

District Disaster Management Plan (DDMP)

Year – 2026

District – Gir Somnath



सर्वे भवन्तु सुरक्षिताः।



DISASTER MANAGEMENT PLAN: DISTRICT-Gir Somnath

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 Gir Somnath district have prepared their Disaster Management Plans and will be 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 and relief operations and contingency plans.

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

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 disaster etc for Gir Somnath District. This Plan will update periodically, and also we will improve it through our draw backs, errors and new lessons learnt.

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

Signature of District Authority :-


Resident Additional Collector
Gir Somnath

Name of District Authority	:-	R.G. Aal (G.A.S)
Date of Plan (submit)	:-	27/05/2026

List of Abbreviation

APMC	Agricultural Produce Market Committee
AE	Assistant Engineer
AH	Animal Husbandry
ATI	Administrative Training Institute
ATS	Anti Terrorist Squad
ATVT	Apno Taluko Vibrant Taluko
BPL	Below Poverty Line
BRC	Block Resource Centre
CBO	Community Based Organization
CDHO	Chief District Health Officer
CDPO	Child Development Project Officer
CHC	Community Health Center
CRC	Community Resource Centre
CRF	Calamity Relief Fund
CSO	Civil Society Organization
DCMG	District Crisis Management Group
DDMA	District Disaster Management Authority
DDMP	District Disaster Management Plan
DDMO	District Disaster Management Officer
DDO	District Development Officer
DEOC	District Emergency Operation Centre
PGVCL	Paschim Gujarat Vij Company Limited
DISH	Directorate of Industrial Safety and Health
DM	Disaster Management
DPO	District Program Officer
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DSO	District Sports Officer
DSP	Deputy Superintendent of Police
Dy. Eng.	Deputy Engineer
Dy SP	Deputy Superintendent of Police
EMRI	Emergency Management & Research Institute
ESR	Elevated Surface Reservoir
EWS	Early Warning System
Ex. Eng.	Executive Engineer
FCI	Food Corporation of India
FPS	Fair Price Shop
FWP	Food for Work Program
GDCR	General Development Control Regulation
GEB	Gujarat Electricity Board
GIDM	Gujarat Institute of Disaster Management
GLR	Ground Level Reservoir
GMB	Gujarat Maritime Board
GoI	Government of India
GPs	Gram Pranchayats
GSDMA	Gujarat State Disaster Management Authority

GWSSB	Gujarat Water Supply and Sewerage Board
HFA	Hyogo Framework for Action
HHs	Households
HPC	High Powered Committee
HQ	Head Quarter
HRVC	Hazard, Risk, Vulnerability and Capacity
IAY	Indira Aawas Yojana
IMA	Indian Medical Association
ICS	Incident Commander
ICS	Incident Command System
IDNDR	International Decade for Natural Disaster Reduction
IEC	Information Education Communication
IMD	Indian Meteorological Department
ISDR	International Strategy for Disaster Reduction
ISR	Institute for Seismic Research
ITI	Industrial Training Institute
IWMP	Integrated Watershed Management Program
LCMG	Local Crisis Management Group
LO	Liaison Officer
MAH	Major Accident Hazard
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MHA	Ministry of Home Affairs
MLA	Member of Legislative Assembly
Mm	Mili Meter
MP	Member of Parliament
NCC	National Cadets Corps
NCCF	National Calamity Contingency Fund
NDM	National Disaster Management
NDMA	National Disaster Management Authority
NDRF	National Disaster Response Force
NDRF	National Disaster Response Force
NEC	National Executive Committee
NFSM	National Food Security Mission
NGO	Non Government Organization
NIDM	National Institute of Disaster Management
NRDWP	National Rural Drinking Water Program
NRHM	National Rural Health Mission
NSS	National Service Scheme
NYK	National Yuva Kendra
PCPIR	Petroleum Chemical and Petrochemical Special Investment Region
PDS	Public Distribution System
PHC	Primary Health Center
PI	Police Inspector
PMGY	Pradhan Mantri Gramodyan Yojna
PRIs	Panchayati Raj Institutions
R & R	Recovery & Reconstruction
R&B	Roads & Buildings

RTO	Regional Transport Office
SC	Scheduled Caste
SDM	Sub District Magistrate
SDMA	State Disaster Management Authority
SDRF	State Disaster Response Fund
SDRN	State Disaster Response Network
SE	Superintending Engineer
SEOC	State Emergency Operation Centre
SFO	Sub Focal Officer
SEZ	Special Economic Zone
SHGs	Self Help Groups
SMC	School Management Committee
SMS	Short Message Service
SOP	Standard Operating Procedure
SRPF	State Reserve Police Force
SRT	Special Response Team
SSA	Sarva Shiksha Abhiyan
ST	Scheduled Tribe
S& R	Search and Rescue
Supt. Eng.	Superintendent Engineer
SWO	Social Welfare Officer
TDMA	Taluka Disaster Management Authority
TDMC	Taluka Disaster Management Committee
TDMP	Taluka Disaster Management Plan
TDO	Taluka Development Officer
TEOC	Taluka Emergency Operation Centre
THO	Taluka Health Officer
TNA	Training Needs Assessment
TSC	Total Sanitation Campaign
TSO	Taluka Supply Officer
ULB	Urban Local Body
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
VDMP	Village Disaster Management Plan
VIPs	Very Important Persons
VVIPs	Very Very Important Persons
WASMO	Water and Sanitation Management Organization

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Chapter 1

• Introduction:

At the district level, the district administration is the focal point to manage any disaster or eventuality. It is therefore, imperative to equip and train the district disaster management committee and disaster management team headed by the District Collector/ Magistrate/ Deputy Commissioner.

The district administration is also required to prepare a District Disaster Management Plan based upon the type of disasters likely to affect the district. The actual day –to day function of administering preparedness, response, and mitigation is the responsibility of the District Collector/ Magistrate/ Deputy Commissioner along with the DDMC and the DDMTs.

The previous disaster management plans of the Gir Somnath district are mainly disaster specific contingency plans. Those plans reveal following facts:

- i) Plan document is too voluminous to be easily understood by users.
- ii) The command and control of relief efforts is not optimal
- iii) Integration of response is not effective
- iv) The mitigation, prevention and preparedness aspects are not addressed.

Secondly, separate plans for each disaster have produced multiple documents with considerable duplication, which would work against potential users reading and knowing any of the plans.

Recognizing the fact that most tasks and actions before and following a disaster are common at the district level, the Gir Somnath district administration has used a multi-disaster approach while developing disaster management plan for the district.

1.1 Aims and Objectives

- To determine the risk and vulnerabilities associated with various hazards.
- To identify the hazardous areas and to create appropriate strategies to address the issues in these areas
- To develop appropriate strategies for effective prevention and mitigation of disasters
- To build the capacity of people working in the field of disaster management
- To define and assign roles and responsibilities to various stakeholders associated with disaster management for pre disaster and post disaster phases.
- To develop and maintain arrangements for accessing resources, equipment, supplies and funding in preparation for disasters
- To defines the risks and Vulnerabilities of the citizens of the district to different disasters.
- To Identifies the private and public sector parties with prime and supporting responsibilities to reduce or negate these vulnerabilities
- To Mainstreaming disaster management concerns into the developmental planning process
- To Defines actions to be taken by these parties to avoid or mitigate the impact of possible disasters in the district

1.2 Scope of the Plan:

The District Disaster Management and Response Plan for Gir Somnath District have been prepared for its operation by various departments and agencies of the district and other Non-governmental Agencies expected to participate in disaster management. This plan provides for Vulnerability Assessment and Risk Analysis, Preventive Measures, Mainstreaming disaster management concerns into Developmental Plans, Preparedness Measures, Response Mechanism, and Partnership with Stakeholders, Financial Arrangement, Roles and Responsibilities of the various agencies interlinks in disaster management and the scope of their activities. An elaborate inventory of resources has also been formalized.

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.

1.3 Evolution of the Plan

Gujarat Act No. 20 of 2003, THE GUJARAT STATE DISASTER MANAGEMENT ACT, 2003 clearly stated to mandatory provision of the DM plan as per the following clause & sections

Clause 15 of Chapter VI

1. The authority shall develop or cause to be developed guidelines for the preparation of disaster managements plans and strategies and keep them update and shall assist such departments of Government, local authorities and person, as may be specified by the authority in preparation of plans and strategies and coordinate them
2. The plan preparing authority while preparing the plan under subsection (1) shall make suitable provisions in the plan after considering the following namely:
 - (a) The types of disaster that may occur and their possible effects;
 - (b) The communities and property at risk;
 - (c) Provision for appropriate prevention and mitigation strategies;
 - (d) Inability to deal with disasters and promote capacity building;
 - (e) The integration of strategies for prevention of disaster and mitigation of its effects with development plans, programme and such other activities in the State;
 - (f) Provision for assessment of the nature and magnitude of the effects of a disaster;
 - (g) Contingency plans including plans for relief, rehabilitation and reconstruction in the event of a disaster, providing for-
 - (i) Allocation of responsibilities to the various stakeholders and coordination in carrying out their responsibilities;
 - (ii) Procurement of essential goods and providing essential services;
 - (iii) Establishment of strategic communication links;
 - (iv) Dissemination of information; and
 - (v) Other matters as may be provided for in the regulations.
 - (h) Any other matter required by the Authority.

(3) The Authority shall prepare, or cause to be prepared, and maintained a master plan for the State/District

1.4 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.

1.5 Disaster Risk Reduction Post-2015

Post 2015, there has been a significant shift from the approach of Managing Disasters to Managing Risk. The three landmark global agreements viz. – the Sendai Framework for Disaster Risk Reduction 2015-30 (SFDRR), Sustainable Development Goals (SDG) and the Paris Agreement (CoP 21) set the stage for future global action on Disaster Risk Reduction (DRR), sustainable development and climate change.

Sendai Framework of Actions for Disaster Risk Reduction 2015-2030

The Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR) was adopted at the Third United Nations World Conference on Disaster Risk Reduction held in Sendai, Japan in March 2015. The SFDRR is a document that outlines four priorities for action to achieve 7 targets, which in turn would lead to one outcome which is- a substantial reduction of disaster risk and losses in lives, livelihoods, health, the economy of persons, businesses, communities and countries. India is a signatory to the Sendai Framework for a 15-year, voluntary, non-binding agreement that recognizes that the State has the primary role in reducing disaster risk, but that responsibility should be shared with other stakeholders including local government, the private sector and other stakeholders.

The Four priorities of action are:-

1. Understanding Disaster Risk
2. Strengthening Disaster Risk Governance to Manage Disaster Risk
3. Investing in Disaster Risk Reduction for Resilience
4. Enhancing Disaster Preparedness for Effective Response and to 'Build Back Better' in Recovery, Rehabilitation and Reconstruction

The seven global targets are: -

- A. Substantially reduce global disaster mortality by 2030, aiming to lower the average per 100,000 global mortality rates in the decade 2020-2030 compared to the period 2005-2015
- B. Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 in the decade 2020-2030 compared to the period 2005-2015
- C. Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030
- D. Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030
- E. Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020
- F. Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this Framework by 2030
- G. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030

Sustainable Developmental Goals

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by all United Nations Member States in September 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The 17 SDGs are integrated—that is, they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. To make the 2030 Agenda a reality, broad ownership of the SDGs must translate into a strong commitment by all stakeholders to implement the global goals.

Paris Agreement on Climate Change Action and Disaster Risk Reduction (CoP 21)

The CoP 21 the Paris Climate Conference held in December 2015 led to a new international climate agreement, applicable to all countries, aiming at “holding the increase in the global average temperature to well below 2°C above-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change”. The Paris Agreement recognized the need for loss and damage associated with the effects of climate change. The agreement identified areas of cooperation central to DRR and called for investments to address the underlying risk drivers associated with rising greenhouse gas (GHG) emission levels and to inspire innovation and low-carbon growth.

The State Disaster Management Plan (SDMP) has tried to envisage coherence across the states.

Efforts for DRR, sustainable development, and the actions in response to climate change.

Prime Minister’s 10-Point Agenda towards Disaster Risk Reduction

The Prime Minister, Shri Narendra Modi, listed a Ten -Point Agenda in his inaugural speech at the Asian Ministerial Conference on Disaster Risk Reduction 2016, held in New Delhi in November 2016 (AMCDRR), which has also been incorporated in the SDMP. The ten key elements consist of the following:

1. All development sectors to imbibe principles of Disaster Risk Management
2. Work towards risk coverage for all-starting from poor households to small and medium enterprises to multi-national corporations to nation states.
3. Encourage greater involvement and leadership of women in disaster risk management.
4. Invest in risk mapping globally related to hazards such as earthquakes based on widely accepted standards and parameters.
5. Leverage technology to enhance the efficiency of disaster risk management efforts.
6. Develop a network of universities to work on disaster issues.
7. Utilize the opportunities provided by social media and mobile technologies.
8. Build on local capacity and initiative. Response agencies need to interact with the communities and make them familiar with the essential drill of disaster response.
9. Ensuring that disaster learning is well documented.
10. Bring about greater cohesion in international response to disasters.

How to use the plan

The present plan is not intended to provide comprehensive explanations and background information about a disaster, or serve as a training manual on how to respond to a disaster or conduct a disaster related task. The approach taken is that plans and SOPs should be limited to the minimum information need to respond to a specific disaster or undertake a disaster related task. Steps to address disaster specific requirements can be covered in procedures related to actions. This approach does require that task forces develop disaster specific procedures where appropriate.

In other words, this plan is intended for use by persons who are technically competent in the tasks or responsibilities set out in each plan. 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.

1.6 Approval 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.

1.7 Plan review and updation

The District Collector is responsible for the preparation and revision of the District Disaster Management Plan in collaboration with the line departments and other organizations in the district.

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 the lesson learnt as an outcome of the mock exercise, which consists of identifying the gaps and putting in place a system to fill the same. The District Disaster Management Plan shall be reviewed and updated regularly by annually updated.

- When significant changes in the nature of any hazards
- Lessons learnt following any major disaster or
- When there is any significant change to organization or responsibility of primary members of the task forces defined in the plan.
- DDMC shall compile its learning and proposed new mechanisms for improvement of the capacity to deal with disasters
- Drills and Rehearsals
- Recommendations from all line Depts. in their Report
- Lessons learnt from any disaster event in other district and state
- Directions from National Disaster Management Authority, GSDMA, Government of Gujarat, Revenue Department etc.

CHAPTER – 2

• Hazard Vulnerability and Risk Assessment:

• 2.1 TYPES OF HAZARDS THE DISTRICT PRONE TO

Gir Somanth district is highly prone to multi hazards like Cyclone, earthquake, flood, Accidents. The history of disasters in the district will provide a clear picture of the vulnerability to which the district is prone.

PROBABILITY PERIOD / SEASONALITY OF DISASTERS													
Name of Disaster	Month												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
Flood						←→							
Cyclone					←→								
Drought							←→						
Earthquake	←→												

• 2.2 Vulnerability Assessment and Risk Analysis Of District :

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

The table below summarizes the results of an analysis of hazard, risk and disaster impact in Gir Somnath District. This analysis indicates that disaster planning at the Gir Somnath district level should first focus on the functional response to the High winds and Earthquake. The functional responses to these events have links to the response to floods, 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 / Talukas
Earthquake	3	5	15 (High)	Zone- III : Entire District
High Wind	3	5	15 (V.High)	Veraval, Una, Kodinar, Sutrapada.
Flood	3	3	9 (Moderate)	Veraval, Kodinar, Una, Gir Gadhada
Fire	3	3	9 (Moderate)	Veraval, Talala.
Sea Surge	4	2	8 (Moderate)	Veraval, Una, Kodinar, Sutrapada.
Industrial Accidents	3	2	6 (Moderate)	Veraval, Sutrapada & Kodinar.
Drought	2	3	6 (Moderate)	Entire District
Food Poisoning	2	2	4 (Low)	Any Where in District
Civil Unrest	2	2	4 (Low)	Any Where in District
Epidemics	2	2	4 (Low)	Any Where in District
Building Collapse	2	1	2 (Low)	Any Where in District
Boat Sinking	2	1	2 (Low)	Veraval, Una, Kodinar
Animal Disease	1	2	2 (Low)	Any Where in District
Dam Failure	1	1	1 (Low)	Any Where at Dam sites

- 2.3 District's Hazard History, Last Impact and Area Affected :**

Gir Somnath has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, Drought, Cyclones and Earthquake have been recurrent phenomena. Entire District Fall in to Seismic Zone-III for Earth Quack including active Fault Line at Talala and Una, 4 Costal Talukas are prone to Cyclone, 5 Talukas are Prone to Flood, and Entire District is also susceptible to drought.

Sr.	Type of Disaster	Last Impact Month / Year	Intensity	Affected Area / Taluka
1	Drought	1999	Medium	Entire District
2	Earthquake	January-2001	Medium	Kodinar, Una, Sutrapada, Veraval Talala.
3	Civil Unrest	February-2002	Light	Una, Sutrapada, Kodinar, Veraval.
4	Flood	June-2005	Heavy	Una, Veraval, Talala, Kodinar.
5	Cold Wave	January-2008	Light	Talala
6	Heavy Rain	July-2009	Heavy	Veraval- Sutrapada- Una
7	Fire	November-2009	Light	Talala.
8	Boat Sinking	November-2009	Light	Una, Veraval
9	Food Poisoning	January-2010	Medium	Veraval, Una.
10	Heat Wave	May-2010	Light	Talala
	Vayu Cyclone	June-2019	Light	Una, Sutrapada, Kodinar, Veraval.
12	Toukte Cyclone	May-2021	V. Heavy	Una, Gir Gadhada, Veraval, Sutrapada, Kodinar.
13	Biporjoy Cyclone	June-2023	Light	Veraval, Talala, Sutrapada, Kodinar,Una.
14	Heavy Rain	July-2023	Medium	Veraval, Talala

2.4 Details of Last Disaster Strikes Gir Somnath District

- 1. Drought (1999)**

Drought occurs in 1999 for District as Half Scarcity was declared for all Talukas.

- 2. Earthquake (January-2001)**

After Earthquake-2001 Relief given to Total 156 Houses under G5 Category for Reconstruction in Gir Somnath District viz. Kodinar (R)-10, Kodinar (U)-78, Sutrapada (R)-4, Una (R)-33, Una (U)-30, Veraval (U)-1.

Lastly, an Earthquake of Magnitude 5.3 was strikes on 20th October – 2011 at 10:48 PM. Epicentre was identified at 13 km SE of Sasangir, in Talala Taluka. Earthquake was felt in major parts of the District. Total 6 Persons were injured due to earthquake in Talala and Veraval Taluka. Total 486 Tent were distributed to structurally damaged houses as an immediate relief. Total 3980 Houses of 27 Villages from 4 Taluka, were surveyed by different Teams and Relief were distributed to Total 2341 Beneficiaries as per following Table.

Sr.	Taluka	Affected Village	Surveyed House	Relief Given	Tent Distributed
1	Talala	15	3946	2315	486
2	Sutrapada	8	28	20	0
3	Veraval	3	5	5	0
4	Una	1	1	1	0
	Total	27	3980	2341	486

- 3. Civil Unrest (February-2002)**

After Godhara Communal Riots; Una, Sutrapada, and Kodinar were slightly affected. 1 Death was occur at Una, 9 Beneficiaries were given Financial Assistance for House Damage, 42 Persons were given Financial Assistance for Damage in Professional Equipments and 14 persons were benefited for House Hold Assistance.

There was also an incident of civil unrest reported on 22nd, June 2013 at Satta Bazar and Minarva Chock of Veraval City.

- **4. Flood (June-2005)**

In Year 2005 most of Talukas were affected due to Flood. Damage Report for Effected Taluka, Population, Evacuation, Human-Animal Death, Houses Collapse, Cash Doles and House Hold Relief is as below.

Total Affected Taluka - 5, Affected Villages - 128, Affected Population - 13660.

Total Relief Centres - 12, Total Persons got Shelter - 2994

Total Human Death - 11, Total Animal Death - 67

House Collapse - Huts-2, Pucca House- 9, Kachcha House- 91

House Damaged - Pucca House-99, Kachcha House- 1350

Cash Doles given to Persons – 5, Food Packet Distributed - 5400

House Hold Relief given to - Families-1721, Persons- 6885

Damage of Public Infracture (in Lakh Rs.): Road-609.62, Electricy-21.51, Water Supply- 20.00, Agriculture-274.00, Port-1.55, Irrigation-196.20.

- **5. Cold Wave (January-2008)**

Gir Somnath and Many parts of Saurashtra had experienced Severe Cold Wave for continuous 12 days. The Severe Cold Wave had abated and the Average Minimum Temperature was 7.3 Degrees. The Cold Wave was due to intense cold weather in Afghanistan and Pakistan. This was the reason for Temperatures in Gir Somnath went below that in Saurashtra.

- **6. Heavy Rain (July-2009)**

In Year 2009, Veraval- Sutrapada- Una were affected due to Heavy Rain. Damage Report for Human-Animal Death, Houses Collapse, Cash Doles and House Hold Relief is as below.

Total Affected Taluka - 5, Total Human Death - 6, Total Animal Death - 45

Cash Doles given to Persons – 3672 (Rs.2.07 Lakh) for Veraval.

House Hold Relief given to - Families-24895 (Rs. 275.96 Lakh) for Veraval

House Damaged - Fully- 17, Partial- 905

Total Persons Shifted at Shelter - 10470

Total Relief Camp-5, Food Packets Distributed – 37945

- **7. Fire (November-2009)**

Due to the large area Surrounded by Forest of Talala & Gir Gadhda are likely to be affected in Fire most frequently.

- **8. Boat Sinking (November-2009)**

Due to Cyclone "Phayan", all Fishermen were called to return back on port. 2 Boats Named Siv-Sagar (VRC-8497) and Vishwanath (VRC-6618) were Damaged and Sink but all sailors on that boats were safely reach on cost of Veraval and Nava Bandar of Una.

- **9. Food Poisoning (January-2010)**

Major Food Poisoning Cases were handled by Health Department and Administration at MDM Centre Navadra of Veraval and MDM Centre of Dudhala of Una Taluka.

- **10. Heat Wave (May-2010)**

Heat Cave conditions were prevailed in parts of Saurashtra including Gir Somnath for more then 10 days in the month of May holding the Maximum Temperature was more on 40' Centigrade. Highest Temperature for Talala was Recorded 44.7 on 20th May-10 and Minimum Temperatures was also at near Normal of around 23 to 27 Degrees in most parts of District.

- **11. Vayu Cyclone-2019**

Indian Meteorological dept. had announced threat of cyclone named 'Vayu' in the second week of June-2019 on the costal districts of Gujarat including Gir Somnath district.

Advanced preparatory measures took place by District Collector/ District Administration.

District has conducted a meeting with all the line depts. including coast guard, Manager, Somnath temple. Collector sir reviewed preparations of all the depts. & discussed deeply how to cop up with probable cyclone. Collector sir cancelled leaves of the district & taluka level officials & instructed to be present in their respective HQ.

All the costal villages/areas were alerted & people evacuated to the safe shelters. Administration had arranged food, water, sanitation etc. at the shelters, also deployed police party to secure assets of evacuated people.

- **12.Toukte Cyclone-2021**

Indian Meteorological dept. had announced threat of cyclone named 'Toukte' in the second week of May-2021 on the costal districts of Gujarat including Gir Somnath district.

2021 - Cyclone "Tauktae" was the Extremely Severe Cyclonic Storm which hit the Saurashtra coast.

It made landfall on the coast of Una Taluka in Gir Somnath at 9 pm on May 17, 2021, with a wind speed of 135 to 146 kmph.

- **13. Biporjoy Cyclone(June-2023)**

During June - 2023 "Biporjoy" cyclone passed in Ariabian sea. Wind velocity was high but cyclone passes appoxymately 120 km away from Gir somnath District, So losses due to winds speed was comparatively moderate and also moderate rain fall occured in Gir Somnath district.

Animal Death, Houses Collapse and Cash Doles Relief is as below.

Total Affected Taluka - 3, Total Animal Death - 1

Cash Doles given to Persons – 1030 (Rs.1.38 Lakh)

House Damaged - Fully-10, Partial- 106

Total Persons Shifted at Shelter - 2978

Food Packets Distributed – 5981

- **Heavy Rain (July-2023)**

In Year 2023, Veraval- Talala were affected due to Heavy Rain. Damage Report for Human-Animal Death, Houses Collapse, Cash Doles and House Hold Relief is as below.

Total Affected Taluka - 2, Total Human Death – 2, Animal Death - 230

Cash Doles given to Persons – 1020 (Rs.8.12 Lakh)

House Hold Relief given to - Families-17893 (Rs.382.41 Lakh)

House Damaged - Fully-10, Partial- 106

Total Persons Shifted at Shelter - 842

Food Packets Distributed – 1150

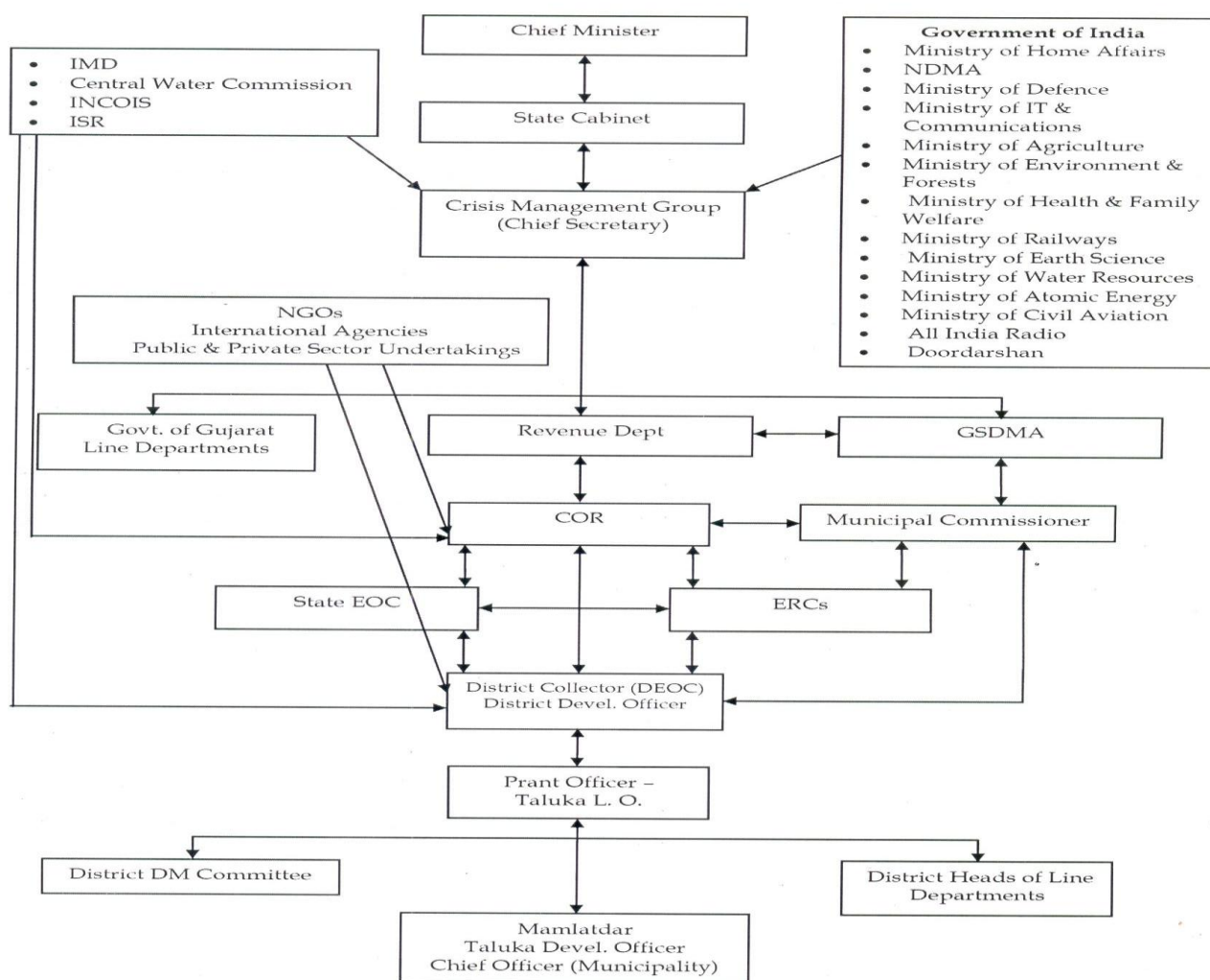
CHAPTER – 3

INSTITUTIONAL ARRANGEMENTS FOR DM

The DM structure in the State is as per the Gujarat State Disaster Management Act – 2003. The National Disaster Management Act – 2005 resembles the State Act with only a few provisions which are not a part of the State Act but are there in the Central Act. Those provisions include designating a Vice Chairman to the GSDMA, constitution of a State Executive Committee, establishment of a District Disaster Management Authority in each District and creation of a District Disaster Response & Mitigation Funds. The State has existing institutional arrangements in place for addressing the roles / responsibilities envisaged through the above provisions and hence does not find it compelling to implement the provisions afresh.

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)).

DM Structure in the State



District Disaster Management Committee

The District Collector will be responsible for coordinating all disaster management activities at the district level. There shall be a District Disaster Management Authority headed by Collector. The District Disaster Management Authority shall approve a district disaster management planning and review all measures relating to preparedness and response to various hazards. The District Disaster Management Committee comprises members from Jilla Panchayat, different line departments, NGOs and others to be notified by the Department of Disaster Management from time to time. In times of disasters, Dist. Collector shall constitute a District Relief Committee to oversee management of relief. Following member should ne club at district level committee.

DDMC: -District Disaster Management Committee:

Sr. No.	Designation	Position in DDMC
1	Collector/ District Magistrate	Chairmen
2	District Development officer	Member
3	District Superintend Police	Member
4	Resident Additional Collector	Member
5	District Supply Officer	Member
6	Exe. Engineer-R&B State	Member
7	Exe. Engineer-R&B Panchayat	Member
8	Exe. Engineer-R&B State Irrigation	Member
9	Superintending Engineer- PGVCL	Member
10	District Home guard commandant	Member
11	Superintendent Civil Hospital	Member
12	Port Officer	Member
13	District forest Officer	Member
14	District Program Officer	Member
15	Dy. Director-Information Department	Member
16	District Municipality Officer	Member
17	Regional Officer-GPCB	Member
18	District Agriculture Officer	Member
19	All S D M	Member
20	Regional Transport officer	Member
21	Divisional Controller-State transport	Member
22	District Education Officer	Member
23	District Primary Education officer	Member
24	NGO Member	Member
25	Media Person	Member
26	Suggested by DDMC	Member

TDMC: - Taluka Disaster Management Committee:

TDMC		
Liason Officer (LO)		
TDO	Mamlatdar	Line Department (State)
Assistant TDO	Dy. Mamlatdar(Revenue)	Irrigation
Extension Officer	Dy. Mamlatdar(Civil Supply)	Road & Building (State & Panchayat)
Gram Sevak/Talati	Dy. Mamlatdar (Mid Day Meal)	Forest
Kelavani Nirikshak	Dy. Mamlatdar (e Dhara)	DGVCL
Veterinary Offier	Circle Officers	Taluka Health Officer
Agriculture Officer	Talati (Revenue)	Water Supply
Social Welfare Officer		Transportation
Child Development Project Officer		Police
		Central Govt.Department
		Western Railway
		NHAI
		Port Authority
		Post & telecommiunication

Block/Taluka level Disaster Management Committees will be constituted and will be headed by Mamlatdar as the case may be Officers from different departments and representatives of local panchayat body will be members of this Committee. The Committee will look into all the aspects of disaster management including mitigation preparedness, response and relief. Following member is club in TDMC.

Sr. No.	Detail
1	Dy.Collector/ Dy.D.D.O. (Liaison Officer of Taluka)
2	Mamlatdar
3	Taluka Development Officer
4	Dy. Executive Engineer- R & B (State)
5	Dy. Executive Engineer- R & B (Panchayat)
6	Dy. Executive Engineer – Irrigation
7	Dy. Executive Engineer –GEB
8	Dy.Executive Engineer – Water Supply
9	Junior Engineer-Telecom
10	Medical Officer (Mother PHC)

11	Police Inspector/ Police Sub Inspector
12	Taluka Home Guard Commandant
13	Taluka Kelvani Nirikshak
14	Godown Manager- Civil Supply Corporation
15	Depot Manager – S.T.
16	Port Officer
17	Range Forest Officer (Head Quarter)
• <u>Non- Government Members</u>	
18	President-Taluka Panchayat
19	M.P.
20	M.L.A.
21	Chairman- Social Justice Committee (Taluka Panchayat)
22	Woman Member - Taluka Panchayat
23	NGO Representative

CDMC: -City Disaster Management Committee:

In each City / Nagarpalika, there shall be a Disaster Management Committee which will oversee all activities in disaster management. The ULB will also constitute a City Disaster Management Team consisting of officials and non-officials and organize training for them to be able to discharge their duties properly.

Sr. No.	Department
1	Dy.Collector/SDM/Dy.DDO
2	Chief Officer
3	Chief fire officer
4	Mamlatdar
5	Town planning Head
6	Dy.Exe.Engineer-R&B state
7	Dy.Exe.Engineer-state-Irrigation
8	Dy.Exe.Engineer- PGVCL
9	Dy.Exe.Engineer-GWSSB
10	Junior Engineer Telecom
11	Medical Officer-C.H.C.
12	Medical Officer Municipality Health Centre
13	Head Transport committee
14	PI/PSI
15	Taluka Homeguard Commandant
16	Education Officer Municipality Education committee
17	Project Coordinator-UCD
18	Port officer
19	Range forest officer-Extension
• Non Governmental Member	
20	President Municipality
21	Member of Parliament
22	Member of Legislative assembly

23	Chairman- Standing Committee committee
24	Chairman-Water Supply committee
25	Chairman City planning committee
26	Chairman Construction Committee
27	Women Member of Municipality
28	Scheduled caste Member of municipality
29	Local N.G.O.
30	Other-Decide By CDMC

VDMC: - Village Disaster Management committee

Each village shall have a Disaster Management Committee consisting of officials and nonofficials. The Committee will be constituted to oversee by the gram sabha. The Committee will be responsible for awareness generation, warning dissemination, community preparedness plan, adoption of safe housing practices and organizing and cooperating relief in post disastersituations. The members are...

Sr. No.	Detail
1	Sarpanch-Chair Person
2	Talati cum Mantri
3	Primary Principal
4	Health Worker
5	Anganwadi Worker
6	President Seva Co operative
7	President Milk cooperative
8	Community Representative
9	Community Representative
10	Community Representative
11	Fair price shop holder

3.6 Incident Response System in the Gir Somnath District

1. Disaster Response and District Incident Command System

The response to disasters in the district will be organized according to the Incident Command System as adapted to conditions in Gujarat State (ICS/GS). The argument for the ICS is that its fundamental elements –unity of command, clarity of objectives and efficient resource use are common to the effective response to any disaster.

In Gir Somnath district, the multi-hazard response plan focused on sector specific action plans unlike the department specific planning approach in the previous plan documents. The disaster response is led by the District Emergency Operation Center (EOC) under the command and control of the District Collector.

2. ICS-Basic Functions

The basic functional descriptions for key elements in the district Incident command System is describe below. Not all these functions need to be filled (activated) in every disaster. However, the ensemble of these functions represents all the key tasks, which need to be accomplishes in a well-planned manner and execute in effective and cost efficient disaster response effort.

I. Incident Commander :

Responsible for overall management of an incident based on clearly stated mandate from higher authority and based on focused objectives responding to the immediate impact of the incident. An Incident Commander, who can be assist by a Dy. Incident Commander, leads the Incident command. In each incident will have as many as many commanders and other staff as there are shifts in the incident operation. Shifts will normally not exceed 12 hours at a time and should be standardized to 8 hours each as soon as possible after the start of the incident.

II. Command Staff Units

A) Safety unit:

Responsible for ensuring the safe accomplishment of all activities undertaken in response to the incident . This task is accomplishes through developing incident specific safety guidance documents, reviewing and advising on the safety of plans and monitoring actual operations to ensure safety of personnel and survivors.

B) Protocol and Liaison unit:

Responsible for all official visits as well as liaison between the incident command and organizations providing personnel or material support being used to manage the incident. The first point of contact for NGOs and others coming to the disaster as well as responsible for managing coordination meetings (some of which may actually be held by taskforces or sections).

C) Public Information Unit:

Responsible for all media and public information tasks related to the incident. To accomplish its task, the unit can have the following sub units:

- **Public inquiries:** To handle non media requests for information
- **Outgoing public information:** To handle public information dissemination
- **Public opinion feedback:** To collect information from the public.
- **Media center:** To provide a single point of contact for all media involved in the incident.

- **Press release and media access:** Produce all releases and provide a single point of contact to arrange media access to the incident.
- **Monitoring and Feedback:** To monitor media reports and provide feedback to the incident management on coverage of the incident and to also take corrective measures and issue contradictions if required.

III. Law and Order Section

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 task force that may be create to deal with a disaster.

Police functions: As determined by the normal mandate for and special duties assigned to the police service

Home guard: As determined by the normal mandate for and special duties assigned to the home guard

Volunteers: Supporting police and home guards in non-enforcement tasks, such as patrolling, monitoring and evacuations

IV. Operation Section

Responsible for assuring specific operations according to objectives and plans to address the immediate impacts of the incident. Taskforces under the operation section 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 Gir Somnath has identified 16 expected task forces for key response operation functions that are describe 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 supporter by other organizations.

The specific response roles and responsibilities of the taskforces indicated above is that these roles and responsibilities will be execute 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.

V. Planning Section

Responsible for collecting and analyzing information and developing plans to address the objectives set to address the incident. The overall work of the planning section will include efforts undertaken by any planning and coordination taskforce which is established as part of the response to a disaster. Units under the section include:

1. Assessment and planning
2. Resources and Requirements
3. Management information system
4. Documentation
5. Demobilization and
6. Technical specialists

VI. Logistic section

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 incenent management

team. This section include transportation taskforce established to support disaster operations. Logistics tasks are through the following units:

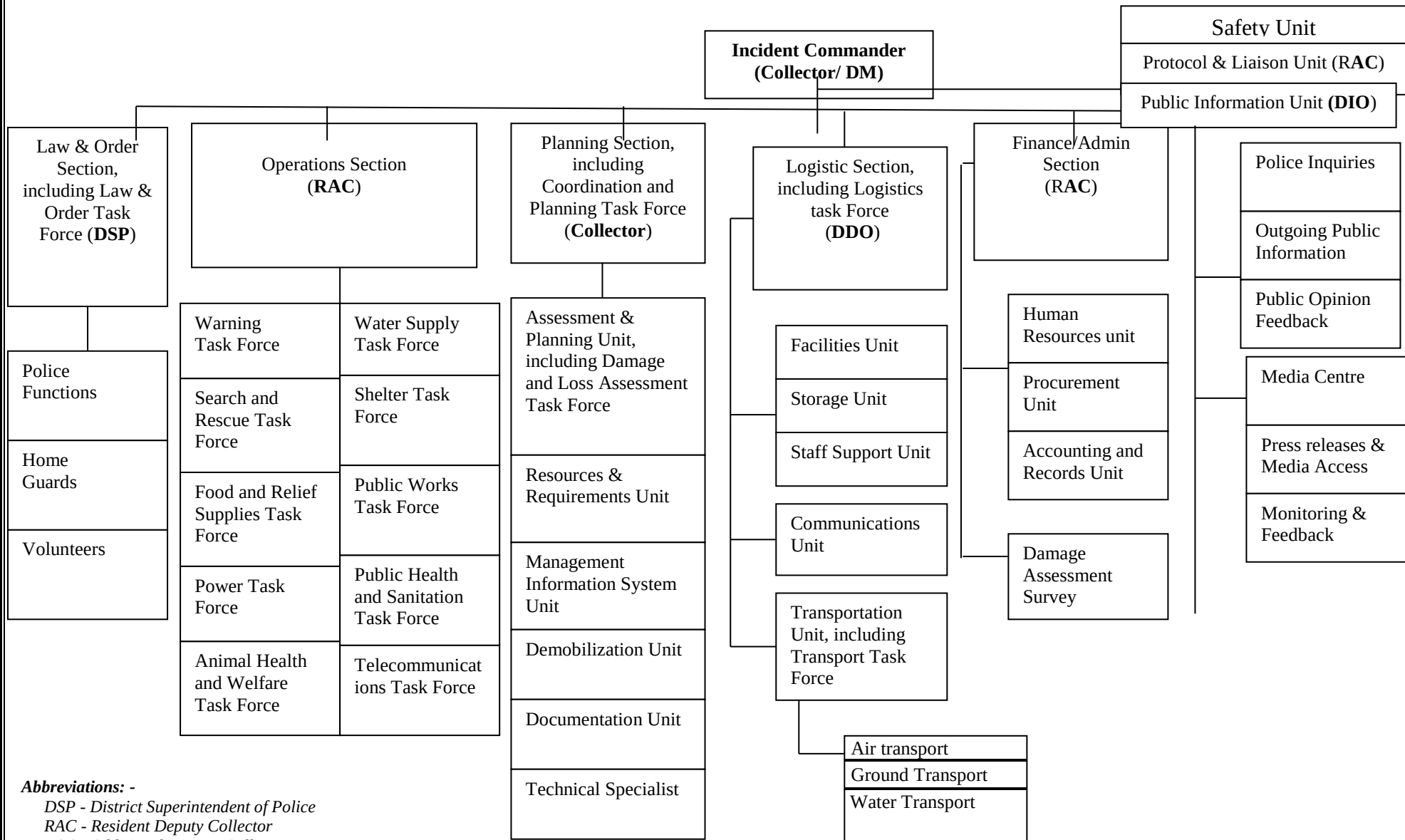
1. Storage and supply
2. Facilities
3. Staff support
4. Communications
5. Transportation (include ground, air water)

VII. Finance and Administration

Responsible for managing all financial and administrative tasks related to incident field operations. These tasks may, but would not usually include disbursement of financial aid to those affected by an incident . The task of this section are accomplished through following units: 1. Human resources

2. Procurement
3. Accounting and records

Incident Command Structure – Gir Somnath- District



Abbreviations: -

DSP - District Superintendent of Police

RAC - Resident Deputy Collector

RAC - Additional District Collector

DDO - District Development Officer

DIO - District Information Officer

Task force, supporting organizations ICS section matrix

Sr.	Task Force	Taskforce Leader	Supporting members / Organizations	ICS Section Unit
1.	Planning and Coordination	Collector/ DM	DDO, DSP, RAC, SDM and Mamlatdar	Planning
2.	Administration & Protocol	RAC	DDO, DSP, RAC and Mamlatdar	Finance & Administration
3	Damage Assessment/ Survey	RAC	DIC, Dy. DDO, Ex. Engr., R&B, DAO, Fisheries	Planning
4	Warning	RAC	RAC, Dy. Mamlatdar, Control Room, District Information Officer (DIO)	Operation
5	Communications	RAC	Dy. Mamlatdar, Mobile Operators, TV, Radio, Port Office GMB, Police, Forests	Logistics
6	Media	District Information Officer	Information Department, Print, Media, TV, Journalists, NGOs	Public Information
7	Logistics	DDO	RTO, DSO, FPS, Private & Public sector, Municipal water supply board, Mamlatdar, Dist. Supply Mamlatdar	Logistics
8	Law & Order	DSP	Dy. SP, Home Guards Commandant, NGOs, Para-military and Armed Forces	Law & Order
9	Search & Rescue	Dy. Collector Civil Defense	Mamlatdar, TDO, Police, Executive Engr., Fire Brigade, RTO, State Transport, Health Deptt.	Operation
10	Public Works	Ex. Engr. R&B (State)	Irrigation, Ex. Engr., Panchayat, NGOs, Water Supply Board, Municipalities, Home Guards, Police	Operation
11	Shelter	Dist. Primary Education Officer	School Principal, Teachers, Health, PHC, State Transport, Water Supply, RTO, Mamlatdar, TDO.	Operation
12	Water Supply	Ex. Engr. GWSDB / Ex. En. Water Works	Dy. Ex. Engr., Talati, Mamlatdar, TDO, Health, Dy. Engr.	Operation
13	Food & Relief Supplies	Dist. Supply Officer	FPS, PDS, Mamlatdar, NGO, RTO, State Transport, Municipality, DRDA, Police, Home guard	Logistics
14	Power	Supt. Engr. GEB	Ex. Engr., Dy. Engr. Technical, GEB, Transport	Operation
15	Public Health & sanitation	Chief district health Officer (CDHO)	Supt. Hospital, PHCs, CHCS, Municipality, Fire Brigade, Civil Defense, R&B, NGOs, Doctors, TDO, Mamlatdar	Operation
16	Animal Health & Welfare	Dy. Director Animal Husbandry	Veterinary Inspector, NGOs	Operations

3.9 EOC setup and facilities available with the location

District Emergency Operation Centers/Control Rooms (DEOC)

The District Control Room is located at Near Bhada office, opposite New Swaminarayan Temple. 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.

All the task force leaders shall take position in the District Control Room along with Incident Commander to enable one point co-ordination for decision-making process.

- **Facilities at District Emergency Operation Centers**

The District Control Room equipped with to the following items in Table:

Sr. No.	Item/ Facility	Unit/ Number of item
1	Telephones	3
2	Handheld Radios and Base Stations	1
3	Satellite Telephone	1
4	PC with GSWAN Internet and web site facilities	4
5	Marker board -	1
6	Conference table	1
7	A copy of Disaster Management Plan	2
8	Drawings showing Disaster information	10
9	Other relevant documents of district information	--
10	Chairs	16
11	Fax machine	0
12	Printer	4

- **Taluka Emergency Operation Centers (TEOC)**

The Taluka Emergency Operation Centers located at the Office of Mamlatdar. 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 TFOR for mobilization of resources and dissemination of instructions received from TFOR/DEOC.

- **Task Force Operation Room (TFOR)**

Individual Task Force function shall activate & operate their respective control rooms in their office manned by a competent person who is proficient in communication and technically capable of coordinating with Taluka Level Control Room and District Control Room and mobilize requisite resources to the disaster site.

- **Facilities at Task Force Operation Rooms (TFOR)**

The following facilities are maintained inside TFCR:

- Telephones
- Facsimile
- Satellite Phone (no immediately) - it is desirable.
- Hand held Radios/Base Stations
- Marker board (1)
- A copy each of Disaster Management Plan and Task Force Plan
- Other relevant documents, if any

- **Facilities at Taluka Level Control Rooms (TLCR)**

The following facilities are maintained inside TFCR:

- Telephones
- Facsimile
- Satellite Phone (desirable)
- Hand held Radios/Base Stations
- Marker board (1)
- A copy each of Disaster Management Plan and Taluka Level Plan
- Other relevant documents, if any

Responsibility of up keeping and maintenance of all the above items / facilities in the respective Control rooms is given as below.

DCR (DEOC) : District Collector or any person nominated

TFCR : Respective Task Force Leader

TLCR (TEOC) : Respective Taluka Liaison Officer

The above responsible Depts./ personnel shall carryout periodic inspection of such facilities in their respective control rooms at the frequency set by them and maintain records on the same.

3.10 Emergency Communication Systems

Communication system is very crucial for effective control of any disaster. The communication philosophy adopted by Disaster Management team during the disaster is given as below:

In the event of collapse of any communication facility / Communication infrastructure as a cascading effect/consequence of disaster, Telecommunication Task Force Leader shall ensure immediate restoration of such facility or infrastructure to ensure uninterrupted communication for effective disaster management operations.

Telephones

Telephones and Fax Machine had provided at DEOC and all TEOC Control Rooms.

Alternate EOC available and its location

The Gir Somnath District Control Room is located at Veraval Collector office, It is also the central point for information gathering, processing and decision making more specifically to combat the disaster but when such kind of situation.

Alternate Communication System

There could be a situation when all the communication facilities and systems may come to halt due to collapse of communication facilities/infrastructures. In the event of such a failure, till the facility/infrastructure is restored made functional, following alternate systems shall be used based on the seriousness of the situation:

Satellite Communication System

Satellite communication shall be activated once all the communication systems fail. This facility is installed at all the control rooms. The Telecommunication Task Force Leader shall ensure that this facility is resumed on all such occasions.

Right use of Communication facility

- Telephones/ Hot Lines shall be used wherever possible to avoid congestion of Radio communication.
- Personnel who use Radios should be acquainted with the operation of the equipment, various channels, code words, length of speech, etc.

3.11 Public and private emergency service facilities available in the district

Gir Somnath district has 5 Fire station in Respective 6 Municipality and in addition the district has one Emergency Response Center located Rajkot District. This emergency service are fully equipped by various equipment and train personal which are use in search and rescue operation during disaster situation.

3.12 Forecasting and warning agencies

Alert Mechanism – Early Warning

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

Sr. No.	Disaster	Agencies
1	Earthquakes	IMD, ISR
2	Floods	IMD, Irrigation Department
3	Cyclones	IMD
4	Tsunami	IMD, ISR, INCOIS
5	Drought	Agriculture Department
6	Epidemics	Health & Family Welfare Department
7	Industrial & Chemical Accidents	Industry, Labor & Employment Department, DISH
8	Fire	Fire & Emergency Services

Chapter 4

Prevention and Mitigation Measures:

4.1 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 Junagadh 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

4.2 Special projects programs for preventing the disasters & vulnerable groups

1. Disaster Risk Management Programme (DRM)

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 Defense, 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 Mobilization, 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.

4 National School Safety Programme:

A national school safety programme is pilot project of NDMA and Government of India. Under a, project Gir Somnath and Jamnagar are selected from Gujarat state and 200 school selected from Gir Somnath District. NSSP project focus of School safety and done various activity like Capacity building of Teacher, student, Awareness programme at school level on Disaster management, conducting hazards wise mock drill, preparation of school disaster management plan etc.

Gujarat Initiative School Safety Programme- I

Initiative (GSSI) – I & II. The pilot programs were designed for promoting a culture of disaster safety in schools and reduce risk through structural and non-structural measures in the schools. One hundred and fifty schools were selected from the cities of Ahmadabad (100), Jamnagar (15) and Vadodara (35) cities on basis of the school's disaster vulnerability, number of students and willingness to implement the suggested measures. The following activities were conducted in each of the project schools:

- School management was first approached and a presentation was made about why and how the concerned school can work on school safety
- A School Safety Committee was formed with the help of school administration
- A three-day programme on orientation of the school disaster management committee on school disaster management planning
- Orientation about basic disaster awareness to coordinators and members of the school task forces
- Detail training of the task force members on task force skills such as activities to be done for search and rescue, first aid, etc
- Imparting lessons on emergency response in each classroom
- Conducting mock drill and holding a debriefing meeting to evaluate the mock drill

Gujarat School Safety Initiative – I is completed in all the 152 schools, covering training of 1,00,000 students (primary and secondary standards) and 1,500 teachers in the basics of disaster management. School based DM plans were prepared for all the 152 schools. Earthquake drills were conducted in 80 schools attended by around 40,000 students and 640 teachers. As part of the long-term sustainability of the program, an assessment of non-structural mitigation measures was completed and school safety clubs have been opened in all the project schools. A short play on disaster awareness was also organized in 68 schools.

Gujarat School Safety Initiative – II

This initiative was designed for creation of cadre of master trainers and a pool of trained teachers at district level in disaster risk reduction across all the 25 districts of the State. It was designed for creating a pool of 100 Master Trainers (4 from each district). These master trainers would provide training to 625 teachers (25 from each district). Twenty five model schools were selected & School DM Plans were prepared involving the trained teachers. It was planned that trainings will be conducted for 1,000 teachers and 7,500 students in model schools.

National Cyclone Risk Mitigation Project (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. Under NCRMP project various activities were carried out like Construction of cyclone shelter for selected area. In Gir Somnath district 29 village are select for this project.

For disaster prevention and mitigation, both structural and non-structural interventions can be planned. Structural interventions include construction of physical engineering and non engineering structures to reduce hazard risks. Non structural mitigation includes awareness and capacity building at official and community level, formulation of new plans and overall promoting a commitment for safety.

Mitigation measures can be divided in two categories:

- i) Structural measures: On site works, construction, and engineering works and
- ii) Non-structural measures: Which include studies, research, regulations, policy changes and capacity building activities that support the structural measures.

The taluka disaster management plan includes hazard specific structural and non structural mitigation plans in consultation and convergence with various Departments. For example, the MGNREGA work can take up activities on construction of embankment for flood safety or the forest department may take up mangrove plantation in the coastal areas, while the water supply department can construct hand pumps on raised platforms. Each departments shall draw out its own plan, goals and milestones and review it annually for its achievements and planning for next year.

Mitigation, preparedness and prevention actions are 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 the 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 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.

4.3 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 Junagadh, 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.

1) 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.

2) 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.

3) 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.

4.4 Hazard wise Structural and Non- structural Mitigation Measures

• Structural: Structural Mitigation Measures

- a. **Retrofitting of Buildings:** Gir Somnath district come in Zone III in Earthquake. In There are mainly four major types of constructions:

Category A: Adobe, fieldstone Masonry Buildings
Category B: Brick Construction Masonry Buildings
Category C: R. C. C. Construction
Category X: Traditional & Conventional Construction

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

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

- b. **Construction control:** The best protection against earthquake is a strong built environment. The quality of buildings, measured by their seismic resistance is of fundamental importance. Minimum design and construction standards for earthquake and flood resistant structures legislated nationally, are an important step in establishing future minimum levels of protection for important structures. India now has building codes and regulations for seismic and flood resistant design. In building by-laws and the Seismic Code must be enforce by the municipal, Area Development Authority and Panchayat bodies.

• Non-structural:

Land use planning: Damage to a building depends primarily upon the soil conditions and topology of the area. Gir Somnath district comes under High risk zone in terms of earthquake (Zone 3)

Training and awareness programmers: Mitigation also includes training of people for making the houses safe from earthquakes and floods. Training modules have to be prepared for different target groups viz. engineers and masons about safe building practices and general 'do's and don'ts' for public.

• Mitigation strategies

The mitigation strategy for Gir Somnath district involves the following elements:

- Further growth of human settlements in the low-lying areas should be check through land-use planning. Such areas are vulnerable not only from flood hazards but are also

vulnerable to earthquake liquefaction, which may increase the damage manifold. The department of Town and Country Planning will take care of seismic hazards while preparing the development plans for the district;

- Appropriate building codes will be making applicable for new engineered & non-engineered constructions, and should be strictly enforce by local body. The Municipal Corporation of local area will ensure the construction as per Indian Standard Building Codes;
- Infrastructure department will do the retrofitting of public buildings under their maintenance charge. Generally, PWD, Rural Engineering Services and Housing Board maintain the public buildings. The expenditure for such retrofitting will be taken care under maintenance head.
- Community awareness will be rising regarding seismic resistant building construction techniques and seismic retrofitting of existing buildings. Housing Board will be the nodal agency to provide training through workshops and demonstrations. PWD and RES will support MPHB in these efforts;
- Community awareness will be raised regarding 'do's and don'ts' in the event of an earthquake with the involvement of Panchayati Raj institutions and CBOs. Revenue department will be the nodal agency for this activity.

Hazard: Flood

Table No. 4.1

Structural Mitigation Measures for Flood (Identified works of concerned Departments)

Probable Mitigation Measures	Implementing Departments	Convergence with Scheme/ Program	Time Frame
Desalting and deepening of water channel (khans)	Irrigation and Rural Development, GLDC	Departmental program & MGNREGS,	Regularly
Construction of embankments/ protection wall	Rural Development, Forest	Departmental program & MGNREGS, watershed, Integrated coastal zone management programme	2019-20
Repair of embankments/ protection wall	Rural Development, R&B department	Departmental program & MGNREGS	Regularly
Repair and maintenance of Flood Channels, canals, natural drainage, storm water lines	Irrigation department Concern Municipality	Departmental or special plan	2019-20
Construction of Safe Shelters (new construction through Indira Awas, Sardar Awas and Ambedkar Awas)	Collector and R&B District Panchayat	NCRMP	Regularly
Protection wall and	Forest and Rural	Department schemes,	2019-20

Probable Mitigation Measures	Implementing Departments	Convergence with Scheme/ Program	Time Frame
mangroves and vegetative cover against sea level intrusion and land erosion	development department GEC	MGNREGS, IWMP Integrated coastal zone management	2019-20
Desalting of water bodies like river and ponds	Irrigation DDO Rural Development	MGNREGA and Land Development	

Table No. 4.2
Non-Structural Mitigation Measures for Flood
 (Identified works of concerned Departments)

Non-Structural measures	Implementing Departments	Convergence with agency/program	Time Frame
Safety audit of existing and proposed housing stock in risk prone areas	DDO, Rural development	IAY, Sardar Awas and other rural housing schemes	Regularly
Promotion of Traditional, local and innovative practices like bamboo/plastic bottle rafts etc, clean city green city	DDMC, TDMC, CDMC, SHGs and youth groups, NGOs Volunteers	Training and capacity building plan for disaster management At all level	Regularly
Capacity building of volunteers and technicians	DDMC, TDMC, CDMC	Training and capacity building plan for disaster management	Regularly
Awareness generation on health and safety of livestock	veterinary officer, rural development	Departmental Scheme	Regularly

Hazard: Cyclone

Table No.4.3
Structural Mitigation Measures for Cyclone

Structural measures	Identified Locations and Villages	Implementing Departments	Convergence with Scheme/Program	Time Frame
Plantations (mangroves) and Shelter Belt in the Coastal Area	Cyclone prone villages Gir Somnath district	Forest department, Port Authority, DIC, TDO, Rural development department, GEC	Departmental schemes, MGNREGA Integrated coastal zone management	2016-17
Identification and repair/ retrofitting of houses and buildings unsafe for cyclone		R & B (District Panchayat)	Departmental Scheme	Regularly

Table No. 4.4
Non-Structural Mitigation Measures for Cyclone

Non-Structural measures	Location/ coverage area	Implementing Departments	Convergence with agency/ program	Time Frame
Strengthening of Early warning mechanisms	Cyclone prone villages	DDMC, TDMC	District administration Line department	Regularly
Training and awareness generation for use of safety jackets/rings/buoys/rope etc for fisher folks	In Gir Somnath district	DDMC, TDMC, VDMC, CDMC	TDMP, VDMC	2016-17
Enforcing strict compliance to coastal regulation zone and awareness regarding hazard		Department of Environment & Forest Depart. Fishing GEC	Integrated Coastal Zone Management CRZ Regulation	2016-17
Registration of fishing boats		Fisheries Department	CRZ Regulation	2016-17
Regulate and issue orders for poor quality hoardings/buildings or any other objects		R & B Department		2016-17

Hazard: Earthquake

Table No. 4.5
Structural Mitigation Measures for Earthquake

Structural measures	Identified Locations and Villages	Implementing Departments	Convergence with Scheme/ Program	Time Frame
Retrofitting (if required) of public utility buildings like offices, schools/ banks/ markets etc	Earthquake prone 6Taluka under zone 3 In district	R & B (State and Panchayat), DDO, Rural department	TP Plan and all development plan	Regularly
Retrofitting of unsafe rural houses		DDMC, DDO, R & B State and panchayat	Rural housing schemes and departmental programs	Regularly
Identifying and safely dismantling unsafe structures		R & B department	Development plan	Regularly
Issue permission for Earthquake registrant		Area Development Authority	TP plan	Regularly

Table No. 4.6
Non Structural Mitigation Measures for Earthquake

Non-Structural measures	Location/ coverage area	Implementing Departments	Convergence with agency/ Program	Time Frame
Capacity building of architects, engineers and masons on earthquake resistant features	EQ prone 6 Taluka under zone 3	R & B (State and Panchayat), DDMC, TDMC, CDMC	DRM, DRR, special training programme	Regularly
Registration of trained and certified mason		R & B (State and Panchayat), DDMC	--	Regularly
Strict enforcement guideline of seismic safety for government rural housing, urban development structure		DDO, DDMC, CDMC, TDMC, VDMC	Rural housing schemes	Regularly
Mock-drills for Schools, Hospitals, Public Buildings and trainings for mason, engineers and architects		DDMC, Schools	DRM, NSSP, DRR, DM regulation	Regularly

Hazard: Drought

Table No. 4.7
Structural Mitigation Measures for Drought

Structural measures	Identified Locations and Villages	Implementing Departments	Convergence with Scheme/ Program	Time Frame
Development of Pasture land in common property, seed farms and trust land	Drought prone Taluka in district	Forest, Rural Development, Panchayat	Departmental Scheme, MGNREGA	2019-20
Rain Water Harvesting storage tanks at household level and public buildings		GWSSB, (WASMO), Rural Development	MGNREGA, Swajaldhara	2019-20
Structures for water harvesting & recharging like wells, ponds, check dams, farm ponds, etc		DDO, Rural development, irrigation department	MGNREGA, Watershed program, Other schemes	2019-20
Development of fodder plots/banks		DDMC, Forest department , animal husbandry department	Development plan	2019-20
Repair and maintenance, de-silting of water sources, check dams, hand pumps etc.		Irrigation, Rural Development	MGNREGA, Watershed	2019-20

Table No. 4.8

Non-Structural Mitigation Measures for Drought

Non-Structural measures	Locations/ coverage area	Implementing Departments	Convergence with agency/ program	Time Frame
Listing/developing shelf of work for drought proofing/scarcity works including Identification of potential sites of water bodies	Drought prone Taluka in district	Rural Development	MGNREGS	2019-20
Farmer education to practice drought resistant crops and efficient water use		Agriculture & horticulture department	Departmental schemes	2019-20
Set up control mechanism for regulated water use (ponds, small dams, check dams) on the early onset.		Panchayats		Regularly

Hazard : Industrial (Chemical)

Table No.4.9

Industrial (Chemical) Structural Measures

(in coordination with LCG, DCG district and state level authorities)

Structural measures	Activities	Implementing Departments	Convergence with agency/ program	Time Frame
Monitoring impact of industries on NRM (land, water and air)	Data collection of impact on natural resources (ground water monitoring wells, air quality test, etc)	DDMC, DCG GPCB	Environment protection act	Regular intervention
Safety assessment	Carry out structural safety inspection/audit	DISH, DCG (Asst.Director. Industrial safety and health)	Industrial act	Regular intervention
Protection wall	Build protection wall for minimize risk of disaster	Industrial unit	Industrial act	Regular intervention

Table No.: 4.10**Industrial (Chemical) Non-Structural Measures**

(in coordination with LCG, DCG, district and state level authorities)

Non structural Measures	Activities	Implementing Departments	Convergence Agencies	Time Frame
Planning	Prepare an onsite and offsite emergency plan	Occupier, DISH	Various Industrial act	-
	Conduct mock drills as per the regulations	DISH and LCG	Various Industrial act	Regular intervention
	Update the DM plan as per the requirement	Occupier, DISH	Various Industrial act	Industrial act
	Monitor similar activities in all the factories/ industries	DISH and LCG	Various Industrial act	Industrial act
Capacity Building	Develop IEC material for Publication & Distribution	TDMC	Various Industrial act	Industrial act
	Awareness generation to general public and medical professional residing near MAH factory to immediate step	TDMC, LCG	Various Industrial act	Industrial act
	Organize training programmers, seminars and workshops (e.g. for drivers of HAZMAT transport, line departments officers, Mamlatdar etc)	TDMC, LCG	Various Industrial act	Industrial act
	List of experts/ resource person/ subject specialist (District emergency Off site plan)	TDMC, LCG	Various Industrial act	Industrial act
	Encourage disaster insurance	Labor & employment department	Various Industrial act	Industrial act
Medical	Listing of hazardous chemicals and gases.	Occupier, LCG, DISH, THO	Various Industrial act	Industrial act
	Keep check on availability and validity of relevant antidotes for chemical hazards prevalent in Taluka	Occupier, LCG, DISH, THO	Various Industrial act	Industrial act
	Workshops and trainings for medical professionals to handle potential chemical and industrial hazard	THO, Occupier, LCG, DISH	Various Industrial act	Regularly
Compliance	Environmental Protection Act, Factory Act, Mutual Aid, SOPs	DISH , GPCB	Various Industrial act	Regular interval

At the District level, the District Crisis Management Group (DCG) is an apex body to deal with major chemical accidents and to provide expert guidance for handling them. DCG has a strength of 34 members which includes District Collector, SDM and Dy. Collector, DDO, Dy. Director – Industrial Safety & Health, DSP, PI, Fire Superintendent of the City Corporations or important Municipalities, Chief District Health Officer, Civil Surgeon, SE, Chief Officer, Dy. Chief Controller of Explosives, Commandant – SRPF, Group-I, Dy. Director – Information to name a few. At Taluka level Local Crisis Management Group (LCG) is formed for coordination of activities and executing the operations.

Hazard: Tsunami

**Table No.4.11
Structural Mitigation Measures for Tsunami**

Structural measures	Identified Locations and Villages	Implementing Departments	Convergence with Scheme/ Program	Time Frame
Constructing shelter belts in coastal areas	Tsunami prone villages	Rural Development	Departmental programs , MGNREGA	Long term planning
Contraction Sea water brake structure		R & B State and panchayat	Departmental programs , MGNREGA	Long term planning

**Table No.4.12
Non-Structural Mitigation Measures for Tsunami**

Non-Structural measures	Locations/ coverage area	Implementing Departments	Convergence with agency/program	Time frame
Provisions of Coastal Regulation Zone to be effectively implemented	Tsunami prone villages	Department of Environment & Forest GEC	ICZMP	Long term planning
Capacity building of task forces in coastal villages		TDMC, DDMC, CDMC, VDMC,	DRM,	Periodically
Awareness activity in prone/ vulnerable area		DDMC , TDMC, CDMC, VDMC	DRM	Regularly

CHAPTER – 5

Preparedness Measures:

5.1 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.

1. 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.

2. 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.

3. 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.

5.2 Formation of Person training for:

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

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

5.2.2 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 form 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.

The tactics used in the search & rescue process vary accordingly with the type of disaster that we are dealing with. In case of flood, a boat and trained swimmers are a must while in case of an earthquake sniffer dogs and cutting tools with trained manpower is a binding requirement. The household register that is maintained by the warden should be maintained for every village as it proves to be of great help in case of a disaster like an earthquake. Because in case of the aforementioned disaster people get trapped in the debris of buildings and houses and it becomes difficult to estimate how many people are present in the debris. But if a household register is maintained then the task becomes quite easy and effective to find out almost correctly that how many people would be present in any building/house at any given time. Thus the resources can be justifiably distributed and more lives can be saved. This kind of process is highly recommended in this particular district which lies in moderate earthquake prone region.

For flood it is recommended that the boats that are used should be light weight and the motor should be of 'luma' type, so that it becomes easy for the rescue team to lift the boat and carry it to the spot.

5.2.3 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.

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

The plan must allocate responsibility for management of each of the elements of shelter. Considering the wide range of services, agencies and issues to be managed, it becomes essential for 'shelter' to be managed within a structure, which facilitates the coordination of agencies and services and support of emergency workers. The following factors may need consideration:

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

Stages of Evacuation

There are five stages of evacuation as under:

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

Decision to Evacuate

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

Basic consideration for Evacuation

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

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

- Delivery of warning
- Transport arrangement

- Control and timing of movement
- Fulfill welfare needs including medical treatment
- Registration of evacuees

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

Evacuation Warning

An evacuation warning must be structured to provide timely and effective information. Factors, which may influence the quality and effectiveness of warning, include time, distance, visual evidence, threat characteristic and sense of urgency e.g. the more immediate the threat, the greater the resilience of people to accept and appropriately react to the warning.

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

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

5.2.4 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.

Damage is assessing with regard to building stock, standing crops, agricultural area, livestock lost, forest cover decimated, vital installations etc. In damage assessment of building stock, generally three types of flags are used; green, yellow and red. The green color is given to the buildings that are safe and require 2-3 days to return to their original function. Yellow flags depict the considerable damage to the buildings and considered unsafe for living, as they require proper structural repairs and careful investigation. The red flag is assigned to buildings that are partially or completely collapsed. Immediately after a disaster event, damage assessment will be conducted in 2 phases viz. Rapid Damage Assessment and Detailed Damage Assessment.

5.3 Activation of Incident Response System in the District and identification of quick response team

Command:

This function 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,

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

- Liaison Officer – Point of contact for agency to agency issues.
1. **Operations:** this section carries out the response activities described in the Incident Action Plan (IAP) along with coordinating and managing the activities taken the responding agencies and officials that are directed at reducing the immediate hazard, protecting lives and properties. This section manages the tactical fieldwork and assigns most of the resources used to respond to the incident. Within operations, separate sections are established to perform different functions, such as emergency services, law enforcement, public works...etc.
 2. **Planning:** this section supports the disaster management effort by collecting, evaluating, disseminating, and uses information about the development of the emergency and status of all available resources. This section creates the action plan, often called “Incident Action Plan” (IAP), which shall guide emergency operations/response by objectives.
 Followings are the six primary activities performed by the planning section, including,
 - Collecting, evaluating, and displaying incident intelligence and information
 - Preparing and documenting IAPs
 - Conducting long-range and contingency planning
 - Developing plans for demobilization
 - Maintaining incident documentation
 - Tracking resources documentation
 3. **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 the mentioned process.
 4. **Finance and Administration:** this section is responsible for tracking all costs associated with the response and beginning the process for reimbursement. The finance and administration section becomes very important when the national government provides emergency funds in place that guarantee local and regional response agencies that their activities, supply use, and expenditures will be covered.

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.

The local authorities do not have the capacity to play an efficient role at local level to support the DEOC’s 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.

Identifying Risks

A prudent first step is to list geographic and climatic hazards and other risks that could jeopardize the building and collections. These might include geographical susceptibility to hurricanes, tornadoes, flash flooding, earthquakes, or forest fires, and even the possibility of unusual hazards such as volcanic eruptions. Consider man-made disasters such as power outages, sprinkler

discharges, fuel or water supply failures, chemical spills, arson, bomb threats, or other such problems. Take note of the environmental risks that surround you. Chemical industries, shipping routes for hazardous materials, and adjacent construction projects all expose you to damage. Any event that is a real possibility should be covered under your Emergency Preparedness Plan. It is also important to determine the vulnerability of the objects within the collections. What types of materials are included? Are they easily damaged? Are they particularly susceptible to certain types of damage such as moisture, fire, breakage, and the like? How and where are collections stored? Are they protected by boxes or other enclosures? Is shelving anchored to structural elements of the building? Is it stable? Are any artifacts stored directly on the floor where they could be damaged by leaks or flooding? All items should be raised at least four inches from the floor on waterproof shelves or pallets. Are materials stored under or near water sources? Analyze your security and housekeeping procedures. Do they expose collections to the dangers of theft, vandalism, or insect infestation? Consider vulnerabilities. Are your collections insured? Is there a complete and accurate inventory? Is a duplicate of the inventory located at another site? Although there may be a wide range of disaster scenarios, the most common are water, fire, physical or chemical damage, or some combination of these. The specific procedures of a disaster plan focus on the prevention and mitigation of these types of damage.

Decreasing Risks

Once hazards are specified, the disaster planner should devise a program with concrete goals, identifiable resources, and a schedule of activities for eliminating as many risks as possible. While water damage is the most common form of disaster for collections, everyone needs a good fire-protection system. Wherever possible, collections should also be protected by a fire suppression system. Preservation professionals now recommend wet-pipe sprinklers for most collections. In addition, water misting suppression systems have become available within the last several years; these can provide fire suppression using much less water than conventional sprinkler systems. Before choosing a fire-protection system, be sure to contact preservation professional or a fire-protection consultant for information about the latest developments in fire protection and for advice appropriate to your collections and situation. An inventory will provide a basic list of holdings, and will be essential for insurance purposes. Improved collection storage, such as boxing and raising materials above the floor level, will reduce or eliminate damage when emergencies occur. Comprehensive security and housekeeping procedures will ward off emergencies such as theft, vandalism, and insect infestation. They will also ensure that fire exits are kept clear and fire hazards eliminated.

Identifying Resources

An important step in writing your plan is to identify sources of assistance in a disaster. Research these services thoroughly--it is an essential part of the planning process. These can range from police, fire, and ambulance services to maintenance workers, insurance adjustors, and utility companies. If possible, invite local service providers to visit in order to become familiar with your site plan and collections in advance of an emergency. For example, you may want to provide the fire department with a list of high-priority areas to be protected from water if fire-fighting efforts permit. Other valuable sources of assistance are local, state, or federal government agencies.

5.4 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, and taluka and district level.

Activity	Responsibility
1. Training to civil defence personal in various aspect of disaster management 2. Training to home Guards personal in various aspect of disaster management including search and rescue	Home Dept. Commandant General Home Guards Director Civil Defence GSDMA/GIDM
3. Training to NCC and NSS personal in various aspect of disaster management	GIDM Director NCC Education Dep.
4. Training to educational and training institutions personal in various aspect of disaster management	GSDMA/GIDM NIDM
5. Training to civil society, CBOs and corporate entities in various aspect of disaster management	GSDMA/GIDM NIDM NGOs
6. Training to fire and emergency service personal in various aspect of disaster management	NIDM Municipal Corporation UDD GSDMA/GIDM
7. Training to police and traffic personal in various aspect of disaster management	NIDM GSDMA/GIDM Home Dept. Police training Institute
8. Training to State Disaster Response Force (SDRF) Teams in various aspect of disaster management	NIDM/NDRF Home Dept. Addl. DGP (Arms) Addl. DGP (Training) GSDMA/GIDM
9. Training to media in various aspect of disaster management	NIDM Information Dept. Information Training Centre GSDMA/GIDM
10. Training to govt. officials in various aspect of disaster management	NIDM GSDMA/GIDM

	Departmental Training Institutes
11. Training to engineers, architects, structural engineers, builders and masons in various aspect of disaster management	Departmental Training Institutes under R & B and Irrigation Dept. NIDM GSDMA/GIDM

5.5 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).

5.6 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.

5.7 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 Sardar baug campus, Near to Collector Office of Gir Somnath with all sophisticated equipments and most modern technologies for disaster management. The Additional Collector of District Junagadh is empowered as a Nodal Officer of DEOC and is responsible for Operational check-up for Emergency Operation Centre that includes...,

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

5.8 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.

5.9 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.

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

- Field command
- Field information collection
- Inter agency coordination at field level
- Management of field operations, planning, logistics, finance and administration

5.10 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.

5.11 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.

PROBABILITY PERIOD / SEASONALITY OF DISASTERS													
Name of Disaster	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, antierosion works, detention basins, etc. and non-structural measures include flood forecasting, flood proofing, disaster preparedness, etc.

5.12 Community Warning System, Education, Preparedness, DRM Programme: -

GSDMA DRM activities:

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 form 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 Defense, 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 Mobilization, 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.

Gir Somnath district had taken the preparedness measures from village level to District level. At the villages village Task forces was formed and trained about First aid and Health, Search and Rescue and Disaster Management. Volunteers were also trained in Disaster Management and plans like VDMP were prepared and updated. Officers reviewed the disaster preparedness of the villages and interacted with the Village level Disaster Management team members, in the pre-monsoon meeting all departments, and stakeholders were asked to get prepared departmental plan. SOP's were also discussed with them so that quick response can be assured and any kind of risk due to water lodging, flood, heavy rainfall and dam overflow can be reduced.

Prevention and Mitigation and preparedness actions are 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 proposed state-level disaster-planning format sets out priorities for mitigation, prevention and preparedness activities. The underlying concept is to incorporate these three types of activities into normal (developmental) policies, procedures and undertakings and targeting specific areas for concerted effort.

Complementary priorities, plans and activities need to be established at the district level. This process is complicated by five realities:

1. Developmental policies and budgets are set at the state-level and project implementation is not always under the control of district authorities
2. District authorities have limited policy and funding independence.
3. The range of possible mitigation, prevention and preparedness actions within a district is significant but can be difficult to prioritize.
4. Many activities require popular participation and should be focus on the family or community, which requires time and effort to effectively organize.
5. The local commercial sector is cost-conscious and tends to avoid investments in activities which do not immediately improve profits.

A set of possible district-level approaches to mitigation, prevention and preparedness are summarized below based on these realities. These approaches need to be reviewed at the district and state level and. to the degree possible, harmonized vertically within the government structure and across public and private sector organizations and districts. At the same time, the focus of efforts can vary between and even within districts depending on their particular hazards, risks and vulnerabilities.

One approach to developing this harmonization is to hold a state-district conference on mitigation, preparedness and prevention, complemented by annual review workshop. The initial conference would define and harmonize policies, procedures and approaches vertically and horizontally. The workshop would serve to recognize progress and adjust plans to take into account changing local and state-level conditions.

Community Warning system-Early Warning System (EWS)

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.

Early Warning Action Plan

Type of Action	Flood	Cyclone	Chemical and industrial accidents	Tsunami
Existing EWS	Irrigation department /dam authority/ IMD ↓ Collector ↓ Mamlatdar/TDO ↓ Villages	IMD ↓ Collector ↓ Mamlatdar/TDO ↓ Villages	Industrial Association/industries ↓ DCG ↓ LCG ↓ Mamlatdar ↓ Villages	IMD ↓ Collector ↓ Mamlatdar /TDO ↓ Villages
Responsible Agency for warning dissemination	DDMC Mamlatdar office/TDO VDMC	DDMC Mamlatdar office/TDO VDMC	DDMC Mamlatdar office/TDO VDMC	DDMC Mamlatdar office/TDO VDMC
Trained personnel and operators available (Y/N)	Yes	Yes	No (Team to be formed and trained)	No (Team to be formed and trained)
Villages covered	All risk prone villages			
Villages/ habitation not covered or difficult to access	Communities in remote locations (fisher folk, salt pan workers, maldharis etc) VDMC			
Measures required to improve timeliness and outreach (For example, voice enabled SMS)	Contact of communities in remote locations (fisher folk, saltpan workers, Maldharis etc)			

5.13 Standard Operating Procedures (SOPs):

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.

5.14 Knowledge Management, networking and sharing:

India Disaster Resource Network (IDRN) : -

IDRN, a web based information system, is a platform for managing the inventory of equipments, skilled human resources and critical supplies for emergency response. The primary focus is to enable the decision makers to find answers on availability of equipments and human resources required to combat any emergency. This database will also enable them to assess the level of preparedness for specific vulnerabilities. Total 852 technical items listed in the resource inventory. It is a nationwide district level resource database. Each user of all districts of the state has been given unique username and password through which they can perform data entry, data updation on IDRN for resources available in their district. The IDRN network has functionality of generating multiple query options based on the specific equipment, skilled human resources and critical supplies with their location and contact details.

SDRN data updation: -

State disaster Resource network and India Disaster Resource Network is a crucial databases for response any disaster. SDRN, a decision support tool, is layered using the existing IT Wide Area Network (WAN) of the State - GSWAN. SDRN uses the map-based Geospatial Information Systems developed by the Gujarat based organization Bhaskaracharya Institute for Space Applications and Geo-Informatics (BISAG). Currently, the SDRN network is being integrated with the GIS based Decision Support System using Java, MS-Access, Visual Studio 2005 with Database SQL Server 2005. The GIS Visualize does not require any GIS software. The GIS visualize contains multi layered options depicting roads-highways, taluka, district boundaries, rivers, ports, airways, etc. for SDRN updation are base work and it updates regularly.

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

5.15 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 Centers 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

CHAPTER 6:

CAPACITY BUILDING AND TRAINING MEASURES

6.1. Approach

The approach to capacity building and training measures in disaster management encompasses a comprehensive and systematic strategy aimed at enhancing the preparedness, response, and recovery capabilities of individuals, organizations, and communities. This approach typically involves the following key elements:

- i. **Needs assessment:** Conducting thorough needs assessments to identify gaps, vulnerabilities, and areas for improvement in disaster management capacity. This involves analyzing the specific risks and hazards faced by the community, as well as evaluating existing resources, infrastructure, and response mechanisms.
- ii. **Stakeholder engagement:** Engaging a wide range of stakeholders, including government agencies, non-governmental organizations, community groups, academia, and the private sector, in the capacity-building process. Collaborative partnerships enable the sharing of resources, expertise, and best practices, as well as foster coordination and cooperation among different actors.
- iii. **Training and education:** Developing and delivering targeted training programs, workshops, and educational initiatives to build knowledge, skills, and competencies related to disaster preparedness, response, and recovery. Training may cover topics such as emergency planning, risk assessment, first aid, search and rescue techniques, and crisis communication.
- iv. **Simulation exercises:** Conducting realistic simulation exercises, drills, and tabletop exercises to simulate emergency scenarios and test response plans, procedures, and coordination mechanisms. These exercises provide opportunities for practical hands-on learning, as well as identify strengths, weaknesses, and areas for improvement in disaster response capabilities.
- v. **Capacity development initiatives:** Implementing capacity development initiatives aimed at strengthening institutional capacity, improving infrastructure, and enhancing coordination mechanisms for disaster management. This may include investments in technology, equipment, logistics, and communication systems, as well as the establishment of emergency response teams and specialized units.

- vi. Knowledge sharing and learning:** Promoting a culture of continuous learning and knowledge sharing within the disaster management community. This involves documenting lessons learned, best practices, and case studies from past disasters, as well as disseminating this information through workshops, seminars, conferences, and online platforms.
- vii. Monitoring and evaluation:** Regularly monitoring and evaluating the effectiveness of capacity-building and training measures in achieving desired outcomes and objectives. This involves collecting feedback, conducting assessments, and adjusting strategies as needed to improve performance and enhance resilience over time.

By adopting a holistic approach to capacity building and training measures in disaster management, communities can strengthen their ability to prepare for, respond to, and recover from disasters, ultimately saving lives and reducing the impact of emergencies on livelihoods and infrastructure.

Primary focus of disaster management capacity building in the State should be on strengthening and enhancing the capabilities of Disaster Management Institutions, including the Gujarat State Disaster Management Authority (GSDMA) and District Disaster Management Authorities (DDMAs). Customized training modules, tailored to meet the specific needs of each state and district, should be developed and implemented in collaboration with national bodies such as the National Institute of Disaster Management (NIDM) and the National Disaster Management Authority (NDMA). Adequate attention must also be given to addressing capacity building requirements across all levels of the institutional hierarchy and within society as a whole.

Furthermore, training and capacity building programs should be seamlessly integrated with monitoring and evaluation systems to facilitate ongoing assessment and refinement. This ensures that programs remain responsive to evolving needs and are continuously improved for enhanced effectiveness.

Capability Building is skill development. Skill development is either in relation to self or other than the self. For example, swimming is a skill in relation to the self, whereas, the skill to operate a fire extinguisher is a skill in relation to the fire extinguisher.

6.2. Capacity Building Plan

Developing a Disaster Risk Management Plan (DDMP) without concurrently building capacity or raising awareness among stakeholders poses significant risks to the efficacy and sustainability of the plan. Stakeholders and communities play pivotal roles in ensuring the success and longevity of disaster management initiatives. Capacity building is essential as it enhances the skills, competencies, and capabilities of both government and non-government officials, as well as communities, empowering them to effectively respond to and recover from disasters. Moreover, it aids in the prevention of hazardous events from escalating into full-blown disasters.

During disaster management planning assessments, it is crucial to acknowledge and incorporate indigenous traditions, methods, and materials utilized for local disaster management practices. Local residents often serve as the primary emergency responders, especially in remote areas, and their involvement is paramount for achieving successful outcomes. By respecting and integrating local knowledge and practices, disaster management plans can effectively leverage community resources and resilience for more comprehensive and effective responses.

Building institutional capacity is crucial for effective disaster management. However, involving the local community in the planning process and solutions is equally essential, as it ensures that disaster mitigation measures are more likely to be implemented and sustained over time. The capacity building plan should be tailored to address the diverse needs of stakeholders, aligning with their specific functional responsibilities.

6.2.1 Institutional Capacity Building:

- Training for officials and policy makers involved in disaster management.
- Skill development programs for professionals such as engineers, architects, masons, doctors, nurses, teachers, and other relevant stakeholders.
- Specialized training sessions for state police, fire services, and the State Disaster Response Force to enhance their disaster response capabilities.

6.2.1.1 Officials / Policy Makers:

Training programs should be designed to familiarize officials and policy makers with disaster management principles, frameworks, and best practices. This includes understanding the legal and regulatory frameworks, roles and responsibilities, and decision-making processes in disaster management. Workshops, seminars, and specialized courses can help officials develop the knowledge and skills necessary to formulate effective policies, allocate resources, and coordinate response efforts during emergencies.

6.2.1.2 Engineers, Architects, Masons, Doctors, Nurses, Teachers, and other Professionals: Capacity building initiatives for professionals should focus on integrating disaster risk reduction principles into their respective fields of expertise. For engineers, architects, and masons, training may include techniques for designing and constructing disaster-resilient infrastructure and buildings. Healthcare professionals can receive training on disaster medicine, triage, and emergency response protocols. Teachers and educators can be trained to incorporate disaster

preparedness and risk reduction education into school curricula. Tailored training programs and workshops can equip professionals with the specialized knowledge and skills needed to contribute effectively to disaster management efforts.

6.2.1.3 Police, Fire Services, State Disaster Response Forces (SDRF):

Training programs for emergency responders should emphasize practical skills, teamwork, and coordination in disaster response scenarios. Police and fire services personnel can receive training on search and rescue techniques, crowd management, and incident command systems. SDRF members can undergo specialized training in disaster response operations, including swift water rescue, urban search and rescue, and medical triage. Practical exercises, simulations, and field training can help emergency responders develop the confidence and competence needed to handle complex emergency situations.

6.2.2 Community capacity building and Community Based Disaster Management

Community capacity building and Community-Based Disaster Management (CBDM) are integral components of effective disaster resilience strategies that empower local communities to prepare for, respond to, and recover from disasters.

Community capacity building involves enhancing the knowledge, skills, resources, and social networks within a community to effectively address disaster risks and vulnerabilities. This may include:

Education and Training: Providing community members with training on disaster preparedness, response techniques, and first aid skills. This empowers individuals to take proactive measures to protect themselves, their families, and their neighbors during emergencies.

Community Organization:

Facilitating the establishment of community-based organizations, such as disaster response teams, neighborhood watch groups, or community emergency committees. These organizations play a vital role in coordinating response efforts, disseminating information, and mobilizing resources during disasters.

Infrastructure Development: Supporting the development of resilient infrastructure and basic services, such as early warning systems, evacuation routes, emergency shelters, and safe water and sanitation facilities. This helps communities mitigate the impact of disasters and enhances their ability to recover quickly.

Risk Assessment and Planning: Conducting participatory risk assessments to identify local hazards, vulnerabilities, and capacities. Based on these assessments, communities can develop customized disaster risk reduction plans that prioritize local needs and resources.

Community-Based Disaster Management (CBDM) emphasizes the active involvement of communities in all stages of disaster management, from preparedness to recovery. Key principles of CBDM include:

1. Local Ownership and Leadership: Empowering communities to lead and manage their own disaster preparedness and response efforts. Local knowledge and expertise are valued and incorporated into decision-making processes.

2. Participatory Approach: Engaging community members in decision-making, planning, and implementation of disaster risk reduction activities. This fosters a sense of ownership, responsibility, and resilience within the community.

3. Coordination and Collaboration: Facilitating collaboration and partnerships among community members, local authorities, government agencies, non-governmental organizations, and other stakeholders. This promotes effective coordination of resources and efforts, maximizing the impact of disaster management initiatives.

4. Communication and Information Sharing: Establishing effective communication channels and mechanisms for sharing information, early warnings, and updates with community members. Transparent and timely communication builds trust, reduces uncertainty, and enables swift action during emergencies.

By investing in community capacity building and adopting a CBDM approach, communities can strengthen their resilience, reduce vulnerabilities, and enhance their ability to withstand and recover from disasters. This grassroots approach empowers communities to become active agents of change in building a safer and more resilient future.

Institutional capacity building is essential for enhancing the effectiveness and efficiency of disaster management efforts at various levels. Here's how capacity building can be approached for different stakeholders:

Community Capacity Building:

Community capacity building initiatives should aim to empower individuals and communities to become active participants in disaster preparedness, response, and recovery efforts. This includes providing training on first aid, basic firefighting, search and rescue techniques, and evacuation procedures to community members. Community-based organizations and volunteers can receive training on leadership, communication, and coordination to effectively mobilize resources and support response efforts at the local level. Community drills, awareness campaigns, and participatory risk assessments can also help build resilience and foster a culture of preparedness within communities.

Capability Building: At the Community Level:

Community-level capacity building primarily relies on self-directed initiatives, such as acquiring skills in swimming, securely thatching roofs, safely extricating injured individuals from debris, and rescuing drowning victims. These self-orientated efforts empower community members to take proactive measures for disaster preparedness and response, enhancing overall resilience and safety within the community.

Capability Building: At the Ground Level Institutions:

Capacity building at the grassroots level institutions necessitates a dual focus on personal skill development and the utilization of straightforward technological tools. This includes training individuals in the operation of motorized boats, debris removal techniques, fire extinguisher handling, first aid administration, snake/dog bite treatment, driving two- wheelers and four-wheelers, setting up tents, operating communication equipment, and conducting repair and maintenance tasks. These institutions serve as the primary interface with the first responders - the communities.

- ❖ Village level Citizen Committees
- ❖ Village and Mandal
- ❖ Local CBO, & NGOs
- ❖ Urban Local Bodies

For this category of institutions, the capacity development programme and activities have to deal with:

- ❖ Comprehensive understanding of hazard wise disaster caused
- ❖ Hazard wise impact of disaster on people, livestock, property structures, agriculture, infrastructure etc.
- ❖ Segment of impact wise operation to provide help and support with rescue, relief and shelter.
- ❖ Keeping people alert and prepared on a periodic basis for the eventualities, that is, organizing drills and rehearsals.

The programme and activities have to be in training and skill development mode coupled with practical and demonstrative exercises supported by IEC materials. As these institutions are also slated to play important roles in disaster mitigation and disaster preparedness exercises, their capacity has also to be built in:

- i. Disaster wise mitigation measures and their repair and maintenance
- ii. Disaster wise preparedness measures and their applications within the institutions as well as at the community level.

Institutional Capacity Building

The District Administration, with support from the DDMA, is tasked with developing its own district-level Disaster Management Plan, focusing on mitigation, preparedness, and implementation strategies. This involves establishing upward linkages to the State and downward linkages to the communities. Key responsibilities for district officers include:

- i. Organizing and supporting the District Disaster Management Authority (DDMA), defining its roles and responsibilities, and facilitating the creation of the District Disaster Management Plan. This entails engaging local bodies in plan preparation and implementation, in coordination with state and village authorities.

- ii. Establishing and operating Emergency Operation Centers at both district and panchayat levels, defining their functioning modalities and roles during various response phases (L0, L1, L2), in collaboration with state and village authorities.
- iii. Ensuring the maintenance of equipment, materials, and managing stores and manpower effectively. Structured training programs are essential to orient officers to these responsibilities, considering that disaster management remains a focal point for relief efforts involving states and villages.

Capacity development is the outcome of a series of inputs aimed at enhancing understanding of issues and prompting appropriate action in specific situations. This response is not rigid but dynamic, guided by intelligence and adaptable to changing circumstances. In the realm of

disaster management, this modulation is essential for district-level institutions, government departments, agencies, stakeholders beyond state entities, and local communities.

Capacity Building: Other Stakeholders

Stakeholders in disaster management other than the state, from ground level upward, are the communities, PRIs, the local bodies, CBOs & NGOs, the block level functionaries, the district administration, the corporate bodies. Of these the PRIs are the constitutional bodies and have well defined roles to play in disaster management.

Communities serve as both victims and first responders during disasters, making community preparedness a crucial measure of a state's disaster readiness. However, before focusing on community preparedness, the state and its institutions must ensure their own readiness. This includes establishing and operationalizing Gram Panchayat bhawans, District Disaster Management Authorities, District-level Emergency Operation Centers, and District Disaster Management Plans. Additionally, the State Disaster Management Authority, State Disaster Response Force, and State-level Emergency Operation Centers should be prepared to support community empowerment efforts. Here are the capacity building steps that need to be undertaken based on this understanding:

Hazards	Preparatory measures
General	Imparting knowledge and understanding about hazard wise typical effects of disaster
	Typical effect wise how they should prepare themselves to reduce risk and cope up with the same.
	How they have to prepare themselves to see through the emergencies.
	How they have to prepare themselves for SELF
Earthquake	Awareness about the typical effects of earthquake as a hazard knowledge about proneness of the area and residence one is living in
	Sharing of the knowledge with family members and preparedness measures: how and where to take refuge under table or in a nook or corner of the house, move away from glass windows, bookcase and unsecured heavy object.
	Know the location of main switch in the house
	Not to rush out of house if an open space is not there
	Get furnishings and household appliances properly fitted
	Keep a torch light , mobile phone and a first aid kit within reach
	Organize a team of young volunteers in rescue, debris removal, passage clearing operation as well as relief operations
	Remaining alert for the early warning
	Packaging of dry food stuff for the family + a can of drinking water
Flood	Ready to shift to higher places like embankment etc.
	Keeping women and children mentally prepared for shifting
	Remaining in contact with the local volunteers for help
Drought	Developing a culture of water harvesting and storage in the drought prone areas
	Promoting social forestry in the area
	Protecting and channelizing the source of water like streams, river in the locality.
	Economizing water consumption.
	Selection of crops suitable for drip irrigation.
	Arrangements for alternative source of drinking water.
High Velocity Wind	To keep the roof of their hutments firmly tied.
	To remain alert for warning.
	To orient their family members about high speed wind and what they are expected to do.
	Avoid keeping anything heavy or sharp on roofs of hutments.
	Identify an alternative and safe place to take refuge in case of emergencies.

6.2.3 Training of Trainers (ToT):

ToT programs are essential for cascading knowledge and skills throughout the disaster management workforce. Experienced trainers can be identified and trained to deliver specialized training programs to a wider audience. ToT programs should focus on instructional techniques, adult learning principles, and content mastery to ensure that trainers are equipped to deliver high-quality and impactful training sessions. By building a cadre of competent trainers, capacity building efforts can be scaled up and sustained over time.

6.2.3.1 Civil Defence/Volunteers:

Training programs for civil defense volunteers should cover a range of topics, including emergency response procedures, disaster communication, and community engagement. Volunteers can receive training on their specific roles and responsibilities within the civil defense framework, such as shelter management, first aid administration, or logistics support. Hands-on training exercises, drills, and simulations can help volunteers develop practical skills and confidence in their ability to support emergency response efforts.

Overall, institutional and community capacity building initiatives are essential for strengthening disaster management capabilities and building resilience at all levels of society. By investing in training and skill development for key stakeholders, governments, organizations, and communities can enhance their preparedness and response capacity, ultimately reducing the impact of disasters and saving lives.

6.3 Disaster Management Education

Disaster management education is vital for preparing future generations to understand and respond to emergencies effectively. Here's how it can be integrated into schools and colleges:

6.3.1 Schools:

Disaster management education can be incorporated into school curricula at various levels. At the primary level, basic concepts of safety, emergency preparedness, and response can be introduced through age-appropriate activities, stories, and games. As students progress to higher grades, they can learn about different types of disasters, their causes, and how to stay safe during emergencies. Schools can also conduct regular drills and exercises to familiarize students with evacuation procedures and emergency protocols. Additionally, schools can partner with local emergency services and community organizations to provide hands-on learning opportunities and engage students in community-based disaster preparedness initiatives.

6.3.2 Colleges (Medical, Engineering, etc.):

In colleges, disaster management education can be integrated into relevant academic programs to equip students with specialized knowledge and skills related to their field of study. For example, medical colleges can offer courses on disaster medicine, trauma care, and public health emergency preparedness. Engineering colleges can incorporate modules on structural engineering, retrofitting techniques, and disaster-resistant design principles into their civil engineering programs. Similarly, colleges of architecture can integrate disaster-resilient design concepts and sustainable building practices into their curriculum. Additionally, interdisciplinary approaches can be encouraged, where students from different disciplines collaborate on projects and research related to disaster risk reduction and management. Colleges can also provide opportunities for

students to gain practical experience through internships, fieldwork, and participation in disaster response exercises and simulations.

Overall, integrating disaster management education into schools and colleges helps raise awareness, build resilience, and foster a culture of preparedness among students. By equipping future professionals with the knowledge and skills needed to respond effectively to disasters, educational institutions play a crucial role in building safer and more resilient communities.

6.4 Skill up gradation and follow up training programmes:

Skill upgrading and follow-up training programs are essential components of continuous improvement in disaster management. These initiatives aim to enhance the knowledge, skills, and abilities of disaster management professionals and stakeholders over time. Here's how skill upgrading and follow-up training programs can be structured:

1. Identifying Training Needs: Conduct assessments and evaluations to identify gaps in knowledge and skills among disaster management personnel. This could include surveys, interviews, performance evaluations, and feedback from stakeholders.

2. Designing Tailored Training Programs: Develop training programs that address specific needs and areas for improvement identified during the assessment phase. Training programs may cover a wide range of topics, including disaster preparedness, response techniques, risk assessment, communication strategies, leadership skills, and coordination mechanisms.

3. Hands-on Training and Simulation Exercises: Provide opportunities for practical, hands-on learning through simulation exercises, tabletop drills, and field training. These exercises simulate real-life emergency scenarios and allow participants to apply their knowledge and skills in a controlled environment. Feedback and debriefing sessions should follow each exercise to identify lessons learned and areas for improvement.

4. Follow-Up and Refresher Training: Offer follow-up and refresher training sessions to reinforce learning and update participants on new developments in disaster management. These sessions may be conducted periodically to ensure that participants remain up-to-date with the latest protocols, technologies, and best practices.

5. Integration of Technology: Incorporate technology-enabled learning methods, such as e-learning platforms, webinars, and virtual reality simulations, to enhance accessibility and flexibility in training delivery. Technology can also be used to facilitate remote learning and collaboration among participants across different locations.

6. Monitoring and Evaluation: Monitor the effectiveness of training programs through participant feedback, performance assessments, and evaluation surveys. Use this feedback to refine training content, methods, and delivery approaches to better meet the needs of participants.

7. Certification and Recognition: Provide participants with certification or recognition upon successful completion of training programs. This serves as an incentive for continued learning and professional development, as well as a way to demonstrate competency and expertise in disaster management.

By implementing skill upgrading and follow-up training programs, disaster management agencies can ensure that their personnel remain well-equipped, competent, and prepared to effectively respond to disasters and protect their communities.

Training in Disaster Management

Sr. No.	State Level / District Level	Name of the Course	Participants
1.	District & State	Orientation course for first responders to disasters	Home Guards, Civil Defence volunteers, Forest Protection Force, Police
2.	State	Joint staff course in Disaster Response for middle-level officers	District Magistrate, Additional District Magistrates, Sub-Divisional Magistrates, Superintendents of Police, Additional Superintendents of Police, Deputy Superintendents of Police
3.	State	Basic training for Para-medics and medical personnel of NDRF battalions and states	Medical officers and para-medics nominated by various state governments
4.	State	Search & Rescue and Safe Evacuation	Civil Defence volunteers, SDRF, Forest Protection Force, Fire & Emergency Services, Home Guards, NSS, NYKS, NCC
5.	State	Training of Trainers on Incident Response System (IRS)	4 key and resourceful officers
6.	State	Training on Incident Response System	Selected personnel of Response Staff and General Staff of IRS to train people identified for various roles in pre-disaster period
7.	State	Training of Trainers (TOT) on Earthquake Resistant Technology for Masons	Masons
8.	District	Hospital Preparedness & Mass Casualty Management Including Hospital Management Plan	Doctors and Hospital Administrators
9.	District	Mass casualty management	Paramedics / Response Force (Police, Fire & Emergency Services, Civil Defence)
10.	District	Role of PRIs / ULBs in Disaster Management	PRIs and ULBs

11.	District	Training of teachers on School safety including School DM Plans and conduct of Mockdrills	Teachers
12.	District	Training for Village Defence Party's	Village volunteers
13.	State	TOT - Earthquake Resistant Technology for Engineers	Engineers, Trainers from technical institutes, colleges, etc.
14.	State	TOT - Rapid Visual Screening for Masonry Buildings	Junior Engineers
15.	State	TOT - Role of PRIs / ULBs in Disaster Management	PRIs and ULBs
16.	State	State Disaster Resource Network (SDRN)	SDO (Civil), Revenue Circle Officers
17.	State	Application of GIS Mapping of Utilities	ADC, DPOs, Line Departments
18.	State	Damage and Needs Assessment	ADC or DPO, District Disaster Management Authority; CMO, Health Department; District Food & Civil Supply Officer, Project Director, DRDA; Exec. Engineer or Assistant Exec. Engineer, Public Health Engineering, Exec. Engineer, Public Works – Building & Roads, Town Committee and S.P. or A.S.P. or D.S.P.
19.	District	Shelter and Camp Management	District Food & Civil Supplies Officer; ADC or DPO, District Disaster Management Authority
20.	District	Collapsed Structure Search and Rescue and Medical First Response	Civil Defence volunteers, Forest Protection Force, Fire & Emergency Services, Home Guards, SDRF
21.	District	Public Health in Emergencies (Safe drinking water and sanitation, Alternative water resources identification during emergency conditions, Supply management).	Public Health Engineering



CHAPTER 7: RESPONSE AND RELIEF MEASURES

7.1 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 the disaster 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 perception/vision about hazards, its consequences and actions that need to be taken in the event of it.

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 District EOC, ERCs and other control rooms at the District level should be activate with full strength and begun active for search and rescue according disaster.

7.2 Warning, alert and warning dissemination

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

Sr.	Disaster	Agencies
1	Earthquakes	IMD/ISR
2	Floods	Meteorological Department, Irrigation
3	Tsunamis	IMD/ISR/INCOIS
4	Cyclones	IMD
5	Epidemics	Public Health Department
6	Road Accidents	Police
7	Industrial and Chemical Accidents	DISH, Police, Collector
8	Drought	Agriculture, Scarcity department
9	Fire	Fire Brigade, Police, Collector
10	Rail Accident	Railways, Police, Collector
11	Air Accident	Police, Collector, Airlines
12	Ammunition Depot-Fire	Army, Police, Collector.

1. Cyclone/flood forecasting is generally the responsibility of the Indian Meteorological Department (IMD). IMD is the nodal agency for providing cyclone-warning services. IMD's INSAT satellite based Cyclone Warning Dissemination System (CWDS) is one of the best currently in use in India to communicate cyclone warnings from IMD to community and important officials in areas likely to be affected directly and quickly.
2. After getting information from IMD, warning dissemination is a responsibility of State Government (COR). The COR under the Revenue Department is responsible for disseminating cyclone warnings to the public and Line Departments.
3. On receiving an initial warning, the office of the COR disseminates the warning to all Line Departments, the District administration and DG Police. Warning messages are transmitted through wireless to all districts and Talukas. District Collectors are provided with satellite phones and a Ham radio to maintain effective communication, even if terrestrial and cell-phone communication fails.
4. The state EOC and control rooms of the other line departments at the State level as well as district level also get the warnings. The control rooms are activated on receiving the warnings.

7.3 Activation of EOC

Emergency Operation Center (EOC) is a physical location and normally includes the space, facilities and protection necessary for communication, collaboration, coordination and emergency information management.

The EOC is a nodal point for the overall coordination and control of relief work. In case of a Level 1 Disaster the Local Control room will be activate, in case of a Level 2 disaster DEOC will be activated along inform with the SEOC.

Resource Mobilization

Any disaster happens in district so resources are very important for response disaster. Resource mobilization is one of most important crucial activity. As mansion above about IDRN and SDRN portal are have information regarding which kind of resource are available and location of its. IDRN and SDRN should use for resource mobilization. DDMC, TDMC, CDMC and VDMC should be update regularly.

Media Management

The role of media, both print and 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.

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).

Emergency Response Functions:

Responsible for assuring specific operations according to objectives and plans to address the immediate impacts of the incident. Taskforces under the operation section 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 Gir Somnath has identified 16 expected task forces for key response operation functions that are describe 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 supporter by other organizations.

7.4 Emergency Operation Taskforce Functions

Sr.	Emergency Taskforce	Functions
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 (including Evacuation)	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 reestablish 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 reestablish 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-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 analysis 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.

Sr.	Emergency Taskforce	Functions
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 execute 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.

CHAPTER 8: RECONSTRUCTION, REHABILITATION AND RECOVERY MEASURES

8.1 Each Department and Government agency involved in Disaster

Management 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 organization.
- Emphasis on communication systems used regularly during LO with more focus on the use of VHF's with automatic repeaters, mobile phones with publicized numbers, VHF 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.

Agriculture

Prevention Activities:

- Awareness generation regarding various plant diseases, alternate cropping practices in disaster-prone areas, Crop Insurance, proper storage of seeds, etc.
- Hazard area mapping (identification of areas endemic to pest infections, drought, flood, and other hazards)
- Develop database village-wise, crop-wise, irrigation source wise, insurance details etc.
- Regular monitoring at block 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.
- 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
- 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.

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:

1. Management of control activities following crop damage, pest infestation and crop disease to minimize losses.
2. Collection, laboratory testing and analysis of viruses to ensure their control and eradication
3. Pre-positioning of seeds and other agro inputs in strategic points so that stocks are readily available to replace damage caused by natural calamities.
4. Rapid assessment of damage to soil, crop, plantation, irrigation systems, drainage, embankment, other water bodies and storage facilities and the requirements to salvage, replant, or to compensate and report the same for ensuring early supply of seeds and other agro inputs activities where crops have been damaged.
5. Establishment of public information centers 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

1. Arrange for early payment of compensation and crop insurance dues.
2. Facilitate provision of seeds and other agro inputs.
3. Promotion of drought and flood tolerant seed varieties
4. 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 minimize impacts to various risks.
5. Facilitate sanctioning of soft loans for farm implements.
6. Establishment of a larger network of soil and water testing laboratories
7. Establishment of pests and disease monitoring system
8. Training in alternative cropping techniques, mixed cropping and other agricultural practices which will minimize crop losses during future disasters

Health Department

Prevention Activities:

- Assess preparedness levels at State, District and Block 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 hospital
- 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, anesthesia, 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 site

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 counseling
- Treatment and socio-medical rehabilitation of injured or disabled persons
- Immunization 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

For 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 Centers 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 minimize 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 Pranchayats 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 organized source of information.
- Mobilizing community participation for carcass disposal.

Recovery Activities:

- Assess losses of animals 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

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
- 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

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 and establish other temporary means of distributing water on an emergency basis.
- 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.

- 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.

Recovery Activities:

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

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 modernizing 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, if required.
- 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 during L 1 level deployment onwards.
- 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.

Civil Defense

Prevention Activities

- Organize training programmers on first-aid, search, rescue and evacuation.
- Preparation and implementation of first aid, search and rescue service plans for major public events in the State.
- 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.

Fire Services:

Prevention Activities:

- Develop relevant legislations and regulations to enhance adoption of fire safety measures.
- Modernization of fire-fighting equipments and strengthening infrastructure.
- Identification of pockets, industry, etc. which highly susceptible to fire accidents or areas, events might lead to fires, building collapse. Educate people to adopt safety measures. Conduct training and drills to ensure higher level of prevention and preparedness.
- Building awareness in use of various fire protection and preventive systems.
- Training the communities to handle fire emergencies more effectively.
- 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 minimizing 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.

Civil Supplies:

Preventive Activities

- Construction and maintenance of storage goods storage 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, unutilized 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.

Public Works/ Rural Development Departments**Prevention Activities:**

- Keep a list of earth moving and clearing vehicles / equipments and formulate a plan to mobilize 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
- Mobilization 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.

Energy: PGVCL**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, modernize 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 like those during emergencies to ensure uninterrupted power supply to the Secretariat, SRC, GSDMA, Police Headquarters, All India Radio, Doordarshan, hospitals, medical colleges, Collector Control Rooms and other 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.

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 mobilizing boats during emergencies and for payment of wages to boatmen hired during emergencies.
- Support in mobilization 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.

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

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. Counseling.
- 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 organizations.
- Provide training so that the elected representatives can act as effective supportive agencies for reconstruction and recovery activities.

Panchayati Raj Institutions

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
- Organize 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 priorities 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.
- PRLs to be a part of the damage survey & relief distribution teams to ensure participation.
- Operation emergency relief centers 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 minimize 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 minimize 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 Level 1.
- 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.

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 Liasoning 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 Level 1 onwards
- Keep the public informed about latest emergency situation (area affected, lives lost, etc).
- Keep the public informed about various post-disaster assistances and recovery programmers.

Revenue Department

- Co-ordination with Govt. of Gujarat Secretariat and Officers of Govt. of India
- Overall control & supervision
- Damage assessment, finalization of reports and declaration of Level 1/Level 2 disasters
- Mobilization of finance

Home Department

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

State Disaster Response 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

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 utilized for building a better and more safe and resilient society.

Strategies for restoring physical infrastructure and lifeline services may be:

Build Back Better:

This ensures greater resilience, preparedness; and minimum loss in an event of future disaster.

Participatory Planning:

Infrastructure improvement measures need to be balanced with, or at least be in line with, the social and cultural needs and preferences of beneficiaries

Coordination:

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

8.2 Long-term recovery programme

Disaster recovery typically occurs in phases, with initial efforts dedicated to helping those affected meet immediate needs for housing, food and water. As homes and businesses are repaired, people return to work and communities continue with cleanup and rebuilding efforts. Many government agencies, voluntary organizations, and the private sector cooperate to provide assistance and support.

Some individuals, families and communities that are especially hard hit by a disaster may need more time and specialized assistance to recover, and a more formalized structure to support them. Specialized assistance may be needed to address unique needs that are not satisfied by routine disaster assistance programs. It may also be required for very complex restoration or rebuilding challenges. Community recovery addresses these ongoing needs by taking a holistic, long-term view of critical recovery needs, and coordinating the mobilization of resources at the, and community levels.

Oftentimes, committees, task forces or other means of collaboration formed with the goals of developing specific plans for Community recovery, identifying and addressing unmet or specialized needs of individuals and families, locating funding sources, and providing coordination of the many sources of help that may be available to assist. Some collaboration focuses on the community level and relies on the expertise of community planning and economic development professionals. Other

collaborations focus on individual and family recovery and are coordinate by social service and volunteer groups. All such efforts hope to lay the groundwork for wise decisions about the appropriate use of resources and rebuilding efforts.

8.3 Grievances Redressed System

Grievance redressed is important aspect in the context of providing need based assistance to affected communities with transparency and accountability. It is also ensures the protection of their rights and entitlements for disaster response services.

No.	Key Person/ Establishment	Contact No	Address
1	DEOC Collectorate Control Room	02876- 1077/285063-64	Collector Office-District Emergency Operation centre
2	DDO	02876-282255/ 285250	District Panchayat
3	Police	02876-222250	S.P. Office, Gir Somnath

8.4 Matrix form of Sort term and long-term recovery programme

Disaster recovery has three distinct but interrelated meanings. First, it is a goal that involves the restoration of normal community activities that were disrupted by disaster impacts – in most people's minds, exactly as they were before the disaster struck. Second, it is a phase in the emergency management cycle that begins with stabilization of the disaster conditions (the end of the emergency response phase) and ends when the community has returned to its normal routines. Third, it is a process by which the community achieves the goal normal life.

SHORT TERM AND LONG TERM RECOVERY TIME TABLE

Activity/Action	Estimate of Duration	Estimate of Duration
Period	Short-Term	Long-Term
Warning	Hours to a few days	
Response/Operations	Ongoing	Ongoing
Emergency	1-15 days	1-60 days
Preparation of damage assessment	1-4 days	4-8 days
Disaster declaration (state or federal)	1-10 days	0-30 days
Federal/State mitigation Strategy	1-15 days	15-30 days
Recovery	7-150 days	150-365 days
Temporary building moratorium	<=30 days	<=60 days
Letter of intent to submit HM Grant	<=60 days	<=60 days
Short-term reconstruction	<= 1 year	200-365 days
State mitigation	<= 180 days	365 days
HMGP proposal	70-200 days	200-365 days
Long-term reconstruction	100 days to 5 years	5 to 10 years

CHAPTER 9:

FINANCIAL RESOURCES FOR IMPLEMENTATION OF DDMP

9.1 Financial Arrangements:

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

State Disaster Response Fund

To carry out Emergency Response & Relief activities after any disaster the State Disaster Response Fund is making available to Commissioner of Relief, Revenue Department under which the Central Government will share 75% and the Govt. of Gujarat has to share 25% as per the recommendation of 13th Finance Commission.

State Budget

The Authority, submit to the State Government for approval a budget in the prescribed form for the next financial year, showing the estimated receipts and expenditure, and the sums which would be required from the State Government during that financial year. As per the provisions of The Gujarat State Disaster Management Act, 2003 the Authority may accept grants, subventions, donations and gifts from the Central or State Government or a local authority or any individual or body, whether incorporated or not.

District Planning Fund

For preparedness, mitigation, capacity building and recovery fund can be raised from MP or MLA grant as received for developmental work .also from departmentally arrangement.

Partnerships

There are projects/schemes in which funding can be done by a public sector authority and a private party in partnership (also called on PPP mode funding). In this State Govt. along with Private organizations and with Central Govt., share their part.

9.2 Centrally Sponsored scheme

Name	Purpose	Finance Arrangements	Activities that can be take under scheme	Nodal Agency
NDRF (NCCF)	Relief Assistance	100% Central Govt	Cash and kind relief	Revenue Department
SDRF (CRF)	Relief Assistance	75% Centre, 25% State	Cash and kind relief	Revenue Department
Planning Commission (13 Finance commission) Year 2011-15	Capacity Building	100% Centre	Trainings Awareness Generation IEC material Mock drills	Revenue Department

CHAPTER 10:

PROCEDURE AND METHODOLOGY FOR MONITORING, EVALUATION, UPDATION AND MAINTENANCE OF DDMP

10.1 Authority for maintaining and reviewing the plan:

(According to ACT 31 of 2005, The Disaster Management Act, 2003, Chapter IV, District Plan.)

31. 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.
- (3) The District Plan shall include-
 - (a) the areas in the district vulnerable to different forms of disasters;
 - (b) the measures to be taken, for prevention and mitigation of disaster, by the Departments of the Government at the district level and local authorities in the district;
 - (c) the capacity-building and preparedness measures required to be taken by the Departments of the Government at the district level and the local authorities in the district to respond to any threatening disaster situation or disaster;
 - (d) the response plans and procedures, in the event of a disaster, providing for-
 - (i) allocation of responsibilities to the Departments of the Government at the district level and the local authorities in the district;
 - (ii) prompt response to disaster and relief thereof;
 - (iii) procurement of essential resources;
 - (iv) establishment of communication links; and
 - (v) the dissemination of information to the public;
 - (e) such other matters as may be required 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 Authority which shall forward it to the State Government.

- (2) 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.

Schedule for updation of plan

Every year as a part of pre monsoon DDMC will update plan in the month of May-June and revise in the month of October-November every year. Plan Maintenance is a dynamic process of updating pal on a periodic basis.

Hazards	Revisions proposed	Remarks
Flood	May-June	Highly affected area of the district
Chemical disaster	Jan, Feb	Due to MAH unit (Under Factory act-1947)
Tsunami	June, Oct	Due to coastal belt
Cyclone	May- June and Oct. Nov.	Due to Coastline

The procedure for monitoring, evaluation, updating, and maintaining a District Disaster Management Plan (DDMP) involves establishing clear objectives and indicators, developing a comprehensive monitoring and evaluation framework, conducting regular assessments to identify strengths and weaknesses, updating the plan based on findings, providing capacity building and training, engaging stakeholders, allocating resources for maintenance, and promoting a culture of continuous improvement. By following this procedure, organizations and communities can effectively manage their DDMPs, enhance resilience, and reduce vulnerability to disasters.

10.2 Proper monitoring and evaluation of the DDMP

Proper monitoring and evaluation of the District Disaster Management Plan (DDMP) is essential for its effectiveness and resilience. Monitoring involves ongoing data collection to track progress and implementation, while evaluation assesses the plan's impact, strengths, and weaknesses. By regularly reviewing and analyzing data, authorities can identify areas for improvement, update strategies, and ensure alignment with evolving risks and community needs. Effective monitoring and evaluation enable timely interventions, enhance disaster response capabilities, and contribute to building a more resilient district.

10.3 Post-disaster evaluation mechanism for DDMP

The post-disaster evaluation mechanism for the District Disaster Management Plan (DDMP) is a critical process designed to assess the plan's effectiveness in real-world disaster situations. It involves analyzing the response to a disaster, identifying successes and shortcomings, and gathering lessons learned to inform future planning and improvements. By conducting thorough post-disaster evaluations, authorities can enhance preparedness, response, and recovery efforts, ultimately strengthening the resilience of the district to future disasters.

10.4 Schedule for updation of DDMP : Regular updation process for the DDMP, reflecting sections that need updation at various intervals

The schedule for updating the District Disaster Management Plan (DDMP) involves regular revisions to ensure its effectiveness in responding to evolving risks and challenges. The District Disaster Management Committee (DDMC) will compile lessons learned and propose improvements to enhance the district's capacity to handle disasters. The plan will be updated annually, with revisions conducted in May-June as part of pre-monsoon preparations and again in October-November to incorporate any additional insights or changes needed. This cyclical process ensures that the DDMP remains relevant and robust in its ability to manage disasters effect

Hazards	Revisions proposed	Remarks
Flood	May-June	Highly affected area of the district
Chemical disaster	Jan, Feb	Due to MAH unit (Under Factory act-1947)
Tsunami	June, Oct	Due to coastal belt
Cyclone	May- June and Oct. Nov.	Due to Coastline

10.5 Uploading of updated plans at DDMA/ SDMA websites

Uploading the updated plans at the District Disaster Management Authority (DDMA) or State Disaster Management Authority (SDMA) websites is a crucial step in ensuring transparency, accessibility, and dissemination of important disaster management information. By making the updated plans readily available online, authorities enable stakeholders, including government agencies, emergency responders, community organizations, and the public, to access relevant disaster preparedness and response strategies. This facilitates coordination, collaboration, and informed decision-making during emergencies, ultimately enhancing the effectiveness of disaster management efforts at the district and state levels.

10.6 Conducting Mock Drills at district and sub-district levels

Conducting regular mock drills at both district and sub-district levels is essential for effective disaster preparedness and response. These drills familiarize stakeholders with their roles, test disaster management plans, and pinpoint areas for improvement. Feedback from these simulations informs plan revisions and capacity-building efforts. Effective organization of mock drills requires identifying responsible parties, establishing schedules, and allocating resources. This proactive approach enhances coordination and strengthens response capabilities. Stakeholders such as the district police department, homeguards, Civil Defence personnel, Fire Service officials, Search and Rescue Teams (SRTs), Quick Response Teams (QRTs), District Medical Committees (DMCs), and Disaster Management Teams (DMTs) participate in these drills, coordinated by the District Collector and Relief Commissioner at the district and state levels respectively. It is mandatory to conduct mock drills at least twice a year, with a specific focus on fire and earthquake scenarios, ensuring emergency responders are well-prepared to handle disasters effectively.

Gir Somnath District's disaster administration demonstrates a proactive approach by regularly conducting mock drills at various administrative levels, including state, district, taluka, and village levels. These drills are not only limited to governmental institutions but also extend to educational institutions such as schools, colleges, and tuition classes, as well as industrial zones. By engaging stakeholders at all levels and across sectors, these mock drills help to enhance

preparedness, test response capabilities, and strengthen coordination mechanisms in the event of disasters. Furthermore, the district administration's commitment to implementing the Sendai Framework for Disaster Risk Reduction (SFDRR) underscores its dedication to building resilience and reducing disaster risks within the community. Through these efforts, Gir Somnath District aims to foster a culture of safety, promote proactive disaster management practices, and safeguard the well-being of its residents and infrastructure against the impacts of potential hazards.

10.7 Monitoring and gap evaluation

Monitoring and gap evaluation of the District Disaster Management Plan (DDMP) involves ensuring that all personnel involved in its execution are adequately trained and updated on the latest skills required according to the updated plans. This includes regular checks to verify that individuals possess the necessary knowledge and capabilities to respond effectively to disasters. Additionally, it is essential to verify that on-site and off-site emergency plans of major chemical, industrial, and nuclear installations are submitted to the District Collector's Office. This ensures that comprehensive emergency preparedness measures are in place to mitigate risks and respond promptly to potential hazards.

CHAPTER 11:

COORDINATION MECHANISM FOR IMPLEMENTATION OF DDMP

11.1. Coordination Mechanism

Dealing with major disasters necessitates the mobilization of resources beyond the district's capacity. In instances where the district administration is overwhelmed, higher authorities are called upon to provide assistance. Additionally, assets and capabilities within the corporate and non-governmental sectors surrounding the district can be leveraged to mitigate the impact of disasters. Participants in disaster management undertake various actions both before and after disasters to achieve this objective. Pre-disaster measures aim to prevent or minimize potential damage, while post-disaster efforts focus on recovery. These activities ideally mitigate the effects of disasters significantly. To achieve this, the District Disaster Management Plan (DDMP) should establish a pre-established and practiced mechanism for inter-agency, intra-agency, and extra-agency coordination.

Effective communication is paramount for coordination during emergencies. Typically, the Emergency Operation Centre (EOC) serves as the focal point for communication and coordination efforts. Pre-disaster meetings, involving all stakeholders, are crucial for reviewing the DDMP and ensuring alignment of strategies and resources. The District Disaster Management Authority (DDMA) and District Emergency Operation Centre (DEOC) play pivotal roles in coordinating with all department heads, Incident Response Teams (IRTs), Emergency Support Functions (ESFs), Block Development Officers (BDOs), Disaster Management Teams (DMTs), Task Forces, Non-Governmental Organizations (NGOs), Community-Based Organizations (CBOs), corporate entities, and the community to effectively implement disaster management plans at all levels.

Coordination with local self-government bodies, including Panchayat Raj institutions (Zila Parishad, intermediate level bodies, if applicable, and Gram Panchayats) and Urban Local Bodies (ULBs), is essential for effective disaster management. While the responsibilities of local authorities are outlined in relevant legislation, such as the Disaster Management Act, they operate under the direction of the district authority, as stipulated in Section 41. Therefore, establishing a vibrant coordination system at these levels is crucial to ensure seamless cooperation and alignment of efforts in disaster preparedness, response, and recovery.

To facilitate coordination with local self-government bodies, the district disaster management framework typically involves the following components:

1. **Establishment of Coordination Mechanisms:** District Disaster Management Authorities (DDMAs) establish coordination mechanisms to engage with local self-government bodies effectively. This may include establishing regular coordination meetings, joint planning sessions, and information-sharing platforms.
2. **Clear Communication Channels:** Ensure clear communication channels between the district authority and local self-government bodies to convey directives, share

information, and coordinate actions during emergencies. This includes establishing dedicated communication lines, liaison officers, and communication protocols.

3. **Incorporation of Local Plans:** Integrate disaster management plans and guidelines developed by local self-government bodies into the broader district-level plans. This ensures that local priorities, resources, and capacities are considered and aligned with overall disaster management strategies.
4. **Capacity Building and Training:** Provide capacity building and training programs for officials and staff of local self-government bodies to enhance their understanding of disaster risks, response procedures, and coordination protocols. This empowers local authorities to effectively fulfill their roles and responsibilities during emergencies.
5. **Collaborative Planning and Implementation:** Foster collaboration between the district authority and local self-government bodies in planning and implementing disaster risk reduction measures, preparedness activities, response plans, and recovery efforts. This includes joint exercises, drills, and simulations to test coordination mechanisms and build confidence among stakeholders.
6. **Resource Mobilization and Support:** Facilitate resource mobilization and support for local self-government bodies to strengthen their disaster management capabilities. This may include providing financial assistance, technical expertise, and access to equipment, supplies, and infrastructure.
7. **Community Engagement and Participation:** Encourage active involvement of local communities in disaster preparedness, response, and recovery efforts. Local self-government bodies play a crucial role in mobilizing community resources, raising awareness, and facilitating community-based initiatives for resilience building.

By fostering vibrant coordination with local self-government bodies, districts can leverage local knowledge, resources, and networks to enhance the overall effectiveness of disaster management efforts. This collaborative approach ensures that response measures are well-coordinated, locally relevant, and responsive to the needs of communities, ultimately contributing to greater resilience and disaster risk reduction at the grassroots level.

Furthermore, the DDMA should establish communication links with neighboring districts to facilitate coordinated responses, especially in scenarios where disasters affect multiple districts. This proactive approach ensures seamless coordination and resource mobilization across administrative boundaries, enhancing the overall effectiveness of disaster response efforts. By fostering collaboration among diverse stakeholders and ensuring robust communication channels, districts can better prepare for and respond to disasters, ultimately reducing the impact on communities and promoting resilience.

Co-Ordination Matrix							
Hazard	Co-ordination	Subject of Co-ordination	Specification of the entity(Which department/ agency etc)	Nature of Co-ordination during different DM Phase			
				Preparedness Phase	Response Phase	Mitigation Phase	Recover and Reconstruction Phase
Inter Departmental Co-ordination							
Intra Departmental							
Inter Block							
Inter Villages							
Intermediate level(Zila Parishad, ULB's etc)							
State level agencies							
NGO's/ CBO's/SHG's etc							
UN agencies							

Linkage with the District Disaster Management Plans (DDMPs) of neighboring districts and the State Disaster Management Plan (SDMP) is crucial for ensuring effective coordination and response to disasters that transcend administrative boundaries. These linkages facilitate information sharing, resource mobilization, and coordinated action in managing disaster risks and responding to emergencies. Here's how these linkages are established and utilized:

11.2 Inter-District Coordination (Linkage with DDMPs of Neighboring Districts)

- Establish Communication Channels: District Disaster Management Authorities (DDMAs) establish communication channels with neighboring districts to facilitate the exchange of information, coordination of response efforts, and mutual support during emergencies.
- Sharing of Information and Resources: DDMAs exchange relevant information such as hazard assessments, vulnerability maps, response capabilities, and available resources. This sharing enables better situational awareness and helps identify areas where mutual assistance may be required.
- Mutual Aid Agreements: DDMAs may enter into mutual aid agreements or memoranda of understanding (MoUs) with neighboring districts to formalize cooperation and support arrangements. These agreements outline the terms and conditions for sharing resources, personnel, and expertise during emergencies.
- Joint Exercises and Drills: Conduct joint exercises, drills, and simulations with neighboring districts to test coordination mechanisms, identify inter-district response challenges, and build mutual trust and confidence among stakeholders.
- Coordinated Response Planning: Collaborate with neighboring districts in the development of joint response plans and protocols for managing cross-border emergencies. This ensures a coordinated and cohesive approach to disaster response across administrative boundaries.

11.3 State-Level Coordination (Linkage with SDMP):

- **Alignment with Stte Priorities:** Ensure that the DDMP aligns with the priorities, strategies, and guidelines outlined in the SDMP. This alignment ensures consistency and coherence in disaster management efforts at the district and state levels.
- **Coordination Mechanisms:** Establish coordination mechanisms between the district authority and the State Disaster Management Authority (SDMA) to facilitate communication, information sharing, and joint decision-making during emergencies.
- **Resource Mobilization:** Coordinate with the SDMA to access state-level resources, including personnel, equipment, and funds, to support district-level response efforts. This may involve requesting assistance, submitting resource requirements, and coordinating deployments as per the SDMP.
- **Policy and Regulatory Alignment:** Ensure that district-level policies, regulations, and protocols are consistent with state-level directives and guidelines outlined in the SDMP. This alignment facilitates seamless integration and interoperability of disaster management systems across different administrative levels.
- **Regular Reporting and Updates:** Provide regular updates and reports to the SDMA on the implementation of the DDMP, status of preparedness measures, response actions, and lessons learned. This enables the SDMA to monitor progress, identify challenges, and provide necessary support and guidance to districts as required.

By establishing strong linkages with neighboring districts and the SDMP, districts can enhance their resilience and capacity to effectively respond to disasters, irrespective of geographical boundaries. These linkages facilitate coordinated action, resource sharing, and mutual support, thereby strengthening overall disaster management capabilities at the local, regional, and state levels.

CHAPTER 12:

STANDARD OPERATING PROCEDURES (SOPs) AND CHECK LIST

12.1. Definition of disaster situations

The Sendai Framework for Disaster Risk Reduction (SFDRR) defines disaster situations as events triggered by natural hazards or human-induced factors that cause significant disruption to communities, resulting in extensive damage, loss of life, and negative socio-economic impacts. These events exceed the capacity of affected areas to cope and often require national or international assistance for effective response and recovery. The SFDRR emphasizes the importance of reducing disaster risk and enhancing resilience to mitigate the impact of such events and ensure sustainable development. By addressing underlying risk factors and vulnerabilities, the SFDRR aims to minimize the occurrence and severity of disaster situations, thereby promoting the well-being and safety of communities worldwide.

12.2. Action on receipt of warning and warning dissemination

Action on receipt of warning and warning dissemination are critical components of disaster preparedness and response efforts. Upon receiving a warning of an impending disaster, authorities must swiftly disseminate this information to the public through various communication channels, including emergency alerts, sirens, social media, and mass media outlets. Simultaneously, individuals and communities must take immediate action to implement preparedness measures, such as evacuating to safe locations, securing property, and accessing emergency supplies. Prompt and effective action in response to warnings can save lives, minimize damage, and enhance overall resilience in the face of disasters.

12.3. SOP's and Checklist

Standard Operating Procedures (SOPs) and checklists are essential for effective disaster response by various stakeholders. These documents provide clear guidance and reference points for executing specific tasks during emergencies. SOPs and checklists are developed based on Emergency Support Functions (ESFs) or Incident Response Systems (IRS), aligning responsibilities and actions with functional areas. They are tailored to the district's hazard profile and level of exposure through participatory risk assessments. Stakeholders are involved in their development and training, ensuring relevance and applicability. Regular review and updates maintain their effectiveness. Overall, SOPs and checklists streamline response efforts, enhance coordination, and contribute to efficient disaster management.

1. Standard Operating Procedures for Response

Primary Department	Support Department	Emergency Function
National Informatics Centre	- BSNL and other service providers - All India Radio/Television - Mobile Police Wireless	- To restore communication facilities after disaster. - To provide emergency communication linking for EOCs, IMS. - To ensure early warning communication to identified stakeholders at community level. - To ensure communication facilities to support state and district actions - To coordinate the temporary communication requirements

2. Search and Rescue

Primary Department	Support Department	Emergency Function
Warden, Civil Defence S.P., Police / Fire Officer, Fire Services (In case of Fire)	- Home Guards - NSS / NCC / NYKS <u>Additional</u> <u>State/National Units:</u> - SDRF - Paramilitary Forces – CRPF and SSB - NDRF - APSDRF - Air Force / Army	- To restore communication facilities after disaster. - To provide emergency communication linking for EOCs, IMS. - To ensure early warning communication to identified stakeholders at community level. - To ensure communication facilities to support state and district actions - To coordinate the temporary communication requirements

3. Relief and Shelter

Primary Department	Support Department	Emergency Function
• RAC (In-charge of Disaster Management), • Revenue Department	• Department of Food and Civil Supplies • Civil Defense • Home Guards • Department of Housing • State Food Corporation • Red Cross Society • Corporates / CBOs • NCC/NSS/NYKS	• To carry cooked dry, fast food materials in properly packaged form for immediate distribution. • To organize the supply of drinking water • To setup Shelter camps, Kitchen camps, mobilize volunteers for cooking, serving, washing etc. • To organize Supply of food grains and vegetables • To line up teams of local youths to carry those rescued to relief and shelter camps. • To maintain record of names, villages, Panchyat and Talukas to which the victims belong • To setup latrine and bathrooms • To take special care of children, women, old and disabled, especially those separated from families. • To setup disaster relief centre to receive, collect, sort out and distribute
		relief materials • To organize proper supply chain to reach the same to victims.

4. Health and Sanitation

Primary Department	Support Department	Emergency Function
• Civil Superintendent, CMO, Health Department	• Public Health Engineering Department (PHED) • Medical College • Hospitals • Red Cross Society • Civil Defence	• To check the equipments and stock of medicines • To teams formation of medical personnel • To organize first aid providing team in larger number • Public health advice and warnings to participating agencies and the community • To organize mobile medical van to attend to emergency needs • To carry medical camp setting facilities • To establish trauma counseling desks for disaster affected persons • To keep an eye on the possibilities of outbreak of epidemics • To include locally available medical staff in health check up exercise. • To keep record of patients treated • To visit shelter camps to keep an eye on sanitation and make adequate arrangements for the same.

5. Livestock Shelter and Fodder

Primary Department	Support Department	Emergency Function
• Nayab Pasupalan Niyamak, Dept. of Animal Husbandry	• Veterinary Hospitals • Fodder Suppliers	• To setup feeding camp for animals at some distance from shelter for human beings • To vaccinate the animal if not vaccinated earlier. • To organize disposal of garbage. • To mobilize veterinary team locally

6. Drinking Water and Supplies

Primary Department	Support Department	Emergency Function
Executive Engineer, Gujarat Water Supply and Sewerage Board	- Minor Water Resources (Tube Well Division) - DRDA - Electricity Department - Corporate Support - NGOs	- To identify the sources to provide drinking water and restore supply. - Restoration of well - To install hand pumps - To provide halogen tablets - To distribute mineral water bottles of available in large stock.

7. Power

Primary Department	Support Department	Emergency Function
Executive Engineer, PGVCL	- Corporate Support - NGOs	- To carry repair and maintenance kits for generator sets and other devices. - To check electricity supply line and restore supply - To organize alternative source to provide electricity - To carry replacement generator set where need be. - To organize and ensure power supply to hospitals, shelter camps, kitchen, onsite EOCs and other important institutions. - To carry candles, match boxes, solar lamps, petromax, etc.

8. Transport

Primary Department	Support Department	Emergency Function
D.T.O., Transport Department	- Private Transport Carriers - Private Boat Owners - Ambulance Service - Railways - Air Force	- To know loading and unloading point nearest to the incident site. - To coordinate the transport requirements of the emergency support forces. - To arrange transportation of relief and rescue materials. - To coordinate and provide transport facilities to all support agencies - To regulate the movement of traffic onsite - To organize transportation of sick and wounded

9. Public Works

Primary Department	Support Department	Emergency Function
Executive Engineer, R&B Department	- Road and Bridge Construction Dept - Building Construction Dept	- To restore the road connectivity in collaboration with Road Construction Department - To construct temporary bridges where required - To organize repairing of health centre, schools, important buildings - To undertake supervision and surveillance of construction works done.

10. Information Dissemination and Helpline

Primary Department	Support Department	Emergency Function
Assistant Director of Information, District Information Department	- Panchayati Raj Dept. - Scouts and Guides - Media - Colleges and Universities - NCC / NSS / NYKS	- To gather correct information from authorities onsite. - To keep the list of persons rescued with full details about each - To keep the list of persons missing - To keep the no. of dead bodies and the locations they have been put - To keep a track of which team is positioned where - To make use of the public address system to call any body - To keep 5 to 6 scouts around to provide escort services. - To schedule working in short duration shifts

11. Law and Order

Primary Department	Support Department	Emergency Function
• Superintendent of Police, Police Dept.	• home Guards Commandant - Para-military (CRPF, SSB) • Armed Forces	• Preservation of peace and good order (Particularly in case of Riots/Accidents/Fire) • Prevention of crime • Security of any site as a possible crime scene (Particularly in case of Riots/Accidents/Fire) • Investigation of the criminal aspect of any event • Traffic control, including assistance with road closures and maintenance of road blocks • Crowd management/public safety • Coordination of search and rescue • Security of evacuated areas • Posting of Police Home Guard, Civil Defense forces in strategic places

12.4 Incident Response System

The Incident Response System (IRS) is one of the most critical components of the phase of emergency response. This system adopts both top-down and bottom-up approach to make the responses effective, where top administrative officers prepare strategies and make plans, while also ensuring requisition of required resources, manpower, equipments and the support of various inter-disciplinary agencies. On the other side, the on-field response personnel also provide feedback to officers designated for the purpose to help improvise the response strategies.

12.5 In chapter 7 of DDMP, IRS structure as defined by guidelines issued by the National Disaster Management Authority. In sum, the command staff is comprised of the Incident Commander, Information & Media Officer, Safety Officer, and Liaison Officer. The general staff encompasses three sections – operations, planning, and logistics –, each of which being comprised of various groups and units.

12.6 Media Management

The coordination between the District Administration and media has to be maintained both during and after a disaster. During the response phase it is especially important as it helps to ensure that communities and people in the district are better aware about the situation and interventions being made by the administration. The following will be performed by the Information and Media Officer as per responsibilities described in the IRS section:

- Organize media briefing by senior officer in-charge.
- Provide graphic and statistical details to the extent possible.
- Organize visits to shelters, relief and various activity camps.
- Organize briefing on daily basis towards the end of the day. Facilitate media personnel in their interaction with other emergency functionaries, if possible.
- Prepare and release information about the incident to the media agencies and others with the approval of IC;
- Jot down decisions taken and directions issued in case of sudden disasters when the IMT has not been fully activated and hand it over to the PS on its activation for incorporation in the IAP;
- Ask for additional personnel support depending on the scale of incident and workload;
- Monitor and review various media reports regarding the incident that may be useful for incident planning;
- Organise IAP meetings as directed by the IC or when required;
- Coordinate with IMD to collect weather information and disseminate it to all concerned;
- Maintain record of various activities performed and
- Perform such other duties as assigned by IC.

12.8 Relief and Rehabilitation Norms (Standards) Emergency Response/ Support Functions:

Relief and Rehabilitation Norms establish standards for emergency response and support functions during disasters. These norms guide various critical activities aimed at mitigating the impact of disasters and facilitating recovery. Here's a description of some key emergency response/support functions:

- **Evacuation:** Evacuation involves safely relocating individuals from areas at risk of disaster to designated safe locations. This process ensures the protection of lives and minimizes casualties.
- **Search and Rescue:** Search and rescue operations aim to locate, extract, and provide medical assistance to individuals who are trapped or injured during a disaster. Trained personnel deploy specialized techniques and equipment to locate and extricate survivors.
- **Cordoning the Area:** Cordoning off affected areas helps restrict access to hazardous zones, ensuring the safety of responders and preventing further harm to individuals. It also facilitates the organization of rescue operations and the management of resources.
- **Traffic Control:** Traffic control measures are implemented to manage vehicular

and pedestrian movement around disaster-affected areas. This helps prevent congestion, facilitate emergency response efforts, and ensure the safe passage of vehicles transporting supplies and personnel.

- **Law and Order and Safety Measures:** Maintaining law and order is crucial during emergencies to prevent looting, vandalism, and other criminal activities. Safety measures, including the deployment of security personnel and the establishment of temporary shelters, ensure the security and well-being of affected populations.
- **Dead Body Disposal:** Proper disposal of deceased individuals is essential to prevent the spread of diseases and maintain dignity. Trained personnel handle the identification,

retrieval, and disposal of bodies according to established protocols and cultural sensitivities.

- **Carcass Disposal:** In cases involving mass animal casualties, carcass disposal measures are implemented to prevent contamination and the spread of disease among livestock and wildlife. Proper disposal methods, such as burial or incineration, are carried out in accordance with environmental regulations.

These relief and rehabilitation norms provide a framework for coordinated and effective response actions during disasters. By adhering to established standards and protocols, emergency responders can ensure the timely and efficient delivery of life-saving assistance and support to affected populations, thereby minimizing the impact of disasters and facilitating recovery efforts.

12.9 Humanitarian relief and assistance

Humanitarian relief and assistance play a critical role in addressing the immediate needs of individuals and communities affected by disasters. Here's a description of key components of humanitarian relief and assistance:

- 12.9.1 Food:** Provision of food supplies ensures that affected populations have access to nutritionally adequate and safe food during and after a disaster. This includes distribution of ready-to-eat meals, food packets, and food vouchers based on assessed needs.
- 12.9.2 Drinking Water:** Access to clean and safe drinking water is essential for preventing waterborne diseases and ensuring hydration. Emergency water supply systems, distribution of bottled water, and purification methods are employed to meet this need.
- 12.9.3 Medicines:** Availability of essential medicines and medical supplies is critical for treating injuries, illnesses, and medical emergencies resulting from disasters. Medical teams provide first aid, treatment, and preventive care to affected individuals.
- 12.9.4 Trauma Care:** Specialized trauma care services are provided to individuals with serious injuries, including emergency medical treatment, surgical interventions, and rehabilitation support to aid in recovery.
- 12.9.5 Clothing:** Distribution of clothing and personal hygiene items helps address basic needs and promote dignity among affected populations, especially those

who have lost their belongings or been displaced from their homes.

12.9.7 Shelter Management: Establishment and management of emergency shelters provide safe and temporary accommodation for displaced individuals and families. Shelter management includes site selection, setup, maintenance, and provision of basic amenities.

12.9.8 Providing Helpline: Helplines are established to facilitate communication between affected individuals and response agencies, enabling them to seek assistance, report emergencies, and access information about available services and resources.

12.9.9 Repairs and Restoration of Basic Amenities: Rapid repairs and restoration of essential infrastructure, such as water supply systems, power grids, transportation networks, and communication channels, are undertaken to ensure the resumption of normalcy and facilitate recovery efforts.

12.9.10 Management of VIP Visits: Coordination and management of visits by dignitaries, government officials, and other VIPs ensure that their presence does not disrupt ongoing relief operations and that they receive accurate briefings on the situation.

12.9.11 Maintenance of Emergency Reserves: Private agencies and government entities maintain emergency reserves of essential supplies, including food, water, medical supplies, and equipment, to ensure readiness for rapid deployment during disasters.

By providing humanitarian relief and assistance, responders address the immediate needs of affected populations, alleviate suffering, and support the process of recovery and rebuilding in disaster-affected areas. These efforts are essential for restoring stability, resilience, and well-being in communities impacted by disasters.

❖ MEASURES BEFORE BORE WELL INCIDENT

➤ Do's

- The owner of the land/premises, before taking any steps for construction bore well/tube well must inform in writing at least 15 days in advance to the concerned authorities in the area.
- Registration of all the drilling agencies, viz., Govt./Semi Govt/Private etc. should be mandatory with the district administration or Statutory Authority wherever applicable.
- Erection of signboard at the time of construction near the well is mandatory. The following details should be included on the signboard:-(a) Complete address of the drilling agency at the time of construction/rehabilitation of well. (b) Complete address of the user agency/owner of the well.
- Erection of barbed wire fencing or any other suitable barrier around the well during construction.
- Construction of cement/concrete platform measuring 0.50x0.50x0.60 meter (0.30 meter above ground level and 0.30 meter below ground level) around the well casing.
- Capping of well assembly by welding steel plate or by providing a strong cap to be fixed to the casing pipe with bolts and nuts.

- In case of pump repair, the tube well should not be left uncovered.
- Filling of mud pits and channels after completion of works.
- Filling up abandoned bore wells by clay/sand/boulders/pebbles/drill cuttings etc. from bottom to ground level.
- On completion of the drilling operations at a particular location, the ground conditions are to be restored as before the start of drilling.
- District Collector should be empowered to verify that the above guidelines are being followed and proper monitoring check about the status of boreholes/tube wells are being taken care through the concerned State/Central Government agencies.
- District/Block/Village wise status of bore wells/tube wells drilled. In the rural areas monitoring of these should be done through village Sarpanch and the Executive from the Agriculture Department. In case of urban areas, the monitoring should be done through Junior Engineer and the Executive from the concerned Department of Ground Water or Public Health or Municipal Corporation.
- If a bore well/tube well is 'Abandoned at any stage, a certificate from the concerned department of Ground Water/Public health/Municipal Corporation/Private contractor must be obtained by these agencies.
- Information on all such data on the above are to be maintained in the District Collector/Block Development Office of the State.
- Secure the scene by cordoning the bore well to avoid any unwanted objects falling into the bore well and causing harm to the child and thus hamper the rescuing efforts.
- Cordon the affected area and control unnecessary movements/crowd gathering near the bore well.
- Try to stabilize the victim, if possible, with the help of rope.
- Make arrangements for supplying of oxygen to the child with the help of pipe.
- Arrangement of sufficient lights in the area for the night operation.
- Immediately contact the nearby NDRF Unit.
- As per the direction of NDRF unit, start digging earth vertically and parallel to the depth of bore well at the sufficient distance from the bore well or as directed by the NDRE Keep motivating the victim by regular talking of parents or relatives.
- District medical officer should be made aware about the compartment compression syndrome and action to be taken in such cases.

➤ **Don'ts**

- Don't leave the tube well/bore well uncovered after repair/daily work done.
- Do not throw any food article or pour water in the Bore well.
- Do not allow underground water seepage in bore well.
- Do not allow heavy machines to work at full power to avoid heavy vibration which may result in loosening of surrounding soils and collapse of the bore well.
- Do not allow crowd to gather around the incident site.

❖ GUIDELINES REGARDING BORE WELL SAFETY MEASURES BY SUPREME COURT:

Safety measures/guidelines as given in the Order dated 11.02.2010 of Hon'ble Supreme Court is to be observed by all the States: -

- i) The owner of the land/premises, before taking any steps for construction bore well/tube well must inform in writing at least 15 days in advance to the concerned authorities in the area, i.e., District Collector/District Magistrate/Sarpanch of the Gram Panchayat/ Concerned officers of the Department of Ground Water/ Public Health/Municipal Corporation, as the case may be, about the construction of bore well/tube well.
- ii) Registration of all the drilling agencies, viz., Govt./Semi Govt./Private etc. should be mandatory with the district administration.
- iii) Erection of signboard at the time of construction near the well with the following details:- (a) Complete address of the drilling agency at the time of construction/rehabilitation of well. (b) Complete address of the user agency/owner of the well.
- iv) Erection of barbed wire fencing or any other suitable barrier around the well during construction.
- v) Construction of cement/concrete platform measuring 0.50x0.50x0.60 meter (0.30 meter above ground level and 0.30 meter below ground level) around the well casing.
- vi) Capping of well assembly by welding steel plate or by providing a strong cap to be fixed to the casing pipe with bolts and nuts.
- vii) In case of pump repair, the tube well should not be left uncovered.
- vi) Filling of mud pits and channels after completion of works.
- ix) Filling up abandoned Bore wells by clay/sand/boulders/pebbles/drill cuttings etc. from bottom to ground level.
- x) On completion of the drilling operations at a particular location, the ground conditions are to be restored as before the start of drilling.
- xi) District Collector should be empowered to verify that the above guidelines are being followed and proper monitoring check about the status of boreholes/tube-wells are being taken care through the concerned State/Central Government agencies.
- xii) District/Block/Village wise status of bore wells/tube-wells drilled viz. No. of wells in. use, No. of abandoned bore wells/tube wells found open, No. of abandoned Bore wells/tube wells properly filled up to ground level and balance number of abandoned Bore wells/tube-wells to be filled up to ground level is to be maintained at District Level. In rural areas, the monitoring of the above is to be done through village Sarpanch and the Executive from the Agriculture Department.
- xii) If a Bore well/tube-well is Abandoned at any stage, a certificate from the concerned department of Ground Water/Public health/Municipal Corporation/Private contractor etc. must be obtained by the aforesaid agencies that the 'Abandoned" Bore well/tube-well is properly filled up-to the ground level. Random inspection of the abandoned wells is also to be done by the Executive of the concern agency/department. Information on all such data on the above are to be maintained in the District Collector/Block Development Office of the State.

Annexure





ANNEXURE – 1

DISTRICT PROFILE:

- **History of Gir Somnath**

Gir Somnath is at south-western of Gujarat state & west-central of India. The District is located on 20.03° to 21.95° North latitude and 70.09° to 71.20° east longitude shows location on an interactive map. It lies on the coastal belt and consisting the most Famous Somnath Temple and the Forest of Talala Gir of the Kathiawar Peninsula.

Accession of Gir Somnath & Junagadh to India

Earlier district has come into existence from date 19/4/1949 by merger of Junagadh and surrounding Deshi Rajwadas. In these Rajwadas Junagadh, Manavadar, Mangrol, Bantwa and Sardargadh were prominent. After the reorganization of Districts in 1997, the area of Junagadh was 8881.8 sq.k.m. As Porbandar District was split from Junagadh and came in existence from dated 02-10-97, then after total area of Junagadh District was 8782.07 sq. k.m.

Again in 2013 Gir Somnath District is come in to existance from 15-08-2013 by splitting the Junagadh District. Total area of newly fomed Gir Somnath district is 3754.50 Sq. Km.

- **Introduction of Gir Somnath**

As per administrative view, this district is distributed in Veraval and Una Subdivisions. Among these 2 sub-divisions there are 7 taluka. In east Amreli district, in north Junagadh district and in southern and western direction it is covered by Arabian Sea. District is at top in natural beauty with Gir's forests, mountains region and wide groups of rivers flowing through them. District is world famous for its Asiatic lions. According to Vedas, India's first among 12 Jyotirlings "Kal Bhairav" is present in Somnath Temple in Gir Somnath district. Besides this Bhalka tirth and Dehotsarg are also religious and historically important places are in District.

Water reserves

The seven major perennial rivers of the Gir region are Hiran, Shetrunji, Datardi, Shingoda, Machhundri, Godavari and Raval. The four reservoirs of the area are at four dams, one each on Hiran, Machhundri, Raval and Shingoda rivers, including the biggest reservoir in the area, the Kamleshwar Dam, dubbed 'the lifeline of Gir'.

- **History of Somnath Temple and Timeline**

The Somnath Temple located in the Prabhas patan near Veraval in Saurashtra, on the western coast of Gujarat, is one of the twelve Jyotirlinga shrines of the God Shiva. Somnath means "The Protector of Moon God". The Somnath Temple having been destroyed many times by various kings and rulers. Most recently it was rebuilt in November 1947, when Sardar Vallabhbhai Patel visited the area for the integration of Junagadh and mooted a plan for restoration. After Patel's death, the rebuilding continued under K. M. Munshi, another minister of the Government of India.

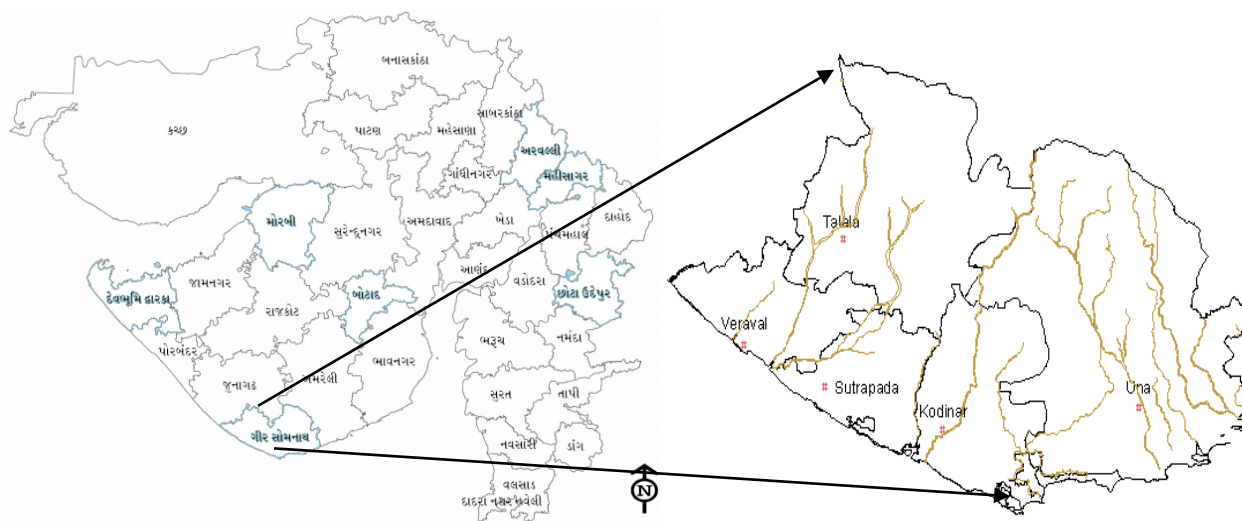
The Deputy Prime Minister of India, Sardar Vallabhbhai Patel came to Junagadh on November 12, 1947 to direct the stabilization of the state and at the same time ordered the reconstruction of the Somanath temple. When Sardar Patel, K. M. Munshi and other leaders of the Congress went to Gandhi with the proposal of reconstructing the Somnath temple, Gandhi blessed the move, but suggested that the funds for the construction should be collected from the public and the temple should not be funded by the state. He expressed that he was proud to associate himself to the project of renovation of the temple But soon both Gandhi and Sardar Patel died and the task of reconstruction of the temple continued under K. M. Munshi, who was the Minister for Food and Civil Supplies in the Nehru Government.

Architecture of Somnath

The present temple is built in the Chalukya style of temple architecture or Kailash Mahameru Prasad Style and reflects the skill of the Sompura Salats, one of Gujarat's master masons. The temple's shikhara, or main spire, is 150 feet in height, and it has a 27 foot tall flag pole at the top.

The temple is situated at such a place that there is no land in straight-line between Somnath seashore till Antarctica, such an inscription in Sanskrit is found on the Arrow-Pillar called Baan-Stambh erected on the sea-protection wall at the Somnath Temple. This Baan-Stambh mentions that it stands at a point on the Indian landmass, which happens to be the first point on land in the north to the south-pole on that particular longitude.

• Location of District:



• Administrative Break up:

Gir Somnath District Sub Division Wise Setup									
Veraval Sub Division					Una Sub Division				
Taluka	No. of Villages	No. of Panchayat	No. of Nagarpalika	No. of Word	Taluka	No. of Villages	No. of Panchayat	No. of Nagarpalika	No. of Word
Veraval (Rural) Veraval- (City)	53	53	1	11	Una	78	77	1	9
Talala	46	44	1	6	Gir-Gadhada	58	56	0	0
Sutrapada	47	47	1	6	Kodinar	61	53	1	7
Total	146	144	3	23	Total	197	186	2	16

The New District "GIR SOMNATH" comes into existence with the Rules and Orders made by the Government of Gujarat under the Gujarat Acts of Revenue Department Notification publish in The Gujarat Government Gazette dated 13th August, 2013 with No. GHM/2013/70/M/PFR/102013/139/L.1:- In exercise of the powers conferred by section 7 of the Gujarat Land Revenue Code, 1879 (Bom. V of 1879) and in supersession of all the previous notification so far as they relate to the constitution of Junagadh district, the Government of Gujarat, with effect from the 15th August, 2013.

As on now with present district, there are 7 talukas having 345 Census villages situated in Gir Somnath district. Out of them there are 392 inhabited and 92 are uninhabited villages. As per political formation, Gir Somnath district have 5 Municipalities and 329 Village Panchayats, out of them 44 Village Panchayats are group village panchayats.

- **Land formation**

This district is situated in the periphery of Gir's famous forest. This district is being agriculturally oriented. District's large portion of population is engaged in agriculture and animal rearing. In this district, Buffaloes are reared in gir forest. By adopting this business, the wealthy people at gir forest sanctuary are given agriculture land by the state government. In spite of all in colonies in ration of organizing colonization is done in forests, by living in jurists, the activity of the forest people can be considered a speciality.

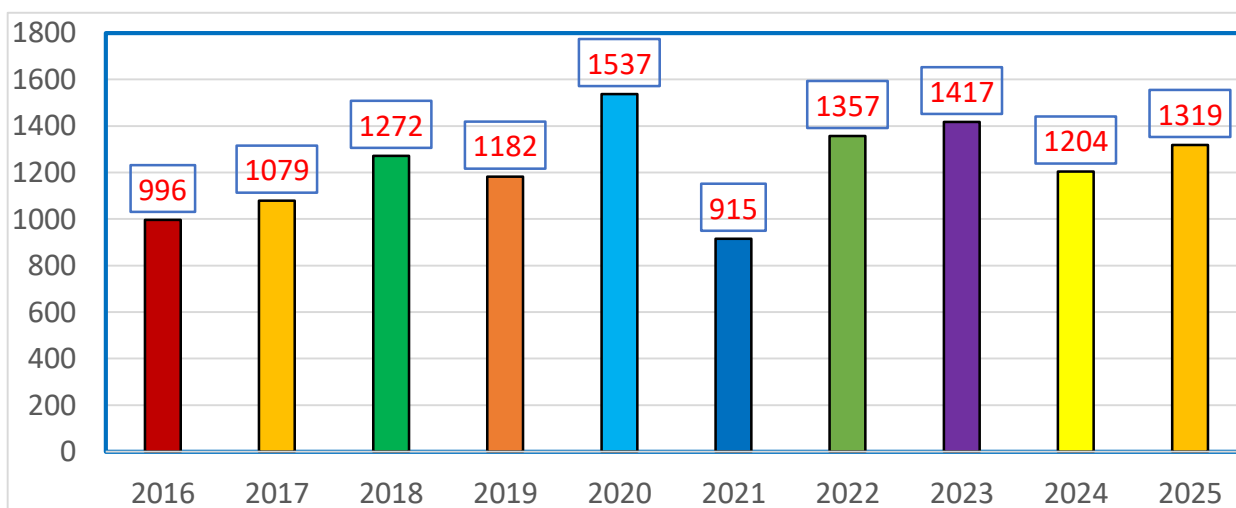
The Land of Gir Somnath is fertile and proportion of production of grains is much more, but the people have no proper planning to get higher productivity of grains. During the Farming season, they are habituated to do more expenditure for getting more productions. Due to that they create some circumstances of financial crisis. Thus, the percentage of farmers who depend on agriculture is very less who can be considered as self reliant. The Land of District mainly can be classified in 5 types; 1. Black Soil proper for Cotton, 2. Medium Black Soil, 3. Fertile Soil, 4. Chunna Patthar wali Jamin (Lime Stone Soil) and 5. Kharashwali Jamin (Salinity Soil).

- **Rainfall**

During the Monsoon season rain is brought by seasonal winds. Rain lashes it in June's last week till September's last week. Normally, on an average there is 1200 to 1500 mm of rain fall reported in District. The average proportion of rain is higher in gir forest. The average consideration of rainy days is normally between 33-38 days for rains. Moreover rain also comes irregularly. Gir Somnath District's last 30 year's average Rain Fall is 1239 mm.

* Taluka Wise Rain Fall Details available at Annexure

Average Rain Fall for Last 10 Years – Gir Somnath District.

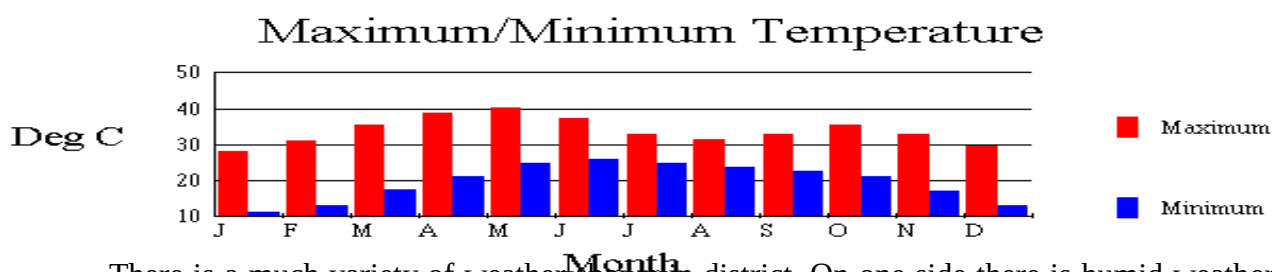


- Rivers and Dams:**

The Most Popular rivers of Gir Somnath District are (1) Hiran, (2) Saraswati, (3) Shingoda, (4) Machhundri and (5) Raval are flowing through district.

There are total 9 Small and Medium size Dams available under observation of Irrigation (State) Branch. Detail of all Dams is mentioned in Annexure-13.

- Weather and Temperature**



There is a much variety of weather shown in district. On one side there is humid weather because of river banks and on the other side there is warm and dry weather because of levelled grounds. In year 2022, the maximum temperature was recorded as 42.8 c° while the minimum temperature was recorded as 10.1 c°. The temperature difference depends upon the geographical circumferences.

- Fishing & Port:**

Gir Somnath District has an approximately 110 km long coastal belt stretching from Sayed Rajpara village of Una Taluka at the Amreli boundary to the Veraval Taluka coast near the Junagadh boundary. The district has a well-developed marine fisheries sector, with major fish landing centres at Navabandar, Sayed Rajpara, Veraval, Dhamlej, Sutrapada, Madhavad, Kotda, and Hirakot. A variety of high-quality marine species such as pomfret (paplet), chhapari, palvo, charaki, dhol, magra, and prawns are harvested. Dry fish production is carried out at Mul Dwarka, Veraval, Sayed Rajpara, and Nava Bandar.

Brackish water aquaculture, particularly prawn and shrimp farming, is also established in coastal villages like Kotda, Ghoghala, and Vanankbara, while muddy coastal stretches in villages such as Manekpar, Vasod, Olvan, Paladi, Tad, Bhigarana, Kob, and Chikhali provide suitable sites for expansion. As per recent data, the district's fishing fleet includes both mechanical and non-mechanical boats, contributing to an annual fish production of about 2.81 lakh metric tonnes.

In addition to fisheries, port-based economic activities play a significant role, with captive and private port facilities developed along the coast. The captive jetty at Mul Dwarka operated by Ambuja Cements Limited handles bulk cargo such as coal, clinker, gypsum, petcoke, limestone, and cement, supporting coastal trade, particularly with Maharashtra. Further strengthening maritime infrastructure, the LNG terminal at Chhara developed by Simar Port Private Limited, operational since March 2025, marks the region's first private LNG port, handling international vessels and contributing to revenue generation under the Gujarat Maritime Board. Both ports comply with ISPS and NSPC standards, highlighting the district's growing importance in both fisheries and port-led economic development.

Livestock details:

Taluka	Cattle	Buffalo	Sheep	Goat	Horse	Dog	Total
Veraval	34179	32142	3293	8168	17	973	76323
Kodinar	35521	25730	4848	8047	11	947	83334
Sutrapada	33341	31870	6877	6877	14	2053	84643
Gir Gadhda	37846	41403	4144	6639	7	1331	117811
Talala	13266	14374	237	2406	12	1013	29684
Una	29704	23831	8035	12513	124	3246	100665

** Livestock details of the District according to 21th Livestock Census-2020 of Gujarat State.

There are 1 veterinary Polyclinic, 1 ADIO, 25 dispensary, 4 First Aid Veterinary centres, 31 ICDP Sub Centres and 15 Mobile Veterinary Dispensaries (1962) and 1 Karuna Ambulance provides services at animal servicing centre with total 2,36,658 animals provided treatment in year 2025-26.

• Forest

Total area of the District is 3754.5 sq km out of that total 1230 sq km of land is covered by forest, which is known as gir forest. Main outcome through forest region is construction wood like saag and bamboo and some fruits like Custard Apple, Rayan, Timbru, Karmada etc. are obtained through this area.

The Sasan Gir Lion Sanctuary is home of some 300 Asiatic lions. The sanctuary was created in 1913 to provide protection to the largest surviving groups of the Asiatic lions. It was given the status of the sanctuary in 1965.

The Sasangir National Park accommodates the wild animals like chinkara, wild boar, striped hyena, jackal, common langur, porcupine, hare, black buck and other animals. The Kamleshwar Dam in Sasangir Wildlife Sanctuary is home to the marsh crocodile commonly seen in the river. There is also the only crocodile-breeding farm in this national park at Sasan.

• Population: (as per census 2011) (*abstract)

Taluka	Total	Male	Female	Total SC	Total ST	0-6 Years	Above 65
Talala	135731	69833	65898	10451	7672	15016	9558
Patan-Veraval	322492	164466	158026	26790	5798	39228	13756
Sutrapada	141968	72091	69877	14588	1042	18121	6165
Kodinar	228809	115684	113125	35346	1142	28503	11177
Una/GirGadhda	388477	197952	190525	26647	2107	54075	14846
Total	1217477	620026	597451	113822	17761	154943	55502

According to population survey of 2011 for Gir Somnath district, Total population of district is 12.17 lakhs. Out of that there are 6.20 lakh males and 5.97 lakh are females. The Literacy Rate of Gir Somnath is 63.1 % and Growth rate is 17.08 %.

Total Population of Scheduled Caste in Gir Somnath District is 1.13 lakhs and Population of Scheduled Tribe in Gir Somnath District is 17,761. According to population survey data-2011, the growth rate of 5 Taluka in Gir Somnath district for decades (2001-2011) is 17.08%. There is an urban population in all 5 Taluka of District. Detail Census is available in Annexure-2, 3, 4, 5.

- **Agricultural Land and Cultivation**

During 2020-21, agricultural availability against total land was 194549 hectares. As per use of land there is 6% Forest, 10.10% pasture land, 5.16% non-agricultural use, 15.09% non cultivable land and 4.12% cultivable land.

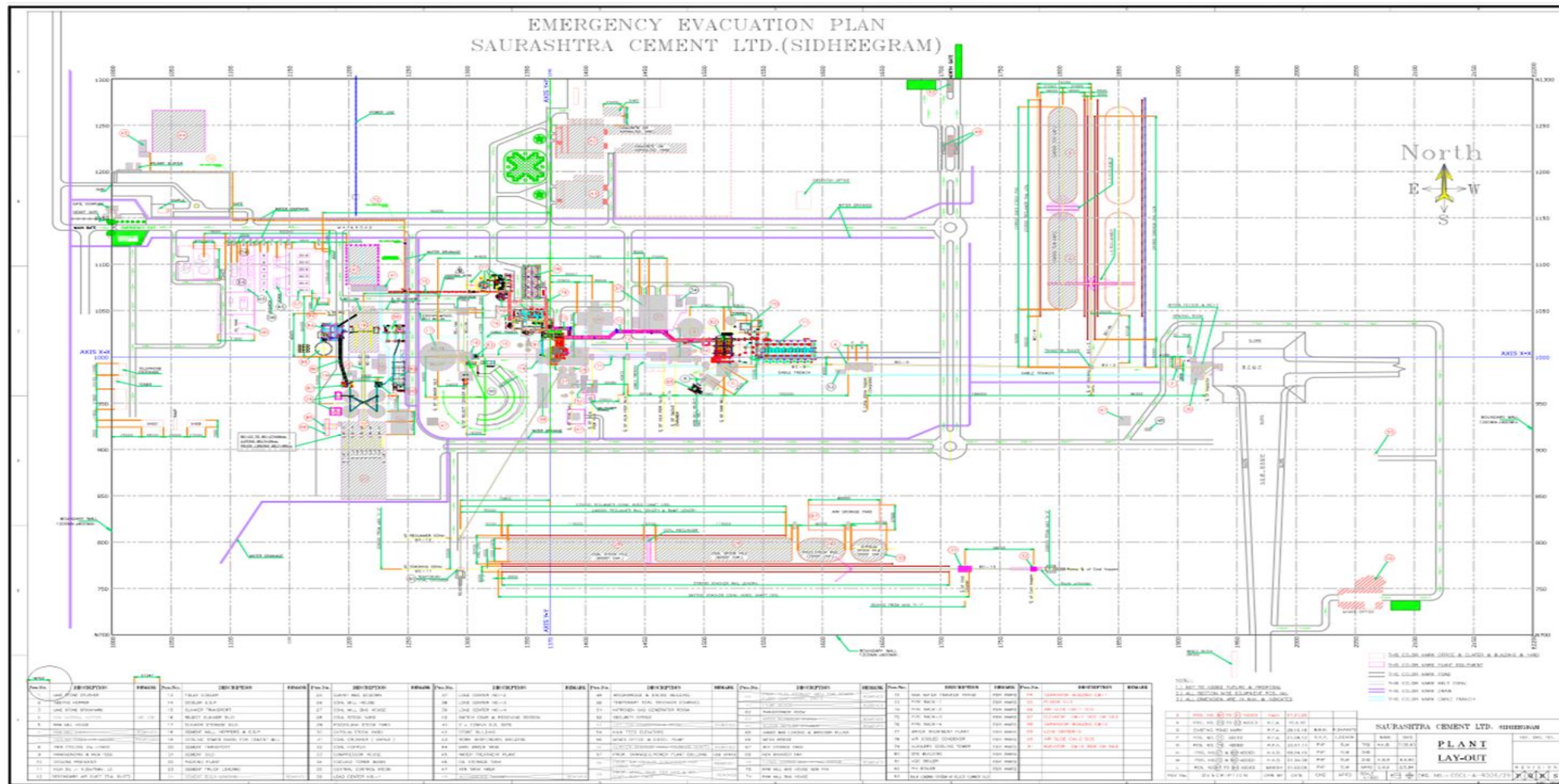
During the Kharif season main crops are peanut, millet, reasame and Juwar while in Ravi season wheat, Cotton and Millet are major crops. Large scales of Mangos "Ambas" are sawing as "Bagayat" at Talala Taluka. The mango of this area is famous all over the world as "Kesar".

The total area cultivated in District during the year 2020-21 for Kharif and Ravi season can be bifurcated as: 6469 hectares of area for Millet, wheat were in 89625 hectares of land utilised in Kharif Season. While for Ravi Season it was bifurcated as: Ravi Juwar is cultivated in 1580 hectares of land, Groundnut and maize crops were in 97230 hectares of land and sugarcane was cultivated in 12583 hectares of land.

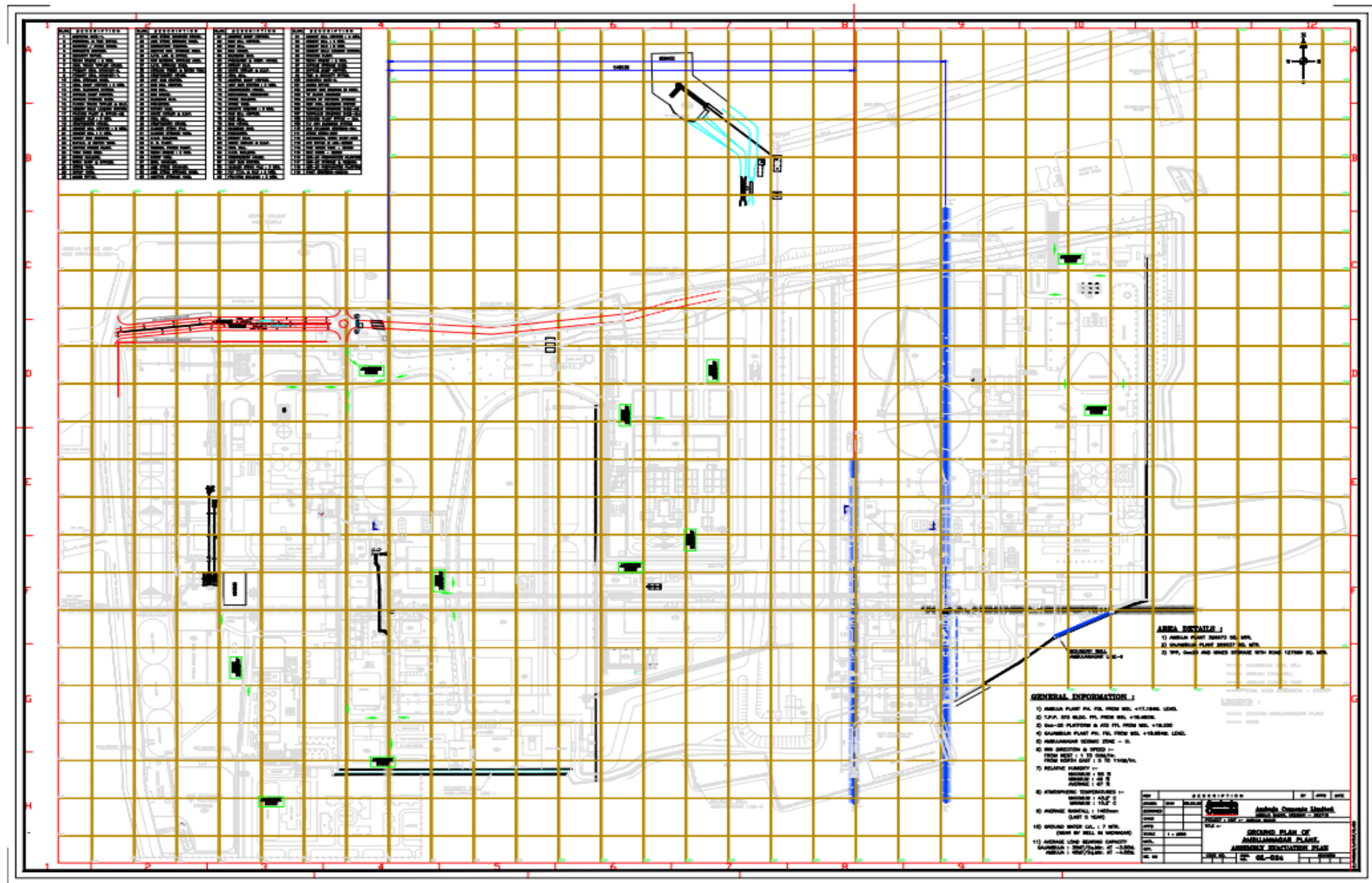
- **Industry.**

There are 4 Major and over 40 medium scale industries are in district, involved in sectors such as; Cement plants, edible oil, refinery plants and fish processing units. Under law of factory act 1948, total no of registered factories are 21 and due to it total 14524 persons get employment. Industries like Peanut oil's mills, sugar factories and soda ash factories are situated in Kodinar, Sutrapada, Veraval Taluka. There are over 6,000 Small Scale Industries operating in district at various sectors that includes food products, chemicals, electrical equipments, textiles and repairing & servicing. 3,018 Units of SSI related to repairing & servicing are located in district followed by food products industry with over 503 units. Most of the small scale industries are located in Veraval, Kodinar and Una talukas of the district.

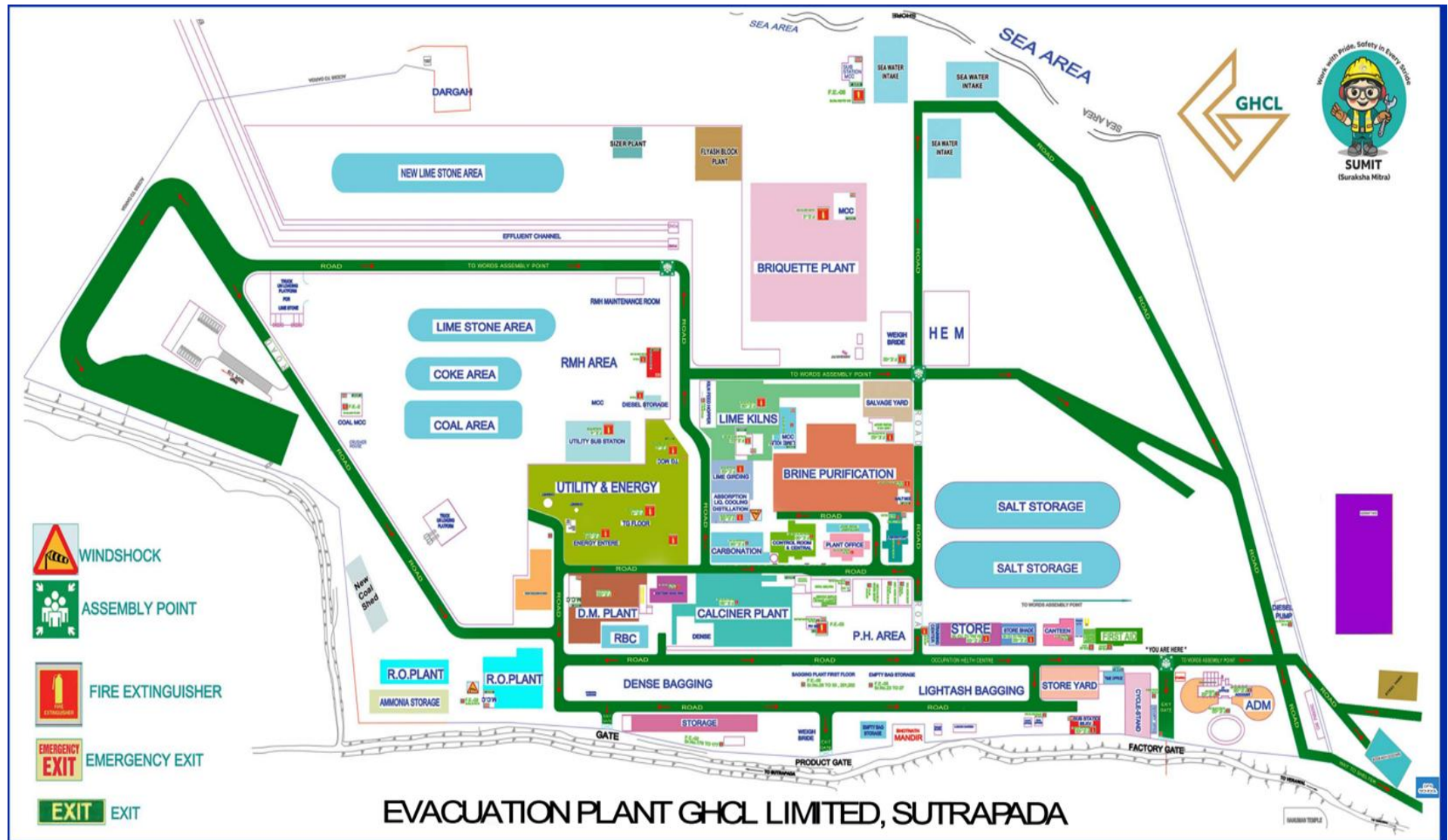
Saurashtra Cement, Morasa Evacuation Plan



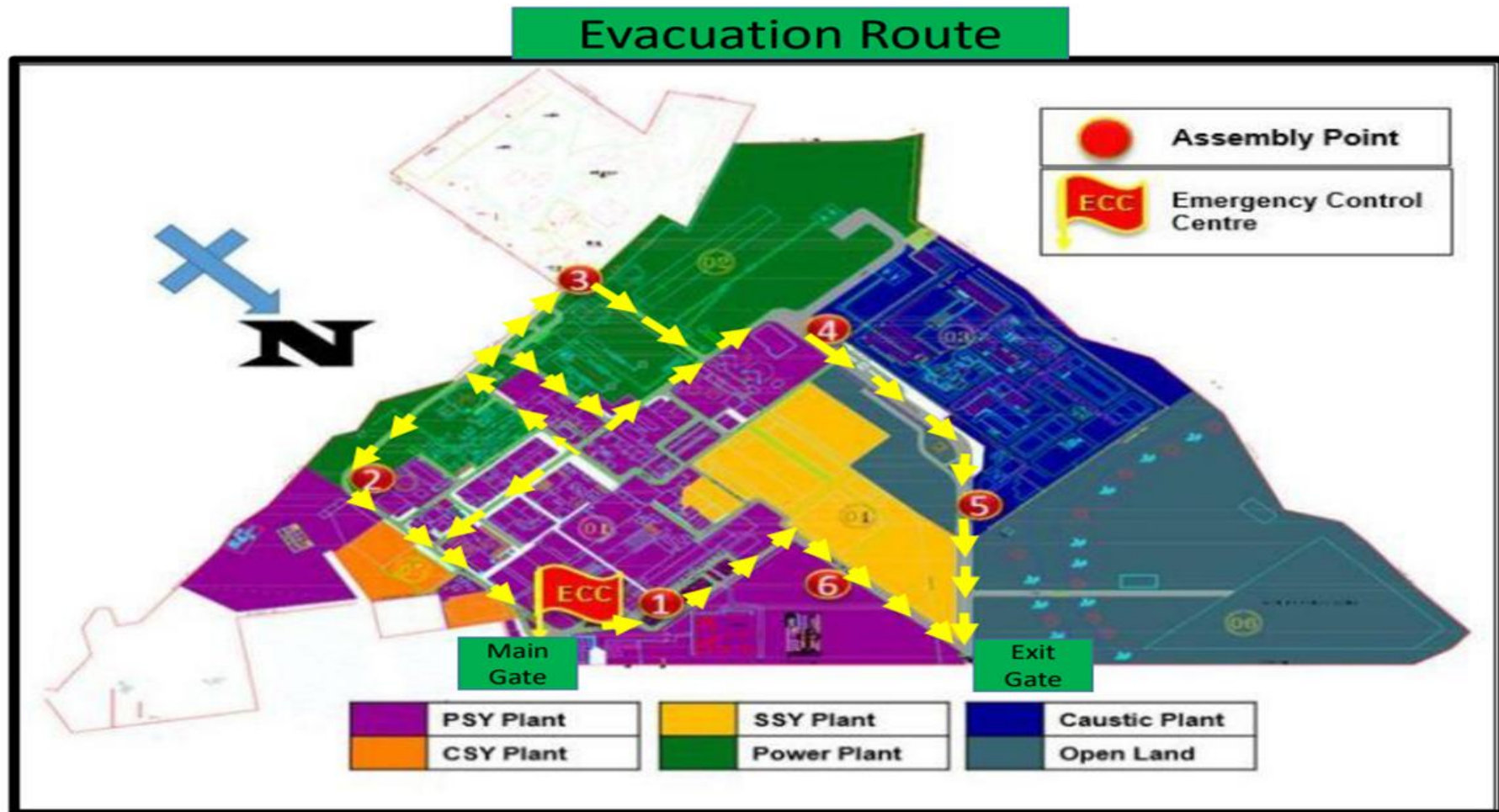
Adani Cement (Ambuja), Kodinar Evacuation Plan



GHCL Sutrapada, Evacuation Plan



Indian Reyon, Veraval, Evacuation Plan



- **Transportation - Roads, Railway, Airport.**

The Total length of National Highways passed from district is 165 km. (National Highway 8D a length of 116 km, connecting district with Junagadh and Rajkot, a length of 96 km, National Highway 8E passes through the district connecting it to Bhavnagar and Amreli district. The district is also connected to Jamnagar and Porbandar through NH 8E (Ext.), with a total length of 43 km). District has total 423 km of State highways. District has total 166 km of railway lines includes 66 km of broad gauge, which is directly connected with 27 villages and 3 Cities. The district has also a domestic airport located at DIU connecting it to Porbandar, Rajkot, Ahmedabad and Mumbai.

- **Electrification.**

Approximately all villages covered under Jyotigram Yojna including all urban areas where electricity is supplied. In year 2019-20 total 20240 kilo watt electricity was consumed in district. Among it 48.36 % was used for industrial purpose, 5.38 % for Vari home and general lightening and 28.06 % use was for household, while 7.34 % was for other use. There are total 13 sub-stations in the district including 2 sub-stations of 220 KV, 3 substations of 132 KV and 9 substations of 66 KV each.

- **Mine Minerals**

The dispatch data for minerals over the period 2020–21 to 2025–26 shows that limestone consistently remains the dominant major mineral, with quantities ranging from about 6.15 million to 7.78 million tonnes, peaking in 2021–22 and showing moderate fluctuations thereafter. Among minor minerals, Blacktrap and Building Limestone contribute significantly, with Blacktrap showing a sharp rise in 2023–24 before declining again, while Building Limestone remains relatively stable across the years. Other minerals such as Manufactured Sand, Ordinary Clay, and Murrum display irregular trends, with Ordinary Clay witnessing a notable increase in 2023–24 and 2024–25. Overall, total minor mineral dispatch peaked in 2023–24 at around 1.49 million tonnes, followed by a decline in subsequent years, indicating variability in minor mineral extraction compared to the relatively steady performance of major mineral limestone.

- **Educational facilities**

There are total 852 Primary Schools viz, 555 Government local body and 297 Granted / Non Granted primary Schools. There are Total 274 Secondary / Higher Secondary viz. 28 Govt., 8 Local Body and 238 Granted/Non Granted Schools. Total 53 Colleges are registered in District includes Somnath Sanskrit University for education on Yoga, Veda, Puran, Jyotish etc subjects.

- **Medical and health services**

Health sector of Gir Somnath has 1 Civil Hospital and 6 community health centres available in various talukas. District has total 30 running primary health centres. Patients are getting primary treatment, health and family welfare related services along with other health facilities through 8 Urban Health Centers, 30 primary health centres & 174 sub-health centres. There are total 14 Ambulance available with 108-EMRI for at least one at each Taluka for attending Health Emergencies.

Local Body and 238 Granted/Non Granted Schools. Total 53 Colleges are registered in District includes Somnath Sanskrit University for education on Yoga, Veda, Puran, Jyotish etc subjects.

ANNEXURE – 1.1

General Population of Gir Somnath District as per Census-2011.

Sr	Name	House hold	Total Population	Male	Female	Literacy Rate	Working Population	Non Worker
1	Talala	26193	135731	69833	65898	67.1	60390	75341
2	Patan-Veraval	56757	322492	164466	158026	65.2	114429	208063
3	Sutrapada	24327	141968	72091	69877	62.6	56355	85613
4	Kodinar	40094	228809	115684	113125	65.2	85823	142986
5/6	Una-Gir Gadhda	68953	388477	197952	190525	58.8	158539	229938
	Total	216324	1217477	620026	597451	63.1	475536	741941

ANNEXURE – 1.2

Vulnerable Population of Gir Somnath District (As Per Census-2011)

Sr	Name	Population 0-6 Years	Above 65 - Old Age Persons	BPL Families	Handicap Persons	Blind Persons	Total SC	Total ST
1	Talala	15016	9558	8359	370	271	10451	7672
2	Patan-Veraval	39228	13756	4926	1137	338	26790	5798
3	Sutrapada	18121	6165	8172	924	210	14588	1042
4	Kodinar	28503	11177	6695	295	47	35346	1142
5/6	Una-GirGadhda	54075	14846	9728	70	20	26647	2107
	Total	154943	55502	37880	2796	886	113822	17761

ANNEXURE – 1.3

Area, Population Density, Inhabited, Uninhabited Villages of Gir Somnath District

Sr.	Name of Taluka	Area in Sq. Km.	Population Density	Total Villages			City
				Inhabited	Uninhabited	Total	
1	Talala	951.60	134	68	31	99	1
2	Patan-Veraval	360.98	777	55	0	55	1
3	Sutrapada	326.72	375	47	0	47	1
4	Kodinar	536.80	369	63	0	63	1
5/6	Una/Gir Gadhda	1578.40	210	159	61	220	1
	Total	3754.50	373	392	92	484	5

ANNEXURE - 1.4

Bifurcation of Populated Villages as Population of Villages

Sr.	Name of Taluka	Populated Villages	Villages Population						
			Less then 200	200 to 499	500 to 999	1000 to 1999	2000 to 4999	5000 to 9999	More then 10000
1	Talala	46	17	5	6	20	18	2	0
2	Patan-Veraval	55	0	0	6	25	21	3	0
3	Sutrapada	47	0	1	9	20	13	3	0
4	Kodinar	61	1	2	11	22	17	9	1
5/6	Una-Gir Gadhda	153	21	8	30	46	47	5	2
	Total	392	39	16	62	133	116	22	3

ANNEXURE – 1.5

Rain Fall Detail of Gir Somnath District 2014-2023 in MM

Sr.	Taluka	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1	Gir Gadhada	854	806	1075	844	1404	895	1508	702	1038	837
2	Kodinar	1250	720	1147	1423	1600	1205	1557	716	1624	1322
3	Sutrapada	949	407	806	1226	1187	1282	1589	1066	1970	1760
4	Talala	1113	563	1116	1101	1116	1623	1924	1175	1274	1828
5	Una	909	942	1079	780	1340	1097	1288	653	982	1070
6	Veraval	920	560	750	1098	982	987	1353	1179	1251	1684

ANNEXURE – 1.6

Detail of Coastal Villages within 10 km Range from Coast

Sr	Taluka	Coastal Village	Name of Costal Villages
1	Una	17	Manekpur, Saiyad Rajpara, Simar, Kheda, Senjaliya, Rajput Rajpara, Nava Bandar, Nandan, Naliya Mandavi, Kob, Anzar, Olvan, Tad, Paldi, Bhigran, Vansoj, Khajudra, Dudhala, Dandi, Kalapan, Rampara, zankharvada, khtrivada, Lerka, Sokhda, Revad, Madhgam, Sonari, Bhadasi, Kajardi, Siloj, Motadesar, Delwada, Khan, Kothari, Sanakhada, Amodra, Sultanpur, Garal, Sanjavapur, Motha, Gangda.
2	Kodinar	08	Velan, Kaj, Sarakhadi, Chhara, Panadar, Chauhan ni Khan, Muldwarka.
3	Sutrapda	07	Kanjotar, Dhamlej, Prasnavada, Kadvar, Vadodara (Zala), Sutrapada, Lati.
4	Veraval	08	Kajali, Bhalpara, Patan, Veraval, Dari, Navapara, Adri, Vadodara Dodiya.
	Total	40	

ANNEXURE – 1.7

Health Facilities available in Gir Somnath District

Information	Numbers
Taluka	06
Primary Health Centre (PHC)	30
Urban Primary Health Centre (UPHC)	04
Urban Primary Health Centre (GUHP)	04
Mobile Comprehensive Health Care Unit	02
Mobile Health Unit (Sagar Khedu) Sutrapada	01 (EMRI 108)
Mobile Medical Unit – Kodinar	01 (EMRI 108)
Mobile Medical Unit – Talala(PVTG)	01 (EMRI 108)
Community Health Centre (CHC)	06
Sub District Hospital	01
District Hospital	01
Grant in Aid Hospital	02 R.N.Vala Hospi al Kodinar Mehta Hospital Una
Villages	386 (5 City Areas)
Sub Centre	174
Urban Health and wellness Centre	08
GVK-EMRI-108 Ambulance Spots	09

(A) Taluka wise Detail of C.H.C., P.H.C. and Sub centres of district.

Sr	Taluka	Name of C.H.C.	Name of P.H.C.	Name of Sub Centres
1	Veraval Civil	Sub District Hospital	1.Govindpara	Govindpara, Umralla, Inaj, Bhalpara-1, Savni, Patan Vadi, Prabhas patan
			2.Adri	Adri-1, Adri-2, Vadodra Dodiya, Chatroda, Vavdi, sidokar, simar
			3.Ajotha	Ajotha, Badalpara, Bij, Kajli, Bhalpara- 2 & 3
			4.Pandva	Pandva, Indroi, Rampara, Khandheri, Navdra,
			5. Dari	Dari, Chhatroda, Deda, Dabhor, Vavadi Adri
2	Sutrapada	Sutrapada	1.Thareli	Amrapur, Gorkhmadhi, Umbri, Lati, Lodhva-1, Lodhva-2, solaj
			2.Dhamlej	Dhamlej, Dhamlej Bandar, Rakhej, Singar
			3.Prasali	Prashli, Moradiya, Rangpur, Ghantiya, Mahobatpara.
			4. Prashnavada	Prashnavda, Vavdi (Sutra), Vadodra (Jhala), Kadvar-Hirakot, Sutrapada Bandar, Sutrapada–1, 2
3	Talala	Talala	1.Dhava	Talala-1, 2, 3, Gundaran, Ambalash, Ghunsiya, Dhanej, Maljinjava, Semarvav, Chitravad, Borvav, Chitrod
			2.Ankolvadi	Ankolvadi, Surava, Madhavpur, Bhimdeval, Rasulpara, Javantri, Vadala. Pikhori, Hadmatiya, Moruka,
4	Una	Una	1.Samter	Samter, Kandhi, Garal, Umej, Gaeaj, Nakej, Amodra,

Sr	Taluka	Name of C.H.C.	Name of P.H.C.	Name of Sub Centres
				Kansari, Bhacha, Bhadiyadar,
			2.Sanakhada	sankhda, Gangada, Untavada, Khatrivada, Nana Samdhiyala, Moti Moli, Nariyeli Moli, dadiya,
			3.Navabandar	Navabandar-1, Navabandar-2, Navabandar-3, kalpan, Khajudra, Anjar, Vaso, Allwan, Dandi
		Simar	4.Delvada	Delvada-1, Delvada-2, Delvada-3, Moth, Dudhada, Simar, Saidrajpara-1, Saidrajpara-2, Vasigpur, Khapad
			5.Tad	Tad, Kob, Kajaradi, Paladi, Simasi,Dhebha, siloj, alampur, Nathad, Kesariya, Chikhli
5	Gir Gadhada	Gir Gadhada	1.Jamvala	Jamvala, Thordi, Kodiya, Vadviyala, 11 V, 9 Nes
			2.Fulaka	Sanvav, kanekiya, Fulka, Kareni, Sonpara
			3.Dhokadava	Dhokadava-1, Dhokadava-2, Mitli, Junaugla, Tulsishyam
			4.Fatsar	Fatsar, Khilavad, Juna Ugl, Kandhi, Nitli, Tulsishyam, 14 V, 13 Nes
			5.Harmadiya	Harmadiya, Pichhavi, Gir Gadhada-1, Gir Gadhada-2
6	Kodinar RN Vala	Dolasa	1. Dolasa	Dolasa, Adavi, Moti Fagani, Nanavada, Kodinar-1, Kodinar-2, Kodinar-3, Kodinar-4,
			2.Velan	Velan -1, Velan-2, Madhvad, Kaj, Sarakhadi, Kandodar,
		Kodinar	3.Ghantvad	Ghantvad, Nagadla, Valadar, Sedhaya, Chhachhar
			4.Panadar	Panadhar, Gohilni khan, Muldwarka, Chara, Pedhwada,
			5. Vithalpur	Vithalpur, Vadnagar, Alidar, Chara, Sedhaya
			6. Sindhaj	Sindhaj, Devalpur, Gir Devli, Ronaj, Mitiyaj

(B) Detail of Mobile Dispensaries of District:

Sr. No	Location :
1.	Mobile Comprehensive Health care unit, Tulsishyam, Ta- Una.
2.	Mobile Comprehensive Health care unit, Velan, Ta- Kodinar.

(C) Details of Ambulance services available in District (Taluka Wise) :

Sr. No	Taluka	Name of Office	No. of Ambulance
1	Veraval	Veraval Hospital	1
		C.H.C. Patan	1
		Veraval Municipality	2
		Red Cross Hospital, Veraval	1
2	Una	C.H.C. Una	1
		Municipality Una	1
		Maheta Hospital Bhavnagar Road, Una	1
3	Gir gadhada	C.H.C. Gir Gadhada	1
4	Talala	C.H.C. Talala	1
		Sugar Factory Talala	1
5	Kodinar	C.H.C. KODINAR	1
		Ramashibhai Narshibhai Vala Hospital	1
		Municipality Kodinar	1
6	Sutrapada	C.H.C. Sutrapada	1
		G.H.C.L. Sutrapada	1

(D) Details of EMRI-108 Ambulance services available in District (Taluka Wise) :

Sr	Segment Name	Address / Location.
1	Veraval	Jilla Panchayat Guest House, Nr. Railway Station, Veraval.
2	Kodinar	R.N. Vala Trust Hospital, Veraval Road, Kodinar.
3	Dolasa	PHC Campus, Dolasa, Ta. Kodinar.
4	Una	Jilla Panchayat Guest House, Tower Chowk Una.
5	Gir Gadhda	Reliance Petrol Pump, Gir Gadhda. Ta. Una.
6	Simar	Nr. Gram Panchayat, Simar, Ta. Una.
7	Talala	Jilla Panchayat Quarter, Tower Chowk, Sasan Road, Talala.
8	Sutrapada	Shiv Sagar Primary School, Beside Taluka Panchayat, Kodinar Road, Sutrapada..
9	Prachi	Jilla Panchayat Guest House, Kodinar-Veraval Road Prachi.

ANNEXURE – 1.8

General Terminology Used in Weather Bulletins

(A). Intensity of Rainfall Terminology Used

Sr. No.	Rain in mm”(24 hrs)	Terminology
1	0.1.mm to 2.4 mm”	Very light rain
2	2.5 mm to 7.5 mm”	Light rain
3	7.6 mm to 34.9 mm”	Light to Moderate rain
4	35.0 mm to 64.9 mm”	Moderate rain
5	65.0 mm to 124.9 mm”	Heavy rain
6	Exceeding 125 mm”	Very Heavy rain

(B) Special distribution of weather phenomenon

Sr. No.	Percentage Area Covered	Terminology Used
1	1 to 25	Isolated
2	26 to 50	Few Places
3	51 to 75	Many Places
4	76 to 100	At most Places

ANNEXURE – 1.9

Resources Provided by Govt. at Various Levels.

(A) Rescue Kits / Ropes / Generators

Sr.	Name of Taluka	Life Saving Jacket	Life Buoy	100 Feet Ropes	200 Feet Ropes	Generator	Rain Gauge (Manual)	Siren	Harness	Safety Helmet	LED Flood Light	Tree Cutter	Axes (Kuhadi)
1	Mamlatdar-Gir Gadhda	23	20	3	1	1	1	3	1	4	3	2	1
2	Mamlatdar-Kodinar	22	32	1	1	1	1	1	1	4	2	2	1
3	Mamlatdar-Sutrapada	10	10	1	1	0	1	0	0	0	0	1	0
4	Mamlatdar-Talala	20	17	2	1	1	1	3	0	4	3	2	1
5	Mamlatdar-Una	42	57	5	4	1	1	1	1	4	3	2	1
6	Mamlatdar-Veraval (City)	4	3	1	1	0	0	1	1	4	3	0	1
7	Mamlatdar-Veraval (Rural)	31	40	12	0	0	0	3 (PA)	0	4	3	1	1
8	SDM Una	-	-	-	-	-	-	10 (walkie-talkie)	-	-	-	-	-
9	SDM Veraval	-	-	-	-	-	-	18 (walkie-talkie)	-	-	-	-	-
10	DEOC-Gir Somnath	5	7	1	1 (Rope Stair)	1 (5 KVA) Invariant	1 (Hydrolic foot pump)	1+(3 PA)	0	2	3+(2 Head Lamp)	1	3
	Total	157	186	26	10	5	6	43	4	26	22	11	9

(B) Fire Fighter / Water Browsers / Boat / De-Watering Pump Details

Sr.	Name of Nagar Palika	Rescue Vehicle / Water Browser / Fire Fighter	Life Jacket s	Portable LED Light	Life Buoy	Electric Cutter	Tree Cutter / Axes (Kuhadi)	Helmets	100 Feet Ropes	200 Feet Ropes	Portable LED Light Charger	Petrol Cutter	Generator
1	Veraval-Patan Nagar Palika	1	15	2	21	1	2	4	5	6	2	8	1
2	Una Nagar Palika	1-Rain Gauge	4-Cutter	4-Water Tankers	09-Tractors	1-Fire Fighters	1-Water Browsers	1-Bullet Fighters	1-Ambulance	1-Vacuum Pump	7-Water Dewatering Pump	12-Tarpaulins	2
3	Kodinar Nagar Palika	12-Oxygen Bottles with Safety Kit	12	04-Fogging Machines	04-Dewatering pump	01-Rain Gauge	4	-	5	-	-	-	-
4	Sutrapada Nagar Palika	1-JCB	1-Mini Cutter	4-Cutter	1-Ambulance	2-Hypper Tipper	1-Sky Lifter	3-De-watering Machine	1-Mini Jetting Machine	1-Truck Mounted Jetting-cum-Suction Machine	2-Tractor Mounted Jetting-cum-Suction Machine	1-De-watering Pump	2-Hydraulic Metal Cutter
5	Talala Nagar Palika	-	-	-	-	-	-	-	-	-	2	-	-
	Total	15	32	14	35	5	8	7	12	8	13	21	4

ANNEXURE – 1.10

Rain Gauge Machines available each Taluka.

Sr.	Name of Taluka	Type of Rain Gauge	Place / Office
1	Veraval Rural	Simple Measure	Mamlatdar Office, Veraval Rural.
2	Veraval City	Automatic	IMD Weather Station Office, Veraval.
3	Sutrapada	Simple Measure	Mamlatdar Office, Sutrapada.
4	Talala	Simple Measure	Mamlatdar Office, Talala.
5	Kodinar	Simple Measure	Mamlatdar Office, Kodinar.
6	Una	Simple Measure	Mamlatdar Office, Una.
7	Gir Gadhada	Simple Measure	Mamlatdar Office, Gir Gadhada.

ANNEXURE – 2

Action Plan for Earthquake:

Action Plan for Earthquake covers all phases of earthquake management right from mitigation, preparedness, emergency response, relief to recovery.

Earthquake

An earthquake is a series of vibrations on the earth's surface caused by the generation of elastic (seismic) waves due to sudden rupture within the earth during release of accumulated strain energy. The point on the fault where slip starts is the Focus or Hypocenter and the point vertically above this on the surface of the Earth is the Epicentre. The depth of focus from the epicentre, called as Focal Depth, is an important parameter in determining the damaging potential of an earthquake. Distance from epicentre to any point of interest is called epicentre distance.

Earthquake Measurement

Magnitude is a measure of amount of energy released in an earthquake. It is most commonly measured on Richter scale. The earthquake magnitude is determined by use of a seismograph, an instrument that continuously records ground vibrations. An increase of one unit represents an increase of ground shaking by ten times and energy released by thirty two times. Generally, earthquakes of magnitude greater than 5 cause damages while major earthquakes measure 7 or more on Richter scale.

Earthquake Preparedness & Capacity Building:

1. Ensure an updated database of critical resources (equipments, life saving facilities, trained personnel, etc.) available in the district is in place.
2. Ensure that local authorities in the district are involved in developing their own earthquake management plans.
3. Ensure that District EOC is fully functional and communication systems are in order.
4. Ensure that open and safe places in the district are identified for mass evacuation.
5. Ensure that site for helipad is identified at key locations in the district.

Earthquake Recovery

Detailed Damage and Need Assessment must be conducted before commencing reconstruction and rehabilitation activities. The primary objective of post earthquake damage assessment and need analysis is to provide a clear, concise picture of post disaster situation, to identify damage caused to different sector and to develop strategies for rehabilitation, reconstruction and recovery.

Repair and Restoration

Respective departments should carry out timely repair and restoration of the related infrastructure, facilities, services, etc. This shall aid in quickly resuming the essential services they provide. GoG shall coordinate with national and international NGOs, donor agencies and other government bodies to prioritise restoration of critical infrastructure.

Activation of District and Local Level Control Rooms

At district level, nodal centre for coordination and communication is District Emergency Operation Centre (DEOC). DEOC and TEOCs will get fully activated in case of L1 emergency.

ANNEXURE – 03

Shelter Management Plan:

As per instruction of a District collector or message from SEOC, DDO will do operation of relief and shelter with their staff, group members & their staff and maintain the records of areawise population, shelter centers 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. Lision 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.

List of Cyclone shelters

Sr.	Taluka	Village/ MPCS Name
1	Sutrapada	Morasa
2	Sutrapada	Matana
3	Sutrapada	Singsar
4	Sutrapada	Vadodara Zala
5	Sutrapada	Prashnavada
6	Kodinar	Chauhan ni Khan
7	Kodinar	Kadodara
8	Kodinar	Pipali
9	Kodinar	Damali
10	Kodinar	Kaj
11	Veraval	Bhalpara
12	Veraval	Vadodara Dodiya
13	Veraval	Ajotha
14	Una	Naliya Mandavi
15	Una	Khajudra
16	Una	Delvada
17	Una	Tad
18	Una	Kob
19	Una	Paldi
20	Una	Bhingran
21	Una	Simar
22	Una	Zankharvada
23	Una	Khan
24	Una	Khada
25	Una	Nandan
26	Una	Olvan
27	Una	Saiyad Rajpara
28	Una	Senjaliya
29	Una	Dudhala

ANNEXURE – 04

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 centers, 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:

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

- Ensure that law and order is maintained at evacuation centers and in the affected areas as well.
- Maintain the records of area-wise population, shelter centers 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 Centers will be utilised for Evacuation. Collector-Gir Somnath had ordered DEO/DPEO to handover schools to taluka authority for shelter as and when Evacuation took place.

ANNEXURE – 05

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.

Gir somnath 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.

Details of Information & Public Relations Department:

Sr No.	Name	designation	Mo.Number	E-mail Id
1	Shri Sunil B patel	Assistant director of information	9825906511	mahitisomnath@gmail.com
2	Shri Gaurang k joshi	Information Assistant	9824238421	
3	Shri Sajid Kathi	Cameraman	9904094037	
4	Shri Sarman Bhajgotar	Photographer	8735834091	

Lokal press media:

Sr No.	Name	Newspaper	Mob.Number
1	Rajesh Thakarar	Jai Hind	9227720751
2	Mitesh Parmar	Kesari Daily	9824498471
3	Devabhai Rathod	Sandesh	9426982461
4	Rahul Kariya	Divya Bhaskar	9033269870
5	Ravi Khakhkhar	Phoolchhab	9099557009
6	Dipak Kakkad	Gujarat Samachar	9824298336

ANNEXURE – 06

Medical and Hospital Management Plan:

❖ Action Plan for Epidemics:

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.

COVID-19 PANDEMIC

1. Introduction

The COVID-19 pandemic emerged as one of the most serious global health emergencies in recent history, challenging the resilience and capacity of health systems, governance structures, and communities worldwide. In India, the impact was felt across states and districts, including Gujarat and particularly the Gir Somnath district, which holds unique socio-cultural and geographical significance due to its religious sites, coastal population, and migratory patterns.

This chapter forms a critical component of the District Disaster Management Plan (DDMP) of Gir Somnath, outlining a comprehensive set of “Dos and Don’ts” to prevent, mitigate, and manage the consequences of COVID-19 outbreaks. The objective is to create awareness and guidance at the individual, institutional, and administrative levels to ensure that the district remains prepared and responsive to current and future waves or variants of the virus.

The lessons learned during the previous waves highlight that behavior and compliance play a major role in virus control. The enforcement of guidelines and standard operating procedures (SOPs) combined with individual responsibility and public awareness is central to combating COVID-19. This chapter provides sector-specific instructions covering health, education, transportation, religion, administration, and more, to ensure that all stakeholders understand what is required to ensure public safety.

2. Objectives of the Chapter

1. To Provide Clear Guidelines: Define safe and unsafe behaviors, practices, and policies during COVID-19 outbreaks and post-pandemic periods.
2. To Promote Public Health Awareness: Educate the population on actions that help control infection spread.
3. To Prevent Transmission: Reduce risk of transmission through behavioral change and policy enforcement.
4. To Standardize Actions: Provide a uniform reference guide for various sectors like healthcare, education, law enforcement, businesses, etc.
5. To Reduce Panic and Misinformation: Offer verified, science-based advice to counter rumors, fear, and stigma.
6. To Support Emergency Response: Enable faster decision-making and better coordination during COVID-19 surges.
7. To Build Resilience: Ensure long-term preparedness against future outbreaks or pandemics.

3. General DOs and DON'Ts for the Public

1.DOs:

- 1.Wear a Mask: Always wear a properly fitted mask when in public places, especially indoors or in crowds.
- 2.Practice Hand Hygiene: Wash hands regularly with soap for at least 20 seconds or use hand sanitizer with at least 60% Alcohol.
- 3.Maintain Physical Distance: Keep a minimum of 6 feet distance from others in public settings.
- 4.Get Vaccinated: Complete the full dose of approved COVID-19 vaccines and get booster shots when available.
- 5.Follow Local Health Guidelines: Comply with directions issued by health authorities, especially in containment zones.
- 6.Stay Informed: Follow credible sources like WHO, Ministry of Health, and Gujarat Government for updates.
- 7.Use Cough Etiquette: Cough or sneeze into your elbow or tissue and dispose of tissue immediately.
- 8.Isolate if Symptomatic: Stay home and get tested immediately if you have fever, cough, or loss of smell/taste.

2.DON'Ts:

- 1.Don't Touch Face Unnecessarily: Avoid touching your face, nose, and eyes with unwashed hands.
- 2.Don't Crowd: Avoid crowded markets, religious places, events, or public gatherings.
- 3.Don't Spread Rumors: Refrain from sharing unverified information about COVID-19 cures, cases, or vaccines.
- 4.Don't Hide Symptoms: Always report symptoms and do not conceal your health status.
- 5.Don't Ignore Quarantine Rules: If advised to quarantine or isolate, strictly follow the duration as prescribed.
- 6.Don't Stigmatize: Do not discriminate against recovered patients, frontline workers, or migrants.
- 7.Don't Take Unproven Treatments: Avoid using or promoting home remedies or alternative medicines without proper medical advice.
- 8.Don't Use Mask Incorrectly: Avoid keeping masks below the nose, on the chin, or around the neck.

Number Of Government Health Facilities

Sr No	Taluka	PHCs	UPHCs	CHC	SDH	DH	Total
1	Veraval	5	4	1	0	1	11
2	Talala	3	1	1	0	0	5
3	Sutrapada	4	0	1	0	0	5
4	Kodinar	6	0	2	0	0	8
5	Gir Gadhdha	5	0	0	1	0	6
6	Una	6	1	1	1	0	9
		29	6	6	2	1	44

Bed Status Health Facilities Gir Somnath

Bed Status Health Facilities Gir Somnath																
Sr No	Taluka	Total Beds	Adult Beds	Pediatric Beds	ADULT						PEDIATRIC					
					ICU Beds			Non Icu Beds			ICU Beds			Non Icu Beds		
					With Vent	Without Vent	Total	With Oxygen	Without Oxygen	Total	With Vent	Without Vent	Total	With Oxygen	Without Oxygen	Total
1	Gir Gadhdha Total	160	158	2	0	0	0	108	50	158	0	0	0	2	0	2
2	Kodinar Total	355	336	19	10	10	20	256	60	316	5	0	5	14	0	14
3	Sutrapada Total	140	138	2	0	0	0	98	40	138	0	0	0	2	0	2
4	Talala Total	120	118	2	0	0	0	88	30	118	0	0	0	2	0	2
5	Una Total	555	528	27	10	10	20	448	60	508	5	0	5	22	0	22
6	Veraval Total	615	558	57	45	25	70	388	100	488	10	5	15	42	0	42
	Grand Total	1945	1836	109	65	45	110	1386	340	1726	20	5	25	84	0	84

Oxygen Generation & Capacity Gir Somnath

Oxygen Generation & Storage Capacity-Gir Somnath										
Sr No	Taluka	Liquid	Porta Cryo	PSA Plant Capacity	Oxygen Concentrators	Oxygen Cylinders				
						A Type	B Type	C Type	D Type	Total
1	Gir Gadhdha Total	0	0	0.31	13	0	35	0	38	0.32
2	Kodinar Total	0	0	1.08	6	0	35	0	38	0.31
3	Sutrapada Total	0	0	0.47	12	2	0	9	0	0.05
4	Talala Total	0	0	0.47	3	1	0	0	0	0
5	Una Total	0	0	3.28	9	2	50	0	14	0.17
6	Veraval Total	0	4	4.98	19	33	112	0	503	3.76
	Grand Total	0	4	10.59	62	38	232	9	593	4.61

Ventilator Status Gir Somnath

Ventilator Status Gir Somnath										
Sr.No.	District/ Corporation Name	Total Ventilator			Functional			Non Functional		
		Adult	Pediatric	Total	Adult	Pediatric	Total	Adult	Pediatric	Total
1	GIR SOMNATH	64	1	65	64	1	65	0	0	0
	Total	64	1	65	64	1	65	0	0	0

Generator

No Of Generator							
Sr No	Taluka	PHCs	UPHCs	CHC	SDH	DH	Total
1	Veraval	5	0	1	0	3	9
2	Talala	1	0	2	0	0	3
3	Sutrapada	4	0	1	0	0	5
4	Kodinar	4	0	2	0	0	6
5	Gir Gadhda	1	0	0	1	0	2
6	Una	2	0	1	2	0	5
		17	0	7	3	3	30

No Of Ambulance Gir Somnath

No Of Ambulance									
Sr No	Taluka	108 GVK EMRI	PHCs	MHU/MMU	UPHCs	CHC	SDH	DH	Total
1	Veraval	5	5	0	3	2	0	3	18
2	Talala	3	2	0	0	1	0	0	6
3	Sutrapada	2	4	1	0	1	0	0	8
4	Kodinar	4	3	2	0	2	0	0	11
5	Gir Gadhda	2	3	1	0	0	1	0	7
6	Una	6	4	0	0	1	1	0	12
Grand Total		22	21	4	3	7	2	3	62

No Of privet Health Facilities in Gir Somnath

No Of Private Health Facilities					
Sr No	Taluka	Total	No OF Beds	No Of Ambulance	Burn Treatment Facilities
1	Veraval	90	506	3	4
2	Talala	17	75	0	0
3	Sutrapada	3	19	0	0
4	Kodinar	44	240	3	2
5	Gir Gadhda	0	0	0	0
6	Una	51	722	2	2
Grand Total		205	1562	8	8

ANNEXURE – 07

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 2023 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 300 Aapda Mitra would be trained from 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.

Formats (Reports, Damage and Loss Assessment):

Emergency Operation Center – City/ Taluka / District.....

Address.....

Phone No..... Fax No.

Email Address: -

Date: - / / 2026

Taluka Emergency Operation Center	
Time of Reporting :- : Hrs Date:- / /2026	
Incident Report	
Place	
Type of Incident	
Description	
Action Taken	
Death	
Injured	
Police Station	
Remarks	
Designation, Office of the....., (District / Taluka / City)	

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

2. Format for Damage and Loss Assessment:

A. Inspection Team

Structure Engineer: _____

Civil Engineer: _____

Junior Engineer: _____

Officer of Local Competent: _____

Authority (from engg. section)

Photographer: _____

Inspection Date & Time: _____

Area Inspected: ☐ Exterior Only
☐ 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: ☐ Ground Level

☐ 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:

☐ Timber Construction

☐ Masonry Construction

☐ Kiln burnt bricks

☐ Unburnt bricks

☐ Random Rubble Uncoarsed

☐ Random Rubble Coarsed

☐ Hollow Concrete Blocks

☐ Steel Structure

☐ Other: _____

☐ Reinforced Masonry

☐ Kiln burnt bricks

☐ Hollow Concrete Blocks

☐ Concrete Frame

☐ Concrete Shear Wall

☐ Dual System

☐ Precast Concrete Construction

☐ Composite Structure

Primary Occupancy:

☐ Individual House

☐ Offices

☐ Government

☐ Semi Government

☐ Emergency Services

☐ Hospital

☐ Commercial

☐ Restaurant

☐ Hotel

☐ Industrial

☐ Cinema House, Auditoriums, Assembly Halls

☐ Other: _____

☐ Educational

☐ School

☐ College

☐ University

☐ Group Housing

☐ Tenaments

☐ Flats

☐ Historic

☐ 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	☐	☐	☐	☐
● Building or story leaning	☐	☐	☐	☐
● Structural Damage to Bearing Walls	☐	☐	☐	☐
● Structural Damage to Frame Structure				
Columns	☐	☐	☐	☐
Beams	☐	☐	☐	☐
Column-Beam Junction	☐	☐	☐	☐
Stairs	☐	☐	☐	☐
Walls	☐	☐	☐	☐
Other:	☐	☐	☐	☐
● Parapet Wall, Architectural Elements, other Falling Hazard	☐	☐	☐	☐
● Subsidence of ground, cracking ground slope movement	☐	☐	☐	☐
● Internal Services				
Water supply	☐	☐	☐	☐
Drainage	☐	☐	☐	☐
Electricity	☐	☐	☐	☐
Lift	☐	☐	☐	☐
Fire Fighting	☐	☐	☐	☐
● Site Hazards				
Gas	☐	☐	☐	☐
Electricity	☐	☐	☐	☐
Water Supply	☐	☐	☐	☐
Drainage	☐	☐	☐	☐
Storm Water	☐	☐	☐	☐
Toxic Chemicals	☐	☐	☐	☐
Other	☐	☐	☐	☐

Sketches:

Photographers:

ANNEXURE – 09

Action Plan for Heatwave:

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 Color 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 – 10

Action Plan for Cyclone:

A long coastline of about 1600 km of flat coastal terrain, shallow continental shelf, high population density, geographical location and physiological features of its coastal areas makes Gujarat, extremely vulnerable to cyclones and its associated hazards like storm, high velocity wind and heavy rains.

Cyclones are huge revolving storms caused by winds blowing around a central area of low atmospheric pressure. In the northern hemisphere, cyclones are called hurricanes or typhoons and their winds blow in an anti-clockwise circle. In the southern hemisphere, these tropical storms are known as cyclones, whose winds blow in a clockwise circle.

Familiarization with terminology – cyclone

Sr.	Types	Wind speed in the center (km/hour)
1	Low pressure area	Less than 31 kmph
2	Depression	31-51 kmph
3	Deep Depression	52-62 kmph
4	Cyclonic storm	63-87 kmph
5	Severe Cyclonic storm	88-117 kmph
6	Very severe Cyclonic storm	118-221 kmph
7	Super Cyclonic storm	More than 222 kmph

Cyclone Forecasting and Warning

In case of cyclones, 72 hours advance warning of various levels of certainty are provided by the IMD. This system is well established and the Gujarat State EOC and ERCs gear up emergency operations soon after the first warning is received.

Cyclone Alert

It is issued at least 48 hours before the commencement of the bad weather when the cyclone is located beyond 500 km from the coast. It is issued every three hours.

Cyclone Warning

It is issued at least 24 hours before the commencement of the bad weather when the cyclone is located within 500 km from the coast. Information about the most likely time/place of landfall is indicated in the bulletin. Confidence in estimation increases as the cyclone comes closer to the coast

Cyclone Response

Response includes not only those activities that directly address the immediate needs, such as 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 perception/vision about hazards, its consequences and actions that need to be taken in the event of it.

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.

Details of Coastal Villages

Sr. No.	Taluka Name	No. of Villages	Names of Villages
1	Veraval (Urban)	2	Prabhas Patan, Veraval City
2	Veraval (Rural)	5	Vadodara Dodiya, Sidokar, Adri, Navapara and Dari
3	Sutrapada	8	Lati, Kadwar, Sutrapada Bandar, Vadodara Zala, Kanjotar, Dhamlej, Lodhwa, Prashnavada
4	Kodinar	6	Mul Dwarka, Velan, Sarkhadi, Chauhan Ni Khan, Kaj, Chhara
5	Una	17	Tad, Kob, Bhingran, Chikhli, Vansoj, Olvan, Paldi, Khatrivada, Manekpur, Dudhala, Simar, Sayed Rajpara, Khada, Sejaliya, Navabandar, Jakharvada, Naliya Mandvi

ANNEXURE – 11

Action Plan for Flood & Flash Flood:

Gujarat has seen many damaging floods. Almost all major rivers in the state pass through a wide stretch of very flat terrain (often more than 50 km) before reaching the sea. These flat low lands of lower river basins are prone to flooding.

The one-day Probable Maximum Precipitation (PMP) is often higher than the average annual rainfall in most parts of Saurashtra and Kachchh. Occasional cyclones and depressions also cause heavy rainfall in large parts of Saurashtra, Kachchh, central and northern Gujarat.

The cities of Ahmedabad, Surat and Bharuch are also located on the flat alluvial plains of large rivers and are prone to flooding.

The Figure shows that almost all parts of Gujarat are flood prone, irrespective of the size of the catchment. It has to be noted that the flood prone villages classified by Flood control Cell is based on the settlements affected.

The Flood risks in Saurashtra are lower than the flood risks in the South Gujarat plains. The relatively flat plains in the lower basin areas with hilly catchments in the upper parts of South Gujarat accentuate flood risks.

The flood prone river sections were identified by the flood prone village map. The Flood prone river sections in Saurashtra extend to the upper basins. This is due to the presence of dams in the upper basins, which have to resort to emergency discharge during heavy rainstorms. Flood prone river sections presented in picture

In Saurashtra, the valley areas are the only arable lands due to presence of shallow rock in higher elevations of the basin. Even small valleys are used for agriculture and hence any flooding in these zones impacts the residents and settlements.

Flood Prevention, Preparedness and Mitigation

Floods being the most common natural disaster, people have, out of experience, devised many ways of coping with them. However, encroachments into the flood plains over the years has aggravated the flood problem and a need to take effective and sustained measures has been felt. Various measures, structural and non-structural, have been taken by the central and state governments and as a result, considerable protection has been provided to the people.

However, more efforts are required in this direction and there is a need to put in place a technological regime to make structures flood-proof and regulate the activities in the flood plains of the rivers. Flood forecasting and warning and Decision Support System (DSS) will be established on a scientific basis taking into account the latest technological developments in the world.

Details of Villages Located on River Banks:

Taluka Name	No. of Villages	River Name	Names of Villages
Veraval	12	Hiran-2	Mandor, Bherala, Ishwariya, Indroi, Navadra, Savni, Sonariya, Badalpara, Kajli, Mithapur, Ajotha, Bij
Talala	9	Hiran-1	Chitravad, Chitrod, Khirdhar, Borvav, Ramrechi, Sangodra, Talala, Umrethi, Maljinjva
Kodinar	11	Shingoda	Ghantvad, Chhachhar, Dudana, Ronaj, Govindpur Bhandariya, Sugala, Nana Ichwad, Kodinar, Mul Dwarka, Chauhan Ni Khan
Una	24	Machhundri	Chanchkavad, Delvada, Gundana, Jhankharvada, Kalapan, Men, Navabandar, Rampara, Rajput Rajpara, Una
		Raval	Kandhi, Kanekbarda, Manekpur, Garal, Motha, Mota Samadhiyala, Padapadar, Patapur, Samater, Rameshwar, Sanjavapur, Umej, Sankhada, Khatrivada
Gir Gadhada	8	Shingoda	Jamvada, Kansariya
		Machhundri	Kodiya, Itvaya
		Raval	Chikhlikuba, Dhokalva, Jasadhar, Mahobatpara

Low-Lying Bridge and Waterlogging Details

Sr. No.	Taluka Name	Road Name	Chainage
1	Talala	Talala–Virpur–Dhava–Moruka Road	0/280 to 0/300
2	Talala	Talala–Ramrechi–Jepur–Dhanej	3/400 to 3/500
3	Talala	Talala–Ramrechi–Jepur–Dhanej	5/500 to 5/800
4	Talala	Talala–Ramrechi–Jepur–Dhanej	9/300 to 9/500
5	Una	Simasi–Kankiya–Jhanzariya Road	8/185 to 8/200
6	Una	Simasi–Kankiya–Jhanzariya Road	9/270 to 9/300
7	Una	Ahmedpur–Mandvi–Vasoj–Kob	10/975 to 11/100

Details of Waterlogging-Prone Locations & Road

Sr. No.	Taluka Name	Road Name
1	Kodinar	Ronaj-Pichhvi Road
2	Kodinar	Fachariya-Arnej Road
3	Kodinar	Pavati Gir-Vithalpur Road
4	Kodinar	Bhuvavada-Vithalpur Road
5	Kodinar	Alidhra Approach Road
6	Gir Gadhda	Harmadiya-Ebhalvad Road
7	Gir Gadhada	Gir gadhda-Umedpara-Pichhavi-Harmadiya Road
8	Gir Gadhada	Harmadiya-Bhomeshwar Road
9	Una	Kaj-Malangam Road
10	Una	Moti Fafni-Sayaji Rajpara Road
11	Una	Arnej-Girdevali Road
12	Una	Panadar-Bhukhini Nal Road
13	Una	Jamnawada-Bodidar Road
14	Una	Malgam-Fafni Road
15	Una	NH to Lamdhar-Shahdesar-Gupt Prayag-Delvada Road
16	Una	NH to Lerka-Kob Road
17	Una	Damsa-Undri-Fulka-Grabavad-Velakot Road
18	Una	Timbi-Shanavakiya Road
19	Una	Sankhada-Khatrivada Road
20	Una	Sondardi-Khatrivada Road
21	Una	Una-Amodra-Garal-Motha Road
22	Una	Khatrivada-Rohisha Road
23	Una	Khandhera Approach Road
24	Una	Ankolali Approach Road
25	Sutrapada	NH to Umbri-Chhagiya-Morasa-Vavdi Road (Near Vir Mangna Wala Place)
26	Sutrapada	NH to Umbri-Chhagiya-Morasa-Vavdi Road between Umbri and Chhagiya
27	Sutrapada	Lakhapara-Tobara Road
28	Sutrapada	Umbri-Sutrapada Road
29	Talala	Dhramanva-Mathasuriya Road
30	Talala	Ambalas-Mathasuriya Road
31	Talala	Madhupur-Dhava Road
32	Talala	Ankolwadi-Rasulpara-Sirvan Road
33	Talala	Ankolwadi-Vadla Road
34	Talala	Bamanasa-Javtri Road
35	Talala	Hadmatiya-Ankolwadi Road
36	Talala	Jamalpara-Raydi Road
37	Talala	Raydi-Rampara Road
38	Talala	Surva-Hadmatiya Road
39	Talala	Chitravad-Sangodra Road
40	Talala	Ramrechi-Chitravad-Haripur-Bhalchhel Road
41	Talala	Chitravad-Hiranvel Road
42	Talala	Talala-Galiyavad-Khirdhar Road
43	Talala	Khirdhar-Dhanej Road
44	Talala	Talala Marketing Yard to Ramrechi Road
45	Veraval	Kodidra Approach Road
46	Veraval	Ambaliya-Umba-Malodha Road
47	Veraval	Hasnavadar-Umrula Road
48	Veraval	Bhetali-Lumba-Mathasuriya Road
49	Veraval	Savni Approach Road
50	Veraval	Badalpara Approach Road
51	Veraval	Sonariya-Navdra-Anida-Jasadhar Road (Sonariya Village)
52	Veraval	Kindarva-Sarasva-Paldi Road (Kindarva Gamtal)
53	Veraval	Navdra-Bolas Road

ANNEXURE – 12

Action Plan for Fire:

The primary role of fire services has been to attend to fire incidents. Besides fire fighting, fire department also attends to other emergencies such as building collapse, road traffic accidents, human and animal rescue etc., and other special service calls. Some fire services also attend medical emergencies for transportation of casualties through ambulances maintained by them.

Fire Starts when a flammable/combustible material is exposed to a source of heat in collaboration with a sufficient quantity of oxygen. Fire can be extinguished by removing any one of the elements of the fire triangle. Fire can be natural or man-made.



Triangle of fire



Types of fire

TYPES OF FIRES – A, B, & C:

Type A - Cloth, paper and wood that produce Ash

Type B - Gasoline, oil, and other combustible/flammable material placed in a Barrel.

Type C - Electrically energized fires involving equipment and Circuits or Current

There are many reasons which causes fire such as accidents, electrical short-circuit, carelessness, etc. Further, Gujarat is highly industrialized State which increases the vulnerability. Fire causes huge losses of life and property every year. And yet, with some precaution, most fires can be prevented and damage minimized.

TYPES OF EXTINGUISHERS:

Pressurized Water (P/W)- These are normally found in residence halls where cloth, paper, and wood are the most common hazards. They are metallic colored and hold approximately 2 ½ gallons of water. They are capable of discharging a distance of 25' – 30' for approximately 1 minute.

Dry Chemical (ABC) or (BC) – These are normally found in cars, laboratories, and other places where gasoline, oil, and other combustible/flammable liquids are used. They are usually red in color and are capable of spraying 10' – 15' for approximately 30 seconds.

Carbon Dioxide (CO₂) – These are normally found only in electrical or mechanical rooms where electricity is the hazard. They are used to put out electrical fires while the equipment is still energized. The carbon dioxide extinguishers are red in color, have no gauge to indicate amount of contents, and are limited to a spray distance of 5' – 10' for about 10 seconds.

Halon - These extinguishers were used for computer room fires in the past, but their use now is questionable because of health risks associated with the halon agents in a fire situation. Amherst College no longer uses this type of extinguisher or extinguishing agent.

Fire Services in Gujarat are under the respective concerned municipal corporations.

ANNEXURE – 13

Action Plan for Lightning and Thunderstorm:

Thunderstorm and Lightning are hazardous and cause risk to life and public property. There are potentially hazardous for aviation sector as well in addition to transport, power, communication and other socio-economic sectors. Lightning being the flow of electric charges, any electrically conductive body can be affected by lightning. Hence the electrical appliances if operated during lightning period can be affected by lightning. Similarly, the living beings coming in contact with lightning directly or indirectly through electrical conductors can be affected, often leading to death.

In India every year more than 2500 people die due to lightning. Mostly Rural and forest areas are vulnerable with tall trees and water bodies. Majority of the lightning victims are the people working on the field in rural area. Lightning is also a major cause of electrical power breakdowns, and forest fires. It can also cause damages to communication and computer equipment, and aircrafts.

Thunderstorm is a small-scale phenomenon and has a life cycle of up to only three hours. It has a dimension of 2 km to 20 km, and therefore, its detection is difficult. Automatic weather stations (AWS) provide some basic parameters such as wind speed, wind direction, relative humidity temperature, pressure etc.

Preparedness and Mitigation Measures

The lessons learnt from various thunderstorm and squall events in India, particular regarding rescue and relief works and the shortcomings experienced in the process should be carefully and honestly. Lack of communication and transportation, undue delays in clearing the roads and or streets blocked due to the falling of trees, electricity poles and hoardings that further delays in the immediate transportation of the injured to the nearby hospital. The hierarchical structure for execution needs to be formalized so that all efforts are properly coordinated. Coordination of all relief distribution is as important as its quantity and timely delivery; otherwise some places may receive it in duplicate and triplicate and some places remain completely starved.

Vulnerability assessment of buildings, structure/infrastructure, lifelines, economy and people should be undertaken:

The occurrence of thunderstorm and or squall is a natural hazard over which man has no control at present. Its prediction with respect to precise time, place or intensity of occurrence is still not feasible. But this natural hazard gets converted into a disaster to the society. Enough experience has been gained worldwide and researches carried out in India which gives us confidence to minimize the damages human casualties and loss of cattle heads due the onslaught of thunderstorm and or squall.

Protection against Lightning — Lightning Shields

Lightning shields are the most commonly employed structural protection measures for buildings and other structures. The lightning shield consists of installation of a lightning conductor at a suitably high location at the top of the structure. The conductor is grounded using a metal strip of suitable conductance. The grounding of the conductor is also specially designed to ensure rapid dissipation of the electrical charge of lightning strike into the ground.

ANNEXURE – 14

Action Plan for Tourism Place / Mass Gathering Events:

Celebrations and festivals in India are part of our cultural and religious diversity. India being the second most populated country in the world with diverse religious heritage has vast number of festivals that are celebrated on grand scale. Many of them are celebrated at national level, regional or state level.

Religious pilgrimage is highly prone to human stampedes as it is comprised of huge crowd including women, elderly people and children. The availability of limited open space, uneven topography and high density of pilgrims together make the festival venues a stampede hotspot. Human stampede at festival gatherings may happen due to the following reasons

Rush and Surge of people: People may try to enter into a special place for better view/participation in the functions which results in jostling, suffocation, failure of confining walls, barriers and gates.

Accidents: Collapse of temporary or permanent structures, accidents on bridges, vehicle accidents

Natural or human induced hazards: slope failure, heavy rain, slippery surfaces, fire, intentional acts etc.

Rumors: Spread of rumor about an accident, man-animal conflict, terror attack, stampede or a calamity near to the venue

Long Queue Discomfort: People standing in tightly packed queues for long hours will create discomfort among individuals and they may try to escape from the queues.

Disaster preparedness process for religious mass gatherings should begin with the event planning stage. The event organizer shall take up the design and execution of safety components with the help of safety agencies and services.

Festival Safety -Preparations

Coordinating religious mass gatherings require additional man power, resources, facilities and support from other agencies or experts. Proposed site for mass gatherings need to be assessed for additional facilities based on the expected crowd size and crowd behavior. Event organizers may utilize the service of disaster management experts for effective planning and implementation of preparedness measures.

Risk Assessment

The mass gathering organizer has to submit a risk assessment statement and venue lay out map along with the event proposal form. The venue lay out map should contain services and utilities proposed and arranged at the venue, fire hydrant points, police control room, emergency operation centre, medical facilities, crowd flow pattern, crowd management facilities etc.

Crisis Communication Plan

Crisis Communication plan act as the fundamental coordination mechanism for event organizer and emergency services. The event organizer is responsible to establish a crisis communication system for the venue that should include a system to address the public, and a system for internal communication.

Onsite Response Plan

Identify the agency or department that is responsible for each hazard. Prior permission from the agencies must have taken while specifying the responsibilities of each agency. For effective emergency response, the festival venue may be classified as sectors and sector wise responsibilities may be assigned. Locate fire units and first aid teams at important locations for major events.

Resource Inventory

Include emergency contact details and resources which are required to meet a festival emergency

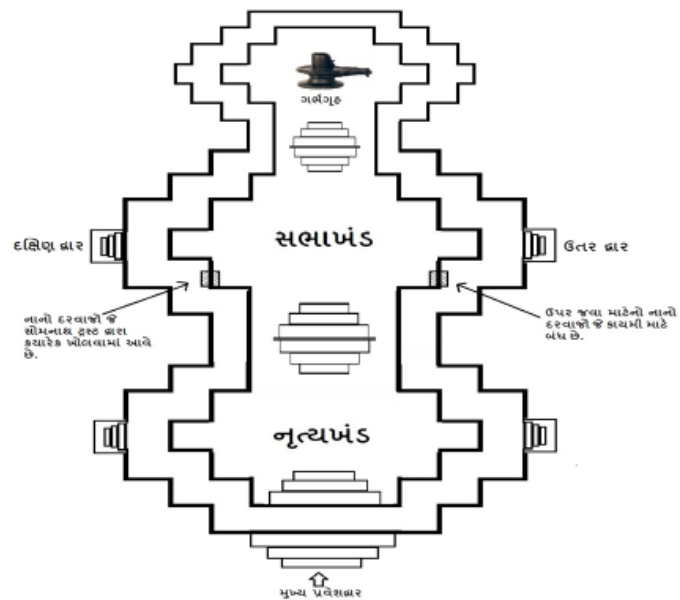


**Shree Somnath Trust & Collector's Office
Gir Somnath District.**

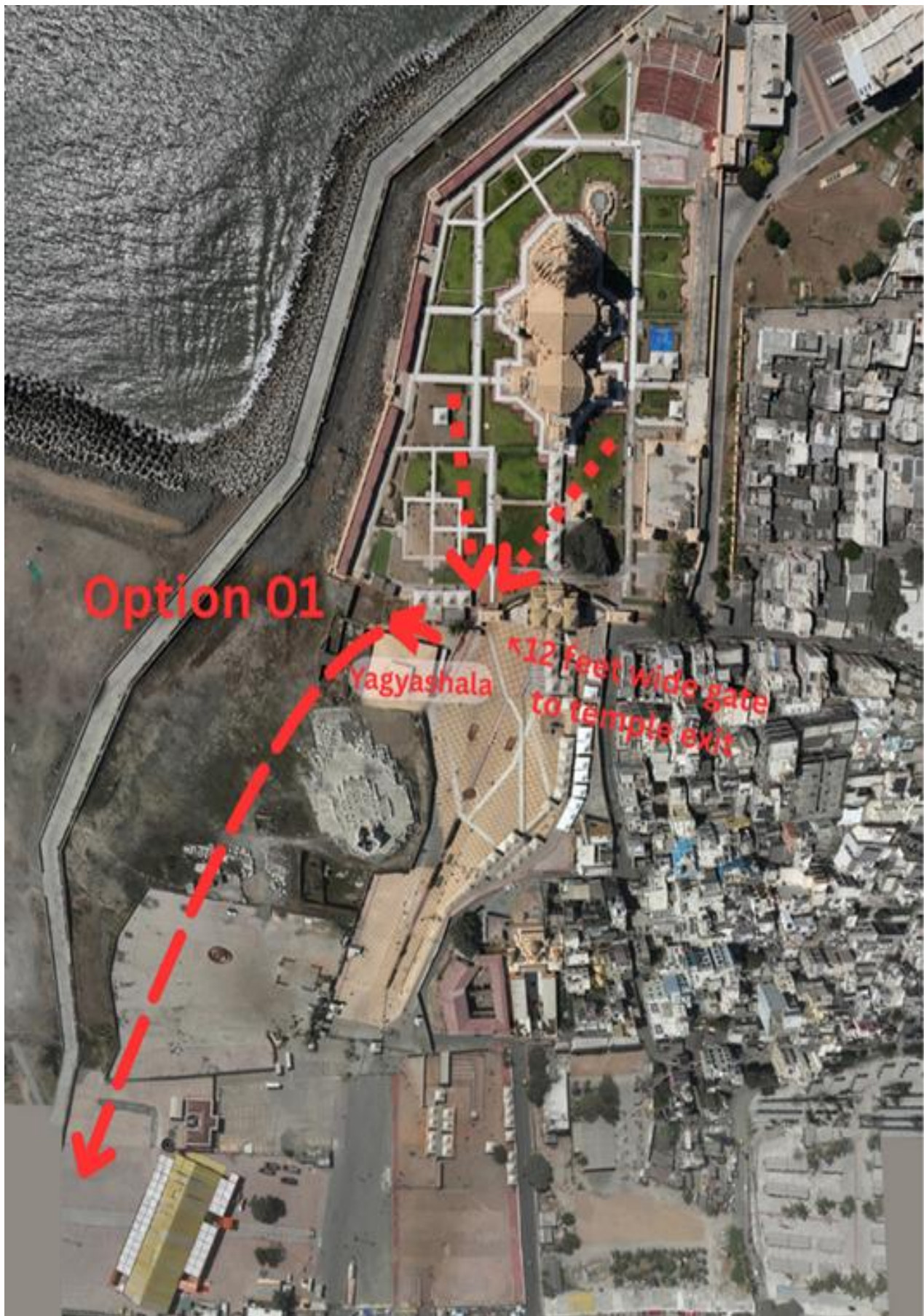
Map of Somnath Temple Area



Main Temple Internal Area Map



Somnath Temple Evacuation Plan





Geographical Location.

1) Latitude/Longitude

Shree Somnath Temple is located at Latitude 20° 54' 21.1896" North and Longitude 70° 23' 15.0180" East.

(2) Climate

The Climate of Somnath region is temperate. Not having extreme cold or heat. It is pleasant in the morning as well as in the evening but during the better part of the day direct sunlight is quite uncomfortable.

(3) Temperature during the year

Min. Temperature 19.0 C

Maximum Temperature 35.0 C

Average Annual Temperature

Minimum 27.0 C

Maximum 30.0 C

Average Annual Humidity 83%

Shree Somnath Trust Board of Trustees

A Trustees Board of 8 persons is prescribed in the settlement deed. There are two vacancies in the Trustee Board at present.

The Names of Trustees are given below.

- | | |
|-----------------------------|-------------|
| 1. Shri Narendrabhai Modi | - Chairman |
| 2. Shri Lal Krishna Advani. | - Trustee |
| 3. Shri Amitbhai Shah | - Trustee |
| 4. Shri Jivanbhai D. Parmar | - Trustee |
| 5. Shri Harshvardhan Neotia | - Trustee |
| 6. Shri Pravin K. Laheri | - Trustee |
| 7. Shri. Yogendra Desai | - Secretary |

The Secretary supervises & guides the officers & staff of the trust in day to day (Routine) work.

(4) Rainfall

Annual Average Rainfall for district is 980 mm. Rainfall for year 2023 reported at Somnath-Veraval is 1615 mm (173 %)

Rainfall in this area is generally cyclonic. Somnath region is prone to storms, sometimes very severe and with high frequency.

(5) Earthquake Zone

Saurashtra - Narmada fault line is originating around Somnath and the Entire Region is in earthquake seismic zone – 3.

(6) Erosion from the Arabian Sea

Somnath coast is considered medium erosion zone. Coastal zone regulations apply to the area in and around the temple.

(7) Dangerous sea currents

The currents on the somnath beach are tricky and many persons entering the sea water have been drowned with great pull from the receding waves. The District magistrate have banned sea - bathing to protect the lives of unsuspecting visitors on the beach with Resolution No. MAG/C/S.Pr.Bn./Jahernamu/1108(3)/2023, Dated- 14th, August-2023.

Precautionary Measures taken by Shree Somnath Trust during Cyclone

- As a precautionary Measures Temple closed for 2 days. 15-06-2023 & 16-06-2023.
- Central Control Rooms Established for emergency support. Disaster Team Was setup for emergency Response and Rescue.
- Meeting With disaster Team and Presentation of preparation of Precautionary Safety Measures taken by the team.
- Advertisement Hordings , High Mast Towers, Pargola Tents, Roof Sheets were uninstalled.
- All LED Screen were removed.
- Promenade Walk Way, Triveni Sangam Ghat, Gita Mandir were closed for Pilgrims.
- Guest staying in all Guest houses were advised not come out of rooms.
- 4 DG Set kept ready for use during any kind of Power Failure during the Cyclone.
- Ready food packets were kept for emergency food supply to the cyclone effected areas.
- All guest staying in Sea facing Guest house were moved to other location.
- Peoples staying in coastal slums areas were shifted to the safe shelters.

Disaster Preparedness and Facilities availability ..

- 8 (3-Veraval + 5-Sutrapda) MPCS (Cyclone Shelters) having capacity of 550 persons each are ready to use near Somnath area.
- There are total 29 Cyclone Shelters and 368 other shelters are available in District.
- Health Facilities available in District:
 - CHC – 07
 - PHC – 29
 - UHC – 04
- Ambulance available in District:
 - 108 EMRI – 09
 - Health Department – 15

District and Taluka Control Rooms

District Control Room	DEOC, Collector Office, Gir Somnath	02876-285063 02876-285064
Veraval Taluka Control room	Mamlatdar Office, Veraval	02876-244299
Somnath Control room	Shri Vijaysinh Chavda	9428214909
Talala Taluka Control Room	Mamlatdar Office, Talala	02877-222222
Sutrapada Taluka Control Room	Mamlatdar Office, Sutrapada	02876-263371
Kodinar Taluka Control Room	Mamlatdar Office, Kodinar	02795-221244
Una Taluka Control Room	Mamlatdar Office, Una	02875-222039
Gir Gadhada Control Room	Mamlatdar Office, Gir Gadhada	02875-243100
Nagar Palika Control Room	Nagarpalika, Veraval	02876-220820
Port Office Control Room	Gujarat Maritime Board, Veraval	02876-220001

Resources Available in District

Sr	Taluka/District	Generator	Life Jacket	Life Buoya	Rope 100 Feet	Rope 200 Feet	Enflatable Light
1	Gir Gadhada	1	10	10	3	1	0
2	Kodinar	1	30	30	6	3	2
3	Sutrapada	1	20	10	4	2	2
4	Talala	1	20	20	4	2	2
5	Una	1	50	50	10	5	2
6	Veraval	1	50	30	10	5	2
7	DEOC	-	-	-	-	-	3

** AT. DEOC, Control Room – 6 Tree Cutter and 1 Mechanical Boat available.

Somnath Temple Security

- Government of Gujarat Home Department Resolution No.: MAH-102010-3385-S dated 24/5/2011 The following establishment has been approved for Gandhinagar to Somnath Mandir Police Post.

No.	Staff Postion	approved	present
1	Dy.SP (Unarmed)	01	00
2	PI (Unarmed)	02	01
3	PSI (Unarmed)	06	06
4	UASI	09	03
5	UHC	37	01
6	UPC	47	06
7	AASI	00	01
8	AHC	00	02
9	APC	04	06
10	DPC/Outsourced	07	00
11	WOMAN	12	35
12	LRD	--	09
Total.....		125	70

Interior Security of the main temple

A. No.	Name of the point	P.S.E.	police/SRP	GRD	W. GRD	Remarks
1	In charge of Digvijay Dwar	--	—	—	—	in two shifts
2	Digvijay Dwar Checking (Male Section)	—	02	06	—	in two shifts
3	Digvijay Gate Checking (Women Section)	—	02	—	06	in two shifts
3	Near the outer steps of the Digvijay Gate	—	--	--	01	in two shifts
4	Near the inner steps of Digvijay Dwar	—	--	--	--	in two shifts
5	Digvijaya Dwar at the southern gate	—	02	02	02	in two shifts
Total		--	06	08	09	—

Interior Security of the main temple

A.N o.	Name of the point	P.S.E.	Police/SRP	GRD	W. GRD	Remarks
1	East above Digvijaya DwarLMG	—	03	—	—	Round the clock
2	West above Digvijaya GateLMG	—	03	—	—	Round the clock
3	South towards the seaLMG	—	03	—	—	Round the clock
4	West behind the templeLMG	—	03	—	—	Round the clock
5	At the corner of the yagnashala on the south side of the temple premises	—	03	—	—	Round the clock
6	Corner of Ganapati Temple	—	03	—	—	Round the clock
Total		—	18	—	—	—

Interior Security of the main temple

A.No.	Name of the point	P.S.E.	police/SRP	GRD	W. GRD	Remarks
1	Digvijay gate outside the main gate	00	01	—	—	Round the clock
2	shoe house	—	—	--	--	in two shifts
3	In front of the Jutagharni temple, near the photographer's railing inside	—	01	01	--	in two shifts
4	In front of the shrine	—	—	—	—	Round the clock
5	Entrance-DFMD (Men's Division)	—	02	08	—	in two shifts
6	Entrance-DFMD (Women's Division)	—	02	--	08	in two shifts
7	In charge of main entrance	—	—	—	—	Round the clock
8	main entrance	—	—	—	—	Round the clock
Total		00	06	09	08	—

External Security of the main temple

A.No.	Name of the point	police/SRP	GRD	W. GRD	Remarks
1	Gaurikund Checkpost	03	—	—	Round the clock
2	Hamirji Circle	03	—	—	Round the clock
3	GypsyMobile	03	—	—	Round the clock
4	Vadla Choki	03	--	--	in two shifts
5	Near the three roads north of the temple Watch Tower - 01	03	—	—	Round the clock
6	V.I.P. Guest House Seaside Watch Tower-2	03	—	—	Round the clock
7	At the back gate of Khune Sagar Darshan, Modinagar	02	—	—	Round the clock
8	Near Vadheshwari temple to the south of the temple	03	—	—	Round the clock
9	Sea Park	04	—	—	Round the clock
10	For traffic ahead of the main	04	—	—	in two shifts
11	Chopati Foot Patrol	02	—	—	in two shifts
Total		33	--	--	—

Control Room of Somnath Mandir Security Office

A.No.	Entourage	the number	duty
1	ASI/HC	01	Control Incharge
2	Ana. Po.Cons.	01	Wireless operator
3	Ana. Po.Cons.	03	CCTV For monitoring

ANNEXURE – 15

Action Plan for Drought:

Drought or a distressed situation caused by lack of rainfall is a deadly natural environmental hazard. It is directly related to one of the basic requirements of any form of life (i.e. water, air and food) that is, water and is indirectly related to food because crops and other plants and animals exclusively depend on water. Droughts resulting from accumulative effect of water scarcity cause extensive and enormous damage to agriculture and natural vegetation and therefore cause famine and starvation to human and animal population of the region concerned.

According to India Meteorological Department (I.M.D.), the drought in India is a situation occurring in any area when the mean rainfall of a year is less than 75% of the mean annual rainfall. I.M.D. classified drought in two broad categories:-

Severe Drought: When the deficiency of rainfall exceeds 50% of the normal rainfall.

Moderate Drought: When the deficiency of rainfall is between 25% and 50% of the normal rainfall.

Meteorological Drought: Meteorological drought is a situation when the actual rainfalls do not arrive in time or less than the climatologically expected rainfall over a wide area.

Hydrological Drought: Hydrological Drought is associated with marked depletion of surface water and consequent drying up of lakes, rivers and reservoirs except deep geological aquifers.

Agricultural Drought: Agricultural drought occurs when the soil moisture is inadequate to support a healthy growth of crops to the stage of maturity.

IMPACT OF DROUGHT

Drought is somewhat different from the other major natural disasters. Floods, earthquakes and cyclones start in a comparatively sudden manners, having a relatively short duration and are restricted to local influence.

Drought in contrast starts slowly, having long duration, being of the creeping and pervasive nature, covers vast areas. Floods, cyclones and earthquakes are disasters associated with extreme events, drought is the extreme hydrologic result of the non-occurrence or less than normal mean rainfall of an area. Basically drought is a slow evolution that seldom causes dramatic losses of human life (except in famine) but its effect is long lasting in economic sector for the region and its people.

Drought management in Gujarat

Relief Manual (2016–17) under Gujarat Land Revenues Rules for assessment of crop-losses in terms of scores (1 to 12 scores).

The assessment is carried out for each village by the *Annawari* committee which includes a chairperson: a Circle Inspector and members (village heads, important persons of the villages, farmers' representatives etc.). The committee estimates yields from three plots representing good, medium and poor crop conditions in a village by actual harvest. The estimated *Annawari Report* is published and feedback, objections and grievances from the villagers may be submitted within 15 days. After the objection period is over, the committee submits the report to Sub-divisional Magistrate who sends it to the District Collector to finalize the decision. Whenever there is a serious shortage of drinking water, crop failure, very abnormal rainfall, high inter-spell duration and so on, the state governments immediately shoot off a letter to the central government asking for relief. The Ministry of Agriculture sends a team to assess the problem and sanctions money to the states.

ANNEXURE – 16

Action Plan for CBRN:

Chemical, Biological, Radiological and Nuclear (**CBRN**) Threats. 'CBRN' is the abbreviation commonly used to describe the malicious use of Chemical, Biological, Radiological and Nuclear materials or weapons with the intention to cause significant harm or disruption. A CBRN incident differs from a hazardous material incident in both scope and intent.

Chemical

The main types of chemical weapons are:

- Nerve agents, which attack the central nervous system. Examples include types of pesticides called organophosphates; sarin; and VX.
- Blister agents, which cause burns and blisters both inside and outside of the body. Examples include the mustard gases.
- Incapacitating agents, which are designed to hurt a large number of people, and make it impossible for them to fight back, but without killing them. Examples include tear gas and pepper spray.

Biological

The goal of biological weapons is to get as many people sick with infectious diseases as possible. Types of biological weapons include:

- Bacteria, like the bacteria that cause anthrax and plague
- Viruses, like the ones that cause smallpox, Ebola, and the flu
- Toxins (poisons made by living things), like ricin, botulism toxin, and aflatoxin

Radiological

A radiological weapon is any kind of weapon that spreads radiation. For example:

- A dirty bomb (a regular bomb which spreads radioactive material)
- Poisoning food or water supplies with radioactive contamination

Nuclear

A nuclear weapon releases a huge amount of energy in a nuclear explosion. Nuclear weapons can kill everyone in a city, and make many other people who survive sick with radiation poisoning.

Line of Communication and Responsibility for the State

- For metropolitan areas, the Incident Commander for all nuclear hazards shall be the Commissioner of Police. For other areas it will be the District Magistrate (DM). DEOC / District Magistrate/ Commissioner of Police shall inform the State Emergency Operation Center (SEOC), the Commissioner of Relief (COR) and GSDMA.
- The COR or GSDMA shall convene an immediate meeting of the Crisis Management Group under the Chief Secretary.
- COR shall inform National Emergency Operation Center (NEOC) and if required coordinate with Bhabha Atomic Research Center (BARC) for specialized support.
- The Commissioner of Police in a metropolitan area and the District Magistrate in others shall review the situation and activate coordination, command and control.
- Commissioner of Health (COH) shall place medical and para-medical teams if required at the disposal of the Incident Commander.
- The Fire Brigade as well as personnel/vehicles/equipments from GSDMA's Emergency Response Centers (ERCs) will report to the Incident Commander.
- Commissioner of Relief (COR) shall also coordinate immediate evacuation of potentially affected civilians with the CP, Municipal Commissioner and Collector.
- Chemical Biological Nuclear and Radiological team (CBRN) shall be formed and deployed to ground zero by the incident commander.

ANNEXURE – 17

Details of Minor & Medium Irrigation DAMs with Villages Located Under Catchments and Down Stream Area...

Sr	Taluka	Name of DAM / Scheme	Place of DAM	Type of DAM	Longitude	Latitude	Height of DAM (Mtr.)	Total Door	Flow Capacity (Cusecs)	Wire less	Catchments & Down Stream Area Villages
1	Gir Gadhada	Shingoda	Jamvala	Medium	71.12	20.79	18.80	6	3309.000	Yes	[Jamvada of Gir gadhada], [Ghantwad, Kodinar, Muldwarka, Chhachhar, Dudana, Ronaj, Sugala, Nana Itchvad of Kodinar]
2	Gir Gadhada	Raval	Chikhalkuba	Medium	71.00	20.79	19.00	6	2760.000	Yes	Garala, Kanek, Barada, Manekpur, Motha, Samter, Chikhalkuba, Dhokadava, Jasadhar, Kandhi, Mahobatpara, Mota Samadhiyala, Padapadar, Patapur, Rameshwar, Sanyapur, Umej
3	Gir Gadhada	Machhundri	Kodiya	Medium	71.18	20.77	10.00	-	5506.000	Yes	Chachakvad, Navabandar, Rajpara, Rampara, Una, Delvada, Dr on, Fatsar, Gundla, Itvaya, Zankharvad, Zudvadali, Karapan, Kodiya, Men
4	Una	Khilavad	Khilavad	Small	70.88	20.76		-		No	Khilavad, Gundala
5	Una	Farera	Fareda	Small	71.07	20.73		-		No	Gir-Gadhada, Sanvan, Dhrabavad, Simasi, Kandiya, Leraka, Chikhali, Kaneri
6	Una	Rupen	Shana Vankiya	Small	71.30	21.01		-		No	Vankiya, Timbi, Sanaradi, Khatrivad
7	Kodinar	Pichhavi	Pichhavi	Small	70.85	20.87		-		No	Hadmatiya, Pichhavi, Pichhava
8	Talala	Hiran - 1	Sasan	Medium	70.6	21.18	12.96	-	1034.000	Yes	Galiyavad, Ramrechi, Sangodra, Talala, Bhalchhel, Kamleshwar, Nes, Ganduri nes, Borvav, Chitravad, Chitrod, Sasan, Virpur of Talala]
9	Talala	Hiran – 2	Umrathi	Medium	70.45	20.99	8.84	7	3559.000	Yes	Umrethi, Maljinjva of Talala], [Navadra, Sonariya, Badalpara, Kajali, Mithapur, Prabhas patan, Mandor, Bherala, Ishwariya, Indroi, Savani of Veraval]

ANNEXURE – 18

Latitude - Longitude of Taluka Hq. and City Places.

Sr.	Name of Taluka	North Latitude	East Longitude	Distance from District HQ. in (Km.)	Distance from Ocen in (Km.)
1	Veraval (M)	20.91	70.37	0	2
2	Patan (Somnath)	20.89	70.40	4	1
3	Talala (M)	21.05	70.52	26	23
4	Sutrapada (M)	20.84	70.48	15	2
5	Kodinar (M)	20.79	70.70	42	5.5
6	Una (M)	20.81	71.04	84	10
7	Gir Gadhada	20.92	70.91	78	23
8	Sasan GIR	21.17	70.59	41	36

ANNEXURE – 19

Indicators: (A) Important Websites:

Web Link	In Concern to
http://sdrn.gsdma.org	State Disaster Resource Inventory for Gujarat.
http://www.gsdma.org/	Gujarat State Disaster Management Authority.
https://girsomnath.nic.in https://girsomnath.gujarat.gov.in	Collectorate Gir Somnath
http://junagadhdp.gujarat.gov.in/junagadh/index.htm	District Panchayat – JND.
http://www.spjunagadh.gujarat.gov.in/spjunagadh/default.aspx	Police Department JND.
http://www.idrn.gov.in/	India Disaster Resources.
http://www.imd.gov.in/section/satmet/dynamic/insatsector-irc.htm	Satellite Image.
http://www.imd.gov.in/section/nhac/distforecast/junagadh.htm	Weather Forecast.
http://imd.gov.in/section/seismo/dynamic/PRLMNEW1.HTM	Recent Earthquake India.
http://isr.gujarat.gov.in/Latest_EQ.html	Earthquakes in Gujarat.
http://ptwc.weather.gov/?region=3	Tsunami Warning.

(B) Sources of Information:

1. Departmental Disaster Management Plan of District level Agencies.
2. Flood Memorandum of Irrigation Branch, Junagadh.
3. Statistical outline of District Statistics Department, District Panchayat, Junagadh.
4. Incident Command System Training Materials.
5. Officer's Training Materials of Gujarat Institute of Disaster Management.
6. State / India Disaster Resource Network Inventory.
7. Weather Station, Agriculture University, Junagadh.
8. Various Emergency Operation Files of Collector Office, Junagadh and Gir-Somnath.
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.
12. The Gujarat State Disaster Management Act, 2003.
13. Wikipedia website online contents through <http://en.wikipedia.org>
14. DEOC, Gir Somanth

ANNEXURE – 20

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, Toluen	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 deritives	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 amaille 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	Prednision 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.



Contact Directory



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

Sr .	District Name	Code No.	Collector		DDO		SP		RAC	DEOC
			Office No	Mobile	Office	Mobile	Office	Mobile	Mobile	Office
1	Ahmedabad	079	27551681	9978406201	25506487	9978406226	26891168	9978406342	9978405173	27560511
2	Amreli	02792	222307	9978406202	222313	9978406227	222333	9978405063	9409390773	230735
3	Anand	02692	262271	9978406203	264110	9978406228	260027	9978405064	9978405175	243222
4	Aravalli	02772	250200	9978405935	241544	9978406496	248666	9978405978	9727756393	-
5	Banaskantha	02742	257171	9978406204	254060	9978406229	257015	9978405065	9978405176	250627
6	Bharuch	02642	240600	9978406205	240603	9978406230	223633	9978405066	9978405177	242300
7	Bhavnagar	0278	2428822	9978406206	2426810	9978406231	2520050	9978405067	9978405178	2521554
8	Botad	02849	271301	9978405931	271375	9978406493	251416	9978405988	9727758035	-
9	Chhota Udepur	02669	233003	9978405937	296202	9978406468	233101	9978405977	7574953262	-
10	Dahod	02673	239001	9978406207	293066.00	9978406232	222300	9978405068	9978405179	239277
11	Dang	02631	220201	9978406208	220254	9978406233	220248	9978405021	9978447801	220347
12	Devbhumi Dwarka	02833	232803	9978405933	235947	9978406492	0233223	9978405976	9727763794	-
13	Gandhinagar	079	259030	9978406209	259030	9978406234	23222618	9978405070	9978405181	23256639
14	Gir Somnath	02876	285001	9978405934	285255	9978406495	224778	9978405974	9727756448	285064
15	Jamnagar	0288	2555869	9978406210	2553901	9978405639	2554203	9978405639	9978405210	2553404
16	Junagadh	0285	2630100	9978406211	2635315	9978406236	2635633	9978405250	9978405211	2633448
17	Kheda	0268	2553356	9978406212	2557262	9978406237	2550150	9978405072	9978405597	2553356
18	Kutch	02832	250020	9978406213	250080	9978406238	280233	9978405690	9978405212	252347
19	Mahesana	02762	222211	9978406214	222301	9978406239	222122	9978405074	9978405213	222220
20	Mahisagar	02674	250664	9978405936	250945	9978406497	254001	9978405980	9727763950	-
21	Morbi	02822	240701	9978405932	222580	9978406470	243480	9978405975	9727759674	-
22	Narmada	02640	222161	9978406216	299001	9978406241	222167	9978405076	9978405188	224001
23	Navsari	02637	244999	9978406215	244399	9978406240	233888	9978405075	9978405187	259401
24	Panchmahal	02672	242800	9978606217	253377	9978406242	242812	9978405077	9978405189	242536
25	Patan	02766	233301	9978406218	232936	9978406243	230104	9978405078	9978405190	224830
26	Porbandar	0286	2221800	9978406219	2243803	9978406244	2211222	9978405079	9978405191	2220800
27	Rajkot	0281	2479351	9978406220	2477008	9978406245	2446333	9978405080	9978405218	2471573

28	Sabarkantha	027 72	241001	9978406 221	242350	9978406 246	247333	9978405 081	9978405 219	249039
29	Surat	026 1	265252 5	9978406 222	242216 0	9978406 247	224130 1	9427015 535	9978405 220	246511 2
30	Surendranagar	027 52	282200	9978406 223	283752	9978406 248	282100	9978405 083	9978405 224	283400
31	Tapi	026 26	224460	9978405 364	222141	9978405 263	220070	9978405 488	9978405 415	223332
32	Vadodara	026 5	243300 0	9978406 224	243202 7	9978406 249	241225 5	9978406 094	9978405 196	242759 2
33	Valsad	026 32	253613	9978406 225	253184	9978406 250	254222	9978405 085	9978405 253	243238

2. District Level Emergency Contacts: STD Code - (02876)

Sr.	Designation	Mobile No	Office	Fax	Email ID
1	Collector	9978405934	285001	285300	collector-girsomnath@gujarat.gov.in
2	DDO	9978406495	285255	249255	ddo.girsomnath@gmail.com
3	DSP	9978405974	224778	222110	sp-gir@gujarat.gov.in
4	Resi. Add. Collector	9727756448	285003	285300	collectorgirsomnath@gmail.com
5	DRDA	9429972209	245271	-	drdagirsomnath@gmail.com
6	DSO	7567003350	285032	240002	dsogirsomnath@gmail.com
7	SDM- Veraval	9978405344	243322	221672	sdmveraval@gmail.com
8	SDM- Una	7567009879	02875 226600	226555	sdmuna123@gmail.com
9	Dy. DDO (Revenue)	9104418649	249250 /49	249255	dyddogs@gmail.com
10	CDHO	7567889923	285051	-	cdho.health.girsomnath@gmail.com
11	DEO	7574822584	221095	221095	girsomnathdeo@gmail.com
12	DPEO	9099098483	244500	-	girsomnathdpeo@gmail.com
13	Asst. Dir. Information	9825906511	240108	240109	mahitigirsomnath@gmail.com
14	Disaster Control Room	1077	285063 /64	-	dismgmt-girsomnath@gujarat.gov.in
15	Mamlatdar Disaster	9227729494	285063 /64	-	dismgmt-girsomnath@gujarat.gov.in
16	DPO Disaster	7874972387	285063 /64	-	dismgmt-girsomnath@gujarat.gov.in
17	Dy. Mamlatdar Disaster	9624312796	285063 /64	-	dismgmt-girsomnath@gujarat.gov.in
18	District Disaster Satalite Phone	8991115053	-	-	dismgmt-girsomnath@gujarat.gov.in

3. Taluka Level Emergency Contacts:

Sr.	Taluka	STD Code No.	Mamalatdar	Mobile No
			Office	
1	Veraval Rural	02876	244299	6352677386
2	Veraval City	02876	243777	7567003106
3	Talala	02877	222222	7567003367
4	Sutrapada	02876	264071	7567003375
5	Una	02875	222039	7567003299
6	Kodinar	02795	221244	7567003116
7	Gir Gadhada	02875	243100	9879517551

Sr.	Taluka	TDO	Mobile No
		Office	
1	Veraval Rural	220267	9427776847
2	Talala	222221	9714320660
3	Sutrapada	263911	9558825705
4	Una	221622	8160538485
5	Kodinar	221524	9824435911
6	Gir Gadhada	221622	9924710883

Sr.	Taluka	Police Station	Mobile No
		Office	
1	Veraval Rural	242040	8140185854
2	Veraval City	242040	9627504733
3	Talala	222233	8460181262
4	Sutrapada	263337	9879099553
5	Una	223394	8469720167
6	Kodinar	221504	8000020976
7	Gir Gadhada	243321	9727885886

4. City Level Emergency Contacts:

Sr	NagarPalika	Mobile No	Office	E-Mail ID
1	Una	9998723740	02875 – 221666	np_una@yahoo.co.in
2	Veraval	9687697400	02876 – 220290	np_veraval@yahoo.co.in
3	Talala	9687697400	02877 – 223111	nptalala@yahoo.com
4	Sutrapada	9099038438	02876 – 263016	np_sutrapada@yahoo.co.in
5	Kodinar	7874140510	02795 – 221411	np_kodinar@yahoo.co.in

5. List of Trained Men Powers (Aapda Mitra) – Gir Somnath DISTRICT

5.1. (Aapda Mitra) Trained in Year – 2018 Batch

Sr.	Name of Aapda Mitra	M / F	Swimmer	Taluka	Contact No.
1	gangaben kanabhai chuhan at.khajudra	F	Yes	Una	9824851316
2	sanjaybhai dadubhai sankhat at.utwada	M	Yes	Una	7096968604
3	Bhojubha mulubhai sankhat at.utwada	M	Yes	Una	9624798219
4	sonalben khatubhai bhaliya	F	Yes	Una	6355244277
5	kanchanben jilubhai gohil	F	Yes	Una	9737365268
6	Bhanabhai Rajabhai at.malsram	M	Yes	Kodinar	9228385341
7	kumar bhgvanbhai At.chara	M	Yes	Kodinar	9275218847
8	aswinbhai hamirbhai At.chara	M	Yes	Kodinar	7359543852
9	maheshsankar ramsankar At.sandhridhar	M	Yes	Kodinar	9925135949
10	Nikitaben jivabhai Vala	F	Yes	Veraval (R)	9898151086
11	Jankiben Laxmanbhai Rathod	F	Yes	Veraval City	9228310462
12	Laxmiben Laxmanbhai Solanki	F	Yes	Veraval City	9426415536
13	Jentibhai Alabhai makvana	M	Yes	Veraval City	8758289467
14	Kantibhai Ramsibhai	M	Yes	Veraval City	9624350416
15	Shashita M.Pathan	F	Yes	Talala	8140930703
16	rameshbhai pithabhai vala	M	Yes	Veraval City	7874438045
17	jigar yogeshbhai joshi	M	Yes	Veraval City	7016828804
18	shubham girishbhai naina	M	Yes	Veraval City	9998603909
19	pankajbhai narendrbhai solanki	M	Yes	Veraval City	9924992945
20	vivek babubhai beradiya	M	Yes	Veraval City	9265850420
21	jay kaushikbhai bhatt	M	Yes	Veraval City	9687924428
22	amitbhai surajbhai chudasama	M	Yes	Veraval City	9106816244
23	sanjay oghadbhai bheda	M	Yes	Veraval City	7028080552
24	rajesh parbatbhai	M	Yes	Sutrapada	9824821103
25	meramanbhai naranbhai sevra	M	Yes	Sutrapada	9724672195

5.2. (Aapda Mitra) Trained in Year – 2019 Batch

Sr.	Name of Aapda Mitra	Father Name	M/F	Mobile No.	Taluka	Village
1	Gitaben	Laxmanbhai	F	8155836649	Sutrapada	Bhuvavada
2	Bheniben	Pasabhai	F	9723320443	Sutrapada	Kadvar
3	Ravinaben	Kesurbhai	F	7359360017	Sutrapada	Kadvar
4	Mukeshbhai	Devjibhai	M	9228437385	Veraval	Veraval
5	Ashokbhai	Sureshbhai	M	9998214521	Veraval	Veraval
6	Kapil	Bhanuprasad	M	9904247076	Veraval	Veraval
7	Dineshbhai	Dhirubhai	M	9227387972	Kodinar	Kodinar
8	Piyushbhai	Samatbhai	M	9099827575	Sutrapada	Visodar
9	Raghuversinh	Mahipatsinh	M	9624779727	Kodinar	Khasriya
10	Jitendra	Vajubhai	M	9558386086	Kodinar	Kaj
11	Bhagvanbhai	Mandanbhai	M	9904292242	Sutrapada	Kadvar
12	Hasmukhbhai	Babubhai	M	8530819764	Gir Gadhda	Gir Gadhda
13	Vikarmsinh	Jilubhai	M	8153813913	Una	Untvada
14	Nikunj	Khodubhai	M	7046416301	Una	Untvada
15	Bharatbhai	Dilubhai	M	6356651615	Una	Untvada
16	Labhuben	Palabhai	F	9274034713	Kodinar	Kodinar
17	Dineshbhai	Vasabhai	M	8153020931	Sutrapada	Bosan
18	Hasmukhbhai	Naranbhai	M	9737687315	Una	Untvada
19	Ushaben	Vashrambhai	F	8238984994	Kodinar	Ronaj

District Emergency Operation Centre, Gir Somnath

At. Inaj, Ta. Veraval, Dist. Gir Somnath. 362269

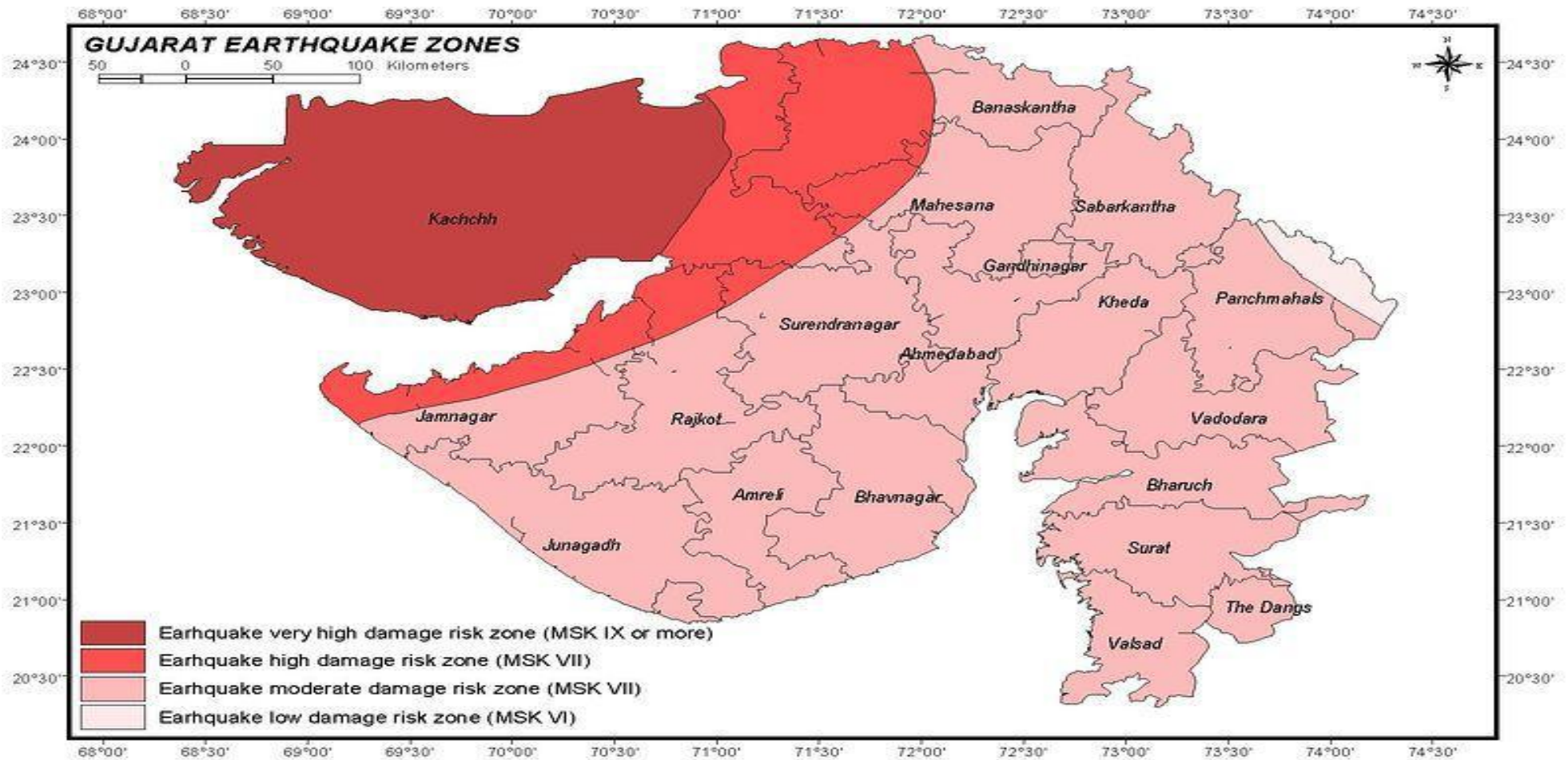
Ph. : 02876- 285063/285064 , 1077

E-Mail : dismgmt-girsomnath@gujarat.gov.in

Updaetd as on: 27-05-2026

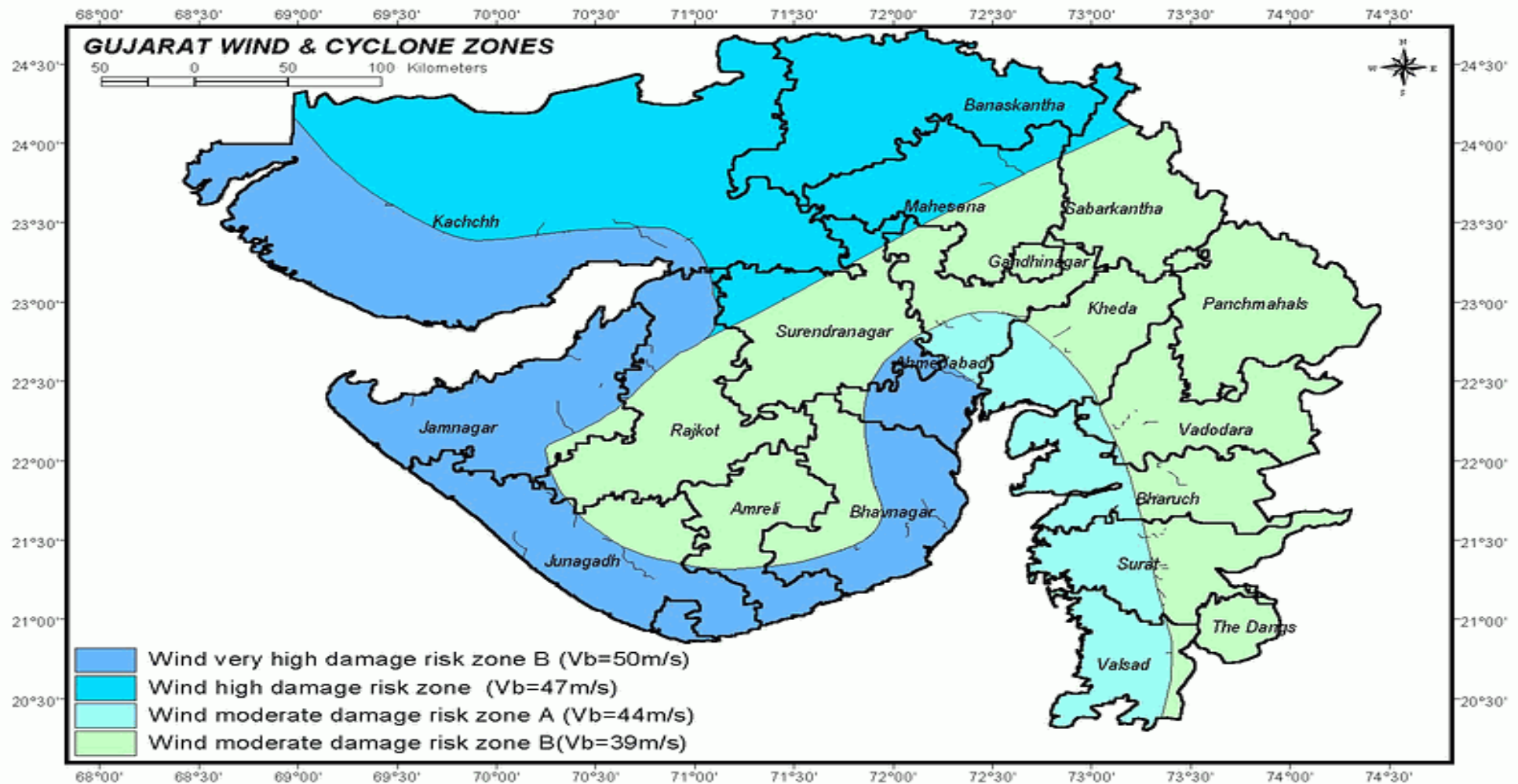
Hazard Maps

Map Showing Gujarat Earthquake Zones



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

Map Showing Gujarat High Wind and Cyclone Zones



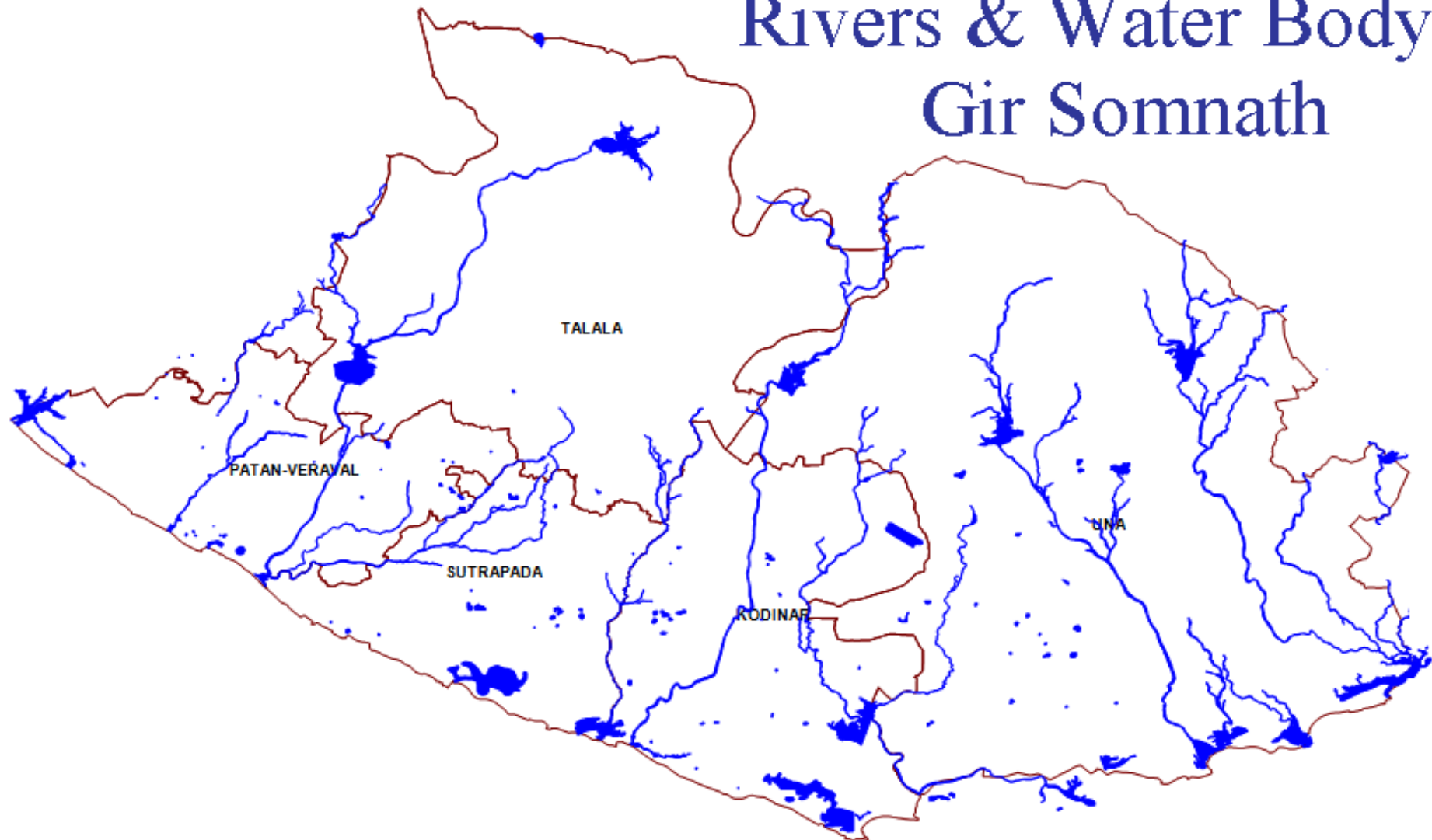
Disclaimer: This map was collated based on the data/information compiled by the Ministry of Urban Development and Poverty Alleviation. UNDP has not verified the accuracy of information of the Map.
Source: BMTPC, India

Map Showing Administrative Boundry and Network.

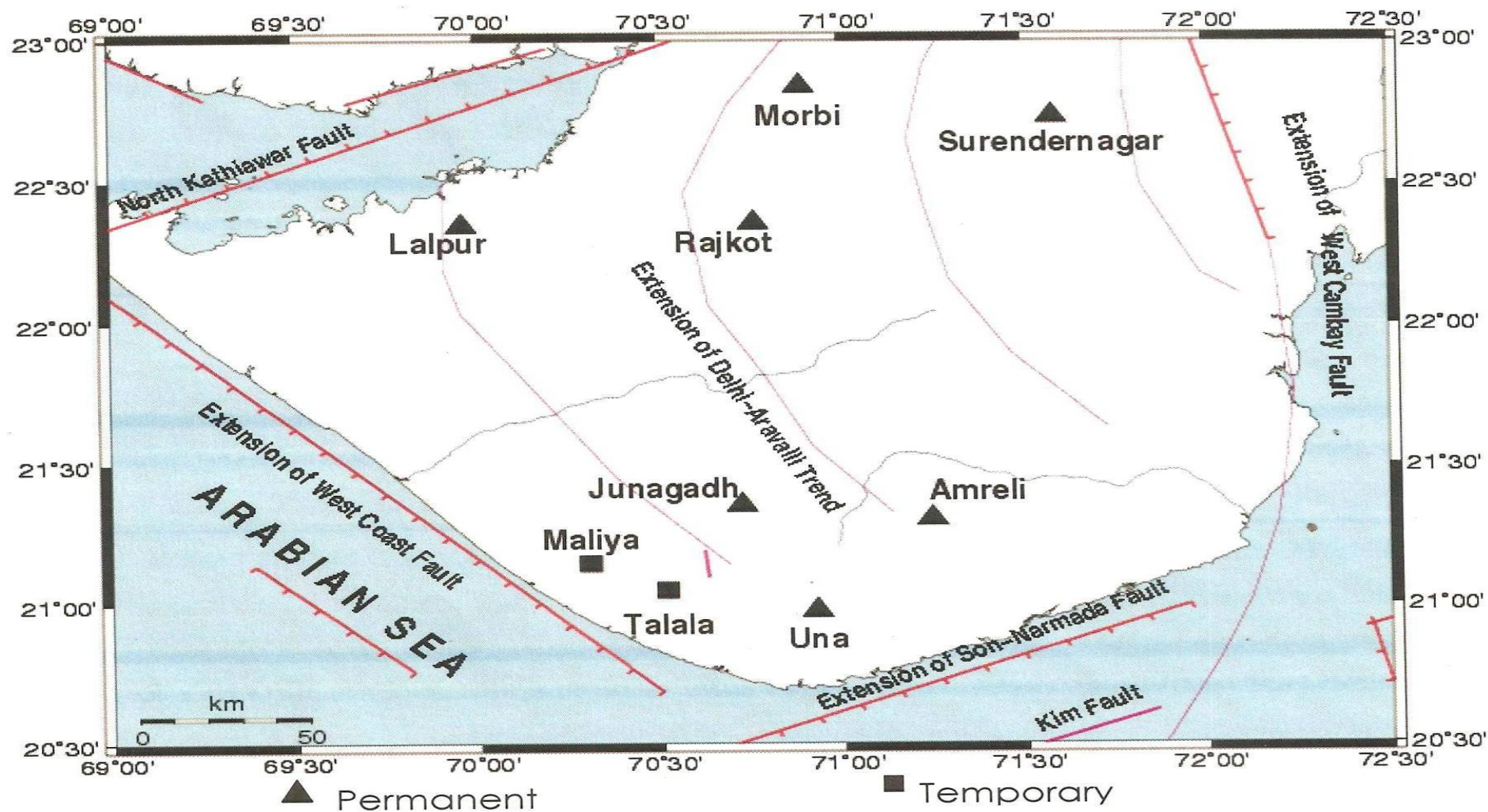


Map Showing Irrigation Dams, Rivers and Water Body.

Rivers & Water Body Gir Somnath



Map Showing Earth Quack Fault Lines.



Map Showing Health Facilities of Gir Somnath District.



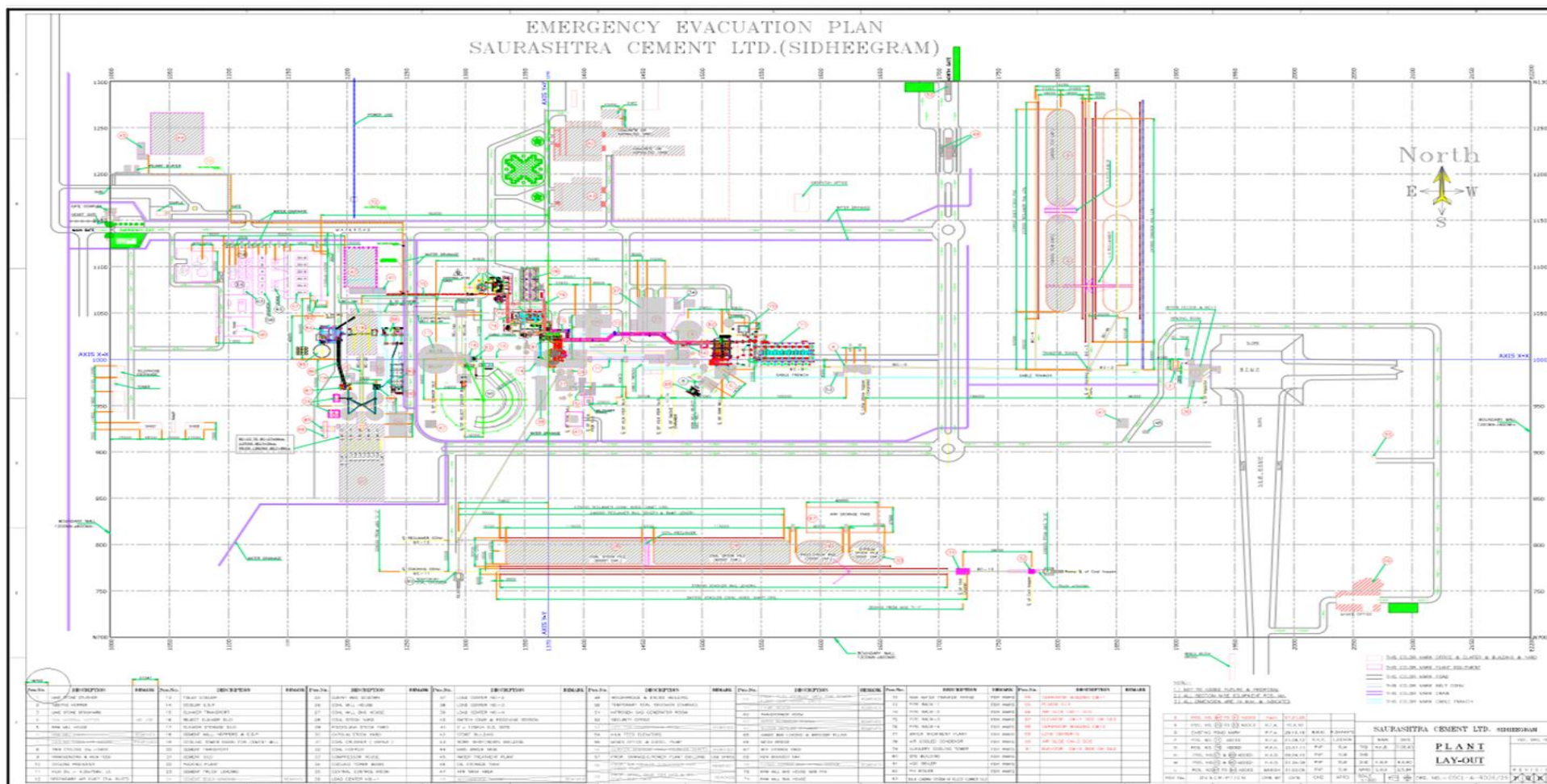
GIR SOMNATH DISTRICT
PHC & CHC CENTERS

Courtesy: Mukesh Jadav, DDMO, Gir Somnath

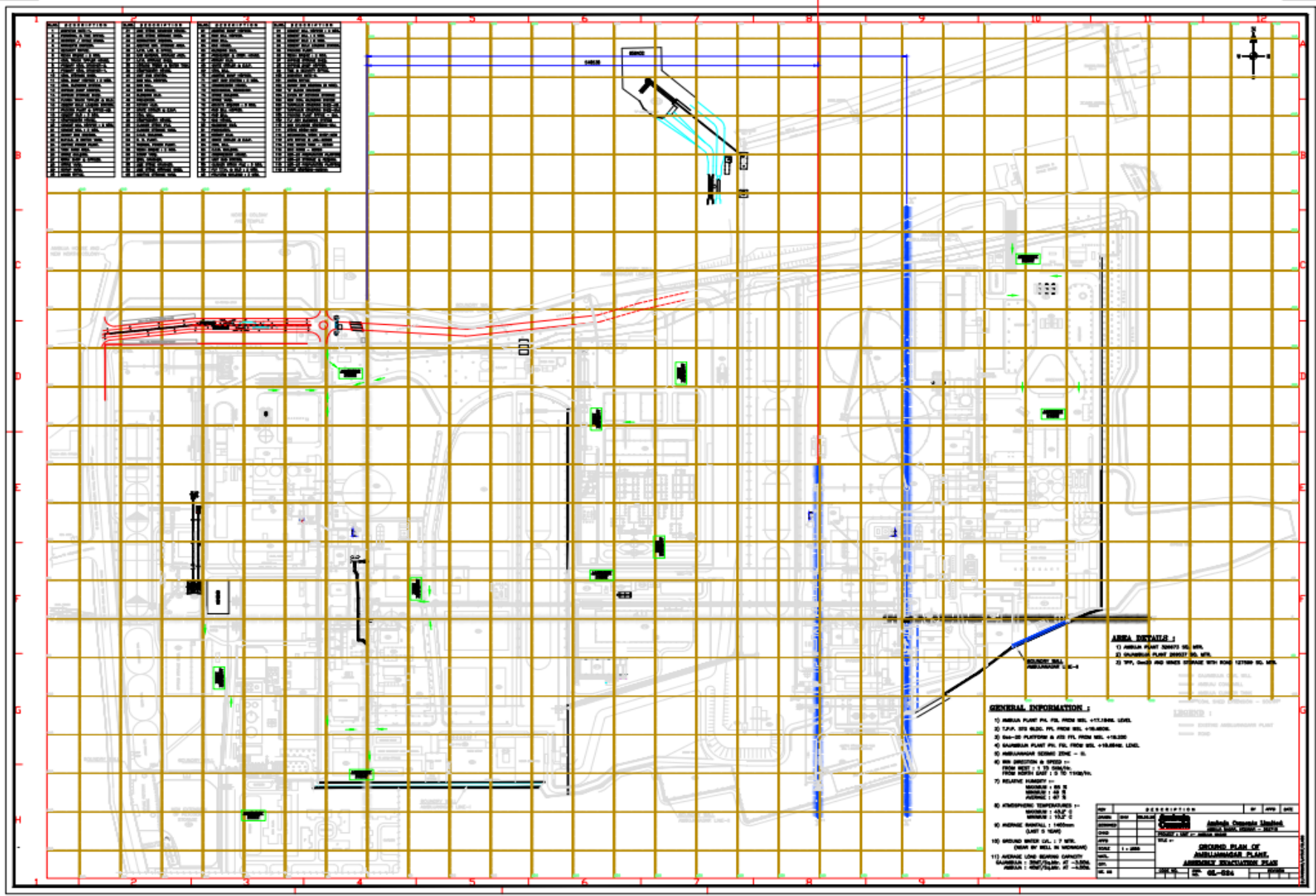
Somnath Temple Evacuation Plan.



Saurashtra Cement, Morasa Evacuation Plan



Adani Cement (Ambuja), Kodinar Evacuation Plan



GHCL Sutrapada, Evacuation Plan



Indian Reyon, Veral, Evacuation Plan

