres, taking special care of the vulnerable groups of women, children, old people etc.

Types of evacuation:

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

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

Evacuation Team Members are mainly responsible to evacuate and carry out search and rescue operation during the time of emergency. The members of this team are mainly young men and women of the village, ex-service men; swimmers, etc. Rescue kits necessary to carry out the activities of this team would be ideally made locally with indigenous materials available. These members are trained with the help of Civil Defence, Police, Fire services etc.

☐ In cases where the approach road is clear, people will be evacuated by local tractor/trolley, ST bus & other big vehicles. The people trapped in areas surrounded by water will be rescued by the Mamlatdar, local police & local swimmers through boats.

☐ RTO Office will be directed to arrange and supply vehicle for evacuation & rescue operation.

☐ Make transport arrangement for mobilization of all emergency response teams.

☐ Ensure that the arrangement for basic amenities (shown below) at evacuation/relief centres are made by the respective departments:

o Drinking water, o Food, o Sanitation and hygiene, o Lighting, o Health Care

☐ Ensure that law and order is maintained at evacuation centres and in the affected areas as well.

☐ Maintain the records of area-wise population, shelter centres in your area for effective emergency evacuation.

All evacuations will be ordered only by the Collector/Mamlatdar or by the SP or Fire Brigade, after consultation with the District Collector. SP should ensure appropriate security and maintenance of law and order during evacuation process and render all possible assistance to the Village level Task Force members. All voluntary evacuations should be immediately reported to the Collector.

All Primary Schools and Higher Secondary Schools and Community Centres will be utilised for Evacuation. Collector-Ahmedabad had ordered DEO/DPEO to handover schools to taluka authority for shelter as and when Evacuation took place.

ANNEXURE – 8

Shelter Management Plan:

As per instruction of a District collector or message for SEOC, DDO will do operation of relief and shelter with their staff, group members & their staff and Maintain the records of area-wise population, shelter centres in your area for effective emergency evacuation.

Based on the warning issued by IMD, pin point the districts and villages likely to be affected by Disasters and start the procedure for identifying safe places/shelters for evacuation in those villages.

Generally public buildings are given first priority for shelter because they are lesser in number and at the time of disaster people can take shelter in these public buildings.

Shelter Management Team takes care of the identified shelter buildings in pre, during and post disaster scenario. Care needs to be taken to stock necessary material such as food, drinking water, medicines, bleaching powder, firewood, lantern, etc. Special care needs to be taken for the animal stock during any disaster. The team needs to ensure hygiene in and around the shelter place. Women are generally active members of the shelter team as they are well acquainted with house management, and are able to manage shelters during emergency. The team leader or any other team member should have the keys of the safe shelters so that prior to the disaster they will clean up the place and make available the necessary materials like food, water, medicines, bleaching powder, firewood, lantern, etc. required for the evacuees during disaster period.

The most important action by the police is to cordon off the site of the accident, divert and regulate traffic, and evacuate/shelter in place citizens in close proximity on a priority basis.

Village wise data of safe sheltering for evacuation available on SDRN should be referred and the dist. Liaison officers/Taluka level officers/Village level officers should be contacted to know the status of the shelters with the capacity of the shelter and other available facilities at the site. Arrange to shift evacuated persons to temporary shelters and ensure provision of food, water facilities, blankets and storage of relief materials.

Arrange for complaints regarding missing persons and initiate search in shelters, hospitals and police records. The villagers identify safe areas such as strong houses /buildings, raised platforms etc. These act as a shelter place for the people in the event of an evacuation. It would be useful to identify the alternate approach routes which could be used during the time of an emergency.

Field visit to the affected areas and shelter/ relief camp sites and report preparation and forward to Collector for approval, sanction and onward action. Check the condition of safe shelter during his visits in the district places and if necessary gets it repaired by co-coordinating with the local authorities, available financial resources and voluntary organizations.

Setting up relief camps and tents using innovative methods that can save time. Instruct local authorities to set up important telecom and other service related facilities. Initiate, direct and market procurement of food available from different inventories and ensuring food supplies to the affected population. Prepare take-home food packets for the families. Ensure distribution of relief material to the all the people including vulnerable groups of the target area such as women with infants, pregnant women, children, aged people and handicapped. Ensuring supports from all corners to Local Administration.

ANNEXURE – 9

Medical and Hospital Management Plan:

District crisis group is a multi-sectoral group and comprises of different government departments, the group is headed by District Collector and senior/ junior factory inspector is a member secretary.

Chief district medical officers {CDMO} and Chief District health officers {CDHO} are members of this group. As per the guidance from the Commissionerate of Health, Medical Services and Medical Education, CDMO and CDHO of each district are to prepare a Contingency Plan for Medical Relief in Disaster so as to meet any adverse event in future limit immediate and delayed consequences of such a Disaster.

Activities to be carried out on strikes of any Disasters in District:

- ☐ PHC team will rush to affected village and start curative services as well as preventive and control measure of an outbreak.
- ☐ At the site team will carry out house to house surveillance.
- ☐ Team will guide and give health education regarding disease, and for prepare dispose of night soil, house hold garbage etc.
- ☐ Along with curative and control Measure team will carry out focal spray of insecticide and disinfectant in affected family and surrounding 50 House.
- ☐ Team will carry out super dose chlorination of all pre identified sources of potable water in the affected village also distribute chlorine tablet for domestic use.
- ☐ Team will prepare program for regular chlorination through Health worker and Panchayat Machinery.
- ☐ Male Health supervisor made responsible for checking the chlorination He is instructed to maintain register of R.C. test and asked to report regular.
- ☐ To maintain sanitary condition, Retail shop of food and food preparation, Fruit shop, Ice-cream and Cold drink shop must be check up.
- ☐ Team will take water sample, food sample, blood, urine, stool as per necessity and if possible carry out laboratory analysis on the spot or will send the sample to Baroda laboratory with special Messenger.
- ☐ If it is necessary team will carry out vaccine immunization.
- ☐ With the help of Panchayat machinery Health Worker / supervisor make it possible to dispose, spoil food.
- ☐ Medical officer are instructed to take active support of youth forums, Mahila Mandal, Gram Panchayat and other NGO in their jurisdiction.
- ☐ Male supervisor made responsible for reporting of all activity carried out to the district health officer.
- ☐ If it is necessary other medical team and logistic will deputed from non-affected area.

ANNEXURE – 10

Media Management Plan:

Media can play crucial role during response time. Media management will ensure precise communication of the impact of disaster and relief measures being taken and generate goodwill among community and other stakeholders.

Timely mass media communication about impending disasters can lead to appropriate individual and community action, which is the key to implementing effective prevention strategies including evacuation and survival of people. Such communications can educate, warn, inform, and empower people to take practical steps to protect themselves from natural hazards.

Ahmedabad Collectorate office has established an effective system of collaborating with the media during emergencies. Both print and electronic media is regularly briefed at predetermined time intervals about the events as they occur and the prevailing situation on ground. A similar set up is also active at the Taluka Control room (i.e. Mamlatdar office).

Dy. Director, Information will establish media management / information cell for public information, guidance and rumor control and will assure following activities...

1. For Preparedness:

- ☐ Broadcast programs to raise people's awareness of disaster prevention measures
- ☐ Develop news sources in emergency situation
- ☐ Place broadcast equipments, microphone, tape/CD, transmitter, antennae in safety.

2. For Mitigation:

- ☐ Develop networks with DEOC/TEOC, NGOs, local government offices & stakeholders.

3. For Response:

- ☐ Broadcast pre - prepared announcements
- ☐ Broadcast emergency public meetings
- ☐ Broadcast emergency evacuation announcements
- ☐ All announcements broadcast in a reassuring and calm manner
- ☐ Dispel myths and rumours and provide timely and accurate updates
- ☐ Broadcast updates on damage situation
- ☐ Produce programs in which victims can express themselves
- ☐ Establish contact with the meteorological office and broadcast weather informations

DEOC have to be ensured that the interaction with media is a two way process through which not only the DEOC provides the information / updates to the media but the media too, through their own sources / resources draws the attention of the DEOC officials to the need and requirement of the affected people.

ANNEXURE – 11

Relief and Rehabilitation Norms (Standards):

REVISED LIST OF ITEMS AND NORMS OF ASSISTANCE FROM STATE DISASTER RESPONSE FUNDS (SDRF) AND NATIONAL DISASTER RESPONSE FUND (NDRF)

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

Sl. No.	Items	NORMS OF ASSISTANCE
1	2	3
1.	Gratuitous Relief	
	a) Ex-Gratia payment to families of deceased persons.	Rs.4.00 lakh per deceased person including those involved in relief operations or associated in preparedness activities, subject to certification regarding cause of death from appropriate authority.
	b) Ex-Gratia payment for loss of a limb or eye(s).	Rs. 59100/- per person, when the disability is between 40% and 60%. Rs. 2.00 lakh per person, when the disability is more than 60%. Subject to certification by a doctor from a hospital or dispensary of Government, regarding extent and cause of disability.
	c) Grievous injury requiring hospitalization	Rs. 12,700/- per person requiring hospitalization for more than a week. Rs. 4,300/- per person requiring hospitalization for less than a week.
	d) Clothing and utensils/ house-hold goods for families whose houses have been washed away/ fully damaged/severely inundated for more than two days due to a natural calamity.	Rs.1,800/- per family, for loss of clothing. Rs.2,000/- per family, for loss of utensils/ household goods.
	e) Gratuitous relief for families whose livelihood is seriously affected.	Rs. 60/- per adult and Rs. 45/- per child, not housed in relief camps. State Govt. will certify that identified beneficiaries are not housed in relief camps. Further State Government will provide the basis and process for arriving at such beneficiaries district-wise. Period for providing gratuitous relief will be as per assessment of the State Executive Committee (SEC) and the Central Team (in case of NDRF). The default period of assistance will upto to 30 days, which may be extended upto 60 days in the first instance, if required, and subsequently upto 90 days in case of drought/ pest attack. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year.
2.	SEARCH & RESCUE OPERATIONS	
	(a) Cost of search and rescue measures/ evacuation of people affected/ likely to be affected	As per actual cost incurred, assessed by SEC and recommended by the Central Team (in case of NDRF).

		<ul style="list-style-type: none"> - By the time the Central Team visits the affected area, these activities are already over. Therefore, the State Level Committee and the Central Team can recommend actual/ near-actual costs.
	(b) Hiring of boats for carrying immediate relief and saving lives.	<p>As per actual cost incurred, assessed by SEC and recommended by the Central Team (in case of NDRF).</p> <p>The quantum of assistance will be limited to the actual expenditure incurred on hiring boats and essential equipment required for rescuing stranded people and thereby saving human lives during a notified natural calamity.</p>
3	RELIEF MEASURES	
	a) Provision for temporary accommodation, food, clothing, medical care, etc. for people affected/ evacuated and sheltered in relief camps.	<p>As per assessment of need by SEC and recommendation of the Central Team (in case of NDRF), for a period up to 30 days. The SEC would need to specify the number of camps, their duration and the number of persons in camps. In case of continuation of a calamity like drought, or widespread devastation caused by earthquake or flood etc., this period may be extended to 60 days, and upto 90 days in cases of severe drought. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year.</p> <p>Medical care may be provided from National Rural Health Mission (NRHM).</p>
	b) Air dropping of essential supplies	<p>As per actual, based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF).</p> <ul style="list-style-type: none"> - The quantum of assistance will be limited to actual amount raised in the bills by the Ministry of Defence for airdropping of essential supplies and rescue operations only.
	c) Provision of emergency supply of drinking water in rural areas and urban areas	<p>As per actual cost, based on assessment of need by SEC and recommended by the Central Team (in case of NDRF), up to 30 days and may be extended upto 90 days in case of drought. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year.</p>
4.	CLEARANCE OF AFFECTED AREAS	
	a) Clearance of debris in public areas.	<p>As per actual cost within 30 days from the date of start of the work based on assessment of need by SEC for the assistance to be provided under SDRF and as per assessment of the Central team for assistance to be provided under NDRF.</p>
	b) Draining off flood water in affected areas	<p>As per actual cost within 30 days from the date of start of the work based on assessment of need by SEC for the assistance to be provided under SDRF and as per assessment of the Central team (in case of NDRF).</p>
	c) Disposal of dead bodies/ Carcasses	<p>As per actuals, based on assessment of need by SEC and</p>

		recommendation of the Central Team (in case of NDRF).
5	AGRICULTURE	
(i)	<i>Assistance farmers having landholding upto 2 ha</i>	
A.	Assistance for land and other loss	
	a). De-silting of agricultural land (where thickness of sand/ silt deposit is more than 3", to be certified by the competent authority of the State Government.)	Rs. 12,200/- per hectare for each item. (Subject to the condition that no other assistance/ subsidy has been availed of by/ is eligible to the beneficiary under any other Government Scheme)
	b) Removal of debris on agricultural land in hilly areas	
	c) De-silting/ Restoration/ Repair of fish farms	
	d) Loss of substantial portion of land caused by landslide, avalanche, change of course of rivers.	Rs. 37,500/- per hectare to only those small and marginal farmers whose ownership of the land is legitimate as per the revenue records.
B.	Input subsidy (where crop loss is 33% and above)	
	a) For agriculture crops, horticulture crops and annual plantation crops	Rs. 6,800/- per ha. in rainfed areas and restricted to sown areas. Rs. 13,500/- per ha. in assured irrigated areas, subject to minimum assistance not less than Rs.1000 and restricted to sown areas.
	b) Perennial crops	Rs. 18,000/- ha. for all types of perennial crops subject to minimum assistance not less than Rs. 2000/- and restricted to sown areas.
	c) Sericulture	Rs. 4,800/- per ha. for Eri, Mulberry, Tussar Rs. 6,000/- per ha. for Muga.
(ii)	<i>Input subsidy to farmers having more than 2 Ha of landholding</i>	Rs. 6,800/- per hectare in rainfed areas and restricted to sown areas. Rs.13,500/- per hectare for areas under assured irrigation and restricted to sown areas. Rs. 18,000/- per hectare for all types of perennial crops and restricted to sown areas. Assistance may be provided where crop loss is 33% and above, subject to a ceiling of 2 ha. per farmer.
6	ANIMAL HUSBANDRY ASSISTANCE TO SMALL AND MARGINAL FARMERS	
	i) Replacement of milch animals, draught animals or animals used for haulage.	<i>Milch animals -</i> Rs. 30,000/- Buffalo/ cow/ camel/ yak/ Mithun etc. Rs. 3,000/- Sheep/ Goat/ Pig <i>Draught animals -</i> Rs. 25000/- Camel/ horse/ bullock, etc. Rs. 16,000/- Calf/ Donkey/ Pony/ Mule - The assistance may be restricted for the actual loss of economically productive animals and will be subject to a

		<p>ceiling of 3 large milch animals or 30 small milch animals or 3 large draught animals or 6 small draught animals per household irrespective of whether a household has lost a larger number of animals. (The loss is to be certified by the Competent Authority designated by the State Government).</p> <p>Poultry:- Poultry @ 50/- per bird subject to a ceiling of assistance of Rs 5000/- per beneficiary household. The death of the poultry birds should be on account of a natural calamity.</p> <p>Note:- Relief under these norms is not eligible if the assistance is available from any other Government Scheme, e.g. loss of birds due to Avian Influenza or any other diseases for which the Department of Animal Husbandry has a separate scheme for compensating the poultry owners.</p>
	ii) Provision of fodder / feed concentrate including water supply and medicines in cattle camps.	<p>Large animals- Rs. 70/- per day.</p> <p>Small animals- Rs. 35/- per day.</p> <p>Period for providing relief will be as per assessment of the State Executive Committee (SEC) and the Central Team (in case of NDRF). The default period for assistance will be upto 30 days, which may be extended upto 60 days in the first instance and in case of severe drought up to 90 days. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit, subject to the stipulation that expenditure on this account should not exceed 25% of SDRF allocation for the year.</p> <p>Based on assessment of need by SEC and recommendation of the Central Team, (in case of NDRF) consistent with estimates of cattle as per Livestock Census and subject to the certificate by the competent authority about the requirement of medicine and vaccine being calamity related.</p>
	iii) Transport of fodder to cattle outside cattle camps	As per actual cost of transport, based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF) consistent with estimates of cattle as per Livestock Census.
7	FISHERY	
	<p>i) Assistance to Fisherman for repair / replacement of boats, nets – damaged or lost</p> <p>-- Boat</p> <p>-- Dugout-Canoe</p> <p>-- Catamaran</p> <p>-- net</p> <p>(This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/ assistance, for the instant calamity, under any other Government Scheme.)</p>	<p>Rs. 4,100/- for repair of partially damaged boats only</p> <p>Rs. 2,100/- for repair of partially damaged net</p> <p>Rs. 9,600/- for replacement of fully damaged boats</p> <p>Rs. 2,600/- for replacement of fully damaged net</p>
	ii) Input subsidy for fish seed farm	Rs. 8,200 per hectare.

		(This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/ assistance, for the instant calamity, under any other Government Scheme, except the one time subsidy provided under the Scheme of Department of Animal; Husbandry, Dairying and Fisheries, Ministry of Agriculture.)
8	HANDICRAFTS/HANDLOOM ASSISTANCE TO ARTISANS	
	i) For replacement of damaged tools/ equipment	Rs. 4,100 per artisan for equipments. - Subject to certification by the competent authority designated by the Government about damage and its replacement.
	ii) For loss of raw material/ goods in process/ finished goods	Rs. 4,100 per artisan for raw material. - Subject to certification by Competent Authority designated by the State Government about loss and its replacement.
9	HOUSING	
	a) Fully damaged/ destroyed houses	
	i) Pucca house	
	ii) Kutcha House	Rs. 95,100/- per house, in plain areas.
	b) Severely damaged houses	
	i) Pucca House	
	ii) Kutcha House	Rs. 1,01,900/- per house, in hilly areas including Integrated Action Plan (IAP) districts.
	(c) Partially Damaged Houses -	
	(i) Pucca (other than huts) where the damage is at least 15 %	Rs. 5,200/- per house
	(ii) Kutcha (other than huts) where the damage is at least 15 %	Rs. 3,200/- per house
	d) Damaged / destroyed huts:	Rs. 4,100/- per hut, (Hut means temporary, make shift unit, inferior to Kutcha house, made of thatch, mud, plastic sheets etc. traditionally recognized as hut by the State/ District authorities.) Note: -The damaged house should be an authorized construction duly certified by the Competent Authority of the State Government.
	e) Cattle shed attached with house	Rs. 2,100/- per shed.

ANNEXURE – 12

Formats (Reports, Damage and Loss Assessment):

1. Format of Primary Situation Report:

<p style="text-align: center;">Emergency Operation Center – City/ Taluka / District..... Address..... Phone No..... Fax No. Email Address: -</p>

No. Disa/...../Pri.Rep./2014

Date: - / / 2014

Primary Situation Report of Calamity / Accident

1	Type of Calamity	
2	Name, Address details of a person/s injured/ death in Calamity/ Disaster (If Available)	
3	Place of Calamity (Place/Village/Taluka/District)	
4	Date / Time	
5	Reason of Accident / Calamity	
6	Description of Accident, Calamity, Disaster	
7	Activity / Process done at Village / Taluka / City / District Place	

This is the Primary Situation Report sent to you. Detail Report will be sent to your office later on.

Designation,
Office of the.....,
(District / Taluka / City)

To,
Hon. Collector sir,
DEOC, Collector office, Ahmedabad,
Ph. - 0285-2633446, Fax. - 0285-2633449

Copy to...
Director of Relief,
New Sachivalay, Gandhinagar.

2. Format for Damage and Loss Assessment:

A. Inspection Team Inspection Date & Time: _____
 Structure Engineer: _____
 Civil Engineer: _____
 Junior Engineer: _____
 Officer of Local Competent: _____
 Authority (from engg. section) Area Inspected: ☐ Exterior Only
 Photographer: _____ ☐ Exterior & Interior

B. Type of Disaster
☐ Earthquake ☐ Flood ☐ Fire ☐ Cyclone ☐ Blast ☐ Other

C. Location, Type & Occupancy of Building:

Location: Building Name: _____ Address: _____ _____ Contact: _____ Phone: _____ Survey No.: _____ Final Plot No.: _____ Sub Plot No.: _____ Town Planning Scheme No.: _____	Brief Details: Number of stones above ground: _____ below ground: _____ Parking Floor: <input type="checkbox"/> Ground Level <input type="checkbox"/> Basement Level Approx. Footprint area (sqm): _____ No. of residential units: _____ No. of residential units: _____ not habitable
--	--

(To be collected from Competent Authority)

Type of Construction:

- | | |
|--|---|
| <input type="checkbox"/> Timber Construction
<input type="checkbox"/> Masonry Construction
<input type="checkbox"/> Kiln burnt bricks
<input type="checkbox"/> Unburnt bricks
<input type="checkbox"/> Random Rubble Uncoarsed
<input type="checkbox"/> Random Rubble Coarsed
<input type="checkbox"/> Hollow Concrete Blocks
<input type="checkbox"/> Steel Structure
<input type="checkbox"/> Other: _____ | <input type="checkbox"/> Reinforced Masonry
<input type="checkbox"/> Kiln burnt bricks
<input type="checkbox"/> Hollow Concrete Blocks
<input type="checkbox"/> Concrete Frame
<input type="checkbox"/> Concrete Shear Wall
<input type="checkbox"/> Dual System
<input type="checkbox"/> Precast Concrete Construction
<input type="checkbox"/> Composite Structure |
|--|---|

Primary Occupancy:

- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Individual House
<input type="checkbox"/> Offices
<input type="checkbox"/> Government
<input type="checkbox"/> Semi Government
<input type="checkbox"/> Emergency Services
<input type="checkbox"/> Hospital | <input type="checkbox"/> Commercial
<input type="checkbox"/> Restaurant
<input type="checkbox"/> Hotel
<input type="checkbox"/> Industrial
<input type="checkbox"/> Cinema House, Auditoriums, Assembly Halls
<input type="checkbox"/> Other: _____ | <input type="checkbox"/> Educational
<input type="checkbox"/> School
<input type="checkbox"/> College
<input type="checkbox"/> University | <input type="checkbox"/> Group Housing
<input type="checkbox"/> Tenaments
<input type="checkbox"/> Flats
<input type="checkbox"/> Historic
<input type="checkbox"/> Fire Stations |
|--|--|--|---|

D. Assessment:

Investigate the building for the conditions given below and check the appropriate column.

Observed Conditions	None	Minor	Moderate	Severe
● Collapse, partial collapse, or subsidence or uneven settlement of foundations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Building or story leaning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Structural Damage to Bearing Walls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Structural Damage to Frame Structure				
Columns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Beams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Column-Beam Junction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Parapet Wall, Architectural Elements, other Falling Hazard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Subsidence of ground, cracking ground slope movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Internal Services				
Water supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drainage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electricity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Fighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Site Hazards				
Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electricity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drainage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Toxic Chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sketches:

Photographers:

ANNEXURE – 13

SOPs (Standard Operating Procedures):

The SOPs are intended to be used by persons who are unfamiliar with disaster management topics but are intended to be task specific and not as replacements for full plans. Through Standard Operating Procedures (SOPs) of Line Departments detailing how specific disaster response actions will be accomplished.

Each Department and Govt. agency involved in Disaster Mgmt and Mitigation will:

- Designate a Nodal officer for emergency response and will act as the contact person for that department/agency.
- Ensure establishment of fail-safe two-way communication with the state, district and other emergency control rooms and within the organisation.
- Emphasis on communication systems used regularly during L-0 with more focus on the use of VHF's with automatic repeaters, mobile phones with publicised numbers, HF radio sets etc. It should be remembered that SAT phones fail during prolonged emergencies and electric failure if the phones cannot be re-charged.
- Work under the overall supervision of the IC / the District Collectors during emergencies.

SOPs (Standard Operating Procedures) of Line Departments:

1. Agriculture

- **Prevention Activities:**
- Awareness generation regarding various plant diseases, alternate cropping practices in disaster-prone areas, Crop Insurance, provision of credit facilities, proper storage of seeds, etc.
- Hazard area mapping (identification of areas pandemic to pest, drought, flood & hazards).
- Develop database village-wise, crop-wise, irrigation source wise, insurance details, credit etc.
- Regular monitoring at taluka level; the distribution and variation in rainfall. Prepare the farmers and department officers to adopt contingency measures and take up appropriate course of action corresponding to the different emerging conditions.
- Detail response manuals to be drawn up for advising the farmers for different types of disasters, e.g., rain failure in July or September & development of a dynamic response plan taking into account weekly rainfall patterns.
- Develop IEC materials to advise the farming communities on cropping practices and precautionary measures to be undertaken during various disasters.
- Improving irrigation facilities, watershed management, soil conservation and other soil, water and fertility management
- Measures keeping in mind the local agro climatic conditions and the proneness of the area to specific hazards.
- Promotion of alternative crop species and cropping patterns keeping in mind the vulnerability of areas to specific hazards.
- Surveillance for pests and crop diseases and encourage early reporting.
- Encourage promotion of agro service outlets/enterprise for common facilities, seed and agro input store and crop insurance.
- **Preparedness Activities before disaster seasons**

- Review and update precautionary measures and procedures, especially ascertain that adequate stock of seeds and other agro inputs are available in areas prone to natural calamities.
- Review the proper functioning of rain gauge stations, have stock for immediate replacement of broken / non-functioning gadgets/equipments, record on a daily basis rainfall data, evaluate the variation from the average rainfall and match it with the rainfall needs of existing crops to ensure early prediction of droughts.
- **Response Activities:**
- Management of control activities following crop damage, pest infestation and crop disease to minimise losses.
- Collection, laboratory testing and analysis of viruses to ensure their control and eradication.
- Pre-positioning of seeds and other agro inputs in strategic points so that stocks are readily available to replace damage caused by natural calamities.
- Rapid assessment of damage to soil, crop, plantation, irrigation systems, drainage, embankment, other water bodies and storage facilities and the requirements to salvage, re-plant, or to compensate and report the same for ensuring early supply of seeds and other agro inputs necessary for re-initiating agricultural activities where crops have been damaged.
- Establishment of public information centres with appropriate and modern means of communication, to assist farmers in providing information regarding insurance, compensation, repair of agro equipments and restarting of agricultural activities at the earliest.
- **Recovery Activities**
- Arrange for early payment of compensation and crop insurance dues.
- Facilitate provision of seeds and other agro inputs.
- Promotion of drought and flood tolerant seed varieties.
- Review with the community, the identified vulnerabilities and risks for crops, specific species, areas, which are vulnerable to repetitive floods, droughts, other natural hazards, water logging, increase in salinity, pest attacks etc. and draw up alternative cropping plans to minimise impacts to various risks.
- Facilitate sanctioning of soft loans for farm implements.
- Establishment of a larger network of soil and water testing laboratories.
- Establishment of pests and disease monitoring system.
- Training in alternative cropping techniques, mixed cropping and other agricultural practices which will minimise crop losses during future disasters.

2. Health Department

Disaster Events

- **Prevention Activities:**
- Assess preparedness levels at State, District and Taluka levels.
- Identification of areas endemic to epidemics and natural disasters.
- Identification of appropriate locations for testing laboratories.
- Listing and networking with private health facilities.
- Developing a network of volunteers for blood donation with blood grouping data.

- Strengthening of disease surveillance, ensuring regular reporting from the field level workers (ANMs/LHV etc) and its compilation and analysis at the PHC and District levels, on a weekly basis (daily basis in case of an epidemic or during natural disasters), forwarding the same to the State Disease Surveillance Cell and monthly feedback from the State to the district and from the District to the PHC.
- Formation of adequate number of mobile units with trained personnel, testing facilities, communication systems and emergency treatment facilities.
- Identification of locations in probable disaster sites for emergency operation camps.
- Awareness generation about various infectious diseases and their prevention.
- Training and IEC activities
- Training of field personnel, Traditional Birth Attendants, community leaders, volunteers, NGOs and CBOs in first aid, measures to be taken to control outbreak of epidemics during and after a disaster, etc.
- Arrangement of standby generators for every hospitals.
- Listing of vehicles, repair of departmental vehicles that will be requisitioned during emergencies for transport of injured.
- **Preparedness Activities before Disaster Seasons**
- **For heat wave :**
- Preparation and distribution of IEC materials, distribution of ORS and other life-saving drugs, training of field personnel on measures to be taken for management of patients suspected to be suffering from heatstroke;
- For flood and cyclone : Assessment and stock piling of essential medicines, anti snake venom, halogen tablets, bleaching powders. ORS tablets, Pre-positioning of mobile units at vulnerable and strategic points.
- **Response activities:**
- Stock piling of life-saving drugs, detoxicants, anaesthesia, Halogen tablets in vulnerable areas.
- Strengthening of drug supply system with powers for local purchase during Level-0.
- Situational assessment and reviewing the response mechanisms in known vulnerable pockets.
- Ensure adequate availability of personnel in disaster sites.
- Review and update precautionary measures and procedures.
- **Sanitation**
- Dispensing with post-mortem activities during L1, L2 and L3 when the relatives and/or the competent authority are satisfied about cause of death.
- Disinfections of water bodies and drinking water sources.
- Immunization against infectious diseases.
- Ensure continuous flow of information.
- **Recovery Activities**
- Continuation of disease surveillance and monitoring.
- Continuation of treatment, monitoring and other epidemic control activities till the situation is brought under control and the epidemic eradicated.

- Trauma counselling.
- Treatment and socio-medical rehabilitation of injured or disabled persons.
- Immunisation and nutritional surveillance.
- Long term plans to progressively reduce various factors that contribute to high level of vulnerability to diseases of population affected by disasters.

2.2 Epidemics

• Preventive Activities:

- Supply of safe drinking water, water quality monitoring and improved sanitation.
 - Vector Control programme as a part of overall community sanitation activities.
 - Promotion of personal and community latrines.
 - Sanitation of sewage and drainage systems.
 - Development of proper solid waste management systems.
 - Surveillance and spraying of water bodies for control of malaria.
 - Promoting and strengthening Primary Health Centres with network of paraprofessionals to improve the capacity of surveillance and control of epidemics.
 - Establishing testing laboratories at appropriate locations to reduce the time taken for early diagnosis and subsequent warning.
 - Establishing procedures and methods of coordination with the Health Department, other local authorities/departments and NGOs to ensure that adequate prevention and preparedness measures have been taken to prevent and / or minimise the probable outbreak of epidemics.
 - Identification of areas prone to certain epidemics and assessment of requirements to control and ultimately eradicate the epidemic.
 - Identification of appropriate locations and setting up of site operation camps for combating epidemics.
 - Listing and identification of vehicles to be requisitioned for transport of injured animals.
 - Vaccination of the animals and identification of campsites in the probable areas.
 - Promotion of animal insurance.
 - Tagging of animals
 - Arrangement of standby generators for veterinary hospitals.
 - Provision in each hospital for receiving large number of livestock at a time.
 - Training of community members in carcasses disposal.
-
- **Preparedness activities before disaster seasons**
 - Stock piling of water, fodder and animal feed.
 - Pre-arrangements for tie-up with fodder supply units.
 - Stock-piling of surgical packets.
 - Construction of mounds for safe shelter of animals.
 - Identification of various water sources to be used by animals in case of prolonged hot and dry

spells.

- Training of volunteers & creation of local units for carcass disposal.
- Municipalities / Gram Panchayats to be given responsibility for removing animals likely to become health hazards.
- **Response Activities:**
- Control of animal diseases, treatment of injured animals, Protection of lost cattle.
- Supply of medicines and fodder to affected areas.
- Ensure adequate availability of personnel and mobile team.
- Disposal of carcasses ensuring proper sanitation to avoid outbreak of epidemics.
- Establishment of public information centre with a means of communication, to assist in providing an organised source of information.
- Mobilising community participation for carcass disposal.
- **Recovery Activities:**
- Assess losses of animal's assets and needs of persons and communities.
- Play a facilitating role for early approval of soft loans for buying animals and ensuring insurance coverage and disaster proof housing or alternative shelters/ mounds for animals for future emergencies.
- Establishment of animal disease surveillance system.

3. Water Supplies and Sanitation (GWSSB)

- **Prevention Activities:**
- Provision of safe water to all habitats.
- Clearance of drains and sewerage systems, particularly in the urban areas.
- **Preparedness Activities for disaster seasons**
- Prior arrangement of water tankers and other means of distribution and storage of water.
- Prior arrangement of stand-by generators.
- Adequate prior arrangements to provide water and halogen tablets at identified sites to used as relief camps or in areas with high probability to be affected by natural calamities.
- Rising of tube-well platforms, improvement in sanitation structures and other infrastructural measures to ensure least damages during future disasters.
- Riser pipes to be given to villagers.
- **Response Activities:**
- Disinfections and continuous monitoring of water bodies.
- Ensuring provision of water to hospitals and other vital installations.
- Provision to acquire tankers & other temporary means of distribute water on emergency base.
- Arrangement and distribution of emergency tool kits for equipments required for dismantling and assembling tube wells, etc.
- Carrying out emergency repairs of damaged water supply systems.
- Disinfection of hand pumps to be done by the communities through prior awareness activities

& supply of inputs.

- **Recovery Activities:**

- Strengthening of infrastructure.
- Sharing of experiences and lessons learnt.
- Training to staff, Review and documentation.
- Development of checklists and contingency plans.

4. Police:

- **Prevention Activities:**

- Keep the force in general and the RAF in particular fighting fit for search, rescue, evacuation and other emergency operations at all times through regular drills.
- Procurement and deployment of modern emergency equipments while modernising existing infrastructure and equipments for disaster response along with regular training and drills for effective handling of these equipments.
- Focus on better training and equipments for RAF for all types of disasters.
- Rotation of members of GSDRAF so that the force remains fighting fit.
- Ensure that all communication equipments including wireless are regularly functioning and deployment of extra wireless units in vulnerable pockets.
- Ensure inter changeability of VHF communication sets of police and GSDMA supplied units.
- Keeping close contact with the District Administration & Emergency Officer.
- Superintendent of Police be made Vice Chairperson of District Natural Calamity Committee.
- Involvement of the local army units in response planning activities and during the preparation of the contingency plans, ensure logistics & other support to armed forces during emergencies.

- **Response Plan:**

- Security arrangements for relief materials in transit and in camps etc.
- Senior police officers to be deployed in control rooms at State & district levels.
- Deploy personnel to guard vulnerable embankments and at other risk points.
- Arrangement for the safety.
- Coordinate search, rescue and evacuation operations in coordination with the administration
- Emergency traffic management.
- Maintenance of law and order in the affected areas.
- Assist administration in taking necessary action against hoarders, black marketers etc.

5. Civil Defence

- **Prevention Activities**

- Organise training programmes on first-aid, search, rescue and evacuation.
- Preparation & implementation of first aid search and rescue service plans for major public events.
- Remain fit and prepared through regular drills and exercises at all times.

- **Response Activities**

- Act as Support agency for provision of first aid, search and rescue services to other emergency service agencies and the public.
- Act as support agency for movement of relief.
- Triage of casualties and provision of first aid and treatment.
- Work in co-ordination with medical assistance team.
- Help the Police for traffic management and law and order.

6. Fire Services:

- **Prevention Activities:**

- Develop relevant legislations and regulations to enhance adoption of fire safety measures.
- Modernisation of fire-fighting equipments and strengthening infrastructure.
- Identify pockets, industry, etc. which highly susceptible to fire accidents or areas, events which might lead to fires, building collapse, etc. educate people to adopt safety measures.
- Building awareness in use of various fire protection and preventive systems.
- Conduct training and drills to ensure higher level of prevention and preparedness.
- VHF network for fire services linked with revenue & police networks.
- Training of masons & engineers in fireproof techniques.
- Making clearance of building plans by fire services mandatory.

- **Response Activities:**

- Rescue of persons trapped in burning, collapsed or damaged buildings, damaged vehicles, including motor vehicles, trains and aircrafts, industries, boilers, trenches & tunnels.
- Control of fires and minimising damages due to explosions.
- Control of dangerous or hazardous situations such as oil, gas and hazardous materials spill.
- Protection of property and the environment from fire damage.
- Support to other agencies in the response to emergencies.
- Investigation into the causes of fire and assist in damage assessment.

7. Civil Supplies:

- **Preventive Activities**

- Construction and maintenance of storage godowns at strategic locations.
- Stock piling of food and essential commodities in anticipation of disaster.
- Take appropriate preservative methods to ensure that food and other relief stock are not damaged during storage, especially precautions against moisture, rodents and fungus infestation.

- **Response Activities**

- Management of procurement
- Management of material movement
- Inventory management

- **Recovery Activities**

- Conversion of stored, unutilised relief stocks automatically into other schemes like Food for Work. Wherever, it is not done leading to damage of stock, it should be viewed seriously.

8. Public Works/ Rural Development Departments

- **Prevention Activities :**

- Keep a list of earth moving and clearing vehicles / equipments (available with Govt. Departments, PSUs, and private contractors, etc.) and formulate a plan to mobilise those at the earliest.
- Inspection and emergency repair of roads/ bridges, public utilities and buildings.

- **Response Activities**

- Clearing of roads and establish connectivity. Restore roads, bridges and where necessary make alternate arrangements to open the roads to traffic at the earliest.
- Mobilisation of community assistance for clearing blocked roads.
- Facilitate movement of heavy vehicles carrying equipments and materials.
- Identification and notification of alternative routes to strategic locations.
- Filling of ditches, disposal of debris, and cutting of uprooted trees along the road.
- Arrangement of emergency tool kit for every section at the divisional levels for activities like clearance (power saws), debris clearance (fork lifter) and other tools for repair and maintenance of all disaster response equipments.

- **Recovery Activities:**

- Strengthening and restoration of infrastructure with an objective to eliminate the factor(s) which caused the damage.
- Sharing of experiences and lessons learnt.
- Training to staff, Review and documentation.
- Development of checklists and contingency plans.

9. Energy:

- **Prevention Activities:**

- Identification of materials/tool kits required for emergency response.
- Ensure and educate the minimum safety standards to be adopted for electrical installation and equipments and organise training of electricians accordingly.
- Develop and administer regulations to ensure safety of electrical accessories and electrical installations.
- Train and have a contingency plan to ensure early electricity supply to essential services during emergencies and restoration of electric supply at an early date.
- Develop and administer code of practice for power line clearance to avoid electrocution due to broken / fallen wires.
- Strengthen high-tension cable towers to withstand high wind speed, flooding and earthquake, modernise electric installation, strengthen electric distribution system to ensure minimum damages during natural calamities.

- Conduct public/industry awareness campaigns to prevent electric accidents during normal times and during and after a natural disaster.
- **Response Activities:**
- Disconnect electricity after receipt of warning.
- Attend sites of electrical accidents and assist in undertaking damage assessment.
- Stand-by arrangements to ensure temporary electricity supply.
- Prior planning & necessary arrangements for tapping private power plants during emergencies to ensure uninterrupted power supply to vital emergency response agencies.
- Inspection and repair of high tension lines /substations/transformers/poles etc.
- Ensure the public and other agencies are safeguarded from any hazards, which may have occurred because of damage to electricity distribution systems.
- Restore electricity to the affected area as quickly as possible.
- Replace / restore of damaged poles/ salvaging of conductors and insulators.

10. GWSSB -Water Supply Department:

- **Prevention Activities:**
- Assess preparedness level.
- Annual assessment of danger levels & wide publicity of those levels.
- Identify flood prone rivers and areas and activate flood monitoring mechanisms.
- Provide water level gauge at critical points along the rivers, dams and tanks.
- Identify and maintain of materials/tool kits required for emergency response.
- Stock-pile of sand bags and other necessary items for breach closure at the Panchayat level.
- **Response Activities:**
- Monitoring flood situation.
- Dissemination of flood warning.
- Ensure accurate dissemination of warning messages to GPs & Taluka with details of flow.
- Monitoring and protection of irrigation infrastructures.
- Inspection of bunds of dams, irrigation channels, bridges, culverts, control gates and overflow channels.
- Inspection and repair of pumps, generator, motor equipments, station buildings.
- Community mobilisation in breach closure
- **Recovery Activities:**
- Strengthening of infrastructure and human resources.
- Review and documentation.
- Sharing of experiences and lessons learnt.
- Training of staff.
- Development of checklists and contingency plans.

11. Fisheries

• Prevention Activities

- Registration of boats and fishermen.
- Building community awareness on weather phenomena and warning system especially on Do's and Don'ts on receipt of weather related warnings.
- Assist in providing life saving items like life jackets, hand radios, etc.
- Certifying the usability of all boats and notifying their carrying capacities.
- Capacity building of traditional fishermen and improvisation of traditional boats which can be used during emergencies.
- Train up young fishermen in search & rescue operation and hire their services during emergency.

• Response Activities

- Ensure warning dissemination to fishing communities living in vulnerable pockets.
- Responsible for mobilising boats during emergencies and for payment of wages to boatmen hired during emergencies.
- Support in mobilisation and additional deployment of boats during emergencies.
- Assess the losses of fisheries and aquaculture assets and the needs of persons and communities affected by emergency.

• Recovery Activities

- Provide compensations and advice to affected individuals, community.

12. Forest Department

• Prevention activities

- Promotion of shelter belt plantation.
- Publishing for public knowledge details of forest cover, use of land under the forest department, the rate of depletion and its causes.
- Keep saws (both power and manual) in working conditions.
- Provision of seedling to the community and encouraging plantation activities, promoting nurseries for providing seedlings in case of destruction of trees during natural disasters.

13. Transport Department:

• Prevention Activities

- Listing of vehicles which can be used for emergency operation.
- Safety accreditation, enforcement and compliance.
- Ensuring vehicles follow accepted safety standards.
- Build awareness on road safety and traffic rules through awareness campaign, use of different IEC strategies and training to school children.
- Ensure proper enforcement of safety regulations Response Activities.
- Requisition vehicles, trucks, and other means of transport to help in the emergency operations.

- Participate in post impact assessment of emergency situation.
- Support in search, rescue and first aid.
- Cooperate and appropriation of relief materials.
- **Recovery Activities**
- Provision of personal support services e.g. Counselling.
- Repair/restoration of infrastructure e.g. roads, bridges, public amenities.
- Supporting the GPs in development of storage and in playing a key role and in the coordination of management and distribution of relief and rehabilitation materials.
- The G.P. members to be trained to act as an effective interface between the community, NGOs, and other developmental organisations.
- Provide training so that the elected representatives can act as effective supportive agencies for reconstruction and recovery activities.

14. Panchayati Raj

- **Preventive Activities**
- Develop prevention/mitigation strategies for risk reduction at community level.
- Training of elected representatives on various aspects of disaster management.
- Public awareness on various aspects of disaster management.
- Organise mock drills.
- Promote and support community-based disaster management plans.
- Support strengthening response mechanisms at the G.P. level (e.g., better communication, local storage, search & rescue equipments, etc.).
- Clean drainage channels, trimming of branches before cyclone season.
- Ensure alternative routes/means of communication for movement of relief materials and personnel to marooned areas or areas likely to be marooned.
- Assist all the government departments to plan and prioritise prevention and preparedness activities while ensuring active community participation.
- **Response Activities**
- Train up the G.P. Members and Support for timely and appropriate delivery of warning to the community.
- Clearance of blocked drains and roads, including tree removal in the villages.
- Construct alternative temporary roads to restore communication to the villages.
- PRIs to be a part of the damage survey and relief distribution teams to ensure popular participation.
- Operationalise emergency relief centres and emergency shelter.
- Sanitation, drinking water and medical aid arrangements.
- IEC activities for greater awareness regarding the role of trees and forests for protection during emergencies and also to minimise environmental impact which results owing to deforestation like climate change, soil erosion, etc.
- Increasing involvement of the community, NGOs and CBOs in plantation, protection and other

forest protection, rejuvenation and restoration activities.

- Plan for reducing the incidence, and minimise the impact of forest fire.
- **Response Activities :**
- Assist in road clearance.
- Provision of tree cutting equipments.
- Units for tree cutting and disposal to be put under the control of GSDMA, SRC, Collector during L1.
- Provision of building materials such as bamboos etc for construction of shelters.
- **Recovery Activities :**
- Take up plantation to make good the damage caused to tree cover.

15. Information & Public Relations Department

- **Prevention Activities**
- Creation of public awareness regarding various types of disasters through media campaigns.
- Dissemination of information to public and others concerned regarding do's and don'ts of various disasters.
- Regular liaisoning with the media.
- **Response Activities**
- Setting up of a control room to provide authentic information to public regarding impending emergencies.
- Daily press briefings at fixed times at district level to provide official version.
- Media report & feedback to field officials on a daily basis from L1 onwards.
- Keep the public informed about the latest emergency situation (area affected, lives lost, etc).
- Keep the public informed about various post-disaster assistances and recovery programmes.

16. Revenue Department

- Co-ordination with Govt. of Gujarat Secretariat and Officers of Govt. of India
- Overall control & supervision
- Damage assessment, finalisation of reports and declaration of L1/L2 disasters
- Mobilisation of finance

17. Home Department

- Requisition, deployment and providing necessary logistic support to the armed forces.
- Provide maps for air dropping, etc.

18. Gujarat Disaster Rapid Action Force

- **Response**
- To be trained and equipped as an elite force within the Police Department and have the capacity to immediately respond to any emergency.
- Unit to be equipped with life saving, search & rescue equipments, medical supplies, security arrangements, communication facilities and emergency rations and be self-sufficient.

- Trained in latest techniques of search, rescue and communication in collaboration with international agencies.
- Co-opt doctors into the team.

ANNEXURE – 14

Projects for prevention of disasters:

1. DRM (Disaster Risk Management) Programme:

DRM (Disaster Risk Management Programme) is one of the major initiatives of Gujarat State Disaster Management Authority to build/strengthen capacity of various stakeholders for an effective response during disasters. The DRM Programme is formulated with a goal of sustainable reduction in disaster risk in most hazard prone districts in Gujarat state.

2. NCRMP (National Cyclone Risk Management Program):

Gujarat being prone to cyclones, it is the topmost priority of the State Government to reduce the effect of cyclone and minimize the loss to property and lives in the coastal regions of the State through creation of suitable infrastructure. Gujarat has therefore been included in the NCRMP initiated by the National Disaster Management Authority and funded by the World Bank. Two important components i.e. construction of Multi Purpose Cyclone Shelters (MPCS) and construction and repair of missing roads will be implemented as part of NCRMP.

3. School Safety Programme:

Gujarat School Safety Initiative (GSSI), is the pilot program designed for promoting a culture of disaster safety in schools and reduce risk through structural and non-structural measures in the schools. GSDMA develops Information, Education and Communication material for the purpose of dissemination of information among school students and teaching. Gujarat State Disaster Management Authority has successfully celebrated Gujarat School Safety Week 2017 in all the Government Primary Schools. As a preparatory activity for School Safety Week 2017, 257 master trainers were trained at state level. 53,206 principals and teachers of all government primary schools were trained for preparation of School Disaster Management Plan of their respective schools and for conducting mock drills in schools.

4. Special Flood Rescue Training Programme:

GSDMA has tied up with a local agency and initiated Special Flood Rescue Training Programme to train volunteers and other stakeholders in flood rescue. The stakeholders include firemen, fire officers, home guards, police, etc.

5. Masons Training / Certification Programme:

GSDMA is reinitiating Mason Training/Certification Programme for masons in Gujarat State so that the quality of construction in rural and semi-urban areas could be improved. In this regard GSDMA has signed an MoU with L&T for masons training program. The course is basically designed to improve and impart training in confined masonry construction including earthquake resistant construction in rural areas. The main construction sector targeted is housing schemes running under state and central government.

6. Aapda Mitraa:

As part of capacity building measures, GSDMA is now initiating a project - 'Aapda Mitra' on training of community volunteers in conducting basic search & rescue operations and to assist the district administration for effective disaster response. For successful implementation of this program it is planned that 6 Aapda Mitra would be trained from each District and Taluka. The fully residential training would be conducted at the 11 designated training centres of SDRF/SRPF.

The duration of the training would be of 2 weeks. At the end of the training, they would be certified as 'Aapda Mitra' by GSDMA and also provided with an identity card for the same. The 'Aapda Mitra' shall remain present for assistance during any emergency.

ANNEXURE - 15

Indicators:

(A) Important Websites:

Web Link	In Concern to
http://117.239.205.164/SDRN_NEW/Login.aspx http://117.239.205.164/sdrn_dss/	State Disaster Resource Inventory for Gujarat.
https://idrn.gov.in/login.asp	India Disaster Resources.
https://mausam.imd.gov.in/	India Disaster Resources.
http://satellite.imd.gov.in/3DIASIADMP.html	Satellite Image.
http://www.imdahm.gov.in/	State Weather Forecast.
http://imd.gov.in/pages/earthquake_prelim.php	Recent Earthquake India.
https://isr.gujarat.gov.in/latest-earthquakes-reports	Earthquakes in Gujarat.
https://incois.gov.in/tsunami/eqevents.jsp	Tsunami Warning.
http://www.gsdma.org/ https://gidm.gujarat.gov.in/	Gujarat State Disaster Management Authority.
https://collectorAhmedabad.gujarat.gov.in/	Collectorate Ahmedabad.
https://Ahmedabaddp.gujarat.gov.in/Ahmedabad/	District Panchayat Ahmedabad.
http://spAhmedabad.gujarat.gov.in/spAhmedabad/default.aspx	Police Department Ahmedabad.
http://www.Ahmedabadmunicipal.org/	Municipal Corporation Ahmedabad.
https://gujarat.ncog.gov.in/Ahmedabad	Ahmedabad Disaster

(B) Acronyms:

EOC – Emergency Operation Centre, DEOC – District EOC, TEOC – Taluka EOC.
SDRN – State Disaster Resource Network, IDRN – India Disaster Resource Network.
GSDMA – Gujarat State Disaster Management Authority.
GIDM – Gujarat Institute of Disaster Management.
DRM – Disaster Risk Management, NCRMP – National Cyclone Risk Management Program
DMC – Disaster Management Committee, DMT – Disaster Management Team.
TDMP – Taluka Disaster Management Plan, CDMP – City Disaster Management Plan.
DDMP – District Disaster Management Plan.
ICS – Incident Command System, IC – Incident Commander.
IEC – Information, Education and Communication.
GSWAN – Gujarat State Wide Area Network.
PRI – Panchayati Raj Institute, ULB - Urban Local Bodies.
CHC – Community Health Centre, PHC – Primary Health Centre.

(C) Sources of Information:

1. Departmental Disaster Management Plan of District level Agencies.
2. Flood Memorandum of Irrigation Branch, Ahmedabad.
3. Statistical outline of District Statistics Department, District Panchayat, Ahmedabad.
4. Incident Command System Training Materials.
5. NDMA Model District Disaster Management Plan Template
6. State / India Disaster Resource Network Inventory.
7. Weather Station, Agriculture University, Ahmedabad.
8. Various Emergency Operation Files of Collector Office, Ahmedabad.
9. District Inspector of land records (DILR) and BISAG.
10. Off Site Emergency Plan of Industrial Safety and Health Department.
11. Village / City / Taluka Disaster Management Plans.



Contact Directory

1. Gujarat State's District Level Emergency Contact Nos.

Sr.	District Name	Code No.	Collector			DDO		SP		RAC	DEOC
			Office	Fax	Mobile	Office	Mobile	Office	Mobile	Mobile	Office
1	Ahmedabad	079	27551681	27552144	9978406201	25506487	9978406226	26890440	9978406062	9978405173	27560511
2	Amreli	02792	222307	222710	9978406202	222313	9978406227	222333	9978405063	9978405203	230735
3	Anand	02692	262271	261575	9978406203	241110	9978406228	260027	9978405064	9978405175	243222
4	Banaskantha	02742	257171	252063	9978406204	254060	9978406229	257015	9978405065	9978405176	250627
5	Bharuch	02642	240600	240602	9978406205	240603	9978406230	223633	9978405066	9978405177	242300
6	Bhavnagar	0278	2428822	2427941	9978406206	2426810	9978406231	2520050	9978405067	9978405178	2521554
7	Botad	02849	231301	231302	9978405931	2426810	9978406231	231407	9712415910	9727758035	271340
8	Dahod	02673	239001	239005	9978406207	239066	9978406232	222300	9978405068	9978405179	239277
9	Dang	02631	220201	220294	9978406208	220254	9978406233	220248	9978405021	9978405180	220347
10	Gandhinagar	079	23259030	23259040	9978406209	23222618	9978406234	23210901	9978405070	9978405181	23256639
11	Jamnagar	0288	2555869	2555899	9978406210	2553901	9978406235	2554203	9978405071	9978405210	2553404
12	Devbhumi Dwarka	02833	223804	232102	9978405933	2553901	9978406235	232002	9978405976	9727763794	232804
13	Ahmedabad	0285	2636100	2635599	9978406211	2635315	9978406236	2635633	9978405250	9978405211	2633448
14	Geer Somnath	02876	240001	243300	9978405934	2651001	9978406236	222250	9978405974	9727756448	240063
15	Kheda	0268	2553334	2553358	9978406212	2557262	9978406237	2550150	9978405072	9978405597	2553356
16	Kutch	02832	220020	250430	9978406213	250080	9978406238	250444	9978405073	9978405212	252347
17	Mehsana	02762	222200	222202	9978406214	222301	9978406239	222122	9978405074	9978405213	222220
18	Narmada	02640	222161	222171	9978406216	222086	9978406241	222315	9979405076	9978405188	224001
19	Navsari	02637	244999	281540	9978406215	244299	9978406240	245333	9978405075	9978405187	259401
20	Panchmahal	02672	242800	242899	9978406217	253377	9978406242	242200	9978405077	9978405189	242536
21	Mahisagar	02674	250666	250655	9978405936	253377	9978406242	250815	7874376004	9727354151	250666
22	Patan	02766	233301	233055	9978406218	232936	9978406243	230104	9978405078	9978405190	224830
23	Porbandar	0286	2221800	2222527	9978406219	2243804	9978406244	2211222	9978405079	9978405191	2220800
24	Rajkot	0281	2473900	2453621	9978406220	2477008	9978406245	2433444	9978405082	9978405218	2471573
25	Morbi	02822	241701	241602	9978405932	247708	9978406245	243471	9978405975	9727759674	2427592
26	Sabarkantha	02772	241001	241611	9978406221	242350	9978406246	247333	9978405081	9978405219	249039
27	Arvalii	02772	247800	247801	9978405935	242350	9978406246	247333	9879910101	9879044388	247810
28	Surat	0261	2652525	2655757	9978406222	2422160	9978406247	2651831	9978405082	9978405220	2465112
29	Surendranagar	02752	2820200	283862	9978406223	283752	9978406248	282100	9978405083	9978405224	283400
30	Tapi	02626	224460	221281	9978405364	222141	9978405263	220400	9978405488	9978405415	223332
31	Vadodara	0265	2423100	2431093	9978406224	2432027	9978406249	2412255	9978406094	9978405196	2427592
32	Chota Udaipur	02669	233003	233002	9978405937	2432027	9978406249	233077	9978405977	9824048430	233022
33	Valsad	02632	253613	243417	9978406225	253184	9978406250	254222	9978405085	9978405253	243238

2. District Level Officers Telephone Nos. STD Code - (079)

Sr. No.	Designation	Name	Office	Resi	Mobile	Fax	Email ID
1	Collector	Shri Sandip Sangle	27551681	22863598	9978406201	27552144	collector-ahd@gujarat.gov.in
2	Police Commissioner	Shri Sanjay Shrivastav	25633434, 258865511	26924972	9978406258	25630600	cp-ahd@gujarat.gov.in
3	Municipal Commissioner	Shri Mikes Kumar	25352828, 25391811	-	9978405060	25354638, 26841203	mc@ahmedabadcity.gov.in
4	D D O	Shri Arun MaheshBabu	25506487	-	9978406226	25511359, 25511289, 25507762	ddo-ahd@gujarat.gov.in
5	DSP (Rural)	Shri Rajendra Asari	26890440	-	9978406342	22686145	spsp-ahd@gujarat.gov.in
6	Resi. Addl. Collector	Shri H.M.Vora	27551682	-	9978405173	27552144	addl-collector-ahd@gujarat.gov.in
7	DRDA	Shri Pankaj Ondhiya	26643148	-	9978407442	26643147	-
8	ARDC	Shri Y.D.Gohil	27551047	-	9978405198	27552144	addrdc-ahd@gujarat.gov.in
9	DSO	Shri Kajalben Tuvor	27551691	-	9687361449	27552144	dso-ahd@gujarat.gov.in
10	Dy. DDO (Revenue)	Shri G.D. Prajapati		-	9428001131	25507152	-
11	CDHO	Dr. Parmar	25501204	-	9099064001/ 9099064799	-	cdho.health.ahmedabad4@gmail.com
12	DEO, City	Shree R.C.PATEL	27912966	-	9909970201	-	ahmcdeo@gmail.com
13	DEO, Rural	Shree Rakesh Vyas	27913264	-	9909970202	27910571	ahmrdeo@gmail.com
14	DPEO	Shri N.M.Patel	25507126	-	9909971649	25501956	dpeo.ddo.ahd@gmail.com
15	Dy.Muni.Commi. (C.Z.)	Shri V.K.Mehta	25391811	27436318		22160774	vkmehta@ahmedabadcity.gov.in
16	Dy. Muni.Commi. (E.Z.)	Shri Om Prakash	22970500	27543419		25353114	-
17	Dy. Muni.Commi. (N.Z.)	Shri K.B.Thakkar	22801182	22800803		22804912	-
18	Dy. Muni.Commi. (S.Z.)	Shri R.K.Mehta	25465255	26460622		25452253	-
19	Dy. Muni.Commi. (N.W.Z.)	Shri Mukesh Gadhvi	26841201			26841203	
20	Dy.Muni.Commi.(W.Z)	Shri Nitin Sangvan	27552586	26600438		27551163	

21	Shasanadhikari	Dr. L.D.Desai	26427014	22977998	9375687555 9879313109	26460576	aoschoolboard@gmail.com
22	General Manager DIC	Shri R K Vasava	25508339	-	9904094573	25502801	gm-dic-ahd@gujarat.gov.in
23	Dy.Dir.Info	Shri R.B. Kher	25501123 26308405 22681375	-	9978405783 9106678817	-	dbcwo-ahd@gujarat.gov.in
24	Chief Fire Officer	Shri Rajesh Bhatt	22148466 /67/68		9327038755		mfdastoor@gmail.com
25	Control Room Mam.Disa.	Shri Priti M.Patel	27560511	-	7436063785	27552144	dismgmt-ahd@gujarat.gov.in
26	DPO	Shri Kinjal Pandya	27560511	-	9426185224 8200688146	27552144	pandyakinjald@gmail.com

3. List of Taluka Level Important Phone Numbers.

Taluka Name	Designation	Officer Name	Code	(O)	Mobile	Police Station	Email ID
Maninagar	Prant Officer	Shri Ansuya Jha	79	25255402	8980988989	25460089	dycoll-est-ahd@gujarat.gov.in
	Mamlatdar	Shri V.K.Pipaliya		25504820	9904853252		mam.maninagar10@gmail.com
Vatva	Prant Officer	Shri Ansuya Jha	79	25255402	8980988989	25710074	dycoll-est-ahd@gujarat.gov.in
	Mamlatdar	Shri D.P.Pateliya			9825791394		mam.vatva@gmail.com
Asarva	Prant Officer	Shri Ansuya Jha	79	25255402	8980988989	22681555	dycoll-est-ahd@gujarat.gov.in
	Mamlatdar	Shri Kinjal Desai (IC)		22682287	9512585606		mamlatdarasarwa@gmail.com
Ghatlodiya	Prant Officer	Shri J.B.Desai	2717		9978405200	27489127	cdcwestahd@gmail.com
	Mamlatdar	Shri Shakarabhai rabari		242601	9825243824		mamghatlodia@gmail.com
Vejalpur	Prant Officer	Shri J.B.Desai	79		9978405200	22865511	cdcwestahd@gmail.com
	Mamlatdar	Shri N.B.Bhatt		29704813	7574953102		Aro42vejalpur@gmail.com
Sabarmati	Prant Officer	Shri J.B.Desai	79		9978405200	27506819	cdcwestahd@gmail.com
	Mamlatdar	Shri A.B.Lachhun		27552245	7874200433		mamsabarmati@gmail.com
Daskroi	Prant Officer	Shri Komalben Patel	79	22970057	9825732268	02718-262958	ro57elc@gmail.com
	Mamlatdar	Shri Nimesh patel		22970049	8780922539		mam-daskoi@gujarat.gov.in
	TDO	Shri Pankajkumar Mahida		25507170 25506851	8160034062		tdo.daskroi@gmail.com

	Chief Officer, Bareja	Shri Siddharth Patel (IC)		233173	9824799626		np_bareja@yahoo.co.in
Dholka	Prant Officer	Shri R.M.Jalandhara	2714	222433	9978405202	222333 222265	ro58elc@gmail.com
	Mamlatdar	Shri Priti M. Patel (IC)		222316 222303	7436063785		mam-dholka@gujarat.gov.in
	TDO	Shri Riddhi Shukla		222503	9408757549		tdo-dholka@gujarat.gov.in
	Chief Officer	Shri Katara		222262	8758516280		np_dholka@yahoo.co.in
Bavla	Prant Officer	Shri R.M.Jalandhara	2714	222433	9978405202	232100	ro58elc@gmail.com
	Mamlatdar	Shri P.R.Desai		230501	7567000627 9825178951		mam-bavla@gujarat.gov.in
	TDO	Shri Maulik Desai		231073	8200782885		tdo-bavla@gujarat.gov.in
	Chief Officer	Shree Sidharth patel		232546	7016632620		np_bavla@yahoo.co.in
Dhandhuka	Prant Officer	Shree Mamta Hirpara	2713	222006	7567009142	222333 222329	ro59elc@gmail.com
	Mamlatdar	Shri N.R. Rathod(IC)		222259	8141529993		mam-dhandhuka@gujarat.gov.in
	TDO	Shri Siddhi Verma		223018	755901147, 9601802095		tdo-dhandhuka@gujarat.gov.in
	Chief Officer	Shri Vanrajsinh Rajput			9879143567		np_dhandhuka@yahoo.co.in
Sanand	Prant Officer	Shri J.J.Patel	2717	223351	7567008946	220770	sdm-sanand-ahd@gujarat.gov.in
	Mamlatdar	Shri N.M.Hubda		222237	9825512118		mam-sanand@gujarat.gov.in
	TDO	Shri Sapna Rajput		222031	9558166925		tdo-sanand@gujarat.gov.in
	Chief Officer	Shri Bijal Solanki		222112	9879012353		np_sanand@yahoo.co.in
Mandal	Prant Officer	Shri Surbhi Gautam	2715	234100	9978405201	253141	sdm-viram-ahd@gujarat.gov.in
	Mamlatdar	Shri G.S.Bava		253377	9909748433		mam-mandal@gujarat.gov.in
	TDO	Shri N. G. Patel		253493	9824196631		tdo-mandal@gujarat.gov.in
Detroj	Prant Officer	Shri Surbhi Gautam	2715	234100	9978405201	255570	sdm-viram-ahd@gujarat.gov.in
	Mamlatdar	Shri V.S.Khant		255513	7567000338		mam-detroj@gujarat.gov.in
	TDO	Shri D.G.Desai			9825923700		tdo-detroj@gujarat.gov.in
Viramgam	Prant Officer	Shri Surbhi Gautam	2715	234100	9978405201	233237 295267	sdm-viram-ahd@gujarat.gov.in
	Mamlatdar	Shri G.S.Bava(I/C)		234082	9909748433		mam-viramgam@gujarat.gov.in
	TDO	Shri V.K. Barot		233230	9722237637		tdo-viramgam@gujarat.gov.in
	Chief Officer	Shri Jayeshbhai			9157834011		np_vgam@yahoo.co.in
Dholera	Prant Officer	Shree Mamta Hirpara	2713	222006	7597009142	233237 295267	ro59elc@gmail.com

	Mamlatdar	Shri N.R. Rathod		234040 234041	8141529993		mam-dholera@gujarat.gov.in
	TDO	Shri Navinbhai G. Patel		223018	9824196631		tdo-dholera@gujarat.gov.in

4. Detail & Contacts of Liaison Officers

Sr. No.	Liaison Taluka	Liaison Taluka Name	Liaison Officer's Designation	Mobile No.
1	City (East)	Shree Ansuyaben Jha	SDM , East	7567008965
2	City (West)	Shree J.B.Desai	SDM, West	9978405200
3	Daskroi	Komalben Patel	SDM, Daskroi	7567009038
4	Sanand	Shree J.J Patel	SDM, Sanand	7567008946
5	Bavla	Shree Kunjal Shah	Deputy Collector, Stamp Deputy-1	9428361295
6	Dholka	Shree R.M.Jalandhara	SDM, Dholka	9978405202
7	Dhandhuka	Shree Mamta Hirpara	SDM,Dhandhuka	7567009142
8	Viramgam	Shree Surbhi Gautam	SDM, Viramgam	9978405201
9	Detroj	Shree Darshan Shah	Dy.DDO(Vikas)	8130393783
10	Mandal	Shree J.G.Prajapati	Dy.DDO,(Revenue)	9428001131
11	Dholera	Shree Parul Mansata	Deputy Collector,SIR	9429169096

5. List of Trained Aapda Mitra Volunteers of Ahmedabad District

No.	Name of Aapda Mitra	Address	Mo.Number
1	Vishalkumar Bharatbhai Shah	Darbari Bagicha Society Sanand	6351915656
2	Jagdishbhai Babubhai Makwana	Bhoi Vas Sanand	7698466589
3	Brijraj Baldevbhai Makwana	Bhoivas Sanand	8155092930
4	Hareishbhai Natwarlal Parmar	Nandej Ta. Daskaroi	9727380248
5	Gopalbhai Gangarambhai Makwana	Village Ganasar Ta. Sanand	8140121607
6	Prabhubhai Shanabhai Dantani	Bareja Nano Vaghrivas	6351018560
7	Mahipatbhai Chaturbhai Makwana	Koth Ta. Dholka	9824385765
8	Chhayaben Ambalal Modi	Bareja	9913726210
9	Anirudh Singh Dasharath Singh	Saijpur Bogha Ahmedabad	8866983767
10	Tejpalsinh Ugamsinh Chauhan	Saijpur Bogha Ahmedabad	9586010683
11	Mehulbhai Satishbhai Rana	Isanpur Ahmedabad	9909828661
12	Kevalbhai.R.Rana	Ratanpol Ahmedabad	9574452717
13	Ganpatbhai Sukhdevbhai Solanki	Jansali	9898692318
14	Ajaykumar Bhayalalbhai Rathod	Tapalpara Ta. Dholka	9723278349
15	Sureshbhai Revabhai Vadadaria	Koth Ta. Dholka	8734056231
16	Bahadurbhai Jalubhai Pagi	Koth Ta. Dholka	9724646631
17	Rasikbhai Shamjibhai Makwana	Koth Ta. Dholka	9904266229
18	Budhabhai Jagmalbhai Pagi	Koth Ta. Dholka	8758449775
19	Jitendra Kumar Dhirubhai Vadadaria	Koth Ta. Dholka	7041941650
20	Bharatbhai R. Patel	Isanpur Ahmedabad	9601144127
21	Rohit Kumar Kanubha Zala	Rudatal Ta. Detroj	9909748501
22	Chehubha Amarsang Zala	Rantai Ta. Detroj	9687863387
23	Santuji Pradhanji Thakor	Detroj Ta. Detroj	9978877320
24	Harpalsinh Bharatsinh Zala	Detroj Ta. Detroj	8758441568
25	Kiran Vishnu Bhai bajaniya	Detroj Ta. Detroj	7435038218
26	Harshadbhai Ranchodbhai Vaishnav	Saijpur Ahmedabad	9601392534
27	Satishbhai Ghanshyambhai Prajapati	Jetalpur Ta. Daskaroi	9558969432

28	Gaurang.V.Nagar	Isanpur Ahmedabad	7359371139
29	Himanshu Pankaj Kumar Modi	Kalupur Ahmedabad	8141846539
30	Sunilkumar Vinubhai Vaghela	Sukhad	9870017773
31	Rathod Nilesh Rohitbhai	Koth Ta. Dholka	7434005365
32	Rathod Kishankumar Bhailalbhai	Tapperpara Ta. Dholka	9723279064 9723543779
33	Zampadiya Kiranbhai Prabhubhai	Pagivas Koth Ta. Dholka	7698080830
34	Makwana Ganpatbhai Savjibhai	Koth Ta. Dholka	9586536073
35	Solanki Vijaybhai Jasmatbhai	Jansali	7567270022
36	Vaghela Anopsinh Diwansinh	Koth Ta. Dholka	7600293924
37	Makwana Mahendrakumar Ajitbhai	Koth Ta. Dholka	9574082648
38	Makwana Sureshkumar Natubhai	Koth Ta. Dholka	7284933390
39	Makwana Gajendra Bhupatbhai	Koth Ta. Dholka	7622032306
40	Pankaj Kumar Jaswantlal Modi	Kalupur Ahmedabad	9374031938
41	Nareshkumar b. Patel	Ranip, Ahmedabad	9924831799
42	Ankit J. Mehta	Chandlodia, Ahmedabad	7698881627
43	Krishna J. Kansara	Chandkheda, Ahmedabad	9586212352
44	Harsh p. Kansara	Gandhinagar	8238929064
45	Ghanshyam Singh R. Bhadori	Vejalpur, Ahmedaba	8866457554
46	Jigar d. Patel	Sola, Ahmedabad	9825504336
47	Ankit p. Prajapati	Sarangpur, Ahmedabad	9727162576
48	Krishnaraja m. Gohil	Maninagar, Ahmedabad	8980792959
49	Jagdish R. Prajapati	Khadia, Ahmedabad	8401434691
50	Nilesh M. Vaghela	Gandhinagar	7283847469
51	Suresh Desai		9726249524
52	Ashish S Pal		9173675251
53	B.U. Jhala	Dhandhuka	9724552811
54	B. B. Maru	Dhandhuka	8758186083
55	K.M. Modi	Dhandhuka	9228490202
56	S.H.Modan	Dhandhuka	9510749008
57	R.A. Baloch	Dhandhuka	9725530489

58	Sureshbhai H. Gurjar	Bāvaḷā	7575083739
59	Kanaiyalal B. Gajjar	Bāvaḷā	9726207733
60	Chetanbhai R. Chauhan	Bāvaḷā	7778054499
61	Ankitbhai m. Thakor	Bāvaḷā	7600815087
62	Jitendra V. Chauhan	Viramgam	
63	Manishbhai m. Rathod	Viramgam	
64	Rameshbhai b. Makwana	Viramgam	
65	Lalitbhai n. Parmar	Viramgam	

List Of MAH Units

SR. NO.	NAME OF FACTORY AND ADDRESS	DISTRICT	HAZARDOUS CHEMICALS	GROUP NO. MSIHC RULE (Sch- 2 & 3)	MAX. STORAGE CAPACITY IN TONES	Threshold Qty. (MSIHC rule) MAH Gen.Req. (Ton)	Threshold Qty. for SAFETY REPORT (Ton)	SIZE
---------	-----------------------------	----------	---------------------	-----------------------------------	--------------------------------	--	--	------

1	ADVANCE PETROCHEMICALS LTD. 167, PIRANA ROAD, AHMEDABAD PIPLAJ-382 405 GUJARAT	AHMEDABAD	ETHYLENE OXIDE	Sch-3,G-3(140)	14	5	50	MEDIUM
2	AMBUJA AGROCHEM INDUS. C-1,30/42,PHASE-III,GIDC, NARODA GUJARAT	AHMEDABAD	M.PARATHION PHORATE SOLVENT CYCLOHEXANE	Sch-3 G-1(74,76)	1250 Kg 1380 Kg 2400 Kg 570 Kg	0.1		SMALL
3	AMI ORGANICS, PLOT NO.313-315, PHASE-2, GIDC-VATVA,AHMEDABAD	AHMEDABAD	CHLORINE	Sch-3,G-2(108)	27 MT	10 MT	25	MEDIUM
4	ARCHIT ORGANOSYS LTD, 25/9/A, PHASE-3, GIDC-NARODA, AHMEDABAD (shree chlochem ltd)	AHMEDABAD	CHLORINE	Sch-3,G-2(108)	56.7	10	25	MEDIUM
5	ASSOCIATED INTERMEDIATES & CHEMICALS. A-1-5 PHASE-I, VATVA, AHMEDABAD	AHMEDABAD	ETHYLENE OXIDE	Sch-3,G-3(140)	7.5	5	50	MEDIUM
6	BODAL CHEMICAL LTD. (UNIT 3) PLOT NO. 2102, PHASE III GIDC, VATVA AHMEDABAD-382 445 GUJARAT	AHMEDABAD	ETHYLENE OXIDE	Sch-3,G-3(140)	7	5	50	MEDIUM
7	BODAL CHEMICAL LTD. PLOT.110, PHASE-2, GIDC VATVA AHMEDABAD	AHMEDABAD	ETHYLENE OXIDE	Sch-3,G-3(140)	15	5	50	MEDIUM
8	CABB KARNAVATI RASAYAN LTD PLOT NOS.459,460 & 46135 NR.BAJAJ FOODS VILLAGE:CHANGODAR TAL-SANAND	AHMEDABAD	CHLORINE	Sch-3,G-2(108)	172.8 MT	10	25	LARGE
9	CRYSTAL QUINON (UNIT-II) PHASE-II, GIDC, VATVA, AHMEDABAD	AHMEDABAD	ETHYLENE OXIDE	Sch-3,G-3(140)	10	5	50	MEDIUM
10	DEEDY CHEMICAL PVT. LTD. 263, A/2A, AKASHGANGA IND. ESTATE SANAND AHMEDABAD	AHMEDABAD	CHLORINE	Sch-3,G-2(108)	27 MT	10	25	MEDIUM
11	DHANUKA AGRITECH LTD. B1/A+B, AJANTA INDUSTRIAL ESTATE VASNA IYAVA VILLAGE SANAND, AHMEDABAD GUJARAT	AHMEDABAD	PHORATE	Sch-3,G-1(76)	3 MT	0.1		MEDIUM

12	ENCORE NATURAL POLYMERS LTD. NARODA AHMEDABAD GUJARAT	AHMEDABAD	ETHYLENE OXIDE	Sch-3,G-3(140)	25	5	50	MEDIUM
13	EXCEL FORMULATIONS PLOT NO-32, SONAL INDUSTRIAL ESTATE, KHODA VILLAGE ROAD, SANAND, AHMEDABAD	AHMEDABAD	ETHYLENE OXIDE	Sch-3,G-3(140)	11	5	50	MEDIUM
14	FORD INDIA PVT. LTD. SURVEY NO. 1, NORTHKOTPURA, TA-SANAND, DIST-AHMEDABAD	AHMEDABAD	PETROL DIESEL	Sch-3, G-5	50 MT	25		LARGE
15	GSP CROP SCIENCE PVT.LTD Plot No.551,GIDC,Phase-II, KATHWADA	AHMEDABAD	ETHION	Sch-3,G-1(38)	1000 KG	0.1		MEDIUM
16	GSP CROPS SCIENCE PVT. LTD. 101-103, GVMM ODHAV AHMEDABAD	AHMEDABAD	HEXA CONAZOLE ACIPET (TECH.) ETHION	Sch-3,G-1(38)	10 MT 1 MT	0.1		MEDIUM
17	GUJARAT AGRO CHEMICALS MFG. CO. P-151, GIDC NARODA, AHMEDABAD 382330 GUJARAT	AHMEDABAD	PARATHION-METHYL	Sch-3,G-1(74)	0.5	0.1		SMALL
18	GUJARAT KRUSHI RASAYAN PVT. LTD. B/12, GIDC NARODA AHMEDABAD.	AHMEDABAD	PARATHION PHORATE	Sch-3,G-1(73,76)	500kg 600kg	0.1		SMALL
19	GUJARAT PESTICIDES F-15, GIDC PHASE II NARODA AHMEDABAD-382 320	AHMEDABAD	PARATHION-METHYL	Sch-3,G-1(74)	10	0.1		SMALL
20	GUJCOMSAL (PESTICIDES DIVISION), VATVA ROAD NAROL, AHMEDABAD GUJARAT	AHMEDABAD	PARATHION-METHYL PHORATE	Sch-3,G-1(74)	5 MT	0.1		MEDIUM
21	I.O.C. TALUKA VIRAMGAM AHMEDABAD	AHMEDABAD	PETROLEUM PRODUCTS CLASS-A	Sch-2(28)	515739	7000	7000	LARGE
22	INDIAN OIL CORP.LTD., MARKETING DIVISION, NH-08, VILL-BAREJA, TALUKA-DASKROI, AHMEDABAD-382425	AHMEDABAD	PETROLEUM PRODUCTS CLASS-A/B	Sch-2(28,29)	19000 MT 60000 MT	7000 10000	7000 10000	LARGE

23	INDIAN OIL CORPN. LTD. (MARKETING DIVN.), LPG BOTTLING PLANT SANAND-VIRAMGAM, AHMEDABAD SANAND-382 110 GUJARAT	AHMEDABAD	LPG	Sch-3,G- 5(1)	4400	15	200	LARGE
24	INDIAN OIL CORPN. LTD. SABARMATI AHMEDABAD GUJARAT	AHMEDABAD	EXTREMELY FLAMMABLE LIQUIDS	Sch-3,G- 5(2)	6195	1000	5000	LARGE
25	INDICHEM C-2-A TYPE SHED NO. 5 & 6 PH.I, GIDC, VATVA, AHMEDABAD-382445 GUJARAT	AHMEDABAD	PARATHION- METHYL, PHORATE	Sch-3,G- 1(74,76)	1	0.1		SMALL
26	JAY CHEMICALS INDUSTRIES LTD., 109, PH-II GIDC VATVA, AHMADABAD GUJARAT	AHMEDABAD	ETHYLENE OXIDE	Sch-3,G- 3(140)	7	5	50	LARGE
27	LPG INFRASTRUCTUE (I) LTD. S.N.214, AT- PIMPAN, TA-SANAND, AHMEDABAD	AHMEDABAD	LPG	Sch-3, G- 5(1)	100 MT	15 MT	200 MT	LARGE
28	MACRO POLYMERS PVT. LTD. PLOT NO. 165, GVMM, ODHAV, AHMEDABAD	AHMEDABAD	FORMALDEHY DE	Sch-3,G- 2(112)	25 MT	5	50	SMALL
29	MANSHI INDUSTRIES VILL. CHHARODI TAL. SANAND AHMEDABAD GUJARAT	AHMEDABAD	CHLORINE	Sch-3,G- 2(108)	45	10	25	MEDIUM
30	MATANGI INDUSTRIES PLOT NO.28, PHASE I GIDC, VATVA AHMEDABAD-382 445 GUJARAT	AHMEDABAD	ETHYLENE OXIDE	Sch-3,G- 3(140)	15	5	50	MEDIUM
31	MAYUR DYE CHEM INDUSTRIES A-1/108, GIDC ESTATE, PHASE II VATVA, AHMEDABAD- 382445 GUJARAT	AHMEDABAD	ETHYLENE OXIDE	Sch-3,G- 3(140)	15	5	50	MEDIUM
32	MEGHA CHEM INDUSTRIES PLOT NO- 8,GIDC,PHASE-II VATVA	AHMEDABAD	CHLORINE	Sch-3,G- 2(108)	21.6	10	25	MEDIUM
33	MEGHMANI ORGANICS LTD. PLOT NO.183, PHASE II GIDC VATVA, AHMEDABAD	AHMEDABAD	CHLORINE	Sch-3,G- 2(108)	12.6	10	25	LARGE

	GUJARAT							
34	MICROMOLE IONICS PVT. LTD. PLOT NO. 130,131, ROAD NO. 5, GIDC, KATHWADA, AHMEDABAD	AHMEDABAD	FORMALDEHY DE	Sch-3,G- 2(112)	20 MT	5	50	SMALL
35	NIRMA LTD. PLOT NO.415/P, 416/P, 420/P MORAIYA TAL. SANAND, CHACHARVADI, VASNA AHMEDABAD-382 213 GUJARAT	AHMEDABAD	OLEUM(SULPH AR TRIOXIDE)	Sch-3,G- 2(121)	80	15	75	LARGE
36	PARIKH ENTERPRISES PVT. LTD. 422, GIDC ODHAV, AHMEDABAD GUJARAT	AHMEDABAD	CHLORINE	Sch-3,G- 2(108)	20	10	25	LARGE
37	PARSHWNATH DYE CHEM IND.PVT LTD, A-2/495, PH-2,GIDC- VATVA, AHMEDABAD	AHMEDABAD	CHLORINE	Sch-3,G- 2(108)	16 MT	10 MT	25	MEDIUM
38	PRANAV CHEMICALS PLOT NO. 165, PHASE-II, GIDC, NARODA, AHMEDABAD-382330	AHMEDABAD	CHLORINE OLEUM PNT	Sch-3,G- 2(108) 2	21.6 MT 30 MT 20 MT	10 15	25 75	MEDIUM
39	PRATIKSHA CHEMICALS LTD. IYAVA-VASNA TAL. SANAND, DIST. AHMEDABAD GUJARAT	AHMEDABAD	CHLORINE	Sch-3,G- 2(108)	13.5	10	25	MEDIUM
40	PRESIENT INDUSTRIES C-1/30/53 GIDC, PH-III NARODA, AHMADABAD GUJARAT	AHMEDABAD	PHORATE	Sch-3,G- 1(38)	6	0.1		SMALL
41	SAGAR DRUGS & PHARMACEUTICALS PVT. LTD., 38/3 & 46/1 KANBHA KUTIA ROAD SINGARWA, DIST. AHMADABAD GUJARAT	AHMEDABAD	ETHYLENE OXIDE	Sch-3,G- 3(140)	21.8	5	50	LARGE
42	SARAS INDUSTRIES S.NO-62, BEHIND ADVANCE PETROCHEM, PIRANA ROAD, PIPLEJ, AHMEDABAD	AHMEDABAD	CHLORINE	Sch-3,G- 2(108)	18 MT	10	25	MEDIUM
43	SARATHI AGROCHEM 1306/5, PHASE-4, GIDC, NARODA, AHMEDABAD	AHMEDABAD	PHORATE METHYL PARATHION MONOCROTOP HOS	Sch-3,G- 1(38,74)	2 5 2	100 100 100		SMALL

44	SHARMA & CO. S.NO. 62, B/H ADVANCE PETRO CHEMICALS LTD, PIRANA ROAD, PIPLEJ,AHMEDABAD	AHMEDABAD	CHLORINE	Sch-3,G- 2(108)	27 MT	10	25	SMALL
45	SHV ENERGY NORTH WEST INDIA LTD. LPG FILLING PLANT RANESAR, PATIA KALYANGADH GUJARAT	AHMEDABAD	FLAMMABLE GASES	Sch-3,G- 5(1)	474	15	200	LARGE
46	SIDDDHI DÉCOR PVT. LTD. LAMINATION UNIT SURVEY NO. 240, SARKHEJ BAYLA ROAD, BEHIND BHAGYODAYA HOTEL, AT- CHANGODAR, TAL- SANAND, DIST- AHMEDABAD	AHMEDABAD	METHANOL FORMALDEHY DE PHENOL	Sch-3,G- 2(112)	30 MT 90 MT 30 MT	5	50	MEDIUM
47	SKY LAM PVT LTD PLOT NO. 13 TO 16, A/4, A/5, MAHAGUJARAT INDUSTRIAL ESTATE, MORAIYA, TAL- SANAND, DIST- AHMEDABAD	AHMEDABAD	FORMALDEHY DE	Sch-3,G- 2(112)	28 KL	5	50	MEDIUM
48	SUPER INDUSTRIES C-1/289, GIDC NARODA AHMEDABAD GUJARAT	AHMEDABAD	PARATHION PHORATE	Sch-3,G- 1(38,74)	0.4 4.5	0.1 0.1		MEDIUM
49	TATA AUTOCOMP SYSTEM LTD, PLOTNO-2, TATA MOTOR VENDOR PARK, TA- SANAND,DIST- AHMEDABAD	AHMEDABAD	LPG	Sch-3, G- 5(1)	20 MT	15 MT	200 MT	LARGE
50	TATA MOTORS LTD. REVENUE SURVEY NO-1, MATODA,VILL- NORTHKOTPURA, SANAND,	AHMEDABAD	PROPANE	Sch-3, G- 5(1)	300 MT	15 MT	200 MT	LARGE
51	SUZUKI MOTORS GUJARAT PVT. LTD. BLOCK NO. 334-335, HANSALPUR, VILLAGE-BECHARAJI, TA-MANDAL, DIST- AHMEDABAD	AHMEDABAD	PROPANE	Sch-3, G-5	60 MT	15	200	LARGE

List of Flood Prone Villages due to Sabarmati River/Dharoi Dam

Water Discharge(Cusecs)	Signal	Villages of City Taluka	Villages of Dholka
86,597	White	Paldi	Aambliyara
		Juna Vadaj	Chandisar
		Nava Vadaj	Jalalpur
		Gyaspur	khatripur
		Area of Elisbrige Police Station	Rajpur
			Saroda
			Sathar

White Signal o Alert

Blue Signalo Be prepared for Evacuation

Red Signal o Immidiate Evacuation

List of Flood Prone Villages due to Sabarmati River/Dharoi Dam			
Water Discharge(Cusecs)	Signal	Villages of City Taluka	Villages of Dholka
1,16,892	Blue	Paldi	Aambaliyara
		Juna Vadaj	Chandisar
		Nava Vadaj	Jalalpur
		Gyaspur	Khatripur
		Area of Elisbrige Police Station	Rajpur
			Saroda
			Sathar
1,16,892	White	Jamalpur	Aambethi
		Raykhad	Aandhari
		Kochrab	Pisvada
		Subhashbrige	Sahij
			Varana

List of Flood Prone Villages due to Sabarmati River/Dharoi Dam					
Water Discharge (Cusecs)	Signal	Villages of City Taluka	Villages of Dholka	Villages of Daskroi	Villages of Bavla

145000	Red	Paldi	Aambaliyara		
		Juna Vadaj	Chandisar		
		Nava Vadaj	Jalalpur		
		Gyaspur	Khatripur		
		Area of Elisbrige Police Station	Rajpur		
			Saroda		
			Sathar		
	Blue	Jamalpur	Aambethi		
		Raykhad	Aandhari		
		Kochrab	Pisvada		
		Subhashbrige	Sahij		
		□	Varana		
	White	Pirana	Vataman	Laxmipara	Devthal
		Pipraj	Bharatvada	Lambha	Dumali
		Gopalpur	Chaloda	Kunad	Kavitha
			Dadusar	Girmatha	Memar
			Dhori	Oad	Kavla
			Ganesar	Naj	Ranesar
			Ganol	Paldi Kankrej	shiyar
			Giranj	Miroli	
			Ingoli	Navapura	
			Kariyarpura	Dharoda	
			Kauka	Visalpur	
			Kharanti	Vasai	
			Mafalipur	Vanzar	
			Motiboru	Bhat	
			Nanimoru	Fatewadi	
			Mujpur para	Kasindra	
			Nesada	Bakrol	
			Paldi	Timala	
			Simej		
			Tansad		
			Vautha		
			Kelida		

		Viradi		
		Virpur		
		Bhavanpara		
		Badarkha		
		Diman		
		Dhurjipura		
		Odariyapara		
		Mandalpara		

List of Flood Prone Villages due to Sabarmati River/Dharoi Dam

Water Discharge(Cusecs)	Signal	Villages of City Taluka	Villages of Dholka	Villages of Daskroi	Villages of Bavla	Villages of Sanand	Villages of Dhandhuka
1,73,300	Red	Paldi	Aambaliyara				
		Juna Vadaj	Chandisar				
		Nava Vadaj	Jalalpur				

		Gyaspur	Khatripur				
		Area of Elisbrige Police Station	Rajpur				
			Saroda				
			Sathar				
		Jamalpur	Aambethi				
		Raykhad	Aandhari				
		Kochrab	Pisvada				
		Subhashbrig e	Sahij				
			Varana				
	Blue	Pirana	Vataman	Laxmipar a	Devthal		
		Pipraj	Bharatvada	Lambha	Dumalli		
		Gopalpur	Chaloda	Kunad	Kavitha		
			Dadusar	Girmatha	Memar		
			dhuri	Oad	Kavala		
			Ganesar	Naj	Ranesar		
			Ganol	Paladi Kankar	Shiyar		
			Giranj	Miroli			
			Ingoli	Navapura			
			Kariyapura	Dharoda			
			Kauka	Visalpur			
			Kharanti	Vasai			
			Maflipur	Vanzar			
			Motiboru	Bhat			
			Naniboru	Fatewadi			
			Muzpurpara	Kasindra			
			Nesada	Bakrol			
			Paladi	Timala			
			Simej				
			Tansad				
			Vautha				
			Keliya				
			Viradi				

			Virapur				
			Bhavanpara				
			Badarakha				
			Diman				
			Dhurajipara				
			Odariyapara				
			Mandalpara				
	White	Shahvadi				Matoda	Dholera
		Kama Hotel Road				Sari	Vithalbandar
		Sabarmati power house				Palvada	Kumab
		Sarkhej				Tajpur	Ghogha
		Dudheshvar				Moraiya	Kadipur
		Madhupura				Vasana	Kasindra
		Sahpur				Jivanpura	Aambali
						Sanathal(Chacharvadi)	Kama Talav
						Lodariyar	Ganeshpura
						Changodar	Navagam
						Jhamp	Valinda
						Kalol	Pipari
						Moti Devati	Pachcham
						Modasar	Ratanpur
							Kamibara
							Fedara
							Buهارanpur
							Aanadpura

STANDARD OPERATING PROCEDURE	TITLE	SOP No: INDIA-000
Location: India	SOP for COVID-19 for Home	Revision No.: 00
Dept.: Home		Effective Date: 09/05/2020
Page 109 of 4		Distributed to: Home

1.0	OBJECTIVE :
1.1	To lay down the procedure for prevention from COVID-19 at home.
2.0	SCOPE
2.1	This procedure is applicable to the home of everyone.
3.0	RESPONSIBILITY
3.1	Every member of the home.
4.0	ACCOUNTABILITY
4.1	House leady in the home
5.0	PROCEDURE
5.1	Visits to the Market
5.1.1	Always wear a triple layer /N95/Surgical nose mask or use face cover when you go out of your home.
5.1.2	Wear dedicated plastic slippers for the market
5.1.3	Make a distance of minimum 6 feet from any person or shopkeeper in the market.

5.1.4	Don't touch anything unnecessarily outside your home
5.1.5	Don't touch your face with your hand when you are outside your home.
5.1.6	Keep a small pack of hand sanitizer (containing 70% alcohol) with you and always sanitize your hands if you feel you touched anything suspicious in the market.
5.1.7	Try to keep away the material from your body when carrying from market. It is better to have a plastic basket/bucket with you when going to the market. Put the material in bucket and carry it to your home.
5.1.8	In case you need to visit ATM for money, first sanitize the keyboard of ATM and Card after use, by hand sanitizer (containing 70% alcohol).
5.1.9	Go to market only when it is urgent. Try to go once or twice in a week.
	<i>Note: You don't need to wear a nose mask at your home unless you have influenza like illness (ILI).</i>
5.2	Payment in Market:
5.2.1	Try to make digital payment using G-Pay/Paytm App, Bheem App or your Bank App.
5.2.2	Don't take paper currency from any shopkeeper because it may carry corona virus.
5.2.3	If you give paper currency note to the shopkeeper then purchase with whole amount and don't take money back.
5.2.4	If in any circumstances you take paper currency from market then keep it in your hand until
	your home and disinfect it using cloth iron. Iron the currency on both sides. Person visited the market will not touch the iron, he will put the currency note on surface and other family member will iron.
5.2.5	Disinfect the currency coins with 70% alcohol based sanitizer or soap and water.
5.2.6	Wash your hands with soap and water after currency disinfection.
5.3	Use of Public Lift/Staircase
5.3.1	It is better to use staircase instead of public lift in current situation.
5.3.2	Don't touch the staircase with your hands.
5.3.3	If it is required to use lift then keep some paper pieces in your pocket and touch the push button with your finger covered with paper.
5.3.4	Remove and throw the paper in the waste bin immediately when you come out the lift without touching it from outside.
5.3.5	Maintain minimum 6 feet distance from others in lift, it is better to use it individually.
5.4	Entrance in Home
5.4.1	Don't touch the door, call house members to open the door when you enter.
5.4.2	Put the material at a dedicated place near the door like a table or any box.
5.4.3	Go to washroom and wash your hands and face with soap for at least 20 seconds.
5.4.4	Put off your cloths and dip those in detergent solution and bath with soap (you can skip this step if you feel that you have not visited a crowded area).

5.4.5	Wash your plastic street slipper properly with detergent solution.
5.5	Visit of the Outsider
5.5.1	If anyone outsider like plumber/electrician / mechanic visits your home then make sure he doesn't have fever. You can check it with digital /infrared thermometer.
5.5.2	First of all allow him to sanitize his hands with sanitizer or soap and water.
5.5.3	Don't allow him to touch anything except his work.
5.5.4	Sanitize the place and equipment's he used with soap solution after completion of work.
5.6	Disinfection of Home
5.6.1	Mop the floor daily in the morning with 2% detergent solution or 0.2%Lizol solution or Dettol/Savlon 3% solution.
5.6.2	Disinfect the main door handle and doorbell with 70% alcohol based liquid sanitizer.
5.7	Disinfection of Kitchen Wares
5.7.1	Kitchen wares are generally cleaned by dish washing soap/ washing liquid and don't need to disinfect separately

5.8	Disinfection of Cloths
5.8.1	Wash your cloths immediately with detergent when you come from outside the home.
5.8.2	Wash your towel and daily use cloths frequently.
5.9	Disinfection of Hands
5.9.1	Wash your hands for at least 20 seconds with water and soap.
5.9.2	Rub the soap on palm, middle of the finger, nails and wrist properly for 20 seconds and wash with water.
5.9.3	Alternatively you can use sufficient quantity of the alcohol based (70%) hand sanitizer to disinfect the hands.
	<i>Note: You don't need to sanitize your hands frequently unless you go out of your home but sanitize your hand before eating anything.</i>
5.10	Disinfection of Vegetables and Fruits
5.10.1	In current circumstances it is necessary to disinfect the vegetables and fruits before consumption.
5.10.2	Depending upon type of vegetable, wash the vegetables and fruits with lukewarm water by adding salt/baking powder or water with 2% soap/detergent solution by rubbing with hands.
5.10.3	Clean with tap water.
5.10.4	Store in refrigerator for use.
5.11	Disinfection of Packaged Milk
5.11.1	Wash the packet with 2% soap/ detergent solution by rubbing with hand.
5.11.2	Wash with tap water.
5.11.3	Cut the pack; pour into pan and heat to boil.
5.11.4	If you take milk from milkman then make proper distance during the process and boil the milk immediately.
5.12	Disinfection of Food Material
5.12.1	Unpacked food material that can't be washed must be stored at a dedicated place for at least 72 hours or as per Annexure - I before its consumption.
5.12.2	Avoid purchasing the dairy product from market and you can prepare sweets and other product at your home.
5.13	Disinfection of Other Items
5.13.1	The non-food items must be stored at dedicated place for at least 72 hours.

5.14	Boost your Immunity		
5.14.1	It is required for everyone to improve the immunity these days.		
5.14.2	Daily practice Yogasana, Pranayam and Meditation for at least 30 minutes.		
5.14.3	Drink herbal tea (Kadha) made from Basil (Tulsi), Cinnamon (Dalchini), Black Pepper (Kalimirch), Dry Ginger (Shunth), Mullethi and Raisin (Munakka) once or twice a day. Add jaggery (Gur) and /or fresh lemon juice to your taste, if needed.		
7.0	ANNEXURES 1		
	Surface	Time Duration	
	Aluminium	2-8 hours	
	Wood	4 days	
	Plastic	2-5 days	
	Metal	5 days	
	Paper	3 hours to 5 days	
	Ceramic	5 days	
	Steel	2-28 days	
	Glass	4-5 days	
8.0	ABBREVIATIONS		
	COVID-19 : Corona Virus Disease 2019		

Taukte Cyclone -2021

Ahmedabad District affected due to Taukte Cyclone details given below.

- Total 7263 people were affected and transfer to Shelter home for safe side.
- Damage Details

Damage Details	No. of Damage
Human Death	7
Human injury	3
Animal Death	8
Electricity Poll	189
Transformer	16
Electricity power supply	346 village
Tree	677
partially Kaccha Houses	991
Partially Huts	100
Partially Pakka Houses	314
Kaccha Houses	5
Huts	0
Pakka Houses	22
Government Building	12
Road Close	15

- NDRF Details

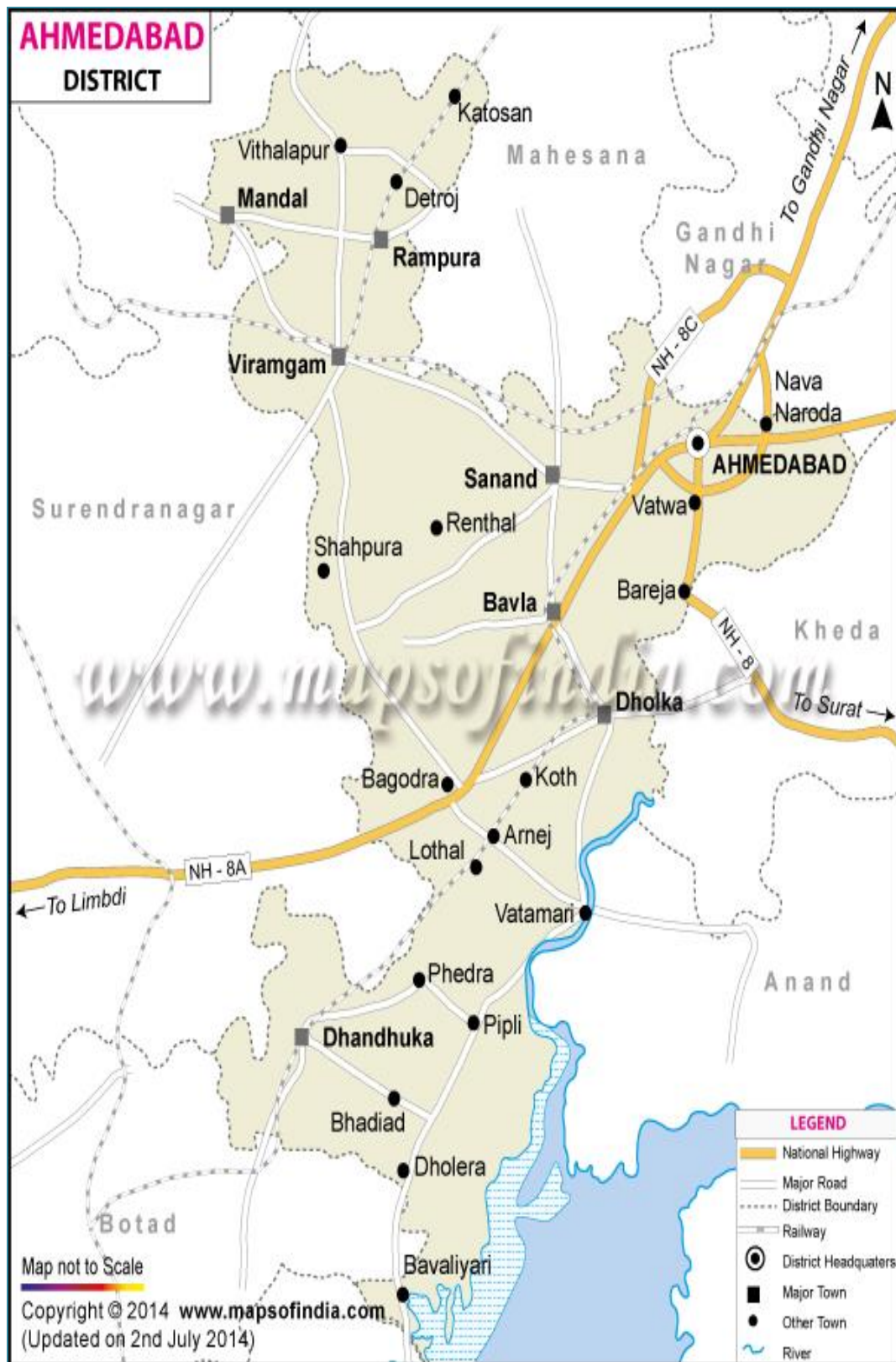
-Total 3 NDRF team stand by at Ahmedabad District. One team stand by at Dholka and one team stand by at Sanand and one team stand by at Dholera.

Control Room

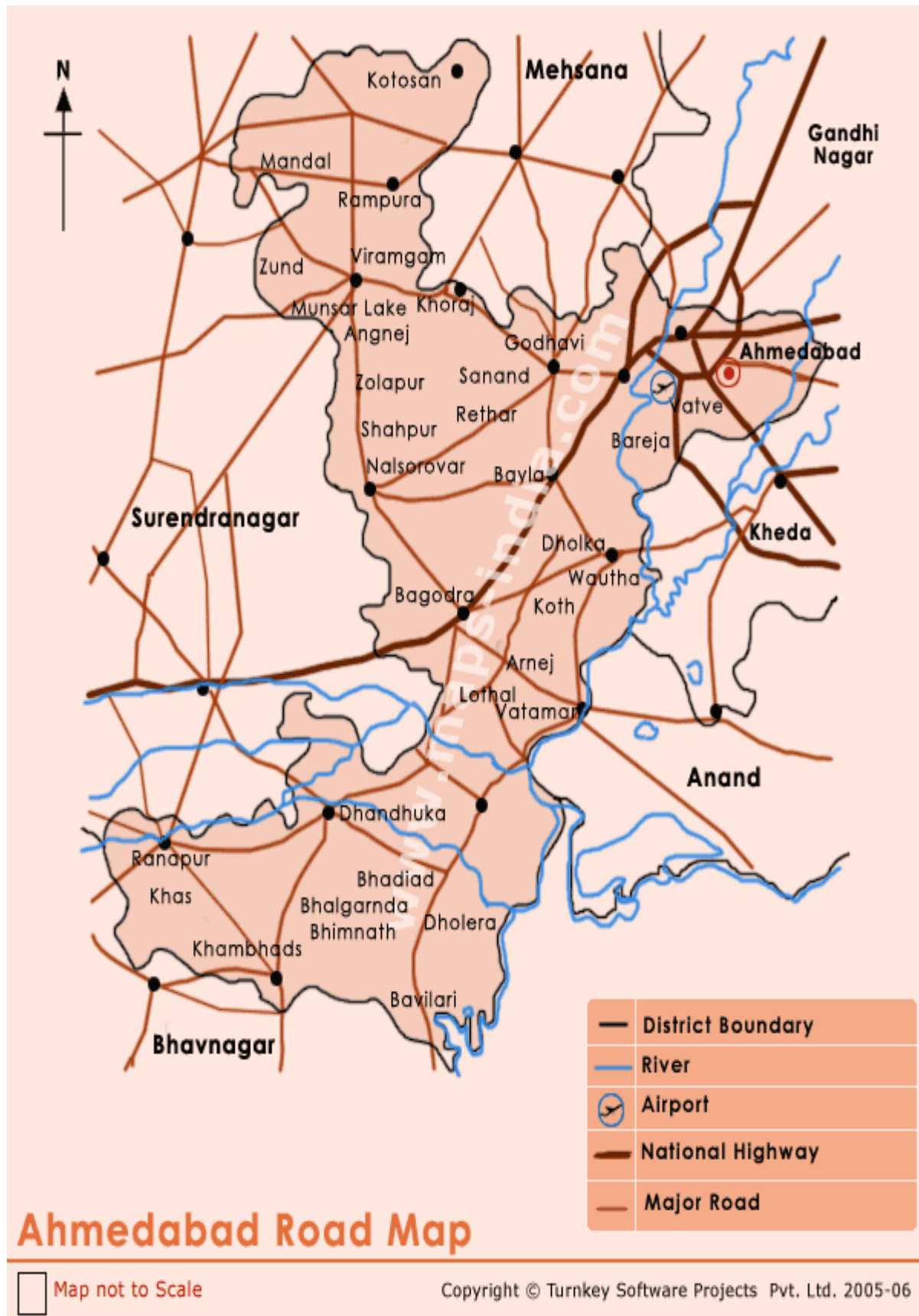
Office Name	Office No.		Fax no.
State Control Room Gandhinagar	23251911-16		23251916/12
District Control Room(EOC), Collector Office, Ahmedabad	27560511	Toll Free-1077	27552144
Main Control Room, Tagor Room, Tagor Hall, Mu.corporationP	32982458, 32943212		26580623
Central Control Room , Danapith	25391811, 25353858, 22148465-62		25350926
West Zone, Ushmanpura Control Room, Mu.Corporation	27550910		32943182
Police Control Room(Police Commisioner)	25630100		
Police Control Room(Rural)	26891115 22821124		26891257
Control Room(Civil Difence)	25508718		
Vasna Berej	26301536		26613123
Meteorological Department	22867657		
Control Room(G.E.B)	27506070		
J.P.Control Room(Jamalpur)	32983198		
Dudheshwer Control Room	25628222, 32981449		
Chandkheda	23296058 23290266		23290266
Ranip	27530553		27523409
Vejalpur	26813278		26813378
Sarkhej	268233399		26824593

Bakrol	02718-224577		32981373
East Zone	22970422		32981339
Chakudiya	32910242		
Odhav	32981155		32981155
Nikol	3298881361		32983071
South Zone	25465255, 25465399		25465344
Bage Firdos	25854096, 32981149		32943052
North Zone	22801182, 22842926		32943051
Saijapur	22821075		
Naroda Muthiya	32981452		
Viktoriya Gardan	25390501		32984122

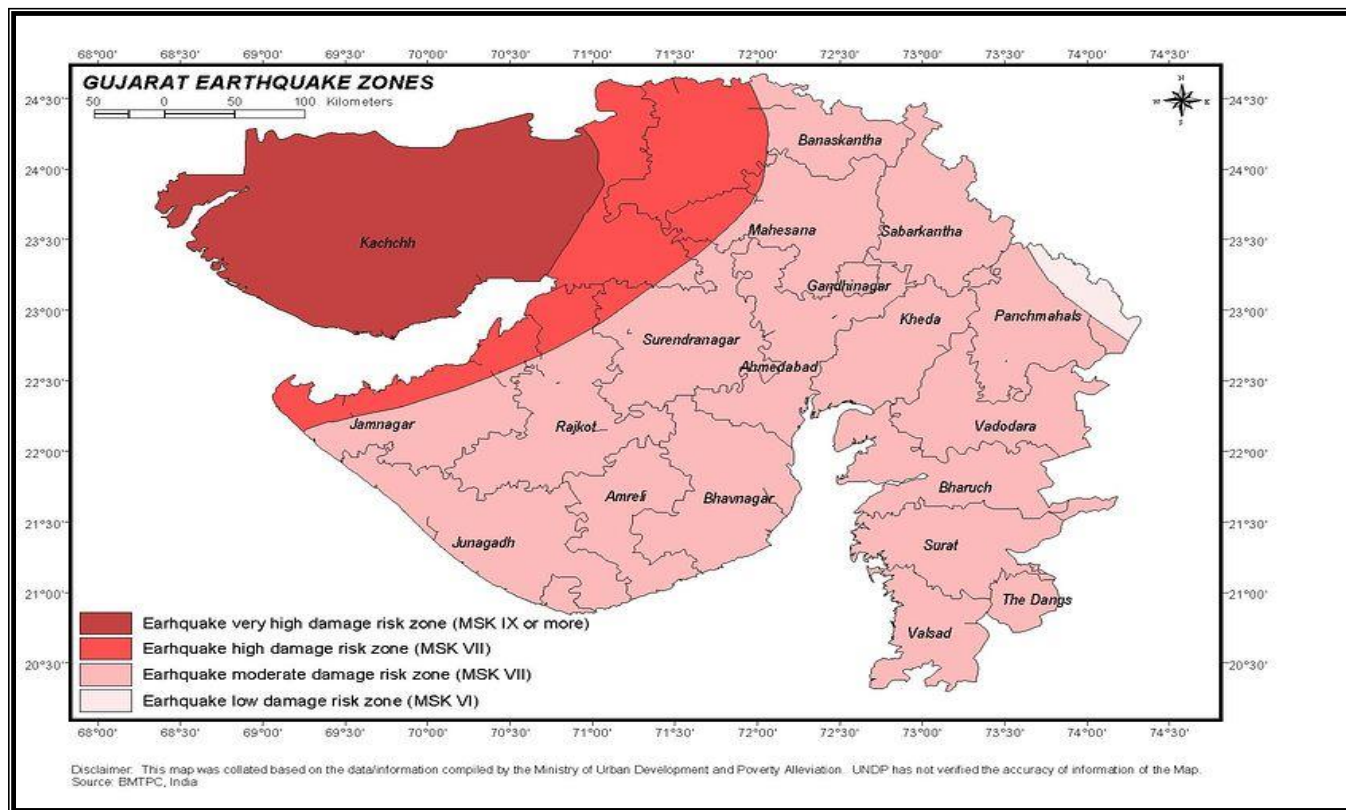
1. District Political Map



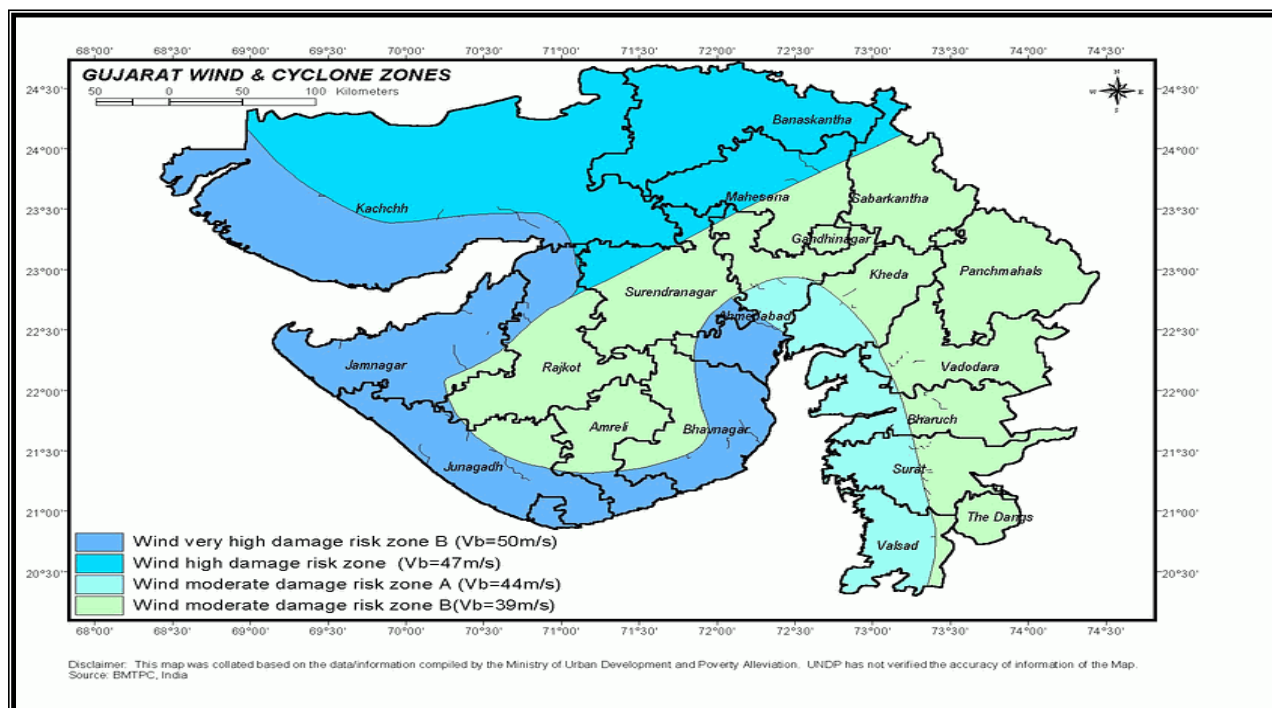
2. District Map showing roads and rail network, air ports and sea ports.



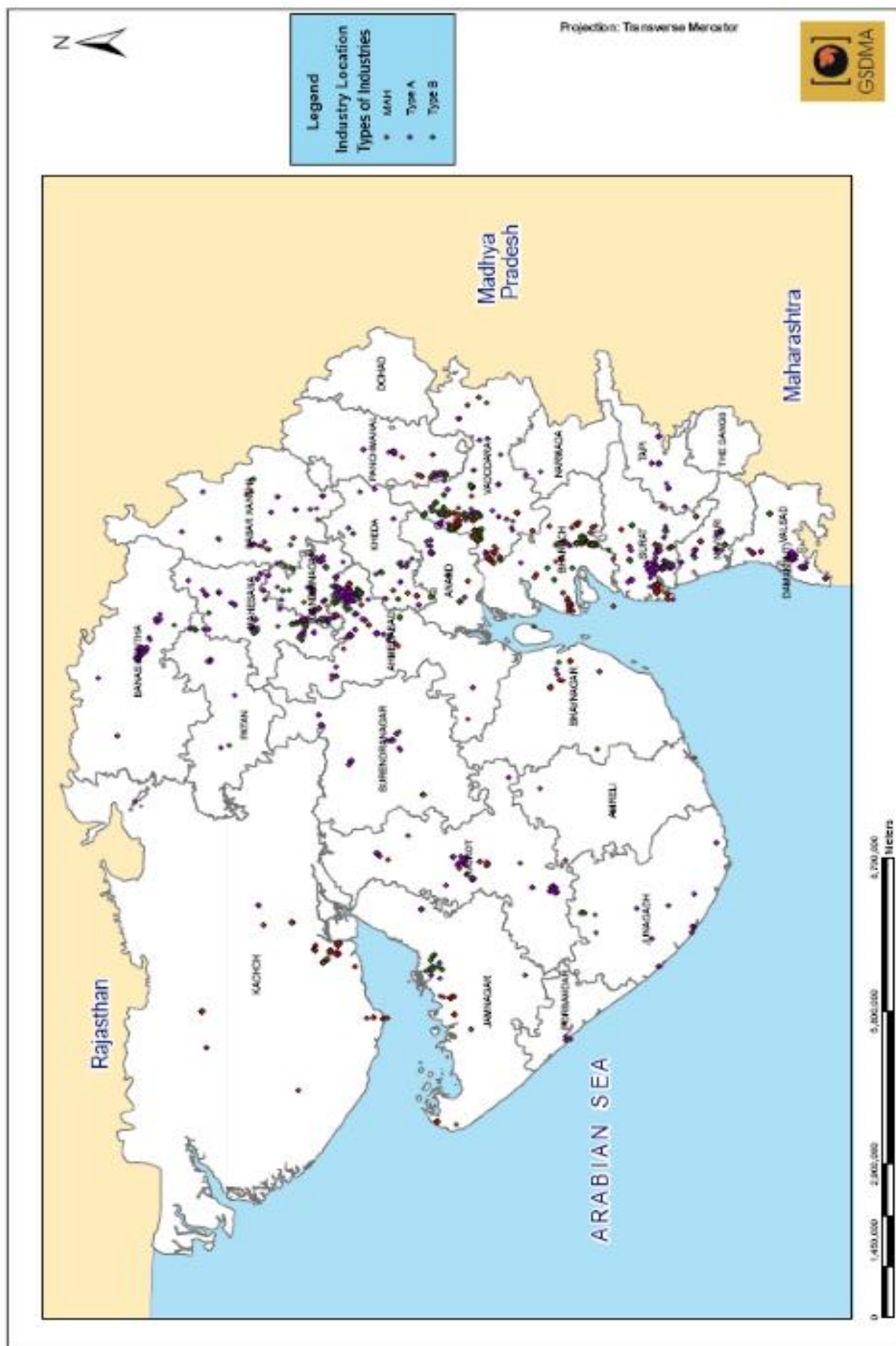
4. Gujarat Earthquake Hazard Map



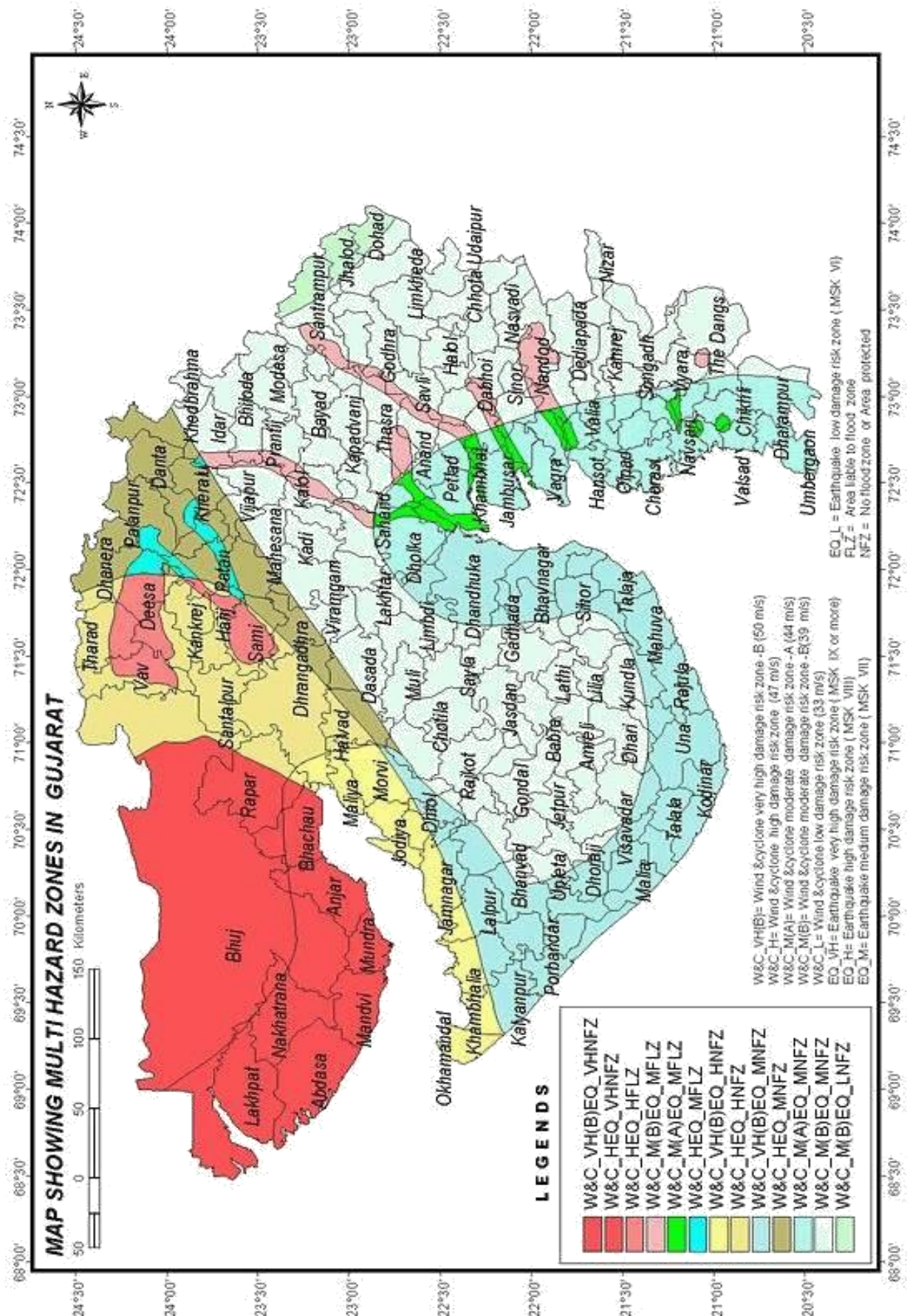
Gujarat Flood Hazard Map



6. Map showing critical infrastructure and installation in the State.



7. Map Showing Multi Hazard Zones in Gujarat.



Disclaimer: This map was collated based on the data/information compiled by the Ministry of Urban Development and Poverty Alleviation, UNDP has not verified the accuracy of information of the Map. Source: BMTPC, India