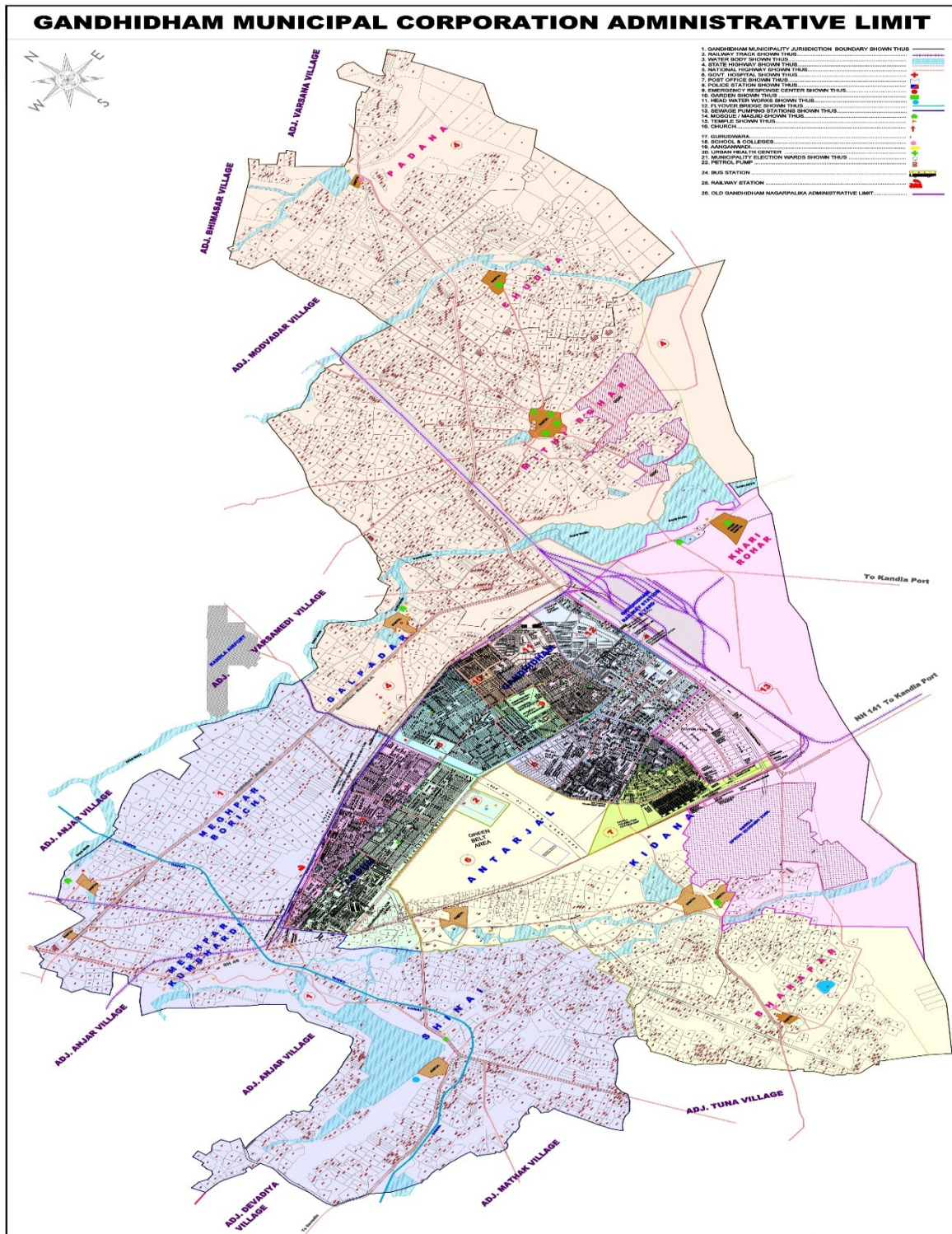




CITY DISASTER MANAGEMENT PLAN

Year: 2026 | GDMC

City Emergency Operation Centre

Disaster Management Cell

Office of the Gandhidham Municipal Corporation, Gandhidham - Kachchh

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Preface

The **City Disaster Management Plan – 2026 of Gandhidham Municipal Corporation** has been prepared in accordance with the guidelines of the **National Disaster Management Authority (NDMA)** and the **Gujarat State Disaster Management Authority (GSDMA)**. The plan provides a comprehensive overview of potential hazards in Gandhidham and the wider Kutch region, detailing their severity and frequency cycles. It also defines the roles and responsibilities of officials from each department, NGOs, volunteers, and local bodies.

Updated inventories of search-and-rescue equipment, relief materials, and vehicles available at the Corporation level have been incorporated, along with revised contact directories of key officials. Geo-coordinates of flood-prone and water-inundation zones have been mapped to enable rapid identification of affected areas and facilitate air-lift operations.

A structured response mechanism for catastrophic events has been elaborated, aligned with NDMA guidelines, ensuring precautionary and safety measures are systematically followed. The plan will be reviewed periodically to update equipment inventories, contact directories, and operational protocols, thereby maintaining its relevance and effectiveness.

B. D. DAVERA
Commissioner
Gandhidham Municipal Corporation

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Chapter 1: Introduction

1.1. What is a Disaster?

A disaster is an event triggered by natural man-made causes that lead to sudden disruption of normalcy causing widespread damage to life and property. The High-Power Committee of Government of India has identified 30 major and minor disasters, which frequently occurs in our country. It is now a recognized fact that while natural disasters are primarily due to an imbalance in nature but losses due to them on account of human feelings. Human sufferings and misery from a large number of natural disasters can be minimized by taking timely action, preventing mechanisms and undertaking capital works of long and medium terms.

Disaster management is a process or strategy that is implemented when any type of catastrophic event takes place and it also includes the preparation in anticipation of any such event. In India, 199 districts have been identified to be multi hazard prone. Kutch is also one of them and it is exposed to both natural as well as man-made hazards. Among the natural hazards, earthquake, cyclones, drought, flood and heat wave are the major ones. 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. The district administration is also required to prepare a District Disaster Management Plan (DDMP) based on 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 (DC).

The previous disaster management plans of the Kutch district were mainly disaster specific contingency plans. As a result, the command and control of relief efforts were often not optimal. The mitigation, prevention, and preparedness aspects were not addressed. Further, 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 Kutch district administration has used a multi-disaster approach (all disasters covered by one plan) while developing disaster management plan for the district.

1.2. Aims and Objectives of Kutch DDMP

Following are the broad objectives of the Kutch DDMP –

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 make the citizens aware of the disasters and their impact
- 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

1.3. 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.

1.3.1. 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.

1.3.2. The Four priorities of action are:

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

1.3.3. The seven global targets are:

- 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
- 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
- Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030
- 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
- Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020
- Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this Framework by 2030
- Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030

1.3.4. 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.

1.3.5. 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:

- All development sectors to imbibe principles of Disaster Risk Management
- Work towards risk coverage for all-starting from poor households to small and medium enterprises to multi-national corporations to nation states.
- Encourage greater involvement and leadership of women in disaster risk management.
- Invest in risk mapping globally related to hazards such as earthquakes based on widely accepted standards and parameters.
- Leverage technology to enhance the efficiency of disaster risk management efforts.
- Develop a network of universities to work on disaster issues.
- Utilize the opportunities provided by social media and mobile technologies.
- 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.
- Ensuring that disaster learning is well documented.
- Bring about greater cohesion in international response to disasters.

1.4. The Scope of the Plan

Gandhidham City's Disaster Management and Response Plan has been prepared for implementation by various city departments, agencies, and other non-governmental organizations expected to participate in disaster management. This plan encompasses Vulnerability Assessment and Risk Analysis, Preventive Measures, Integration of Disaster Management Concerns into Development Plans, Preparedness Strategies, Response Mechanism, Stakeholder Partnerships, Financial Arrangements, Roles and Responsibilities of various agencies involved in disaster management, and the scope of their activities. A detailed inventory of resources has also been formalized.

1.5. 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 Standard Operating Procedures (SOPs) should be limited to the minimum information needed 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.

Guidelines on the use of the CDMP as per National Disaster Management Authority (NDMA) policy plan are following –

- Section 31 of National Disaster Management (NDM) Act 2005 makes it mandatory for every district to prepare a disaster management plan, for the protection of life and property from the effects of hazardous events within the district.
- Insignificant emergencies or disasters, District Magistrate or the chairperson of DDMA will have the powers of overall supervision direction and control as may be specified under State Government Rules/State Disaster Management Plan guidelines.
- The district Emergency Operation Center (EOC) will be staffed and operated as the situation dictates. When activated, operations will be supported by senior officers from line departments and central government agencies; private sector and volunteer organizations may be used to provide information, data and resources to cope with the situation.
- The DDMA may recommend for action under Sec 30 of DM Act.
- Facilities that have been identified as vital to the operation of the district government functions have been identified.
- The Collector or his designee will coordinate and control resources of the district.
- Emergency public information will be disseminated by all available media outlets through the designated media and information officer.
- Prior planning and training of personnel are prerequisites to effective emergency operations and must be considered as integral parts of disaster preparations.
- Coordination with surrounding districts is essential, when an event occurs, that impacts beyond district boundaries. The procedure should be established and exercised for inter-district collaboration.
- Departments, agencies and organizations assigned either primary or supporting responsibilities in this document must develop implementation documents in order to support this plan.
- When local resources prove to be inadequate during emergency operations, request for assistance will be made to the State or higher levels of government and other agencies in accordance with set rules and procedures.
- District authority will use the normal channel for requesting assistance and/or resources, i.e., through the District Emergency Operations Center (DEOC) to the State EOC. If state resources have been exhausted, the state will arrange to provide the needed resources through central assistance.
- The DEOC will coordinate with the State EOC, Agencies of the Govt. of India like Indian Meteorological Department (IMD), Central Water Commission (CWC) to maintain upto-date information concerning potential flooding, cyclones etc. As appropriate, such information will be provided to the citizens of the affected areas in the district.

- Upon receipt of potential problems in these areas, DEOC/designated officials will appropriately issue alert and notify action to be taken by the residents.
- Disaster occurrence could result in disruption of government functions and, therefore, all levels of local government and their departments should develop and maintain procedures to ensure continuity of Government action.

1.6. Evolution of the Plan

Gujarat Act No. 20 of 2003 or The Gujarat State Disaster Management (GSDM) Act, 2003 provides for the creation of the DDMP in the district and in fact GSDM Act was a pioneer legislation in the whole country to make such provisions. It has clearly stated the mandatory provision of the DM plan in various clauses and sections. Some of the important sections and provisions are reproduced below.

Clause 15 of Chapter VI of GSDM Act, 2003

- The authority shall develop or cause to be developed guidelines for the preparation of disaster management 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
- 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, program, 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 –
 - Allocation of responsibilities to the various stakeholders and coordination in carrying out their responsibilities;
 - Procurement of essential goods and providing essential services;
 - Establishment of strategic communication links;
 - Dissemination of information; and
 - Other matters as may be provided for in the regulations.
 - Any other matter required by the Authority.
- The Authority shall prepare, or cause to be prepared, and maintained a master plan for the State/District

1.7. Authority for the Plan

At the state level, Gujarat State Disaster Management Authority (GSDMA) shall be primarily responsible for promoting an integrated and coordinated system of disaster management including prevention or mitigation of disaster by the state, local authorities, stakeholders and communities. The Authority shall act as the central planning, coordinating and monitoring body for disaster management and post-disaster reconstruction, rehabilitation, evaluation, and assessment. It will also assist the State Government in the formulation of policy relating to emergency relief notwithstanding that the implementation of emergency relief shall be the responsibility of the revenue department and other departments of the Government. It shall also inform the State Government and departments of Government on progress and problems in disaster management. It shall also promote general education and awareness on disaster management, emergency planning, and response and matters incidental to the State Government, the Collector, concerned officers of the State Government and the local authorities in the State shall give such assistance and support to the Authority in performing its functions as may be required by the Authority.

At the City level, the Municipal Commissioner is in charge of disaster management and prepares CDMP and responds to emergency situations.

1.8. Stakeholders and Their Responsibilities

At the City level, Municipal Commissioner is responsible for responding any disaster situation in consultation with other line departments at City Head Quarters is responsible to deal with all phases of disaster management within the district. Technical institutions, Non-Governmental Organizations (NGOs), Local authority, the private sector, community groups, volunteer agencies, and citizens are the other stakeholders and potential participants in the disaster management exercise.

I. Local Authority

The local authorities shall –

- a. Provide assistance to GSDMA, COR, and Collector in disaster management activities.
- b. Ensure training of its officers and employees and maintenance of resources so as to be readily available for use in the event of a disaster.
- c. Ensure that all construction projects under it conform to the standards and specifications laid down.
- d. Each department of the Government in a district shall prepare a disaster management plan for the district. Carry out relief, rehabilitation and reconstruction activities in the affected area within its jurisdiction.

II. Private Sector

The private sector should ensure their active participation in the pre-disaster activities in alignment with the overall plan developed by the GSDMA or the Collector. They should also

adhere to the relevant building codes and other specifications, as may be stipulated by relevant local authorities.

III. **Community Groups and Voluntary agencies**

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

IV. **Citizen**

It is a duty of every citizen 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.

Mitigation, Preparedness and Prevention:

Mitigation, preparedness, and prevention actions are to be taken before a disaster to reduce the probability of a disaster (risk reduction) or the level of damage (vulnerability reduction) expected from a possible disaster. Vulnerability reduction is given priority over risk reduction. The district can avail itself of four mechanisms (singularly or together) to reduce risk and vulnerability –

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

The overall approach to disaster management is based on six elements –

- a. Precise risk and Vulnerability assessment
- b. Planning and efficient allocation of resources
- c. Capacity building and training
- d. Provision of ample resources
- e. The assignment of disaster management roles and responsibilities which correspond to normal roles and responsibilities (if possible) and
- f. Use of diverse legal and operational mechanisms to accomplish disaster management objectives

Based on the interim assessment of risk and vulnerabilities, the Kutch District will focus on the following areas for mitigation, preparedness, and prevention –

- a. Resilience of lifeline systems (water, power, and communications)
- b. Reduction in disaster impact on health care facilities, schools, and roads

- c. Vulnerability reduction in flood-prone areas
- d. Vulnerability reduction to high winds
- e. Improvement of off-site Preparedness near industrial sites

1.9. CDMP Review and Updating

The **Municipal Commissioner** is responsible for the preparation and revision of the CDMP in collaboration with the line departments and other organizations in the Municipal Area. 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 learned as an outcome of the mock exercise, which consists of identifying the gaps and putting in place a system to fill the same.

The CDMP shall be reviewed and updated regularly bi-annually/half yearly and updated –

- a. When significant changes in the nature of any hazards
- b. By lessons learned following any major disaster
- c. When there is any significant change to organization or responsibility of primary members of the task forces defined in the plan.
- d. City Disaster Management Committee (CDMC) shall compile its learning and proposed new mechanisms for improvement of the capacity to deal with disasters
- e. After any drills and rehearsals
- f. After recommendations from all line Depts. in their concerned reports
- g. After lessons learned from any disaster event in other district and state
- h. In consequence of any directions from NDMA, GSDMA, Government of Gujarat, Revenue Department etc.

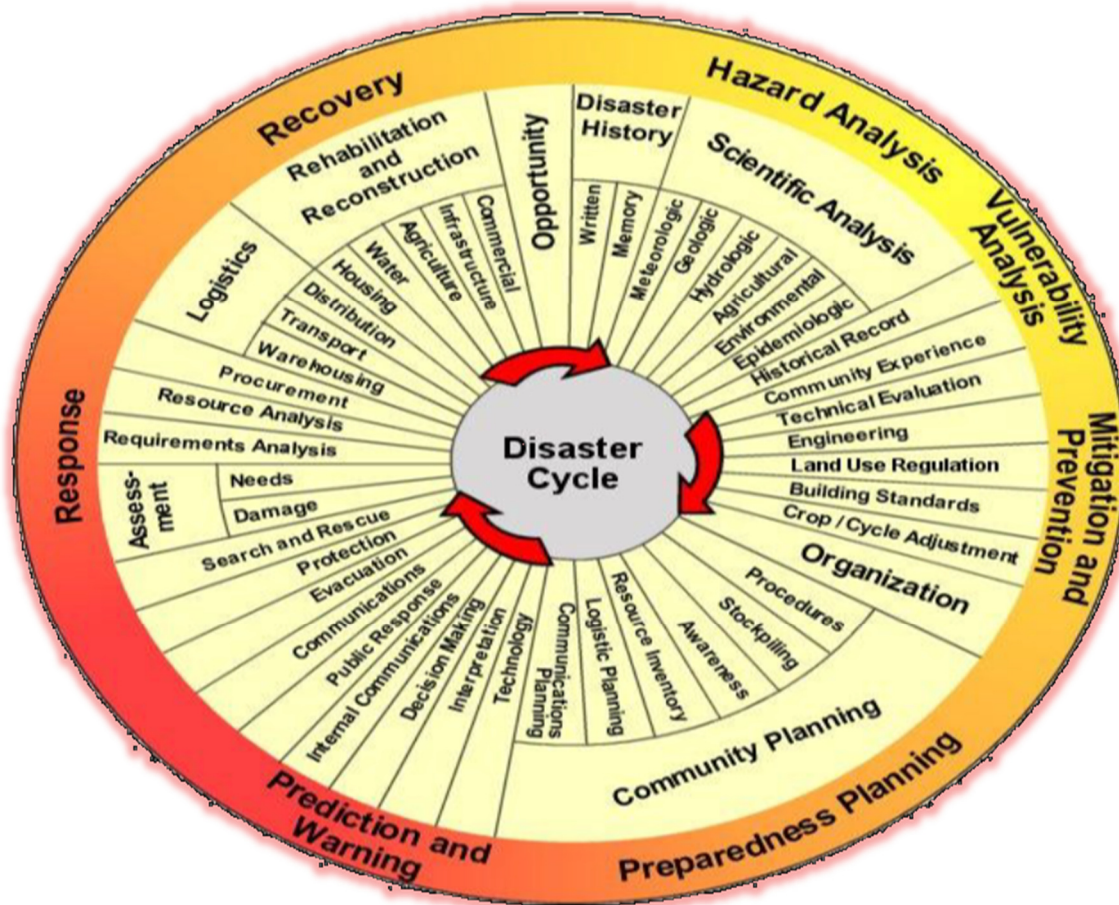


Figure 1: Disaster Risk Management Cycle

Chapter 2: City Profile of Gandhidham

2.1. City Overview

The city was established in 1950. It was settled to rehabilitate Sindhi and other communities who arrived in India after the partition of India and Pakistan. The esteemed government handed over land around Kandla Port to the port authority for its development and the rehabilitation of displaced people. Out of this, 2,600 acres of land were allocated to the Sindhu Resettlement Corporation through the government to be developed as per the approved development plan. These two entities collected development costs from people and provided land as per the master plan for the construction of houses, shops, and industries to ensure the city's development.

The city is home to a diverse population, representing various communities, offering a glimpse of a "Mini India" within its boundaries.

Gandhidham is Located in the East corner of Kutch District. The city is spread between 23°10' and 23° 07' of northern latitude and 68° 07' and 71° 55' of eastern longitude. It is bounded by Eastern in South and Banas kantha district in East and then Rajasthan state border. Kutch Desert is situated in North and the international border of Pakistan. The district is having an area of 887106 Hectare (45674 Sq. Kms) making it the largest district of India and accounting for above 23.28% of the total state land. The district has 3300 Hectares forest Area and Agriculture Land is 691818 Hectares.

Gandhidham city, situated in the eastern part of the Kutch district, is an industrial city. Recently, the state government declared it a metropolitan area by including six surrounding villages. These included villages are Shinay, Kidana, Galpadar, Antarjal, Meghpar-Borichi, and Meghpar-Kumbhardi. The city's population in 2011 was 247,992, and currently, including the villages incorporated into the metropolitan municipality, the estimated total population is around 575,000.

Adjacent to Gandhidham city is Kandla Port, the country's number one major port. Nearby, National Highway No. 8A and Kandla Airport are also located.

2.2. Climatic and Geographical Conditions of Gandhidham City

The Climate of Kutch-Gandhidham City can be observed as one of an extreme kind with hot summers and mildly cold winters, where it is generally pleasant all throughout the year. The climate of Kutch-Gandhidham is Mostly Dry with scant rainfall.

The climate of this city experiences a maximum temperature of 45°C and a minimum temperature of 8°C. During the southwest monsoon, from June to September, the region receives about 84% of the total annual rainfall. The total area of the city is 29.58 square kilometres, and the land area is approximately 2,600 hectares. The soil in this city is a mix of semi-sandy and semi-gravelly-sandy types.

Table 1: Taluka Wise Rainfall Data of Kutch- Bhuj District (1999 to 2023)

Year	Bhuj	Mandavi	Mundra	Anjar	Gandhidham	Bhachau	Ropar	Nakhatrana	Abdasa	Lakhpat
1999	123	84	120	86	335	273	189	10	187	65
2000	90	61	100	63	103	11	18	63	131	185
2001	243	301	411	331	62	382	339	456	572	294
2002	78	168	103	136	259	164	231	100	125	58
2003	712	503	785	771	195	599	686	922	443	843
2004	223	283	417	285	861	275	416	201	142	253
2005	188	243	490	382	383	403	491	174	187	98
2006	596	547	645	466	599	378	532	655	634	656
2007	663	536	590	572	571	611	570	580	462	442
2008	247	594	438	402	376	289	333	319	186	198
2009	421	559	620	378	258	389	462	432	849	383
2010	896	1701	776	889	604	968	949	691	789	375

2011	742	673	575	473	613	881	1056	634	623	415
2012	140	170	142	194	274	182	277	380	388	290
2013	472	630	946	796	765	951	865	330	349	189
2014	230	412	530	392	340	320	185	241	151	140
2015	591	406	288	899	450	684	646	649	256	434
2016	224	285	295	325	173	416	391	389	277	291
2017	320	482	397	614	343	449	656	367	683	330
2018	83	118	145	231	264	103	26	70	53	12
2019	595	734	818	760	573	798	883	841	846	633
2020	1359	1622	1501	1426	1006	986	897	1012	1001	810
2021	598	488	513	867	466	428	471	584	400	298
2022	1206	976	1025	919	577	537	548	836	829	1041
2023	853	733	844	1134	824	593	715	609	765	572

2.3. River and Dams

There is one medium dam name “Shinay Dam” in Gandhidham Municipal Corporation.

2.4. Ports and Fisheries

Out of 1600 kms long coastline of Gujarat, Kutch District is blessed with around 400 km of coastline extending from Suraj Bari of Bhachau Taluka to Koteswar of Lakhpat Taluka. There are two ports in the Kutch District, Deendayal Port (earlier known as Kandla Port) is the oldest one and located near Gandhidham Municipal area and other side the Mundra Port is the latest one and located 56 km away from Gandhidham. There are 18 numbers of fish landing centers are there in which Jakhau is one of the major fisheries harbors of the district and it is one of the five major fisheries harbors of the state. Surajbari, Kandla, sanghad, tuna Vandi, Mandvi, nana layza, modhava, tragadi, Jakhau, Narayan Sarovar, Lakhpat, kutdinal, navinal, kukadsar, luni, bhadreswar, zarpara and Mundra are other fish landing centers in the district. 74 villages in 7 Talukas of the district are fishing villages in Kutch District. Total around 655 motorized mechanical boats, 981 motorized non-mechanical boats of different capacity are available.

2.5. Salt Works

Due to the longcostline in the District, Salt Industries have developed very well. The district has total 2822 salt worker (2026) is working in salt production. Annual Production of salt is around Three Lakhs tones.

2.6. Industries

Adjacent to Gandhidham city lies the Kandla Special Economic Zone (KASEZ), which hosts various types of industries and enterprises. It comprises approximately 200 to 250 different companies.

2.7. Roads and Railway

Within the Gandhidham Corporation area, National Highway No. 8A is also located. Additionally, a state highway passes through the center of the city. Furthermore, there are various smaller and larger roads connecting the surrounding villages to the city.

Table 2: Length of Roads in Kutch

Sr. No.	Name Road	Length of road (km) (Approx)
1.	National Highway	17.00 km
2.	State highway	25.00 km
3.	Municipal area other road	400.00 km

2.8. Health

The city has 1. Sub District Hospital (SDH)-1, 2. Primary Health Centre-1, Urban Primary Health Centre-7, Sub Centre-11, Urban Health Wellness Centre-10, There are some of private and trust run hospitals also in the City like Gandhidham Jain Seva Samiti Hospital, New Hariom Trust, Shree Ram Krishna Seva Samiti Hospital (sterling) and other Private Hospitals located in the Gandhidham Municipal Area.

2.9. Education

The district has relatively low literacy rate when compared to national average. As per 2011 Census, Kutch had average 70% literacy rate while the national average was 74%. The district has total 1880 Government schools, 644 Private Schools and 111 Granted Schools. For higher education there is one university namely, Kutch University in Bhuj and apart from it, there are around 40 colleges which are providing higher education.

Chapter 3: Hazard Vulnerability and Risk Assessment

Before we move into Hazard, Vulnerability and Risk analysis of the district Kutch, let's understand the terms themselves first.

Hazards are defined as "Phenomena that pose a threat to people, structures or economic assets and which may cause a disaster. They could be either man-made or naturally occur in our environment." A Disaster is the product of a hazard coinciding with a vulnerable situation, which might include communities, cities or villages. The Vulnerability is defined as "the extent to which a community, structure, service or geographical area is likely to be damaged or disrupted by the impact of particular hazard, on account of their nature, construction, and proximity to a hazardous terrain or disaster prone area".

The hazard mapping can be best done by officials in the field, line departments, specialized agencies like BISEG or GIDM, and Gujarat State Disaster Management Authority. Collector is the nodal officer which does such hazard analysis. Now a days technology like GIS and aerial surveillance by drones etc. can also be used for hazard mapping.

3.1. Risk and Vulnerability Ranking Analysis

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

Table 3: Matrix of Disasters in Past

Disaster	Year	Magnitude /Extent	Talukas & no. of villages affected	Life & cattle loss	Damage to property	Economic losses
Earthquake	2001	7.7	10 Taluka 884 Village Affected	13805	146087 houses fully damage, 278217 houses medium damage infrastructures were damaged to a variable extent.	Around 448 crore private and public property
Cyclone	1998	4	Gandhidham, Mundra, Anjar	4000	--	--
Cyclone (Biporjoy)	2023	-	10 Taluka, 852 Village	Read Table:7	Read Table:7	-
Flood	2011	3	2 Taluka 200 village	1 Death 41 cattle loss		18947 lakhs Rs.

Heat wave	Almost Every Year	--	6	--	--	--
Cold wave	--	--	--	--	--	--
Drought	Around Every 4-5 Year	--	4 Taluka	--	--	--
Industrial disaster	--	--	--	--	--	--

Table 4: Cyclone-Biporjoy (2023)

Sr.No.	Affected Taluka	Affected Villages	Cattle lose	Govt. Relief Fund
1.	10	852	1789	Cattle Relief Fund- ₹.2,67,3500/-
				Shake Relief Fund-₹.1,52,000/-
				Partially Raw House Relief Fund-₹.7,66,500/-
				Partially Paved House Relief Fund-₹8,28,500/-
				Complete Paved House Relief Fund-₹.24,000/-
				Complete Raw House Relief Fund-₹.7,000/-

3.2. Hazard Risk Vulnerability Assessment (HRVA)

Hazard and Risk Vulnerability Assessment in this document is calculated done by creating matrix scores using the probability of occurrence of various disasters and their likely impact. Following two tables are used to calculate the values in the preceding table.

First of all, the likelihood of a hazard being converting into a disaster is calculated by reaching a consensus on probability and then assign each hazard a Probability Level, as indicated in the following table.

Note: For the understanding of Table:8 there is more information are given in respective table No. 8,9, and 10.

Assess the probabilityor "likelihood" of each hazard by reaching a consensus on probability and then assign each hazard a Probability Level, as indicated in the following table. Enter the score for each hazard in the probability column of the table in.

Table 5: Probability Level of Hazard being Disaster

Probability	Score	Description
Almost certain	5	A regular event, on the average, at least once in a 12-month period
Likely	4	Will occur at least once every two years.
Moderate	3	Will occur at least once every 5 years.
Unlikely	2	Will occur sometime in a 25 years period.

Rate	1	Can be expected to occur sometime in a 50-to-100-year period
------	---	--

Potential magnitude or impact of each hazard is estimated and is then assigned an Impact Level as in the following table. A similar exercise can be done for other hazards in future also.

Table 6: Impact Ratings

Impact	Scope	Description
Catastrophic	5	Massive insecurity, substantial loss of life likely. Large and generalized assistance urgently needed for large segments of the population. Additional management, administrative, and technical expertise urgently needed. Large volumes of materials inputs needed.
Major	4	Security threatened for large segments of the population; substantial impacts on vulnerable groups likely. Some loss of life likely. Lifesaving programs likely needed to handle the impact of the emergency situation. Large volumes of material inputs and additional administrative staff and technical expertise likely to be needed.
Moderate	3	Security is threatened for potential target groups, some interventions may be needed, particularly for groups who likely face an increase in vulnerability. The organization can likely respond with existing country/regional management structures.
Minor	2	Momentary insecurity local groups able to respond adequately to those in need. Some technical assistance by the organization may be helpful to local respondents, although not urgently needed.
Insignificant	1	Little or no significant change in conditions, no expected loss of life, injuries or significant loss of property for usual target groups as the result of the hazard Normal operations continue.

Using the above two tables (7 and 8), we can get the Vulnerability Ranking by multiplying the probability and the impact scores (as obtained in the following table). The resulting score indicates crude vulnerability. The matrix below can be used for hazard, risk and vulnerability analysis of any disaster. Table 10 denotes the analysis of common hazards for Kutch using this matrix methodology.

Table 7: Vulnerable Ratings

Probability Rating: Class and (score)	Impact Rating: Class and (score)				
	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
Almost certain (5)	Low-5	Moderate -10	Moderate -15	High-20	High-25
Likely (4)	Low-4	Moderate-8	Moderate -12	High-16	High-20

Moderate (3)	Low-3	Low-6	Moderate -9	Moderate -12	Moderate -15
Unlikely (2)	Low-2	Low-4	Low-6	Moderate -8	Moderate -18
Rare (1)	Low-1	Low-2	Low-3	Low-4	Low-5

The table below shows the risk and vulnerability analysis of the district using the above methodology. Such a matrix can be used for disaster response planning and preparedness.

Table 8: Hazardous Risk Vulnerability Assessment

Hazard	Probability	Impact	Vulnerability Rating (Probability times Impact)	Specific Locations and populations of concern
Earthquake	4	5	20 (High)	Whole Kutch district come under Zone V Bhachau, Rapar, Bhuj and Anjar are more vulnerable
High Wind and Sea Surge (Cyclone)	4	4	16 (High)	Bhachau, Gandhidham, Anjar, Mundra, Mandavi, Abdasa and Lakhpat are more vulnerable
Tsunami	4	3	12 (Moderate)	Coastal Talukas like Mundra, Mandvi, Gandhidham, Bhachau, Anjar, Lakhpat
Flood	1	2	1 (Low)	May occur due to very heavy rainfall, sea surge or tsunami
Industrial Accident	3	4	12 (Moderate)	Gandhidham, Anjar, Bhachau, Mundra are more vulnerable due to closeness to industrial units
Drought	4	3	12 (Moderate)	Whole district
Heat wave	4	2	8 (Moderate)	Whole district
Cold wave	3	2	6 (Low)	Naliya, Bhuj, Mandvi, Lakhpat
Landslides Mudflows	1	1	1 (Low)	---
Dam Failure	1	2	2 (Low)	District does not have any major dams
Mine fires/collapse	2	1	2 (Low)	Pandro coal mines
Road/rail/air accident	3	3	9 (Moderate)	Surajbariya, Chiray village, National Highway, Bhuj to Pandro highway
Oil spill (marine)	2	4	8 (Moderate)	Sea shore, coastal belt of Kandla, Mandvi, Mundra.
Boat Sinking	2	2	4 (Low)	Kandla, Mandvi, Mundra, Jakhau port

Building Collapse	3	2	8 (Moderate)	Bhuj, Gandhidham, Anjar, Bhachau, Rapar, Mundra, Mandvi City area
Communal Disease (epidemics)	3	3	9 (Moderate)	Banni area and Vagad area
Food poisoning	3	3	9 (Moderate)	Whole district
Animal disease (epidemics)	2	3	6 (Low)	Bhuj Taluka, Banni area, Gada area of Abdasa taluka
Terrorism	2	4	8 (Moderate)	Land and costal international border area
Critical Infrastructure Failure (e.g. extended power outage)	3	3	6 (Low)	Oil pipe lines, road infrastructure in the district
Civil Unrest	1	1	1 (Low)	Relatively peaceful district
War	2	5	10 (Moderate)	Whole district

The above table can be clubbed with the following table for disaster planning.

Table 9: Probability Period/Seasonal Disaster

Type of hazard	Time of Occurrence	Potential Impact
Flood	June to September	Loss of life, livestock, crop and infrastructure
Epidemics	Anytime	Loss of human life
Fire Accidents	Anytime	Human Loss and house damage
Earth Quake	Anytime	Loss of Life, Livestock, and Infrastructure
Cyclone	April to May October to November	Loss of Life, Livestock, and Infrastructure
Drought	July-October	Damaged to crops
Biological Hazard	Anytime	Loss of human life & livestock

Table 10: List of Hazards with Probability (frequency and magnitude) to be addressed in this plan

Probability of Occurrence of disaster												
Type of Hazard	Time period											
	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec
Earthquake												
Cyclone												
Flood												

Tsunami												
Fire												
Heat Wave												
Biological Hazard												

3.3. Identify Areas with Highest Vulnerability

Once vulnerability ranks have been identified, the locations and populations considered most vulnerable should be identified. This aids in knowing where disaster assistance may be most needed, as well as providing a quick indication of where vulnerability reduction efforts could be most productive. Note that vulnerability reduction can include education, structural measures, and non-structural measures like evacuation planning. Where possible, the areas of high vulnerability should be mapped and included in disaster planning documents.

3.3.1. Earthquake

Different types of ground do shake with different severity of an earthquake. Softer soils and those with high water content generally shake more than rocky sites. Wherever possible site structures on the firmer ground. This will reduce the severity of vibrations experienced in an earthquake. Capital intensive infrastructure, hazardous facilities and materials, and other important buildings should not be located in the vicinity of a known fault.

Since early warning is not possible in case of earthquakes, the best choice is to ensure that seismicity is monitored and integrated with the GIS. Kutch District's situation indicates that some parts of the District like Bhachau, Rapar, Anjar, Bhuj, Gandhidham, Lakhpat Taluka have been adequately provided with the seismic instrumentation. It is necessary that mitigation strategy considers instrumentation of all other areas in order to have a total assessment of the seismic activity. This would enable reconfirmation and up gradation of micro zonation activities.

3.3.2 Flood

River flooding is a not a major hazard faced by the district as most of the rivlets are seasonal and rainfall is less. All the river systems in the district are very slow flooding. Occasional localized urban flooding happens in urban areas like Bhuj, Gandhidham, and Anjar primarily due to heavy rain and inadequate drainage and increased run-off loads in hard surfaces. But no major incidents have been reported regarding urban floods. However, cyclones can cause major flood hazards in Gandhidham which is densely habituated.

Regulations would include.

- Not permitting unrestricted new development in the hazard-prone areas

- Anchoring and flood-proofing structures to be built in known flood-prone areas
- Built-in safeguards for new water and sewage systems and utility lines from flooding
- Enforcing risk zone, base flood elevation, and flood way requirements
- Prohibition on development in wetlands
- Prescribing standards for different flood zones on flood maps.

To meet these requirements, local governments will have to adopt specific flood plan management into zoning and subdivision regulations, housing and building codes, and resource protection regulations.

In low-lying areas, close to the coast, and on flat land in river valleys, there may be a potential for coastal or river flooding. In geologically younger river valleys, in mountains, and foothills there may be a potential for flash-flooding.

It is important to check the history of flooding in the area. Wherever possible

- Map the extent of land covered by past flood waters
- Get an indication of the depth of past floodwaters
- Find out about the severity of past floods; how much damage they have caused, how fast they flowed and how much debris they left behind and
- Find out how often flooding has happened, over at least the past 20 years.

3.3.3 Cyclone

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

Coastal areas of district like Bhachau, Gandhidham, Anjar, Mundra, Mandvi, and Lakhpat are particularly prone. Cyclones originate out at sea and become hazardous when they come ashore. They also drive the sea level up to cause coastal flooding.

At a community level, the GSDMA has proposed to provide temporary multi-Purpose cyclone shelter (MPCS). There are 4 identified sites to construct Cyclone Shelter on Coastal Belt of Kutch District which are in Mandvi, Maska, Bharapar and Chudva. These shelters will be, with built-in safety against high wind velocity and heavy rainfall and within easy reach of the people most affected. Educational buildings or places of worship may also be designed as cyclone shelters, for evacuation and temporary occupation.

3.3.4 Chemical Disasters

The growth of chemical process industry in Gujarat has received a dramatic accelerated momentum in last one decade. Sophisticated technology complex processes and a wide range of chemicals and chemical products have emerged to provide better standards and improved way of living to millions of people.

Kutch district has a specific chemical zone of factories. However, the disaster preparedness as precautionary measures have envisaged by involving all the major Departments who are directly or indirectly responsible for Chemical hazard. Total 36 MAH units is in this district. The probability of chemical disaster in this district is very high.

Industries involved in the production or transportation of inflammable, hazardous and toxic materials hold the responsibility for preparing an off-site plan and communicating the same to the district collector. Simulation exercises are also undertaken in the adjoining communities.

- All transport of hazardous and toxic materials is communicating to the RTO.
- Small-scale industries releasing toxic waste in water have to be encouraged to set up common effluent treatment facility.
- A common format for chemical data sheets used by Director Industrial Safety and Health (DISH) for collect information from all industries in the district is same available with both fire brigade and police.

3.3.5 Tsunami

Tsunamis are ocean waves produced by earthquakes or underwater landslides. Tsunamis are often incorrectly referred to as tidal waves, but a tsunami is actually a series of waves that can travel at speeds averaging 450 (and up to 600) miles per hour in the open ocean. However, waves that are 10 to 20 feet high can be very destructive and cause many deaths or injuries.

Tsunamis are most often generated by the earthquake induced movement of the ocean floor. Landslides, volcanic eruptions, and even meteorites can also generate a tsunami. Areas at greatest risk are less than 25 feet above sea level and within one mile of the shoreline. So far as Kutch District is concerned there are 6 coastal talukas and as per analysis of Mean Sea level of Kutch District there are 72 villages of 6 coastal taluka are less than 2 km far from the sea and on less than 10 meters of height from ocean level. Most deaths caused by a tsunami are because of drowning. Associated risks include flooding, contamination of drinking water, fires from ruptured tanks or gas lines, and the loss of vital community infrastructure.

3.3.6 Epidemics

The Public Health Department is the nodal agency responsible for monitoring and control of epidemics. Local governments and municipal authorities also have a responsibility for taking appropriate steps in this context. Therefore, the success of mitigation strategy for control of epidemics is depending on the type of coordination that exists between the Health Department and local authorities. Mitigation efforts for control of epidemics would include

1. Surveillance and warning
2. Preventive and Primitive measures
3. Strengthening institutional infrastructure, like;

- Promoting and strengthening community hospitals with anadequate network of Para-professionals will improve the capacity of the Health Department for surveillance and control of epidemics.
- Establishing testing laboratories at appropriate locations in different divisions within the State will reduce the time taken for diagnosis and subsequent warning.
- Establishing procedures and methods of coordination between Health Departments and local authorities.

3.3.7 Drought

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

3.3.8 Fire

Fires may be caused due to earthquakes, explosions, electrical malfunctioning and various other causes. The State shall take up a detailed assessment of fire hazards like preparation of inventories/maps of storage locations of toxic/hazardous substances, provision and regular maintenance of firefighting equipment, identification of evacuation routes, fail-safe design, and operating procedures, planning inputs, transportation corridors etc. Kutch district has many MAH company and oil Installation in so fire possibility is like more.

3.3.9 Thunderstorm & Lightning

A Thunderstorm, also known as an electrical storm or a lightning storm, is a storm characterized by the presence of lightning and its acoustic effect on the Earth's atmosphere, known as thunder. Thunderstorms are responsible for the development and formation of many severe weather phenomena. Thunderstorms, and the phenomena that occur along with them, pose great hazards. Damage that results from thunderstorms is mainly inflicted by downburst winds, large hailstones, and flash flooding caused by heavy precipitation.

3.3.10 Heat Wave

Heat wave is a hazard, which can cause a disastrous scenario. The scientific causes of Heat Wave may be meteorological, El-Nino effect and Climate Change. Mostly in the summer season, High-Pressure Zones created above ground (3-7 Km), Cold air descends, heats up and dries out while capping atmosphere above ground with little or no convection. This heat dome traps heat, dust and humidity inside the cap. Climate change can also be the cause of Heat Wave. Increased emission of GHGs, Deforestation, Urban Land Use, Anthropogenic activities and Global warming are the reason behind the warm weather.

Indicator for Heat Wave:

Indicator of Heat Wave (as defined by Indian Meteorological Department)
Heat wave need not be considered till the maximum temperature of a station reaches at least 40°C for plains and at least 30°C for Hilly regions. When normal maximum temperature of a station is less than or equal to 40°C • Heat wave Departure from normal is 5°C to 6°C • Severe Heat wave Departure from normal is 7° or more When normal maximum temperature of a station is more than 40°C • Heat Wave Departure from normal is 4°C to 5°C • Severe Heat Wave Departure from normal is 6° or more When actual maximum temperature remains 45°C or more irrespective of normal maximum temperature, heat wave should be declared. Source: Indian Meteorological Department, http://www.imd.gov.in

Chapter 4: Institutional Arrangements

4.1. ICS-Basic Functions

The basic functional descriptions for key elements in the City Incident Command System is described 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 accomplished in a well-planned manner and execute an effective and cost-efficient disaster response effort.

1. 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 assisted 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.

2. Command Staff Units:

A) Safety unit:

Safety unit is responsible for ensuring the safe accomplishment of all activities undertaken in response to the incident. This task is accomplished through developing incident specific safety guidance documents, reviewing and advising on the safety of plans and monitoring actual operations to ensure the 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 on media requests for information
- **Outgoing public information:** To handle public information dissemination
- **Public opinion feedback:** To collect information from the public (incident survivors and the non-affected)
- **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.

3. 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 created 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 depend on the nature of the incident.

Table 11: Emergency Operation Taskforce Functions

Sr. No.	Emergency Operation Taskforce	Functions
1	Coordination and Planning	Coordinate early warning, Response and 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 re-establish normally operating infrastructure.

7	Water	Assure the provision of sufficient potable water for human and animal consumption (priority), and water for industrial and agricultural uses as appropriate.
8	Food and Relief Supplies	Assure the provision of basic food and other relief needs in the affected communities.
9	Power	Provide the resources to reestablish normal power supplies and systems in affected communities.
10	Public Health and Sanitation (including First aid and all medical care)	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 analyze data on the impact of the disaster, develop estimates of resource needs and relief plans and compile reports on the disaster as required for District and State authorities and other parties as appropriate.
15	Telecommunications	Coordinate and assure operation of all communication systems (e.g.; Radio, TV, Telephones, Wireless) required supporting early warning or post disaster operations.
16	Media (Public Information)	Provide liaison with and assistance to print and electronic media on early warning and post-disaster reporting concerning the disaster.

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

4. 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 the provision of material and other resources needed for operations and the physical and material support and operation of the intent management team. This section includes transportation taskforce established to support disaster operations. Logistics tasks are the following units:

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

5. 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 is accomplished through following units:

1. Human resources
2. Procurement
3. Accounting and records

Table 12: Cross-Task Force Action Matrix

(Gray areas indicate where cooperation between task forces was not as needed during action plan development.)

Task Force	Warning	Law & Order	SAR & Evacuation	Public Works	Water	Food & Relief Supplies	Power	Health	Animal Health	Shelter	Logistics	Damage Assessment	Telecommunications	Media
Coordination & Planning														
Warning														
Law & Order														

S & R/Evacuation															
Public Works															
Water															
Food & Relief Supplies															
Power															
Health															
Animal Health															
Shelter															
Logistics															
Damage Assessment															
Telecommunications															

4.2. City Incident Command Structure-Key Officers:

Incident Commander Commissioner – Gandhidham Municipal Commissioner, 9978444024

Alternate Incident Commander – 1. Deputy Municipal Commissioner,

2. Deputy Municipal Commissioner, 8141503490

Table 13: District Incident Command Structure-Key

Sr. No.	Taskforce	Taskforce Operation Room/Contact Number	Taskforce leader/Contact Number	TASKFORCE-Alternate LEADER /Contact Number
1	Incident Commander	Municipal Commissioner		
2	Alternate Incident Commander	Deputy Municipal Commissioner		
3	Alternate Incident Commander	Deputy Municipal Commissioner	8141503490	
3	Warning and Communications	City Engineer	9825257564	

4	Law & Order	Police Control Room (CR)	DSP	Dy. SP
5	Search & Rescue	Dy. Collector Civil Defense		
6	Public Works	R&B-CR		
7	Shelter	Primary Education. Office-CR	8141494363	
8	Water Supply	GWSSB-CR	Kaushik Verma-9978441391Muk e	Mukesh Antroliya-9978406854
9	Food & Relief supplies	DSO-CR & DDO office		
10	Public Health & Sanitation	District Health Centre,		
11	Power	PGVCL	9879202261	
12	Logistics	DDO office 7567020037		
13	Animal Health & Welfare	AH Office		
14	Damage Assessment/Survey	RAC office		
15	Media/public Information	Information Dept. CR		
16	Planning and coordination	Collector office		
17	Finance/ Administration/ protocol	RAC office		

Note: for municipal areas, the Chief fire Officer is the taskforce leader of the Search and Rescue. While a Deputy collector should be appointed as taskforce leader for search and Rescue operation in non-municipal areas.

4.3. District Emergency Operation Centres/Control Rooms (DEOC):

The Gandhidham Municipal Corporation Control Room is located at Main office, opposite Rotary Bhavan, Gandhidham. 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 City Control Room and commands the emergency operations as per the Incident Command System organizational chart.

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

- **Facilities at City Emergency Operation Centers**

Table 14: Equipment in Control Room

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

4.4. Role and Objectives of CEOC, Kutch

The role of City Emergency Operation Centre is very important during Emergency Operation activity in the city. During the time of Disaster impact and normal time there are different roles and objectives of the CEOC which are following;

- During the disaster impact, CEOC would act as the main control center to operate emergency situation.
- Disaster Risk Management within the City would be implemented, monitor and coordinate from City Emergency Operation Center.
- CEOC coordinate the actions of different line agencies or departments during the disastrous situation.
- CEOC helps to increase the coping capacity of the society and encourage the people and stakeholder of the various departments within the City to prepare their primary action plans for the specific hazard and receive reports of their preparedness. Subsequently, CEOC sends these reports to GSDMA.
- CEOC of Gandhidham acts as a data bank for various departments with respect to vulnerability and risk and gives importance to mitigation measures in the planning procedure.
- A web-based inventory for all resources available with all related department within the Gandhidham City is maintained by CEOC and update it through the State Disaster Resource Network (SDRN).
- CEOC accept suitable proposals on disaster mitigation measures, risk reduction and preparedness from different agencies and due approval by Commissioner is it place the same for consideration of the chief secretary.
- Ensure the communication, warning systems and instruments are in working conditions in all line departments.

- Monitor preparedness and mitigation measures by various industries and departments at the city levels including simulation exercise undertaken by different agencies.
- Relay disaster-related information at the City level, local level and to disaster vulnerable areas through suitable media. Give information to media about the situations and during disasters prepare day to day reports and inform the actual scenario and various actions taken by administration.
- Maintain the database of trained volunteers and personnel and concerned departments who could be contacted during or before the disaster.

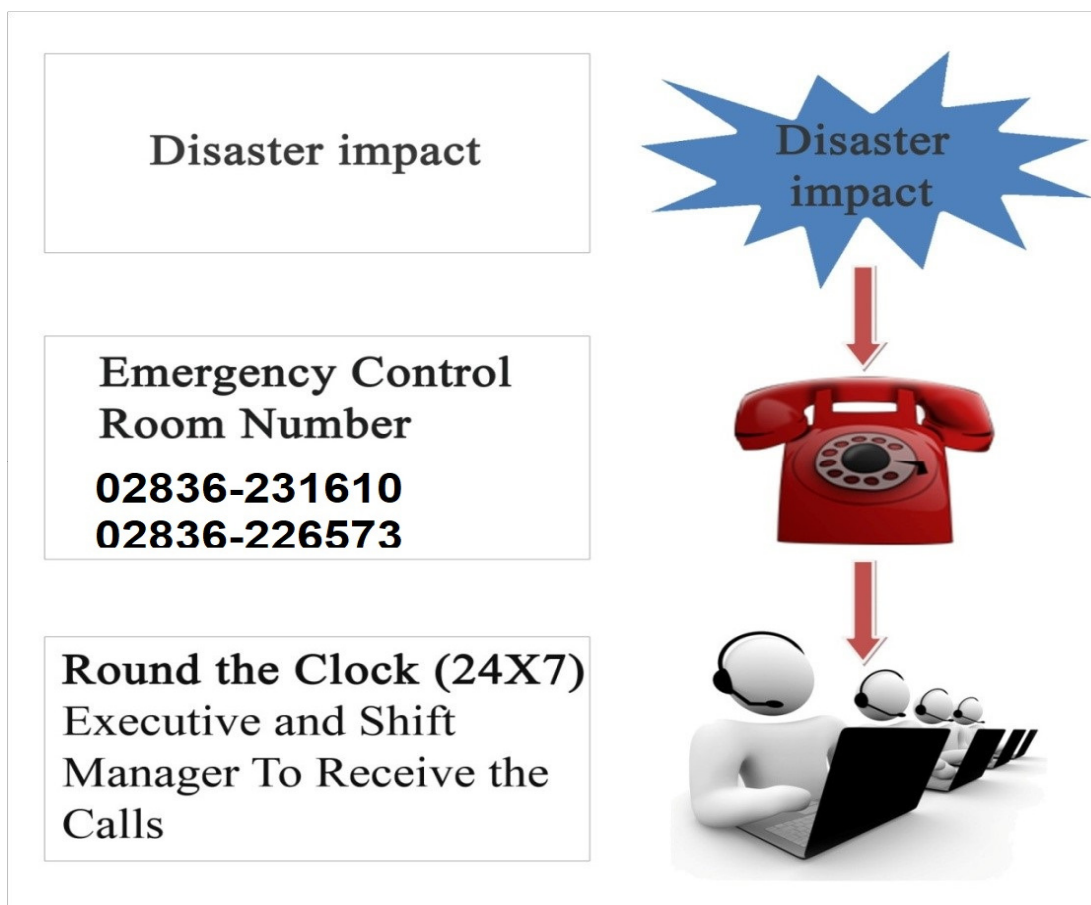


Figure 2: Functions of DEOC, Kutch

4.5. 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;

Table 15: Forecasting and Warning Agencies

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 and Family Welfare Department
7	Industrial & Chemical Accidents	Industry, Labor and Employment Department, DISH
8	Fire	Fire and Emergency Services

Chapter 5: Prevention and Mitigation Measures

5.1. Prevention measures in development plans and programmers

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

Mitigation measures can be divided into 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 not structural mitigation plans in consultation and convergence with various Departments. For example, the MGNREGA work can take up activities on the 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. 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.

5.2. Hazard wise Structural and Non- Structural Mitigation Measures

Table 16: Structural Mitigation Measures for Flood

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 program	Regularly
Repair of embankments/ protection wall	Rural Development, R&B department	Departmental program & MGNREGS	Regularly
Repair and maintenance of Flood Channels, canals, natural drainage, stormwater lines	Irrigation department Concern Municipality	Departmental or special plan	Regularly
Construction of Safe Shelters (new construction through Pradhan Mantri Awas, Sardar Awas, and Ambedkar Awas)	Collector and R&B District Panchayat	NCRMP	Regularly
Protection wall and mangroves and vegetative cover against sea level intrusion and land erosion	Forest and Rural development department GEC	Department schemes, MGNREGA, IWMP Integrated coastal zone management	Regularly
Desalting of water bodies like river and ponds	Irrigation DDO Rural Development	MGNREGA and Land Development	Regularly

Table 17: Non-Structural Mitigation Measures for Flood

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	PMAY, 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

Table 18: 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 72 villages Kutch district	Forest department, Port Authority, DIC, TDO, Rural development department, GEC	Departmental schemes, MGNREGA Integrated coastal zone management	Regularly
Identification and repair/ retrofitting of houses and buildings unsafe for cyclone		R & B (District Panchayat)	Departmental Scheme	Regularly

Two villages have been selected for the Multi-Purpose Cyclone Shelter (MPCS) which are shown below;

Sr. No.	Taluka	Village	Distance
1.	Gandhidham	Bharapar	15 km
2.	Gandhidham	Chudva	10 km

Table 19: 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 72 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 Kutch district	DDMC, TDMC, VDMC, CDMC	TDMP, VDMC	Regularly
Enforcing strict compliance to coastal regulation zone and awareness regarding hazard		Department of Environment & Forest Depart. Fishing GEC	Integrated Coastal Zone Management CRZ Regulation	Regularly
Registration of fishing boats		Fisheries Department	CRZ Regulation	Regularly
Regulate and issue orders for poor quality hoardings/buildings or any other objects		R&B Department		Regularly

Table 20: 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-prone10 Taluka under zone 5In district	R & B (State and Panchayat), DDO, Rural department	Town 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 house		Area Development Authority	TP plan	Regularly

Table 21: 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 10 Taluka under zone 5	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 of guideline pertaining to seismic safety for government rural housing, urban development structure		DDO, DDMC, CDMC, TDMC, VDMC	Rural housing schemes	Regularly
Mock-drills for Schools, Hospitals and, Public Buildings and training for Mason, engineers, and architects		DDMC, Schools	DRM, Nssp, DRR DM regulation	Regularly

Table 22: 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 : 5 in district	Forest, Rural Development, Panchayat	Departmental Scheme, MGNREGA	Regularly
Rain Water Harvesting storage tanks at household level and public buildings		GWSSB, (WASMO), Rural Development	MGNREGA, Swajaldhara	Regularly
Structures for water harvesting and recharging like wells, ponds, check dams, farm ponds, etc.		DDO, Rural development, irrigation department	MGNREGA, Watershed program, departmental schemes	Regularly
Development of fodder plots/banks		DDMC, Forest department, animal husbandry department	Development plan	Regularly
Repair and maintenance, de-silting of water sources, check dams, hand pumps etc.		Irrigation, Rural Development	MGNREGA, Watershed	Regularly

Table 23: Non-Structural Mitigation Measure 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: 5 in district	Rural Development	MGNREGS	Regularly
Farmer education to practice drought-resistant crops and efficient water use		Agriculture & horticulture department	Departmental schemes	Regularly
Setup control mechanism for regulated water use (ponds, small dams, check dams) on the early onset.		Panchayat		Regularly

Table 24: Hazard: Industrial (Chemical) Structural Measures

(In coordination with LCMG, 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 (groundwater 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 25: Industrial (Chemical) Non-Structural Measures

Nonstructural 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 LCMG	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 LCMG	Various Industrial act	Industrial act
Capacity Building	Develop Information Education and Communication (IEC) material for Publication & Distribution	TDMC	Various Industrial act	Industrial act
	Awareness generation to general public and medical professional residing near MAH factories for immediate steps	TDMC, LCMG	Various Industrial act	Industrial act
	Organize training programmers, seminars, and workshops (e.g. for drivers of HAZMAT transport, line departments officers, Mamlatdar etc.)	TDMC, LCMG	Various Industrial act	Industrial act
	List of experts/ resource person/ subject specialist (District emergency Off-site plan)	TDMC, LCMG	Various Industrial act	Industrial act
	Encourage disaster insurance	Labor& employment department	Various Industrial act	Industrial act
Medical	Listing of hazardous chemicals and gases.	Occupier, LCMG, DISH, THO	Various Industrial act	Industrial act
	Keep check on availability and validity of relevant antidotes for chemical hazards prevalent in Taluka	Occupier, LCMG, DISH, THO	Various Industrial act	Industrial act
	Workshops and training for medical professionals to handle potential chemical and industrial hazard	THO, Occupier, LCMG, DISH	Various Industrial act	Regularly

Nonstructural Measures	Activities	Implementing Departments	Convergence Agencies	Time Frame
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 (LCMG) is formed for coordination of activities and executing the operations.

Table 26: Structural Mitigation Measures for Tsunami

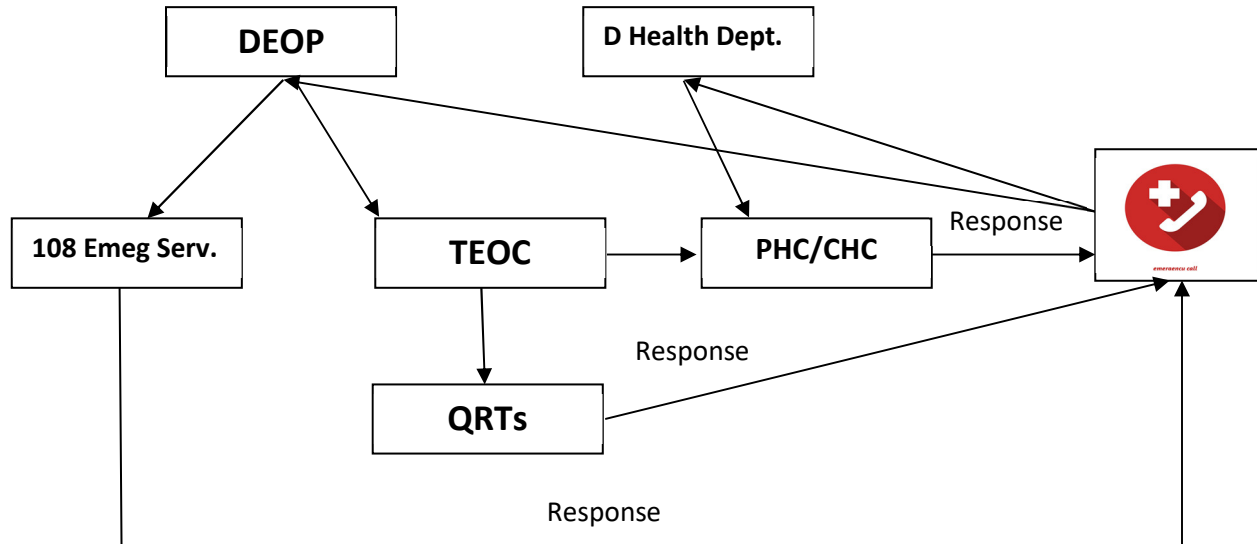
Structural measures	Identified Locations and Villages	Implementing Departments	Convergence with Scheme/ Program	Time Frame
Constructing shelter belts in coastal areas	Tsunami prone 72 villages	Rural Development	Departmental programs, MGNREGA	Long-term planning
Contraction Sea water brake structure		R & B State and Panchayat	Departmental programs, MGNREGA	Long term planning

Table 27: Non-Structural Mitigation Measures for Tsunami

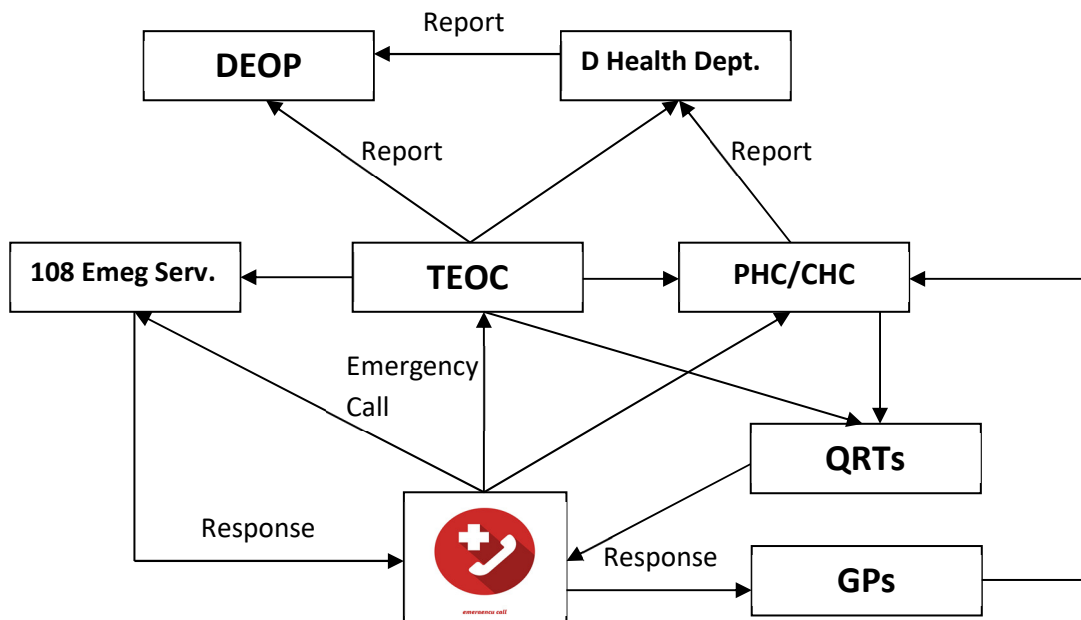
Non-Structural Measures	Locations/ coverage area	Implementing Departments	Convergence with agency/program	Timeframe
Provisions of Coastal Regulation Zone to be effectively implemented	Tsunami prone 72 villages	Department of Environment & Forest GEC	ICZMP	Long term planning
Capacity building of task forces in coastal villages		TDMC, DDMC, CDMC, VDMC	DRM	Periodically
Awareness activity in prone/ vulnerable area		DDMC, TDMC, CDMC, VDMC	DRM	Regularly

Administrative approach for Non-Structural Mitigation Measure for Heat-wave

Top to down approach



Bottom to up approach



5.3. Prevention and mitigation responsibility of each department

Agriculture

Prevention Activities:

- Awareness generation regarding various plant diseases, alternate cropping practices in disaster-prone areas, Crop Insurance, provision of credit facilities, proper storage of seeds, etc.
- Hazard area mapping (identification of areas endemic to Pest infections, drought, flood, and other hazards)
- Develop database village-wise, crop-wise, irrigation source wise, insurance details, credit 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.
- Detail response manuals to be drawn up for advising the farmers for different types of disasters, e.g., rain failure in July or September and development of a dynamic response plan taking into account weekly rainfall patterns.
- Develop IEC materials to advise the farming communities on cropping practices and precautionary measures to be undertaken during various disasters
- Improving irrigation facilities, watershed management, soil conservation and other soil, water and fertility management
- Measures keeping in mind the local agro-climatic conditions and the proneness of the area to specific hazards.
- Promotion of alternative crop species and cropping patterns keeping in mind the vulnerability of areas to specific hazards
- Surveillance for pests and crop diseases and encourage early reporting.
- Encourage promotion of agro service outlets/enterprise for common facilities, seed and agro input store and crop insurance.

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

Preventive activities During Epidemics:

- 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

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 and 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

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 equipment while modernizing existing infrastructure and equipment for disaster response along with regular training and drills for effective handling of these equipment.
- Focus on better training and equipment for RAF for all types of disasters.
- Rotation of members so that the force remains fighting fit.
- Ensure that all communication equipment including wireless is regularly functioning and deployment of extra wireless units in vulnerable pockets.
- Ensure interchangeability of VHF communication sets of police and GSDMA supplied units if required.
- Keeping close contact with the District Administration and Emergency Officer.
- Superintendent of Police is 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 and other support to armed forces during emergencies.

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.

Fire Services:

Prevention Activities:

- Develop relevant legislations and regulations to enhance adoption of fire safety measures.
- Modernization of fire-fighting equipment and strengthening infrastructure.
- Identification of pockets, industry, etc. which highly susceptible to fire accidents or areas, events which might lead to fires, building collapse, etc. and educate people to adopt safety measures. Conduct training and drills to ensure a 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 and police networks.
- Training of masons and engineers in fireproof techniques.
- Making clearance of building plans by fire services mandatory.

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.

Public Works/ Rural Development Departments

Prevention Activities:

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

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 equipment and organize training of electricians accordingly.
- Develop and administer regulations to ensure the 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 a 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, and 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.

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 and rescue operation and hire their services during emergency

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 the emergency operation.
- Safety accreditation, enforcement, and compliance
- Ensuring vehicles follow accepted safety standards.
- Build awareness on road safety and traffic rules through an 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.

Panchayati Raj Institutions

Preventive Activities

- Develop prevention/mitigation strategies for risk reduction at the 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 and rescue equipment, etc.).
- Clean drainage channels, trimming of branches before cyclone season.

- Ensure alternative routes/means of communication for movement of relief materials and personnel to marooned areas or areas likely to be marooned.
- Assist all the government departments to plan and prioritise prevention and preparedness activities while ensuring active community participation.

Information and 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 dos and don'ts of various disasters
- Regular liaising with the media

Chapter 6: Preparedness Measures:

6.1. Formation of Person training for Search and 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 and rescue mission.

The tactics used in the search and rescue process vary accordingly with the type of disaster that we are dealing with. In the case of flood, a boat and trained swimmers are a must while in the 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 the 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.

Table 28: Search and Rescue (S&R) Team

Designation of trained S&R Team member
<i>The Search and Rescue team is formed as and when required and the members and equipment are taken according to the nature of the disaster (and also on their availability).</i> • Police Officers (2 or more) • Home guards (2 or more) • Swimmers (In case of flood) • A construction engineer (From P.W.D.) • Driver (For Every vehicle) • Any person with the prior experience of the disaster (From Home Guard/Police Dept.) • A doctor or nurse or at least a person having first aid training • A Class IV Officer (Health Dept.)

6.2. 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.

6.3. 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.

The 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

Types of evacuation

For 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.

Principles of Evacuation Planning

- Establishment of a management structure for organization, implementation, coordination, and monitoring of the plan
- Determination of legal or other authority to evacuate
- Clear definition of roles and responsibilities
- Development of appropriate and flexible plans

- Effective warning and information system
- Promoting awareness and encouraging self-evacuation.
- Assurance of movement capability
- Building confidence measures and seeking the cooperation of the affected community.
- Availability of space for establishment of relief camps having requisite capacity and facilities
- Priority in evacuation to be accorded to special need groups like women, old and sick, handicapped and children
- For effective evacuation, organization and running of relief centers, cooperation and involvement of all agencies viz. Community, volunteers, NGOs, NCC / NSS, Home guards and civil defense, district and village bodies be ensured
- Security arrangement and protection of lives and property
- Preparation and updating of resource inventories
- Appropriate welfare measures throughout all stages
- Test exercise of prepared plans and recording of lessons learned
- Documentation

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. The 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.

The Collector would be the authoritative body to issue directions for evacuation. The OIC of DECR would convey directions to Desk Officers of concerned agencies, which are responsible to execute an evacuation.

Basic consideration for Evacuation

The DCG will define the 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 a number of people for evacuation, the destination of evacuees, lead-time available, welfare requirements of evacuees as also identify resources to meet the needs of victims, viz. manpower, transport, supplies equipment, communications and security of the evacuated area.

The evacuation 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 like home guards, Police, PWD, PHED, etc. will coordinate in the 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 mention as below:

- 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 unrated or affected due to earthquake
- Need to activate evacuation plan
- Dos and Don'ts to ensure appropriate response
- Advice to the people about further warnings to be issued, if any

6.4. Damage and 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.

Training Need Analysis -Education and Capacity Building and Arrangement for Training: -

Although education about disaster mitigation and prevention and capacity building would seem to be ideal district-level efforts, the lead for both probably best rests with the state level, with districts having a facilitating role. The issue is that if 26 districts independently embark on education and capacity building it will be hard to coordinate and standardize the results across districts. A significant consequence would an inequality in capacities across districts, and thus uneven mitigation and prevention results, how to fund these activities remains open. Options range from GSDMA grants to set-asides in budget allocations. Project Impact in the US and similar programs in Australia and Canada are good models for the former approach.

Table 29: Training, Capacity building, and other proactive measures Training

Sr. No.	Task / Activity	Responsibility
1	Training to civil defense personnel in various aspect of disaster management	Home Department
2	Training to home Guards personnel in various aspect of disaster management including search and rescue	Dy. Controller Civil Defense District Home Guards Commandant
3	Training to NCC and NSS personnel in various aspect of disaster management	Education Department NCC Collector Office
4	Training to educational and training institutions personal in various aspect of disaster management	DDMC
5	Training to civil society, CBOs and corporate entities in various aspect of disaster management	DDMC
6	Training to fire and emergency service personnel in various aspect of disaster management	Fire Dept, CDMC DDMC
7	Training to police and traffic personnel in various aspect of disaster management	DDMC Police Dept.

8	Training to media in various aspect of disaster management	DDMC Information Dept.
9	Training to govt. officials in various aspect of disaster management	DDMC
10	Training to engineers, architects, structural engineers, builders and masons in various aspect of disaster management	DDMC, R & B

Awareness

Task	Activity	Responsibility
Information, education, And communication	Advertisement, hoarding, booklets, leaflets, banners, shake-table, demonstration, folk dancing and music, jokes, street play, exhibition, TV Spot, radio spot, audio-visual and documentary, school campaign, Rally, - Planning and Design - Execution and Dissemination	• Information Dept. • Education Dept. • All line dept • Dist. Collector • Chief officer • Other Dist. Authorities

6.5. 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 the operational period in an area. If the incident grows in size and extends throughout many jurisdictions, multiple incident commanders can be used with an area command authority may be established to coordinate among the incidents. Incident Commander requires the following Command Staffs to support him, which is 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 the 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, equipment, 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 professionalize the same by drawing upon the principles of the ICS with suitable modifications. The ICS is essentially a management system to organize various emergency functions in a standardized 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 the local level to support the DEOC's requirements for field information and coordination. The DEOC 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

6.5.1. Checking and certification of logistics, equipment and stores

Kutch district has various types of logistics and equipment. It should be checked and certified by concern officer periodically. Disaster Management cell is regularly monitoring this activity and got certification of this equipment. (Detail information of Equipment is given in Annexure)

6.5.2. Operational check-up of Warning System

The warning system is checked periodically like, Satellite phone, Hot Line, Telephone connection, GSWAN connectivity etc., In Pre-monsoon meeting also give direction for checking warning system like port signals.

6.5.3. Operational check-up for Emergency Operation Centre

Operational checkup of Emergency Operation Centre are carry out month wise and check out all facility and equipment in DEOC.

NGOs and other stakeholders' coordination – identify their strengths and allocation of responsibilities in area/sector/duty/activities – Activate NGO coordination cell

NGO and Voluntary group are doing a very important activity and response during a disaster. DDMA also organized capacity-building programmes, awareness programmes on Disaster Management for NGO and Voluntary group. For the arrangement of water supply, temporary sanitation facilities, search, and Rescue activity, Relief distribution can be sought with help of special agencies, NGOs and CBOs. (Information of NGO and Voluntary group refer Annexure)

6.6. Awareness Generation

As a part of Preparedness Awareness, generation among community will be a continuous process. From District to Taluka, Village level awareness programme must be conducted with the help of Print Media, Electronic media, folk media authority can create awareness among the community.

6.7. Seasonal preparedness for Seasonal Disasters like Flood and Cyclone

Whether personal or institutional, all collections are subject to risks that can seriously affect the lifetime and value of a collection. For many museums, galleries, and private collectors, an essential aspect of Collection Management are maintaining a loss prevention plan for seasonal disasters.

Hazards from these storms come in many forms including high winds, tornadoes, stormsurges, and flooding. Natural disasters make all of us acutely aware of our vulnerabilities to disaster. Fortunately, catastrophes of a large magnitude are rare, but disaster can strike in many ways. Large or small, natural or man-made, emergencies put collections in danger. Hazards can often be mitigated or avoided altogether by a comprehensive, emergency-preparedness plan. Such plans provide a means for recognizing and responding effectively to emergencies. The goal is to hopefully prevent damage or, at least, to limit the extent of the damage.

6.7.1. 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 is 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.

6.7.2. Decreasing Risks

Once your 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.

6.7.3. 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 adjusters, 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.

6.8. SDRN/IDRN data updating: -

State disaster Resource network and India Disaster Resource Network is a crucial database for a 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 Bhaskar Acharya 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. SDRN and IDRN updation are regularly base work and it is updating.

6.8.1 India Disaster Resource Network (IDRN)

IDRN, a web-based information system, is a platform for managing the inventory of equipment, skilled human resources and critical supplies for emergency response. The primary focus is to enable the decision makers to find answers on the availability of equipment and human resources required to combat any emergency. This database will also enable them to assess the level of preparedness for specific vulnerabilities. Total 226 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 the functionality of generating multiple query options based on the specific equipment, skilled human resources, and critical supplies with their location and contact details.

6.9. Community Warning System, Education, Preparedness DRM Program

6.9.1. GSDMA DRM activities

Disaster Risk Management Program (DRM) has taken strong roots at various levels of administration in Gujarat. The Department of Revenue and 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 Training and Resource Mobilization, Disaster Awareness through Orientations, Campaigning, Media Management and IEC distribution. Coordinate District Administration for all Disaster Management Activities with expertize knowledge, logistics, and fund allocation.

The Disaster Risk Management Program (DRM) being implemented by Gujarat State Disaster Management Authority (GSDMA) aims to strengthen the response, preparedness and mitigation measures of the community, local self-government, the district administration and the State in Gujarat. Under the DRM Program

For the Prepared level, specific plan following process will follow.

District Level Process

1. The orientation of District level officers and PRI members including line department officials
2. Formation of District Disaster Management Committee
3. Development of manuals and guidelines Capacity building of DDMC members, government officials, training institutes, other concerned organizations at the district level
4. Development of the District Disaster Management Plan
5. Use of IEC materials for awareness generation for preparedness, risk reduction, and mitigation
6. Data updation on IDRN/SDRN

Taluka level process

1. Orientation cum sensitize Taluka level officers and PRI members.
2. Formation of Taluka Disaster Management Committee
3. Capacity building of government officials
4. Development of the TDMP

5. Use of IEC material and media sources to create awareness at taluka level
6. TDMP update on SDRN

City-ULB level process

1. The orientation of City-level officers elected members and leaders.
2. Formation of CDMP
3. Capacity building of municipal official and concerned organizations at the city level
4. Development of the CDMP.
5. Use of IEC material to create awareness at the city level
6. CDMP updation on SDRN

Village Level Process

1. Formation Cluster within 10 to 12 village and conduct cluster meetings over 10-12 villages
2. Organize Gram Sabha in each village
3. Undertake PRA exercise at village level for hazard, vulnerability assessment, and resource analysis
4. Facilitate the formation of the Village Disaster Management Committee (VDMC)
5. Conduct training programs for DMT and DMC Members and volunteers
6. Awareness campaigns on risk reduction mechanisms, Risk Transfer- insurance, disaster resistant construction
7. Developed Village Disaster Management Plan (VDMP)
8. Conduct mock drills for test the VDMP
9. Update VDMP twice in a year (by VDMC)

Kutch district had taken the preparedness measures from village level to District level. At the villages, village Task forces were formed and trained in First aid and Health, Search and Rescue and Disaster Management. Some 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. SOPs were also discussed with them so that quick response can be assured and any kind of risk due to water logging, 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.

Base on the interim assessment of risk and vulnerabilities, certain majors for mitigation, preparedness and prevention have been taken with respect to Kutch District.

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 a concerted effort.

Complimentary 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 a 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.

6.10. District-level Approaches to Mitigation, Prevention and Preparedness:

Preventive measure (for all disasters)

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.

1. Long-term planning for mitigation, preparedness and prevention investments in the district,
2. Enforcement of regulations, particularly Structural-building and safety codes and land use plans,
3. Review and evaluation of development plans and activities to identify ways to reduce risks and vulnerability, and,
4. 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 Kutch 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 healthcare facilities, schools, and roads
- Vulnerability reduction in flood-prone areas
- Vulnerability reduction to high winds
- Improvement of off-site Preparedness near Industrial sites.

Mitigation measure (for all disasters)

Town and Country Planning Acts and their related provisions: The Department of Disaster Management, being a member of all regulatory bodies will coordinate with the Town and Country Planning Board and constitute a committee of experts to evaluate the provisions of the State Town and Country 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.

Zoning Regulations and their related provisions: The State Urban Development Department, in consultation with the Department of Disaster Management will constitute a committee of experts with, members from the Institute of Town Planners, town development, State Pollution Control Board, Chairpersons of major Development Authorities/Notified Area Authorities, eminent faculty from planning, architecture and civil engineering departments of engineering colleges, eminent resource persons and such other experts nominated from time to time to study the existing zoning regulations and suggest necessary amendments to incorporate components for vulnerability reduction. The State Chief Town Planner will be the Convener of the Committee.

Development Control regulations: The same committee of experts constituted to evaluate the zoning regulations will also evaluate the development control regulations and suggest measures to incorporate the disaster management concerns into them.

Government-sponsored programmers and schemes:

The State Planning Department will prepare a report on the government sponsored programmers, 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 concern Secretaries of the Departments of Disaster Management, Urban Development, Rural Development, Health, Home, Finance, Science and Technology, Transport, and Agriculture to evaluate and suggest disaster mitigation measures to be incorporated.

6.11. 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 a 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.

Table 30: Early Warning Action Plan

Type of Action	Flood	Cyclone	Chemical and industrial accidents	Tsunami
Existing EWS	Irrigation department /dam authority/ IMD ↓ Collector ↓ Mamlatdar/ TDO ↓	IMD ↓ Collector ↓ Mamlatdar/TDO ↓ Villages	Industrial Association/industries ↓ DCG ↓ LCMG ↓ Mamlatdar	IMD ↓ Collector ↓ Mamlatdar /TDO ↓ Villages

	Villages		↓	
			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)			
Measures required to improve	Contact of communities in remote locations (fisher folk, saltpan workers, Maldharis etc)			

Table 31: During and Post Disaster Advisory Action Plan

Type of Hazard	Flood	Cyclone	Earthquake	Drought	Industrial accidents	Tsunami
Responsible Agency	DDMC, Mamlatdar office and TDO					
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.)					
Measures required for outreach	Contact of communities in remote locations (fisher folk, salt pan workers, Maldharis etc.)					

6.12. Procurement various Resources: -

Provide logistical support to government and agencies for procurement of relief goods, transportation, Tents, blankets, tarpaulins, equipment etc., and monitoring illegal price escalations, stocking etc. during the crisis. DDMA and other local authority should do procurement of such resource and if they have such resource so keep them in ready to use in disaster situation.

6.13. Protocol and arrangement for VIP Visit:

It is important that immediately inform VIPs and VVIPs on impending disasters and current situation during and after disasters. Appeals by VIPs can help in controlling rumors 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 an 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.

6.14. 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. Media 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 are regularly briefed at predetermined time intervals about the events as they occur and the prevailing situation on the ground. A similar set up is also active at the District Emergency Operation Centre (DEOC).

6.15. Documentation:

Documentation is a very important activity in disaster management. DDMA also appoints duty for Documentation to the information department. Documentation should be in a good manner. It can be in summary and detail form. It is reliable and authentic.

6.16. Responsibility of Each department for Preparedness:

6.16.1. Agriculture:

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/equipment, 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.

6.16.2. Health Department:

Preparedness Activities before Disaster

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 vulnerable and strategic points

Epidemics 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 and creation of local units for carcass disposal
- Municipalities/Gram Panchayats to be given responsibility for removing animals likely to become health hazards.

6.16.3. Water Supplies and Sanitation (GWSSB):**Preparedness Activities for disaster seasons**

- Prior arrangement of water tankers and other means of distribution and storage of water.
- Prior arrangement of standby generators
- Adequate prior arrangements to provide water and halogen tablets at identified sites to use 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 damage during future disasters
- Riser pipes to be given to villagers

ANNEXURE

Annexure: 1 History of past disasters in District

Disaster	Year	Magnitude /Extent	Talukas & no. of villages affected	Life & cattle loss	Damage to property	Economic losses
Earthquake	2001	7.7	10 Taluka 884 Village Affected	13805	146087 houses fully damage,278217 houses medium damage infrastructures were damaged to avariable extent.	Around 448 crore private and public property
Cyclone	1998	4	Gandhidham, Mundra, Anjar	4000	--	--
Cyclone (Biporjoy)	2023	-	10 Taluka,852 Village	Read Table:7	Read Table:7	-
Flood	2011	3	2 Taluka 200 village	1 Death 41 cattle loss		18947 lakhs Rs.
Heat wave	Almost Every Year	--	6	--	--	--
Cold wave	--	--	--	--	--	--
Drought	Around Every 4-5 Year	--	4 Taluka	--	--	--
Industrial disaster	--	--	--	--	--	--

Annexure: 2

List of vulnerable talukas and villages with risk ranking (Hazard wise)
Cyclone and Tsunami Vulnerable Number Taluka and village

Villages Near by coastline						
Sr. No	Taluka	Distance of village from coastal line				Total
		0 to 1 km	1 to 5 km	5 to 10 km	10 to 15 km	
4	Gandhidham	1	1	5	2	9

Details of Villages Situated on Sea Beach Area

Sr. No.	Taluka	Sr. No	Name of Village	Population as on 2011	Sr. No.	Name of Village	Population as on 2011
1	Gandhidham	1	Kandla	19700	6	Chudva	293
		2	Antarjal	6036	7	Kharirohar	4150
		3	Kidana	9285	8	Padana	1764
		4	Galpadar	5537	9	Shinai	3201
		5	Mithi Rohan	4259			

Annexure: 3

Area Vulnerable Due to Flood Hazard Area of Kutch

Gandhidham				
1	Area of Railway Station	Railway Station, North South of Vallabhbai Statue ST Bus Stand KPT Office Shiv Mandir Chavala Chowk Area		Lohana mahajanwadi- Gandhidham
2	Navi Sundarpuri		Surrounding Area	Adarsh Girls School Sadhu Vaswani School Gandhidham,
3	Juni Sundarpuri		Surrounding Area	Lions Club Gandhidham P. N. Amarsey School Gandhidham
4	Maheswari nagar Sonal Nagar Bharat nagar		Surrounding Area	Saraswati School Gandhidham
5	Jagjivan nagar Near cargo Motors Gopalpuri Nehru Park		Slums and Surrounding Area	Mordan School Gandhidham Bhartiya Vidhya mandir Gandhidham Town Hall Gandhidham
6	Sector 5-6 Near Sathwara Mandir		Surrounding Area	Mount Carmel School Gandhidham Mordan School Gandhidham
7	Adipur Police Station		Surrounding Area	Jilla Panchayat Primary School

8	Adipur Char wadi and Sat wadi Line		Surrounding Area	Lohana Mahajan Wadi Adipur
9	Adipur Ashram and B/h Janta petrol pump		Surrounding Area	Maitri mahavidhyalay and kanya Vidhyalay Adipur
10	B/h Adipur Z Bungalow		Surrounding Area	Gujarat Vidhya lay Adipur
11	Sarva kandlalabour camp and slums		Surrounding Area	Bhartiya Vidhya mandir Nava Kandla
12	Siyan Dem		Surrounding Area	Maitri vidhyalay Adipur
13	Antar jal		Surrounding Area	Primary School – Antarjal
14	Kidana		Surrounding Area	Primary School – Kidana
15	Mithirohar		Surrounding Area	Primary School - Mithirohar
16	Kharirohar		Surrounding Area	Primary School – Kharirohar

Annexure: 4

List Of Resources Available in Emergency Essential Resource Reserve (EERR) Kit at Gandhidham Kutch

Sr. No.	Items	Quantity
1	Personal Floatation Device (Life Jacket made of polyurethane foam)	6
2	Torch or emergency light (Solar enabled)	12
3	Safety gloves (Canvas/leather)	12 pairs
4	30 mtrs. 10/11 mm BOB Nylon rope	6
5	Lifebuys	12
6	Oars & Rowlocks	3 pairs
7	Paddles	18
8	Anchors	4
9	Galvanized metal bucket or bailer	4
10	Outboard Motor Minimum 30 HP	2
11	DCP Fire Extinguisher	8
12	Emergency Spot light with minimum 12 hours run time	3
13	Tool kit (Colt cutter, wire cutter, Pliers, Screw driver set)	3
14	Axe/hatchet 3kg	3
15	Fiberglass Backboard Stretcher	6
16	Radio Walkie sets 5 watts	6
17	Blankets	12
18	Park pickets	12
19	First Aid Kit	6
20	Twin Pronged Graphel/ Cat Hooks	6
21	Throw Bag	6
22	GUM Boots	12 pairs
23	Safety Goggles	6

24	Safety Helmet (Water rafting)	6
25	GPS sets	4
26	Navigation lights	4
27	Maps, Charts and compass	As required
28	Chain Saw machine	4
29	Camping tent (water resistant) + Mosquito Net	4+4
30	Inflatable Rescue Boat	1

Annexure: 5**List of resources or equipment available in Municipal Corporation**

Sr. No.	Name on Municipality	Portable Inflatable Emergency Lighting system	Motor-cycled Mounted Water Mist	Trolley Mounted Water Mist	Water Bowser	Mini Fire Tender	Conway Vehicle	Watering Pump
1	Gandhidham	2	3	2	2	2	1	1

Annexure: 6**List of resources Equipment's/Vehicles available in Gandhidham ERC (Kutch)**

Sr.	(A)Vehicles	Nos
1	Foam Nurser	01
2	Multifunctional Rescue with Crane	01
3	Water Bowser	02
4	Emergency Tender	00
5	Hook arm Container	00
6	High-Capacity Pump	02
7	Utility van (Pick up)	01
8	Command Vehicle	01
9	Water Rescue Boat	05
10	14-Seater HDPE Boat	01
11	Air Boat	00
12	Water Tender	01
13	Mini Rescue Tender	03
14	Motor cycle with mist	00
15	Emergency Response Van	00
16	Hook arm truck	02
17	Emergency Rescue Vehicle	00
18	New Fire Tender multi-purpose with Robot	00
Total		20
	(B) CONTAINERS	
1	USAR Container	02

2	Medical Container	01
Total		03
	(C) Search & Rescue Equipment's	
1	Self-Contained Clean Air Breathing apparatus	15
2	Personal Protection Suit	12
3	Spare cylinder	30
4	Air Line Equipment	00
5	Positive Pressure ventilator	00
6	Gas Tight Suits	05
7	Inflatable Decontamination System	00
8	Leak sealing Equipment's	02
9	Non-Sparking tools	02
10	Multi gas Detector	01
11	Emergency Lighting	02
12	Under Water search camara	00
Total		69
	Grand Total	92

Annexure-7
Infrastructure in the Gandhidham City (Public and Private)
Fire Station Numbers

Sr.No.	District Fire Station	Phone No.	Fax
1	Fire Station Gandhidham	02836-226573	233288
2	Fire Station Kandal Port, Kandla	02836-270176 9825221352	02836 270176
3	Fire Station IFFCO Kandla	02836-270352 99790 26415	02836 270642
4	Fire Station F.O.C.T. Kandla	02836- 270987/270178 8980018340	270814
5	Fire Station Control Room GAIL(India) Lakadia (Bhachau)	02837-293009 7211103012	-

Annexure-8
Gujarat State Road Transportation Nigam Limited Number of Bus

SR NO	TALUKA	OFFICE	NUMBER OF BUS
1	ANJAR Depo	02836-242692	49

Annexure-9
Storage Infrastructure of Supply Department of Kutch District

Sr. No.	Name of Taluka	No. of Nigam's Storage	Capacity in M. tons	Contact Number
1	Gandhidham	1	2000	99091 20745

Annexure-10**PHC and CHC Facility and Infrastructure of Kutch District**

Sr.	Block	Name of PHC	Landline No.		Medical Officer
			STD Code	Landline	Mobile
1	Gandhidham	KIDANA			94087 52630
2		MITHI ROHAR			94091 54206

Contact Detail of Taluka Health Officer (THO)

Sr. No	Taluka Name	Name	CUG Number	E-mail Id
1	Gandhidham	Dr. D S Sutriya	9409038095	thogandhidham..health.kutch@gmail.com

Annexure-11**List of Swimmers of Gandhidham City**

Sr. No.	Name of Swimmers	Address	Mobile No.
1	Shri Bharat R Bachvani	Gandhidham	9426956551
2	Shri Chande Sumar Bhima	Gandhidham	9662579835
3	Shri Manshi M Chande	Gandhidham	9662452094
4	Shri Tejshi Nanji Danicha	Gandhidham	9978527004
5	Shri Mongar Arjanger Goswami	Gandhidham	9825950849
6	HUSEN SODHA	SINAY	8758331648
7	SAILESH LAVADIYA	ANTARJAL	9638558098
8	BHARATGAR HARIGAR GOSWAMI	GALPADAR	9979693822
9	Harshit Maheshwari	Gandhidham	9265522105
10	Smit Parmar	Gandhidham	9426789667
11	Rahul Rosiya	Gandhidham	8154009616
12	Bharat lalan	Gandhidham	9586564312
13	Raj Matang	Gandhidham	9106190933

Annexure-12
List of Aapada Mitra-Kutch District-2024

Sr.	Name	Date of Birth	Village	District	Mo. No.
1	RUTVIKSINH JIVANJI JADEJA	18/7/2003	ADIPUR	KUTCH	9328312281
2	YASHPALSINH PRUTHVIRAJSHINH JADEJA	30/08/2001	ADIPUR	KUTCH	6351003352
3	SOLANKI MANISH BHIKHALAL	18/11/1992	ADIPUR	KUTCH	97235 35628
4	PARMAR VIDHI ARVINDBHAI	22/4/2004	BHACHAU	KUTCH	88666 11951
5	AASHANI KAJAL JADAVJI	19/9/2003	BHARAPAR	KUTCH	8320014580
6	JARU HETAL NARANBHAI	10-03-2001	KIDANA	KUTCH	7383367533
7	CHHABHIYA JANVI SURESHBHAI	24/11/2003	KUMBHARDI	KUTCH	9737998455
8	BAKUTRA NANDINI BABUBHAI	16/3/2004	YASHODADHAM	KUTCH	9265216381
9	SAIYAD KARINA FARUKBHAI	25/1/2003	BHARAPAR	KUTCH	7016823588
10	NAGJIBHAI RUPABHAI DANGAR	01-01-1981	BHACHAU	KUTCH	81410 10128
11	PREMJIBHAI HARIJAN	01-01-1969	KUMBHARIYA	KUTCH	73136 93757
12	MAMADBHAI HAJIBHAI	23-08-1986	BHACHAU	KUTCH	99795 50642
13	DINESHBHAI KANJIBHAI JADAV	06-05-1985	BHACHAU	KUTCH	98252 08611
14	DHAWAL RATILAL	11-03-1988	GANDHIDHAM	KUTCH	95749 86062
15	DANGI LALSING	23-12-1996	ANJAR	KUTCH	77790 90570
16	HARESHBHAI PATEL	20-05-1999	ADIPUR	KUTCH	97127 63634
17	PRAJPTI NIKUL	15-06-2000	GANDHIDHAM	KUTCH	96384 33872
18	MAHESHWARI HARESH	24-09-1998	BHARAPAR	KUTCH	99796 38770
19	PAYAL MEGHANI	21-05-1999	ADIPUR	KUTCH	87581 48346
20	SANJAYKUMAR KAMARIYA	16-10-1994	BHACHAU	KUTCH	89052 02272
21	KARAN VAISNAV	27-02-2002	BHACHAU	KUTCH	93133 80621
22	ASHOKKUMAR YADAV	20-12-1996	BHACHAU	KUTCH	74259 33930
23	PARAMAR DENISH KARSHANBHAI	03-04-1993	ANJAR	KUTCH	90990 63589
24	CHAUHAN SHIVAMBHAI	01-05-2000	BHACHAU	KUTCH	94845 64888
25	RAMI JATINKUMAR HARAGISHBHAI	10-05-1977	ANJAR	KUTCH	98251 74163
26	GARANIYA HITESH	06-11-1993	ADIPUR	KUTCH	91069 06151
27	MANISH K POKAR	14-10-2001	GANDHIDHAM	KUTCH	96646 91066
28	MANAVK POKAR	30-07-2003	GANDHIDHAM	KUTCH	97374 61040

Annexure-13**List of NGOs and CBOs – of Kutch District**

Sr	Name Of NGO/ CBO	Address	Contact Parson	Contact Number
1	Aarya Samaj Mandal	Gandhidham-Adipur	Shree Vachonidhi	9428006232
2	Rajasthan Yuva Mandal	Gandhidham-Adipur	Shree Shrikant Rathi	9426217132
3	Agarwal Samaj	Gandhidham-Adipur	Shree D.K. Agarwal	9825255636
4	Swami Narayan Mandir	Gandhidham-Adipur	Shree Lalji Bhai Thacker	9879109801
5	Rastriya Svayam Sevak	Gandhidham-Adipur	Shree Sunil Kothari	--
6	Lions Club	Gandhidham	Shree Nitin Solanki	9879561205
7	Rotary Club	Gandhidham	Shree Anup Giriya	9825291108
8	Redcross Society	Gandhidham	Shree Dr. Bhavesh Acharya	9825210157 (02836-234854)
9	Sindhu Youth Circle	Gandhidham	Shree Vijay Khubchandani	9825837409 (02836-240409)
10	Shree Lohana Mahajan	Gandhidham	Shree Ajit Thacker	9825035343 (02836-220925)
11	Sitaram Parivar	Gandhidham	Shree Mohan Dharshi Thacker	9852634603 (02836-222373)
12	Gaytri Mahila Mandal	Gandhidham	Shree Anuradha	9825697967
13	Gandhidham Chamber of Commerce	Gandhidham	Shri Dinesh Gupta	02836-220735
14	Indian Medical	Gandhidham	Shree S. R. Chaudhary	9825166049
15	Manav Seva Trust	Gandhidham	Shree Mrudulaben Seth	9925737761
16	Jayant Club	Gandhidham	Shree Teja Bhai Ahir	9825227199

17	Brahm Samaj Mahila	Gandhidham	Shree Kailash Ben Bhatt	9825230889
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Annexure-14
Details of Equipment's

Sr. No.	Equipment's	Equipment's Details	Number of Units Available	Available Detent	Name of Operator
1	Ambulance Vehicle	Ambulance Vehicle	5	Rambagh Hospital – Adipur	Yes
2	Structure (Normal)	Structure	3	Rambagh Hospital – Adipur	Yes
3	Portable Oxygen Cilinder	Oxygen Cilinder	7	Rambagh Hospital – Adipur	Yes
4	Portable X-ray	X-ray machine	1	Rambagh Hospital – Adipur	Yes
5	Ambulance	Light Ambulance	1	Jhulelal Temple – Gandhidham	Yes- Kundan Store, (02836-255580)
6	Ambulance	Light Ambulance	1	Sindhu Seva Samiti	02836-260080
7	Ambulance	Light Ambulance	1	Tolani Eye Hospital	Yes, Mr. Chandnani (02836-260497)
8	Ambulance	Medium Ambulance	1	Sent Joseph Hospital	Yes, 02836-230160
9	Ambulance	Medium Ambulance	1	Kandla Solt Manufacture Asso.	Yes, Mr. Samji Ahir, 02836-231485
10	Ambulance	Medium Ambulance	1	IFFCO Kandla	Yes, Mr. Mukesh Agarwal 02836-231311
11	Ambulance	Medium Ambulance	1	Redcross Society	Yes, Dr. B. F. Aacharya 02836-243854
12	Ambulance	Medium Ambulance	1	Western Railway	Yes, 02836-231874 02836-234674
13	Ambulance	Medium Ambulance	1	Gautam Fright P.L.	Yes, Mr. Ramesh Bhai 02836-232605
14	Fire Tender	Fire Tender	2	Kandla Port Trust/IFFCO	Yes

Annexure-15
Skilled Human Resources Details (Hospital's Details)

Sr. No.	Skill Type	Doctor's Name	Hospitals Name	Hospital Phone Number	Dr.'s House Number
1	Civil Surgeon	Dr. Kishore Roy	Rambagh Hospital	02836-261626	
2	General Physician	Dr. Parth Parmar	Rambagh Hospital	02836-261626	
3	General Sergen	Dr. Vidit Jethva	Rambagh Hospital	02836-261626	
4	Lab Tech	Dr. Palak Thacker	Rambagh Hospital	02836-261626	
5	Maternity Doctor		Rambagh Hospital	02836-261626	
6	Eye Surgeon	Dr. Kamla Sadiya	Rambagh Hospital	02836-261626	
7	Pharmacist	Dr. Manisha Lalwani	Rambagh Hospital	02836-261626	
8	Pharmacist	Dr. Abhishek Dapan	Rambagh Hospital	02836-261626	
9	Dresser	Raju Bharwad	Rambagh Hospital	02836-261626	
10	Dentist	Dr. Harish Madhani	Rambagh Hospital	02836-261626	
11	Antitheist	Dr. Darsan Viramgama	Private Hospital	02836-232591	02836-233555
12	Antitheist	Dr. Mrs. Gandhi S.R.	Private Hospital	02836-236700	02836-231110
13	Antitheist	Dr. Hiremath S.S.	Private Hospital	02836-261844	02836-260997
14	Antitheist	Dr. Kor P.P.	Private Hospital	02836-229655	02836-227335
15	Antitheist	Dr. Shah Hitesh	Private Hospital	02836-234276	9825227344
16	Antitheist	Dr. Sharma S.C.	Private Hospital	02836-220497	02836-233199
17	Dentist	Dr. Asha Y. Parekh	Private Hospital	02836-234295	02836-234451
18	Dentist	Dr. Chadotra M.	Private Hospital	02836-220142	02836-237909
19	Dentist	Dr. Hitesh Seth	Private Hospital	02836-226763	02836-220965
20	Dentist	Dr. Kella B.V.	Private Hospital	02836-222094	02836-231181
21	Dentist	Dr. Sanghvi V.K.	Private Hospital	02836-234979	02836-223342

22	Dentist	Dr. Sharma R.	Private Hospital	02836-229211	02836-227627
23	Dentist	Dr. Sing N.	Private Hospital	02836-230769	02836-261343
24	Dentist	Dr. Soneta S.	Private Hospital	02836-236319	02836-229172
25	Dentist	Dr. Sachi S. Patel	Private Hospital	9426473265	9825208617
26	E. & T. Surgeon	Dr. Dave A.B.	Private Hospital	02836-221931	02836-260394
27	E. & T. Surgeon	Dr. Harani D.D.	Private Hospital	02836-222096	02836-239121
28	E. & T. Surgeon	Dr. Khatri R.S.	Private Hospital	02836-222701	02836-235959
29	E. & T. Surgeon	Dr. Chavla Jagdish	Private Hospital	02836-222456	02836-234848
30	Family Physician	Dr. Aacharya C.M.	Private Hospital	02836-220715	9825231319
31	Family Physician	Dr. Aacharya C.M.	Private Hospital	02836-230371	02836-232606
32	Family Physician	Dr. Mrs. Aacharya C.M.	Private Hospital	02836-232606	02836-232306
33	Family Physician	Dr. Agarwal B.B.	Private Hospital	02836-222597	9825225599
34	Family Physician	Dr. Agarwal P.D.	Private Hospital	02836-270633	02836-270156
35	Family Physician	Dr. Aasar G.K.	Private Hospital	02836-239139	02836-233765
36	Family Physician	Dr. Mrs. Bhatiya K.	Private Hospital	02836-260255	
37	Family Physician	Dr. C. Jonwala	Private Hospital	02836-220263	9825169439
38	Family Physician	Dr. Mrs. Chelani	Private Hospital	02836-220099	02836-270441
39	Family Physician	Dr. Dasani N.G.	Private Hospital	02836-260001	02836-261495
40	Family Physician	Dr. Goswani N.K.	Private Hospital	02836-225915	02836-261399
41	Family Physician	Dr. Guptabhaya S.K.	Private Hospital	02836-221305	02836-231777
42	Family Physician	Dr. Guptabhaya S.K.	Private Hospital	02836-221305	02836-231777
43	Family Physician	Dr. Gurudasani V.S.	Private Hospital	02836-260674	02836-260674
44	Family Physician	Dr. Harani H.C.	Private Hospital	02836-235269	9825563291
45	Family Physician	Dr. Mrs. Hiremath U.S.	Private Hospital	02836-261844	02836-260097
46	Family Physician	Dr. Jain M.K.	Private Hospital	02836-231874	02836-233401
47	Family Physician	Dr. Vasudev Jethani	Private Hospital	02836-261650	

48	Family Physician	Dr. Joshi N.L.	Private Hospital	02836-260666	02836-261666
49	Family Physician	Dr. Joshi N.L.	Private Hospital	02836-232288	02836-230383
50	Family Physician	Dr. Kella H.V.	Private Hospital	02836-232069	02836-232071
51	Family Physician	Dr. Kumar S.K.	Private Hospital	02836-231874	02836-229167
52	Family Physician	Dr. Khushalani A.	Private Hospital	02836-260562	9824202088
53	Family Physician	Dr. Lion A.	Private Hospital	02836-261802	02836-262188
54	Family Physician	Dr. Makwana H.	Private Hospital	02836-220263	02836-263406
55	Family Physician	Dr. Minocha Ravi	Private Hospital	02836-236306	9824240205
56	Family Physician	Dr. Mehta H.K.	Private Hospital	02836-226538	02836-235021
57	Family Physician	Dr. Mehta J.R.	Private Hospital	02836-220164	02836-220834
58	Family Physician	Dr. Morkhiya V.M.	Private Hospital	02836-230011	02836-230011
59	Family Physician	Dr. Parekh S.K.	Private Hospital	02836-262223	02836-261123
60	Family Physician		Private Hospital		
61	Family Physician	Dr. Raval S.	Private Hospital	02836-235119	02836-235119
62	Family Physician	Dr. Sing D.P.	Private Hospital	02836-221990	02836-231199
63	Family Physician	Dr. Thacker A.D.	Private Hospital	02836-220852	02836-230852
64	Family Physician	Dr. Thacker H.M.	Private Hospital	02836-223506	02836-222350
65	Family Physician	Dr.	Private Hospital		
66	Family Physician	Dr. Thacker S.B.	Private Hospital	02836-252706	9825227808
67	Family Physician	Dr. Mrs. Tilwani	Private Hospital	02836-270870	02836-230555
68	Family Physician	Dr. Vachharajani N.D.	Private Hospital	02836-220088	02836-220208
69	Family Physician	Dr. Vora C.B.	Private Hospital	02836-223084	
70	Family Physician	Dr. Vaghvani Vijay	Private Hospital	02836-262843	02836-262076
71	Family Physician	Dr. Jhola Mithubhai	Private Hospital	02836-260608	
72	General Surgeon	Dr. Ahir J.K.	Private Hospital	02836-237744	9825397171
73	General Surgeon	Dr. Dasani D.G.	Private Hospital	02836-239307	9625256687
74	General Surgeon	Dr. Gandhi R.G.	Private Hospital	02836-236700	02836-229165

75	General Surgeon	Dr. Girdhari R.C.	Private Hospital	02836-233300	02836-231219
76	General Surgeon		Private Hospital		
77	General Surgeon	Dr. Joshi Y.V.	Private Hospital	02836-221557	02836-233324
78	General Surgeon	Dr. Nayak S.K.	Private Hospital	02836-234333	02836-231332
79	General Surgeon	Dr. Vora Chetan	Private Hospital	02836-250585	9825225942
80	General Surgeon	Dr. Patel Mahendra	Private Hospital	02836-234485	02836-262199
81	OB & Gynecologist	Dr. Mrs. Nima Ben Acharya	Private Hospital	02836-220715	02836-232736
82	OB & Gynecologist	Dr. Alpa D. Mehta	Private Hospital	02836-222288	02836-236148
83	OB & Gynecologist	Dr. Chandrakant Thacker	Private Hospital	02836-22448	9825299825
84	OB & Gynecologist	Dr. Darshak Mehta	Private Hospital	02836-220263	982536496
85	OB & Gynecologist	Dr. Mrs. Gour A.	Private Hospital	02836-235135	02836-239635
86	OB & Gynecologist		Private Hospital		
87	OB & Gynecologist	Dr. Mrs. Aarti Acharya	Private Hospital	02836-220715	02836-234854
88	OB & Gynecologist	Dr. Khemchadani	Private Hospital	02836-260836	9825237054
89	OB & Gynecologist	Dr. Mrs. Kour J.	Private Hospital	02836-229655	02836-227335
90	OB & Gynecologist	Dr. Mrs. Nayak P.S.	Private Hospital	02836-234333	02836-231332
91	OB & Gynecologist	Dr. Mrs. Patel M.H.	Private Hospital	02836-230202	02836-230353
92	OB & Gynecologist	Dr. Mrs. Raiyani	Private Hospital	02836-230022	02836-234214
93	OB & Gynecologist	Dr. Mrs. Sing	Private Hospital	02836-221990	02836-231199
94	Eye Specialist	Dr. Gaur A.	Private Hospital	02836-235135	02836-239635
95	Eye Specialist	Dr. Masand S.N.	Private Hospital	02836-220139	02836-234186
96	Eye Specialist	Dr. Parikh Y.B.	Private Hospital	02836-234295	02836-234457
97	Eye Specialist	Dr. Sahnani Chanda	Private Hospital	02836-260284	02836-260773
98	Orthopedic Surgeon	Dr. Hotchandani S.	Private Hospital	02836-264774	9375356252
99	Orthopedic Surgeon	Dr. Patel Hermant	Private Hospital	02836-227432 02836-2271111	9824285009
100	Orthopedic Surgeon	Dr. Shailesh Ramavat	Private Hospital	02836-230160	

101	Orthopedic Surgeon	Dr. Vachhaniya P.S.	Private Hospital	02836-230400	02836-226440
102	Pediatrician	Dr. Dubal J.A.	Private Hospital	02836-232591	02836-233777
103	Pediatrician	Dr. Jeswani R.M.	Private Hospital	02836-220140	982519903
104	Pediatrician	Dr. Majithia M.S.	Private Hospital	02836-222413	9824255376
105	Pediatrician	Dr. Rupesh Seth	Private Hospital	02836-241067	02836-222397
106	Pediatrician	Dr. Thacker Navin	Private Hospital	02836-230195	02836-224034
107	Pediatrician	Dr. Thacker Nitin	Private Hospital	02836-224477	02836-220615
108	Pathologist	Dr. Sukal K.L.	Private Hospital	02836-221611	02836-234062
109	Pathologist	Dr. Mrs. Pavde S.V.	Private Hospital	02836-230370	02836-231352
110	Pathologist	Dr. Mrs. Verma G.H.	Private Hospital	02836-229168	02836-220707
111	Pathologist	Dr. Hitesh Andkat	Private Hospital	02836-221230	9825338714
112	Pathologist	Dr. Lalwani	Private Hospital	02836-225999	9426230884
113	Pathologist	Dr. Mrs. Nohal lalwani	Private Hospital		9427226291
114	Pathologist	Dr. N. P. Sharma	Private Hospital		9898227400
115	Pathologist	Dr. Shital Travadiya	Private Hospital	02836-225254	9426253545
116	Radiologist	Dr. Shah R.m.	Private Hospital	02836-222878	9825226601
117	Radiologist	Dr. Shainani Nisha	Private Hospital	02836-260836	02836-232406
118	Leb	Dr. Rakesh P. Ganatra	Private Hospital	02836-221216	9879109836
119	Ayurvedic Doctor	Dr. Varshaben Ratani	Private Hospital		
120	Ayurvedic Doctor	Dr. Krishna Patel	Private Hospital		
121	Ayurvedic Doctor	Dr. Jagruti N. Thacker	Private Hospital		
122	Ayurvedic Doctor	Dr. Janki Kevalramani	Private Hospital		
123	Ayurvedic Doctor	Dr. Ansuyaba Jadeja	Private Hospital		
124	Ayurvedic Doctor	Dr. Bhagwati Jiladiya	Private Hospital		
125	Ayurvedic Doctor	Dr. Kokila Bhimjiyani	Private Hospital		
126	Ayurvedic Doctor	Dr. Anand Thacker	Private Hospital		
127	Ayurvedic Doctor	Dr. Bhavesh R. Modh	Private Hospital		
128	Ayurvedic Doctor	Dr. Vijay Solanki	Private Hospital		
129	Ayurvedic Doctor	Dr. Vikram M. Sukal	Private Hospital		
130	Ayurvedic Doctor	Dr. Manu P. Gandhani	Private Hospital		
131	Ayurvedic Doctor	Dr. Ashok Aswani	Private Hospital		
132	Ayurvedic Doctor	Dr. Bharti S. Jadeja	Private Hospital		
133	Ayurvedic Doctor	Dr. Bharan N. Shah	Private Hospital		
134	Ayurvedic Doctor	Dr. Vibhuti S. Thcker	Private Hospital		

135	Ayurvedic Doctor	Dr. Nitin H. Shah	Private Hospital		
136	Ayurvedic Doctor	Dr. Pragya Bhatt	Private Hospital		
137	Ayurvedic Doctor	Dr. D.B. Patel	Private Hospital		
138	Ayurvedic Doctor	Dr. Vasudev lalchadani	Private Hospital		
139	Vaccine – Polio, OPO, Missals, TT		Rambagh Hospital	02836-261626	Available
140	Anti Sneck Vanam		Rambagh Hospital	02836-261626	Available
141	Clorine Tablet		Rambagh Hospital	02836-261626	Available

Annexure: 16
Details of Shelters Where Temporary Shelter Can Be Provided in Times of Emergency

SCHOOL NAME	CONTACT PERSON	MOBILE NUMBER
S PODDAR VIDYAJYOTI, ADIPUR	SREENU PRAMOD NAIR	9375862389
MAITRIMAHA VIDHALAYA, ADIPUR	A S ABBASI	9824293448
ST. XAVIER'S SCHOOL, ADIPUR	Fr Joby K V	8320670292
EXCELSIOR MODEL SCHOOL, ADIPUR	Mrs. Harsha Mehta	9427437225
SADHU HIRANAND NAVALRAI ACADEMY, ADIPUR	Naresh Chaudhary	9879159837
SHANTIKUNJ PRI SHALA, ADIPUR	VANITABEN BHUVA	8141716799
MOHANLAL MANSINGH VASWANI ENGLISH HIGH SCHOOL, ADIPUR	VEENA KEWALRAMANI	9428081690
THE FUSION SCHOOL OF SCIENCE AND COMMERCE, ADIPUR	Sharad B Bakotra	9033088476
KANYA MAHA VIDYALAYA, ADIPUR	SUNITA GROVER	9510441505
ACADEMIC HEIGHTS PUBLIC SCHOOL, ADIPUR	Haresh Lalwani	9726758866
SAVVY INTERNATIONAL SCHOOL, ADIPUR	SAVVY INTERNATIONAL SCHOOL	8155815580
GORDHANBHAI A. PATEL GUJARAT VIDHYALAY HIGHER SECONDARY SCHOOL, ADIPUR	SHREE GORDHANBHAI A PATEL	9979503070
SHRI R P PATEL GUJARAT VIDHYALAY, ADIPUR	DR P P DAVE	9979503070
SAINT XAVIER'S PUBLIC SCHOOL, ADIPUR	JOSE K JOSEPH	9426270708
PODAR INTERNATIONAL SCHOOL, ADIPUR	Dr Santosh Kumar Singh	8655322167
ST. XAVIER'S SCHOOL GUJARATI MEDIUM, ADIPUR	Fr JOBY K V	8320670292
MAITRY ADIPUR KANYA SHALA, ADIPUR	PARVATI MAHESHWARI	9426382333
S.R. GANATRA PRI SHALA, ADIPUR	S T MATANG	9429081249
MAITRI ENGLISH PRIMARY SCHOOL, ADIPUR	VEENA KEWALRAMANI	9428081690
MODERN SCHOOL, ADIPUR	MRS AARTI GERIANI	9979719190
SANSHKAR SHISHU MANDIR PRI SHL, ADIPUR	Prerna Panchal	8154992429
S.K. PUBLIC SCHOOL, ADIPUR	Swati Goyal	9909904744
MATRUCHHAYA PRI SHALA-2, ADIPUR	Nimit c Joshi	9825799607
SAVVY INTERNATIONAL SCHOOL, ADIPUR	SIDDHIDA SONI	9925016603
ADIPUR BOYS PAN. PRI. SC., ADIPUR	PATEL CHETANABEN	9726451438
ADIPUR PAN. PRI. SCH.NO 2, ADIPUR	SHRIVASTAV SUNITA ANIL	8758218203
MATRUCHHAYA PRIMARY SHALA, ADIPUR	Chauhan Aruna Ben	9825799607
ADIPUR KANYA PAN. PRI. SCH.NO 1, ADIPUR	VIMLABEN R PATEL	9638390748
GOVT. HIGH SCHOOL ADIPUR, ADIPUR	SANGITABEN PADHIYAR	9904031431
CHRIST SCHOOL, ADIPUR	ANNO CHERIAN	8511683115
UPAASANA HARIAASRO TRUST, ADIPUR	DR MAHENDRABHAI CHOUHAN	9427249645
BRILLIANT PRATHMIK SHALA, ADIPUR	HITAXI DAVE	7359995996
MATA LAXMI ROTARY INSTITUTE FOR SPEECH AND HEARING HANDICAPED, ADIPUR	MR MEHUL A BHATT	7069660035
MAITRI PRI SC, ADIPUR	AJITSING CHANDEL	8141280301

SARASWATI VIDHYAMANDIR, ADIPUR	Geeta Iodhia	9978001501
LAKSHYA PRIMARY SCHOOL, ANTARJAL	MEENABEN S PATEL	9512745777
SENT PAUL BALMANDIR PRI SHALA, ANTARJAL	NIKHIL ASHAR	8866975770
SHINAY HIGHER SECONDARY SCHOOL, ANTARJAL	JADAV SHAMATBHAI	9426289431
SENT PAUL ENGLISH SCHOOL, ANTARJAL	NIKHIL ASAR	8866975770
MOUNT LITERA ZEE SCHOOL, ANTARJAL	Vijay Verma	7600320920
ATMIYA VIDYAPEETH, ANTARJAL	SREEVIDYA BYJU	7698383935
NILKANTHVARNI VIDHYALAY, ANTARJAL	Patadia Amiben Kirit Bhai	9427435800
CHRIST ENG SCHOOL, ANTARJAL	Nilesh N Parmar	9537594687
KIDANA HOUSING KANYA PRIMARY SHALA, ANTARJAL	NEHABEN D PATEL	9998327010
AMBE BHAVNATH PRI SHALA, ANTARJAL	AMBE BHAVNATH PRI SHALA	6353453268
ANTARJAL PRATMIK SHALA, ANTARJAL	JAYENDRABHAI GADHAVI	9925738026
SHINAY KANYA PRI SCHOOL, ANTARJAL	V K MEVADA	9099511211
GD GOENKA INTERNATIONAL SCHOOL, ANTARJAL	JAYDEEP VAIDYA	7862009781
KIDANA KANYA SHALA, ANTARJAL	DILIPKUMAR B PATEL	9228295431
SHINAY VADI - 2, ANTARJAL	Indravadan karshandas Rathod	9274874902
KIDANA HOUSING SOCIETY PA. PRA. KUMAR SHALA, ANTARJAL	PRAVINKUMAR M PRAJAPATI	9427760507
SHREE GOVERNMENT SECONDARY SCHOOL KIDANA	Mrs. N K JOSHI	7874116383
PRABHAT PUBLIC SECONDARY SCHOOL, ANTARJAL	PARAS T JOYA	9427227164
ST. THOMAS ENG.MEDIUM SCHOOL, ANTARJAL	Mrs. Neelima Charan	9825340131
V. B. DAFDA SCHOOL, ANTARJAL	Vandna Mishra	9919919036
SHINAY VADI - 1, ANTARJAL	PRAKASHBHAI	9974722251
SHRIRAM SOCI. BHAKTINAGAR PRI SHALA, ANTARJAL	JET BHARAT MANGAL	9638511410
BHARAPAR PANCH. PRIM. SCH., ANTARJAL	PARSOTAM MAKWANA	9687970147
GOOD SHEPHERD, ANTARJAL	Khristi Miltanbhai Ishwar Bhai	8487044853
SHINAY KUMAR. PRI. SCH., ANTARJAL	KALUBHAI MAKWANA	9978744338
ROYAL PUBLIC SCHOOL, ANTARJAL	Madhuben	9925316669
KREATIVE KIDZ PRI SCHOOL, ANTARJAL	JAGDISH VIGORA	9512009551
KIDANA KUMAR PRIMARY SHALA, ANTARJAL	SHANTIBEN CHAVDA	9427274849
MOUNT ZION SCHOOL, ANTARJAL	K Jasmine Prince	9879714167
JAINACHRAYA AJRAMAR HIGH SCHOOL, GALPADAR	SHRI SARSVATI UCHCHATAR MADHYAMIK VIDHYALAY	9879279138
LEARNERS ACADEMY ENG SCHOOL, GALPADAR	HITESH RAMDASANI	9909953955
DAYANAND ARYA VAIDIK PUBLIC SCHOOL, GALPADAR	DIGANT DHOLAKIYA	8980055000
SHIVAM PRIMARY VIDHYAMANDIR, GALPADAR	DESAI VIRAJBEN	8320792741
GURU NANAK PUBLIC SCHOOL SECONDARY, GALPADAR	Mr. Krishna Kumar Saw	9426970939
SHRI KUTCH MACHCHHOYA MADHYAMIK, GALPADAR	AKASHI PATEL	7778889116
DELHI PUBLIC SCHOOL-GANDHIDHAM, GALPADAR	DR SUBODH THAPLIYAL	9581116688
GURU NANAK SCHOOL ENGLISH MEDIUM, GALPADAR	KAMAL KARAMCHANDANI	9898612391

NAVJYOT HINDI MADHYAMIK SHALA, GALPADAR	LAXMAN BARUPAL	7976889465
Govt. High School Galpadar, GALPADAR	PATEL PRAVINABAHEN L	9427074902
INDIRANAGAR PA. PRI. SHALA, GALPADAR	RAJVANSHI ARAVINDKUMAR	9099361473
AWESOME PRIMARY SCHOOL GALPADAR, GALPADAR	Alka Sharma	9099079277
GALPADAR KUMAR SHALA, GALPADAR	ZANKHNABEN K PANCHAL	9601440643
MCHCHHUNAGAR PRI. SHALA, GALPADAR	REKHABEN B PARMAR	8780252528
ANJUMAN PRI SC, GALPADAR	NAINA PARMAR	9033586615
GALPADR KANYA SHALA, GALPADAR	NATVARBHAI B CHAUDHARI	9427440680
SHREE J.K. PUBLIC SCHOOL, GALPADAR	Mukesh Dogra	9574009493
MAA SHARDA VIDHYA MANDIR PRI SCHOOL, GALPADAR	NIDHI SHIVASTAV	9409240674
VAIBHAV VIDHYALAYA GALPADAR	NEETABEN J PANDYA	9099079277
MAA SHARDA VIDHYA MANDIR, GALPADAR	SUTHAR PRAVINBHAI	9409240674
GAYATRI KRUPA SOCIETY, GALPADAR	PRAKASH ISHWAR CHANDNANI	9428567324
KUTCH ACADEMY SCHOOL, GALPADAR	KUSUM CHAUDHARY	9081162193
JAINACHARYA AJARAMAR PRI SHALA, GALPADAR	JAINACHARYA AJRAMAR SHRI SARSVATI VIDHYA MANDIR	9925890240
NAVJYOT PUBLIC SCHOOL, GALPADAR	Priyanka Adra	7490073648
NAVJYOT ENGLISH SCHOOL, GALPADAR	Mamta Gehlot	9375356956
MAA SHARDA VIDHYA MANDIR, GALPADAR	MAKWANA CHETANABEN AMRUTBHAI	9409240674
SHRIMATI SUMITRADEVI RAJKRUPAL SARASWATI VIDHYA MANDIR, GALPADAR	Bhavna Ben Sisodia	9725495435
M.P. PATEL KANYA VIDHYALAY, GANDHIDHAM	KAILASHBEN D CHITRODA	9408530256
SADHU VASWANI INT. SCHOOL, GANDHIDHAM	R SUBHALAXMI	8980933602
P.N. AMERSEY HIGH SCHOOL, GANDHIDHAM	MRSHAIENDRA SHARMA	9979920013
ADARSH MAHA VIDYALAYA, GANDHIDHAM	DR SARMAN SOLANKI	9725843172
J S ADARSH KANYA MAHA VIDHYALAYA, GANDHIDHAM	SARITA V SHARMA	9429170866
KAIRALI ENGLISH SCHOOL, GANDHIDHAM	KAIRALI ENGLISH SCHOOL	9727104010
MODERN SCHOOL, GANDHIDHAM	MRS AARTI GERIANI	9979719190
DR. C.G. HIGH SCHOOL, GANDHIDHAM	chelabhai Chaudhari	9662502367
SAHYOG SARASWATI VIDHYA MANDIR, GANDHIDHAM	MRS KANTABEN SOLANKI	9737725923
SHREE SWAMINARAYAN VIDHYALAYA, GANDHIDHAM	RENITHA SATHEESH	8469204841
CAMBRIDGE ENGLISH SC, GANDHIDHAM	KAVITA M ABICHANDANI	9925666424
SHRI SWAMINARAYAN VIDHYAMANDIR GUJARATI MEDIUM, GANDHIDHAM	MISS VIJAL GADHVI	9081988832
Dr. C. G. Primary School, GANDHIDHAM	KIRAN SUNIL LAHORI	9429882498
GANDHI. PRI. SCH. NO 1, GANDHIDHAM	PAREJIYA NITINBHAI	7383538612
ADARSH PRIMARY SCHOOL, GANDHIDHAM	MUKESH MAGNANI	9601850095
AADARSH KANYA PRI SHALA, GANDHIDHAM	LAVEENA ROHILA	9998780179
NAVI SUNDARPURI KUMAR PRIMARY SHALA, GANDHIDHAM	PUSHPENDRASINH RATHOD	7567048725

NAVI SUNDARPURI KANYA PRIMARY SCHOOL, GANDHIDHAM	LIMBACHIYA DARSHANABEN BIPINBHAI	7801811285
H.K.V. PRIMARY SHALA, GANDHIDHAM	BHRAMAR JASHUBEN BIPINBHAI	9879083245
DR.H.R. GAJWANI PRIMARY SCHOOL, GANDHIDHAM	VARSHA DAVE	9327920536
ADARSH PRIMARY ENGLISH MEDIUM SCHOOL, GANDHIDHAM	SHAMBHU V KUSHWAHA	8490921122
JILLA PANCH. PRI. SCH. NO 2, GANDHIDHAM	JITENDRA MEGHANI	9979156315
SHREE GOVERNMENT SECONDARY SCHOOL -NAVI SUNDARPURI, GANDHIDHAM	MAYUR DAMOR	9408931655
GAJWANI INTERNATIONAL SCHOOL, GANDHIDHAM	MRS R SUBHALAXMI	8980933602
AHIRVAS PRIMARY SHALA, GANDHIDHAM	Shilpa Ben Patel	8320708556
V Js PUBLIC SCHOOL, GANDHIDHAM	ARTI SAXENA	9909385007
SHRI SARASWATI PRI. SHALA, GANDHIDHAM	SHASHIKALABEN SHARMA	9427440280
AMARCHAND SINGHVI INTERNATIONAL SCHOOL, GANDHIDHAM	MRIDUL VARMA	7285040814
SAVVY INTERNATION SCHOOL, GANDHIDHAM	REENA VERMA	8155815580
SHRI MATRUCHHAYA KANYA VIDHYALAY, GANDHIDHAM	KRUTARTH JOSHI	9825394049
SAVVY INTERNATIONAL SCHOOL, GANDHIDHAM	POOJA DABHI	7361010203
SHREE BALVIKAS PRATHMIK SHALA, GANDHIDHAM	BHIKHUBEN RAMNIKLAL VYAS	9825394049
KAILASHNAGAR P. PRIMARY SHALA, GANDHIDHAM	HARSHABEN KUBAVAT	9426950613
KHODIYARNAGAR PRI. SHALA, GANDHIDHAM	RAMESHBHAI MAKAVANA	9998178091
SHRI BALGURU PRIMARY SCHOOL, GANDHIDHAM	shri balguru primary school	9913363152
THE ROYAL SCHOOL, GANDHIDHAM	Chhaya Chaudhary	8320584049
SHREE BALVIDHYA PRATHMIK SHALA, GANDHIDHAM	Vishwakarma Savita	9825394049
MAHESHWARINAGAR KUMAR PRI SCHOOL, GANDHIDHAM	RAMESHBHAI MOTIBHAI SOLANKI	9913903686
SHRI KRISHNA PUBLIC SCHOOL, GANDHIDHAM	RUCHI BABLANI	9909882362
JUNI SUNDARPURI PRI SHALA, GANDHIDHAM	HIRENBHAI MAKAWANA	8200679535
RAILWAY COLONY PRIMARY SHALA, GANDHIDHAM	ARUNKUMAR MISHRA	9924694252
YUG PURUSH PRI SCHOOL, GANDHIDHAM	RISHIKESH VELJIBHAI JAT	9227777767
ST MEERA SCHOOL BHARATNAGAR, GANDHIDHAM	Shashikalben Sharma	9427440280
SMT. JAYABEN CHANDULAL THAKKER HIGH SCHOOL, GANDHIDHAM		
AKSHAR VIDHYAPEETH, GANDHIDHAM	Meera H Chaudhary	8320582589
ROSHNI PRIMARY SCHOOL, GANDHIDHAM	DAMOR NILAMBEN	9712297719
OM VIRESHWARAY MADHYAMIK SHALA, GANDHIDHAM	OM VIRESHWRAY MADHYMIK SHALA	7990094808
SUNRISE GLOBAL SCHOOL, GANDHIDHAM	Rajni Ladha	8758129440
SHRI CHANAKAY SECONDARY SCHOOL, GANDHIDHAM	RAJPUT ASHABEN	8758946936
ANANDA MARGA PRIMARY SCHOOL, GANDHIDHAM	Ac Adideva Brc	9155307992
NEW ERA ENGLISH SCHOOL, GANDHIDHAM	BHARAT PARMAR	9974580571
MAHESHWARINAGAR KANYA PRI SCHOOL, GANDHIDHAM	VAISHALIBENJOSHI	9727186737
GOVT HIGH SCHOOL MITHI ROHAR	MANISHABEN CHAUDHARI	9428131476

GOVT. HIGH SCHOOL- PADANA	R M DANGAR	7405283971
CHUDAVA PRI SC, GANDHIDHAM	Patel Anita Ben V	8758077428
SHRI BABA BAPU ENGLISH SCHOOLM, MITHIROHAR	Dharmishta Ambalal Dafda	9712821048
SHRI GYANDEEP ENGLISH PRI SHALL, MITHIROHAR	DANGARKUVARBEN J	6355049262
KHARI ROHAR KUMAR PRI SCHOOL, MITHIROHAR	VARSHABEN V PATEL	9723161742
SHRI GYANDEEP GUJARATI PRI SHA, MITHIROHAR	KUVARBEN J DANGAR	6355049262
PADANA PRIMARY SCHOOL, MITHIROHAR	SNEHAL PATEL	7622827044
SHREE CHANAKAY PRIMARY SCHOOL, MITHIROHAR	JAGDISHBHAI	9825260654
JAWAHAR NAGAR PRI SHALA, MITHIROHAR	PANKAJBHAI PATEL	9016724742
SHREE CHANAKY PRIMARY SCHOOL (HINDI MEDIUM), MITHIROHAR	Dharmishta Solanki	9558936256
SHREE MITHIROHAR PRIMARY SCHOOL NO 2, MITHIROHAR	JASHVANTBHAI K CHAUDHARI	9879362862
SHRI DR.B.R. AMBEDAKAR P.P KANYA SCHOOL KHARIROHAR	MAVAJIBHAI VAGHELA	9913174225
MITHI ROHAR PRIMARY SHALA, MITHIROHAR	PRAJAPATI DINESHBHAI B	9974579230
GOVT HIGH SCHOOL, GANDHIDHAM	GOHIL DILIPKUMAR BHIMJIBHAI	9974946494
AUM VIDHYAMANDIR, GANDHIDHAM	R M PATEL	9825659038
AMBE BHAVNATH HIGH SCHOOL, GANDHIDHAM	NAYI HASUMATIBEN N	8160509741
P.R. AGRAVAL NAVNIRMIT S.V.P. GUJARAT VIDHYALAYA, GANDHIDHAM	ASHOKKUMAR DHIRAJLAL BARASARA	9427719422
MOUNT CARMEL HIGH SEC SCHOOL, GANDHIDHAM	PRINCIPAL	9763381656
MOUNT CARMEL SECONDARY SCHOOL, GANDHIDHAM	SAHAYA VIMLA	9763381656
MARUTI MADHYAMIK SHALA, GANDHIDHAM	MAHENDRABHAI L VANKAR	9427437994
ANANDMARG PRIMARY SCHOOL, GANDHIDHAM	P ANAND	9265383910
GANESHNAGAR KUMAR PRI SCHOOL, GANDHIDHAM	MAHESHWARI MANJULABEN	7567125904
BRILLIANT PRATHMIK SHALA - 2, GANDHIDHAM	PREMLATABEN D TANDON	7990388446
AMBE BHAVNATH PRIMARY SHALA, GANDHIDHAM	AMBE BHAVNATH PRIMARY SHALA	9974965672
AMBE BHAVNATH ENG.MEDIUM SHALA, GANDHIDHAM	Madhvi	9974965672
MOUNT CARMEL PRIMARY SCHOOL, GANDHIDHAM	SR C SAHAYA VIMALA	9763381656
UNIQUE STAR ACADEMY, GANDHIDHAM	Shashi Bhushan h Chaudhary	9909016106
DR AMBEDAKAR PRI SHALA, GANDHIDHAM	Anandkumar Maheshwari	9925763032
RED LEAF PUBLIC SCHOOL, GANDHIDHAM	Madhusmita Sahoo	9978601789
NAVJIVAN PRI SHALA, GANDHIDHAM	PATEL ROHITKUMAR	9879528753
SARVODAY SO.PA.PRI.SHALA, GANDHIDHAM	HIMANSHU N SIJU	8141494363
AMBE BHAVNATH HINDI SHALA, GANDHIDHAM	AMBE BHAVNATH HINDI SHALA	8160509741
SUNFLOWERS SCHOOL, GANDHIDHAM	REENA GAUR	6375795103
MOUNT STARZ INTERNATIONAL SCHOOL, GANDHIDHAM	Surya Hanok	9512009555
SHREE ROTARYNAGAR HINDI MEDIUM SCHOOL, GANDHIDHAM	VIJAYA ISHWARLAL KERAPIA	7359520570
PRABHAT PUBLIC SCHOOL, GANDHIDHAM	PARAS JOYA	9427227164
SHRI VEENA VADINI PRI.SCHOOL, GANDHIDHAM	Maheshwari Usha	9712276969

JAGJIVANNAGAR PRI. SHALA, GANDHIDHAM	PATEL ASHOK RAMBHAI	9825610275
GANESHNAGAR KANYA PRI SCHOOL, GANDHIDHAM	PATEL JASHODABEN P	9429815286
GALAXY PRIMARY SCHOOL, GANDHIDHAM	SWETA D SITAPARA	9427512323
PRABHAT PUBLIC SCHOOL (ENGLISH MEDIUM), GANDHIDHAM	PARAS JOYA	9427227164
GALAXY PRIMARY SCHOOL (GUJARATI MEDIUM), GANDHIDHAM	ASMITA T VACHHANI	9427512323
KANDLA PU.PRI. SHALA, GANDHIDHAM	PATEL PRAKASHKUMAR K	9913125010
SARVODAY ENGLISH MEDIUM PRIMARY SCHOOL, GANDHIDHAM	NASIMBANU F SHAIKH	9427392486

Annexure: 17
Details of Cable Operators in Gandhidham City Area

Sr. No.	Name of Cable Operator	Address	Contact Number	Numbers of Connection
1	AARTI SATELLITE SERVICE	PLOT NO.222, SHOP NO.20, WARD-12/B, GANDHIDHAM	9825547369	390
2	AKASH SATELLITE	PLOT NO.205, WARD 12/C, GANDHIDHM	9426214964	306
3	ANTRIKSH SATELLITE	OFFIC NO,20, PLOT NO.141,142, SECTOR-8, GANDHIDHAM	9825799339	391
4	ARIHANT SATELLITE	PLOT NO.643, WARD 12/C, GANDHIDHAM	9426906933	550
5	AZAD NATIONAL SATELLITE	58/587, GHB, KFTZ, GANDHIDHAM	9426789605	250
6	B.B. SATELLITE	A-125, SHAKTI NAGAR, GANDHIDHAM	9825286971	1300
7	BRIJESH ELECTRONIC	58/587, GHB, KFTZ, GANDHIDHAM	9426789605	400
8	GAYATRI SATELLITE	SHOP NO.1, PLOT NO.720, VALMIKI SO., WARD-11B, BHARAT NAGAR, GANDHIDHAM	9825467399	1100
9	GTPL PVT LTD	PLOT NO.272, SECTOR 1/A, GANDHIDHAM	9879431818	1710
10	LAXMI SATELLITE SERVICE	PLOT NO. A/4, SHOPING COMPLAX, SEC-7, GANDHIDHAM	9925949525	1377
11	LILASA SAGAR SATELLITE SERVICE	S.H.X.159, JANTA COLONY, GANDHIDHAM	9428032875	1085

12	LILA SATELLITE SERVICE	SHOP NO.1, TALAVDI VISTAR, SUNDERPURI GANDHIDHAM	9898495964	330
13	MAHESHWARI SATELLITE	174, MAHESHWARI NAGAR, GANDHIDHAM	9376861230	740
14	MANAN SATELLITE	OFFICE NO. G-20, GOLDEN ARCADE BUILDING, PLOT NO.141-142, GANDHIDHAM	9909982323	650
15	OM SATELLITE SERVICE	PLOT NO.480, WARD NO.9/B, BHARAT NAGAR, GANDHIDHAM	9825174595	1290
16	PRIYA SATELLITE	251, ROTARY NAGAR, GANDHIDHAM	9825421800	595
17	RIKI SATELLITE	D-51, MAIN BAJAR, GANDHIDHAM	9898490093	400
18	SAPNA SATELLITE SERVICE	560, JAGJIVAN NAGAR, NU-4, GANDHIDHAM	9824833560	610
19	SHAKTI SATELLITE	FLAT NO.404, SAHJANAND COMPLAX, WARD 10/BC, GANDHIDHAM	9879822200	414
20	CHAMUNDA KRUPA SATELLITE	HOUSE NO.553, JAGJIVAN NAGAR, GANDHIDHAM	9033401359	350
21	SHITLA CABLE	PLOT NO.15, TN-2, WARD 8/B, GANDHIDHAM	9825195362	220
22	SHITLA SATELLITE SERVICE	CABIN NO.194, COLLECTOR ROAD, GANDHIDHAM	8128368989	650
23	SKYLAB SATELLITE SERVICE	PLOT NO. 721, SECTOR-5, GANDHIDHAM	9687596253	1270
24	SKY SATELLITE	C-69, SHAKTI NAGAR, GANDHIDHAM	9909670777	400
25	WHITE ROZ SATELLITE	PLOT NO.55, SHOP NO.2, SECTOR-7, GANDHIDHAM	9426498217	430
26	SHIDHIVINAYAK SATELLITE	ROOM NO.338, SEC-6, GANESH NAGAR, GANDHIDHAM	9099669375	1440
27	CHANDR HILL SATELLITE	PLOT NO.1, SHOP NO.43, WARD 4-A, ADIPUR	9825622252	350

28	J.K. SATELLITE	SIX-10, JANTA COLONY, ADIPUR	9428080486	133
29	JAY SHREE CHAMUNDA SATELLITE	OPP.CDXA-40,4 VADI CHAR RASTA, ADIPUR	9825360323	860
30	KRISHNA SATELLITE	CDXA-130,4 VADI ADIPUR	7600735696	210
31	MOMAYA SATELLITE	PLOT NO.487, WARD NO.1/A, ADIPUR	9879074351	270
32	OM SATELLITE	PLOT NO.1, SHOP NO.6, WARD 1/A, ADIPUR	9913949684	300
33	SEJAL SATELLITE	120, LABOUR CAMP, ADIPUR	9925035369	500
34	SEFALI CABLE NETWORK	PLOT NO.6-7, SHOP NO.2, WARD 2/A, MAITRY ROAD, ADIPUR	9033570397	419
35	SHIV SAGAR SATELLITE	PLOT NO.143, SHOP NO.1, WARD 4/B, ADIPUR	9879194324	1520
36	SHIVAM SATELLITE	PLOT NO.325, WARD 3/A, ADIPUR	9638701520	400
37	SHRI DEVAL KRUPA SATELLITE	OFFICE NO.2, DC-5, NR. RAM MANDIR, ADIPUR	9879017850	500S.0

Illustrative List of Activities Identified as of an Immediate Nature:

1. Drinking Water Supply

- i) Repair of damaged platforms of hand pumps/ ring wells/ spring-tapped chambers/ public stint posts, cisterns.
- ii) Restoration of damaged stand posts including replacement of damaged pipe lengths with new pipe lengths, cleaning of clear water reservoir (to make it leak proof)
- iii) Repair of damaged pumping machines, leaking overhead reservoirs and water pumps including damaged intake- structure, approach gantries/ jetties.

2. Roads

- i) Filling up of breaches and potholes, use of pipe for creating waterways, repair and stone pitching of embankments.
- ii) Repair of breached culverts.
- iii) Providing diversions to the damaged/ washed out portions of bridges to restore immediate connectivity.
- iv) Temporary repair of approaches to bridges/ embankments of bridges, repair of damaged railing bridges, repair of causeways to restore immediate connectivity, granular sub base, over damaged stretch of roads to restore traffic.

3. Irrigation

- i) Immediate repair of damaged canal structures and earthen/masonry works of tanks and small reservoirs with the use of cement, sand bags and stones.
- ii) Repair of weak areas such as piping or rat holes in dam walls/ embankments.
- iii) Removal of vegetative material/ building material/ debris from canal and drainage system.

4. Health

Repair of damaged approach roads, buildings and electrical lines of PHCs/ community Health Centers.

Community assets of Panchayat

- a) Repair of village internal roads.
- b) Removal of debris from drainage/sewerage lines.
- c) Repair of internal water supply lines.
- d) Repair of street lights.

Annexure: 18 Evacuation and Shelter Plan

Temporary Shelter:

Urban Area: Local Nagar Palika and TEOC, -District Primary and Secondary Education Officer will be Responsible to Shift safely of Affected Population during any kind of Disaster, In Kutch District mainly use school, collage /community hall, and Samaj Vadi for shifting of Affected people. Also, already it has been identified ward wise by TEOC AND Nagar Palika. The list of Safe Shelter Included in CDMP Plan. Also find list on SDRN Side. At Urban level City Disaster Management Committee and District Administration directly responsible to Evacuate affected people at Safe Place.

Village area: Mainly village area looking by District and Taluka Panchayat with the support of Liaison officer and Respective Mamlatdar. Also already Identified Village wise Safe Shelter at village level, like school/community hall/Samajwadi etc. put Detail List in VDMP Plan. Also find list on SDRN Side. District /Taluka/Village Level - District /Taluka /Village Disaster Management Team directly responsible to Evacuate affected people at Safe Place

Annexure:19 Media Management Plan

1. Preparedness

External

- Broadcast programs to raise people's awareness of disaster prevention measures
- Develop news sources in emergency situation
- Liaison with community leaders
- Publicize station frequency
- Broadcast public planning meetings
- Outreach to the elderly, women, children, mentally and physically disabled people, as well as other marginalized and other vulnerable groups
- Encourage stockpiling of (hand –powered) radio receivers
- Compile local knowledge on signs of impending disaster and share it with community

Internal

- Back up important documents and files (including audio content) and store in a safe location
- If possible, place a set of minimum broadcast equipment such as a microphone, tape/CD player, transmitter and antennae in a safe location
- Plan radio programs to raise people's awareness of disaster prevention
- First aid training for station personnel
- Technical preparedness (generator, APS, securing, transmitter
- Guidelines for managing staff and volunteers
- Arrange emergency drills in the station
- Develop a contact list and post in station
- Map community (ethnicity, religion, race, culture, vulnerability)
- Prepare pre-recorded Emergency Response
- Announcements and scripts and post in the studio

2. Mitigation

Develop networks with local Disaster Management and Response (DMR) NGOs, local government and key stakeholders: hold regular meeting with them

- Arrange emergency drills in the community
- Training of on-air personnel - what and how to broadcast

3. Response

External-on air

- Broadcast pre-prepared announcements
- Broadcast emergency public meetings
- Broadcast emergency evacuation announcements
- All announcements broadcast in a reassuring and calm

- manner
- Dispel myths and rumors 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 information

Internal-behind the scenes

- Ensure safety of all station personnel
- Call station briefing meeting
- Notify CR networks of status
- Monitor all official announcements and activities of
- national government, local government and aid
- agencies (NGOs)
- Enact station evacuation plan if needed
- Log all communications for reference
- Stay calm
- Divide information work so that all voices of the community can be heard and not just male leaders.

4. Relief

Establish Information Support Centre for information sharing and logistic distribution

5. Rehabilitation

External – Networking and Support

- Broadcast pre-prepared announcements
- Broadcast programs to heal victim's psychology trauma.
- Interview trauma counselors, monks, Imams and priests
- Broadcast recovery announcements
- Cooperate with DMR NGOs, local government and key stakeholders
- Broadcast recovery public meetings
- Provide call in or talk-back programs for people-to-people interactions

Broadcast positive entertainment programming

Annexure: 20 Contacts directory

On receipt of information about the incident, all Task force leaders shall report immediately to the collector in the district EOC. The coordinator of each taskforce shall send communication to their members to report immediately in their respective control rooms. Taluka liaison Officers shall report to Mamlatdar in their respective Taluka control rooms

Annexure: 21

Gandhidham Municipal Corporation Contact Details

Sr. No	Name	Designation	Office Address	Mobile
1	Shri B.D. Davera (IAS)	Municipal Commissioner	Plot No.35, Sec-9C, Gandhidham	9978444024
2	Shri Mehul Desai (GAS)	Dy. Municipal Commissioner	Plot No.35, Sec-9C, Gandhidham	9825734581
3	Shri Sanjaykumar Ramanuj	Dy. Municipal Commissioner	Plot No.35, Sec-9C, Gandhidham	8141503490

Annexure: 22

State Level Emergency Contacts Number

Sr. No.	EOCs/ Control rooms	Code	Contact Numbers
1	State Emergency Operation Center	079	23251900, 23251902, 23251914F- 23251916
2	Relief Commissioner	079	23251509, 23251568
3	Director of Relief	079	23251611, 23251916, 23251912
4.	CEO, GSDMA	079	23259220, 23259275, 23259289
5	Pri. Secretary Revenue Department	079	23251591, 23251591
6	Dy. Collector (SEOC)	079	23251990, 23251916-12
7	India Meteorological Department, Ahmadabad	079	22865012, 22865449, 22865165, 22861413
8	Institute of seismological Gandhinagar	079	66739000, 23257641, 23252703
9	NDRF team Gandhinagar	079	23201551, F- 23202540
10	Commandant of NDRF team Gandhinagar	079	23202540, 094288 26445
11	District EOC Help line	02832	1077
12	States EOC Help line		1070

Annexure: 23

Task Force Operation Room

Sr. No.	Name TASK FORCE	Phone Number
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1	Warning and Communications	02832-250650
2	Law and Order	02832-250444
3	Search and Rescue	02832-253593
4	Public Works	02832-221450
5	Shelter	02832-221103
6	Water Supply	02832-252310
7	Food and Relief supplies	02832-221453
8	Public Health and Sanitation	02832-252207
9	Power	02832-253550
10	Logistics	02832-250080
11	Animal Health and Welfare	02832-221650
12	Damage assessment/Survey	02832-252704
13	Media/Public Information	02832-250954
14	Planning and coordination	02832-252704
15	Financial arrangement	02832 252704
16	Emergency Response Center Gandhidham	98255 72188

Annexure: 26

Sub Divisional Emergency Operation Center

Sr. No.	Sub Divisional	Contact Number
1	Bhuj	02832 251007
2	Anjar	02836 243345
3	Bhachau	02837 224101
4	Mundra	02838 222127
5	Nakhatrana	02835 222122
6	Abdasa	02831 222188

Annexure: 24

Taluka Emergency Operation Center

Sr. No	Taluka Emergency Operation Center	Code	Phone Number
1	Bhuj	02832	230832
2	Mandavi	02834	222711
3	Mundra	02838	222127
4	Abdasa	02831	222131
5	Nakhatrana	02835	222124
6	Lakhpat	02839	233341
7	Anjar	02836	242588
8	Gandhidham	02836	250270
9	Bhachau	02837	224026
10	Rapar	02830	220001

Annexure: 25
District Level Flood and Cyclone Control Phone Number

Sr.No.	Designation	Office	Fax
1	District EOC	02832-252347	224150
2	DDO Control Room	02832-220007	250355 /220240
3	DSP Police Control room	02832-250 960/ 253593	250427
4	Department of Fisheries Control Room	02832-253785	250292
5	Irrigation Control room	02832-252507	252507
6	Water supply Board Control Room	02832-252310	261806
7	Methodological Department	02832-250575	250575
8	Port office Kandla	02836-220016 /257903 02836-233192	220016
9	Port office Mandvi	02834-223033 02834-222633	230033 222633
10	Port office Mundra	02838-222136	-
11	Port office Jakhau	02831-287235	02831 287235
12	Commanding Officer Jakhau Coastguard	02831-286430	02831 286432
13	Geographical control room	02832-223551	02832 223551
14	Department of Seismological	02832-221352	--
15	Air force control room Bhuj	02832-244000	02832 244104
16	Army Control room Bhuj	02832-258441/42/43	02832 258441
17	BSF Bhuj Control room	02832-299659 02832-256770	02832 256770
18	Border Wing Bhuj	02832-221495	02832 221495
19	Chief Engineer PGVCL	02832-255831	250048
20	Executive Engineer R & B(State)	02832-251450/ 220252	250424
21	Executive Engineer R & B (Panchayat)	02832-250834	250355
22	Director DRDA	02832-231577	231342
23	RTO Bhuj	02832-21950	251566

Annexure: 26
Important Contact Number

Sr.no.	Designation	Office	Mobile	Fax
1	Collector –Kutch	02832-250020	9978406213	250430
2	DDO-Kutch	02832-250080	9978406238	250355
3	DSP-Bhuj	02832-250444	9978405073	250427
4	DSP-Gandhidham	02836-280287	99784 05690	280211

8	Resident Additional Collector-Kutch	02832-250650	9978405212	250430
9	DSO-Kutch	02832-221453	7226803513	227495
10	Dy. Collector MDM	02832-223952	7226803513	--
11	Dy. Collector Stamp Duty	02832-253510	88493 12991	223510
12	Dy. Collector Civil Defense	02832-230603	--	--
13	District Planning Officer	02832-252302	94263 52746	250302
14	Disaster Mamlatdar	02832-250923	93275 00801	224150
15	District Project officer (DPO) GSDMA	02832-250923	94295 83526	224150
16	Chief Engineer GWS&D Board	02832-221806	99784 06534	250378
17	Chief Engineer Irrigation Dept. (State)	02832-250214	99250 27093	254834
18	Chief Engineer PGVCL	02832-255831	9979867510	250048
19	Executive Engineer PGVCL	02832-233550	9879200789	258052
20	Executive Engineer R & B(State)	02832-251450	9879571863 9429232939	250424
21	Executive Engineer R & B (Panchayat)	02832-250834	9825388575 9054864708	250834
22	Director DRDA	02832-231577	63550 03531	231342
23	RTO Bhuj	02832-221950	80002 56555	251566
24	Executive Engineer Irrigation (Panchayat)	02832-251879	9426519084 9879518768	220240
25	Dy. Information Officer Bhuj	02832-224859	94272 36878	250954
26	Assistant Controller of Food and Medicine	02832-223253	9825400387 9825355361	223253
27	Assistant Director of Fisheries Department Bhuj	02832-250292 253785	96625 46241	250292
28	CDHO Bhuj	02832-252207	63542 64142	221666
29	Dy. Animal Director Panchayat Bhuj	02832-221650	9426714919	221650
30	Departmental Director S.T. Bhuj	02832-250064	6359919029	250064
31	Civil Surgeon Bhuj	02832-250150	9825229007	250150
32	Chief Forest Officer Bhuj	02832-220937	7574950030	250336
33	DFO Bhuj (East)	02832-250227	9725512525	229630
34	DFO Bhuj (West)	02832-231500	9879006216	231500
35	General Manager DIC	02832-250501	6357150193	251874
36	Dy. Commissioner of Charity, Bhuj	02832-221403	9898139898	221403
37	Town Planning Officer	02832-250879	9978015510	250879
38	Sale tax office	02832-220952	9510231478	
39	District Education Officer Bhuj	02832-250156	99099 70204	250156
40	District Primary Education Officer Bhuj	02832-221103	9909971683	252403
41	District Education Training Center	02832-221491	94272 65352	221492

42	Backward Caste Development officer	02832-220621	9913936015	220621
43	Commander Border Wing Bhuj	02832-252150		252150
44	Bhuj City Police Station A Division	02832-253050	63596 25794	
46	Ex, Er. Salt Control Department	02832-221752/ 250214		221752
47	Corruption Control Burro	02832-250254	9909905555	250254
48	Kutch Leva Patel Edu. & medical Trust	02832-231122	9979897095	231133
49	District Registrar Bhuj	02832-251753	9974189059	251753
50	District Treasury Officer	02832-231202	99241 31575	231202
51	District Employment Officer	02832-221758	9601077544	
52	District de-Addiction Control Officer Bhuj	02832-221855	9879635311	
53	Sub-Registrar Bhuj	02832-230710	9909916722	
54	District Sport Officer	02832-223771	99096 40555	223771
55	Mine and Resources Office Bhuj	-	9727706383	-
56	Umed Bhavan	02832-252934	9408459018 7016160313	
57	Kutch Museum	02832-220541	8239250397	220541
58	Bhuj Area Development Authority	02832-221862	9427958699	223899
59	Anjar Area Development Authority	02836245676	99784 05069	241866
60	Bhachau Area Development Authority	02837-224567	99090 13962	224567
61	Rapar Area Development Authority	02830-221385	99090 13962	221385

Annexure: 27

District Panchayat officers Important contact Number

Sr	Designation	Office (02832)	Mobile	Fax
1	District Development officer	250080	99784 06238	250355
2	Dy. DDO (Revenue)	251150	99044 00939	251150
3	Dy. DDO Panchayat	251150	94296 29183	251150
4	Dy. DDO Development	222103	94296 29183	222103
5	Ex. Er. Irrigation Panchayat	251879220240	9879518768	251879
6	Executive Engineer R & B Panchayat	250834221050	9924665569	250834
7	District Statistical office	221402	9558815028	--
8	District Agriculture Officer	221155	7096062781	221115
9	District Social Welfare	220654	9099956866 9998161331	--
10	CDHO	252207	63542 64142	221666
11	Add. CDHO	223575	9909949304	--
12	District Immunization officer	224702	9909949304 8347131061	--

13	Dy. Director of Animal Welfare	221650	9426714919 9426704429	--
14	District Primary Education Officer	221103	9909971683	252403
15	Program officer ICDS	221904	94093 94558	221904
16	District Ayurvedic Officer (I/C)	222998	9588195161	--
17	Project Director Water shade	231963	9879203251	--
18	District Information and Education Media	223575	9909949307	--
19	Dy. District Primary Education officer	211103	9824485107	--
20	District Malaria Officer	222307	9727734221	222307
21	District Epidemic Controller officer	221666	9023202627	--
22	Administrative officer Health	252207	6359748149	--
24	District TB Officer	223201	9687684201	--
25	P. A. To DDO	250080	9638214561	--
26	P.A. To President	252407	9687371888	--

Annexure: 28
Sub-Divisional Magistrate

Sr.no.	SDM	Code	Office	Fax	Mobile
1	Bhuj	02832	251007	222127	9978405099
2	Mundra	02838	223112	223112	7567008043
3	Anjar	02836	243345	234345	99784 05069
4	Bhachau	02837	224101	224101	88662 24659
5	Nakhatrana	02835	222122	222122	74050 68392
6	Abdasa	02831	222188	222188	75670 08032

Annexure: 29
Mamlatdar Contact Details

Sr. No	Mamlatdar (Taluka)	Code	Office	Fax	Mobile
1	Bhuj (URBAN)	02832	230832	251250	93270 00801
	Bhuj (RURAL)	08232	230832	230832	7567003879
2	Mandavi	02834	222711	222075	75670 03835
3	Mundra	02838-	222127	223704	99098 49983
4	Anjar	02836	242588	243362	75670 03944
5	Gandhidham	02836	250270	250339	7567003975
6	Bhachau	02837	224026	224009	98251 33518
7	Rapar	02830	220001	220057	94260 36218
8	Nakhatrana	02835	222124	222147	90336 24928
9	Abdasa	02831	222131	222132	99742 00947
10	Lakhpat	02839	233341	233340	97265 06003

Annexure: 30
Taluka Development Officer Contact Details

Sr. No	TDO(Taluka)	Code	Office	Fax	Mobile
1	Bhuj	02832	221711	256851	85119 75019
2	Mandavi	02834	223082	223079	80048 30166
3	Mundra	02838	222128	223231	94294 57256
4	Anjar	02836	242595	245757	95370 83186 75670 13775
5	Gandhidham	02836	280236, 280260	280263	94094 29986 75670 13776
6	Bhachau	02837	223302	223302	81407 05922
7	Rapar	02830	220003	220003	78742 80009
8	Nakhatrana	02835	222144	222144	90333 73612
9	Abdasa	02831	222135	222556	93138 47623
10	Lakhpat	02839	233334	233334	93138 47623

Annexure: 31
Taluka Police Station Contact Details

Sr. No	Taluka	Code	P.S.O. Mobil No.
1	Bhuj	02832-253050	A-63596 25794, B-63596 29203
2	Mandavi	02834-231508	63596 25791
3	Mundra	02838-222121	63596 25801
4	Anjar	02836-242517	63596 26855
5	Gandhidham	02836-229513/232500	A-63596 26840, B-63596 26836
6	Bhachau	02837-224036/291136	63596 26858
7	Rapar	02830-220013	63596 26862
8	Nakhatrana	02835-222133	63596 25787
9	Abdasa (Naliya)	02831-222122	63596 25773
10	Lakhpat (Dayapar)	02839-233333	94283 94576

Annexure: 32
Gujarat State Road Transportation Nigam Limited Contact Details

Sr. No	Taluka	Office	Mobile No.
1	BHUJ	02832-220002	6359918440
2	MANDVI	02834-223004	6359918449
3	MUNDRA	02838-224200	6359918446
4	ANJAR	02836-242692	6359918437
5	BHACHAU	02837-224049	6359918443
6	RAPAR	02830-220002	6359918458

7	NALIYA	02831-222119	6359918455
8	NAKHATRANA	02835-222129	6359918452
9	VOLVO HUB	02832-220002	6359918820
10	CONTROL ROOM		6359918436

Annexure: 33
Gujarat Maritime Board

Sr. No.	Name of Ports	STD Code	Office	Fax No
1	Head Office, Gandhinagar	079	238346-48	23234704
2	Magdala VTMS	0261	2721700	2721700
3	Magdala Port Office	0261	2474825	2475645
4	Hazira Port Pvt. Ltd., Hazira	0261	3051165	3051158
5	Bharuch (Dahej)	02642	241772	243140
6	Petronet LNG Ltd., Dahej	02641	300325	257252
7	Bhavnagar	0278	2210221	2211026
8	Alang PO	02842	235621	235955
9	Jafrabad	02794	245443	245165
10	Gujarat Pipavav Port Ltd., Pipavav	02794	302666	302667
11	Veraval	02876	220001	243138
12	Porbandar	0286	2242408	2244013
13	Jamnagar (Bedi)	0288	2755106	2756909
14	Okha	02892	262001	262002
16	Morbi for Navlakhi Port	02822	220435	232470
17	Mandvi Port Office	02834	223033 96012 54062	230033
18	Mundra (Asst. Conservator)	02838	222136	222136
19	Gujarat Adani Port Ltd. (GAPL), Mundra	02838	289221-289371 98250 19121	289270 289170
20	Jakhau (Asst. Conservator)	02831	287261 99783 23815	287261
21	I.M.D. Ahmedabad	07922861413/ 22865012		22867206

Annexure: 34
District Fire Stations Important Contact Number

Sr.No.	District Fire Station	Phone No.	Fax
1	Fire Station Bhuj	02832 299080 9925170506	224404
2	Fire Station Mandavi	02834 223010	231680

3	Fire Station Bhachau	02837 224028 9909724619	224028
4	Fire Station Gandhidham	02836 226573 8866663078	233288
5	Fire Station Rapar	02830 220011	220011
6	Fire Station Anjar	02836 242544 7211147606	240325 242909
7	Fire Station Kandal Port, Kandla	02836 270176 98252 27041	02836 270176
8	Fire Station Control Room Adani Port Mundra	02838 289310/289101 7069083035	289200
9	Fire Station IFFCO Kandla	02836 270352 99790 26415	02836 270642
10	Fire Station F.O.C.T. Kandla	02836 270987 8980018340	270814
11	Fire Station Control Room GAIL(India) Lakadia (Bhachau)	7211103012	
12	Emergency Response Center Gandhidham	98255 72188	

Annexure: 35

Details of village co-ordinates, Shelter Homes & contact person

Gandhidham TDO- 9409429986,7567013776

ગાંધીધામ તાલુકાની કાંઠાળ/આગરીયા વિસ્તારની માહિતી							
ગાંધીધામ તાલુકો							
ક્રમ	દરિયાઈ વિસ્તારની નજીકના ગામો	ગામથીદરિયાનું અંતર(કિમી)	ગામની વસતિ	આશ્રય સ્થળનું નામ	Latitude	Longitude	બચાવ ટુકડીઓ
1	2	3	4	5	6	7	8
૧	કિડાણા	0.500	૭૦	૧) પં.પ્રા.શાળા ૨) કુમારશાળા	23.033132	70.109712	૧) નવિનભાઈ એન.ઝરૂ ૨) ધનજીભાઈ બી.ઝરૂ
૨	ભારાપર	0.500	૫૦	૧) ગાયત્રી સોસાયટી પં પ્રા. શાળા	23.00715	70.100908	૧) રોહિત ઝરૂ ૨) માલશીભાઈ આહિર
૩	મિઠિ રોહર	2	૧૬૦	૧) માધ્યામીક શાળા ૨) પ.પ્રા.કુમાર શાળા ૩) પં.પ્રા.કન્યા શાળા	23.097847	70.19087	૧) અબ્દુલશકુર માંજોરી ૨) ઇસમાઇલ સોઢા
૪	ખારિ રોહર	2	૧૨૫	૧) પ.પ્રા.કુમારશાળા ૨) પ.પ્રા.કન્યા શાળા	22.074136	70.18775	૧) સદામહુસેન લાડકા ૨) રવીભાઈ બડીયા

૫	ચુડવા	0.750	૧૩૦	૧)જવાહરનગર પ્રાશાળા ૨)પ.પ્રા.શાળા	23.124896	70.213035	૧) અબ્દુલ શકુર માંજોરી ૨) ઇસ્માઇલ સોઢા
૬	પડાણા	1	૮૦	૧) પં.પ્રા.શાળા ૨)જમડાડા સાર્વજનિક હોલ	23.071174	70.135386	૧) ધનજી એન.હુંબઇ ૨) દેવજી આર.જરૂ
૭	કંડલા	3	૨૫૦૦	૧) સી.જી.ગીદવાણી હાઇસ્કુલ ૨) સરકારી હાઇસ્કુલ સંસ્કારનગર ૩) મૈત્રી સ્કુલ આદિપુર ૪) શ્રીસરસ્વતી વિધ્યાલય ભારતનગર	23.03	70.22	૧) આદમ નુરમામદ ટાંક ૨) બબાભાઇ ઢલુભાઇલાડક

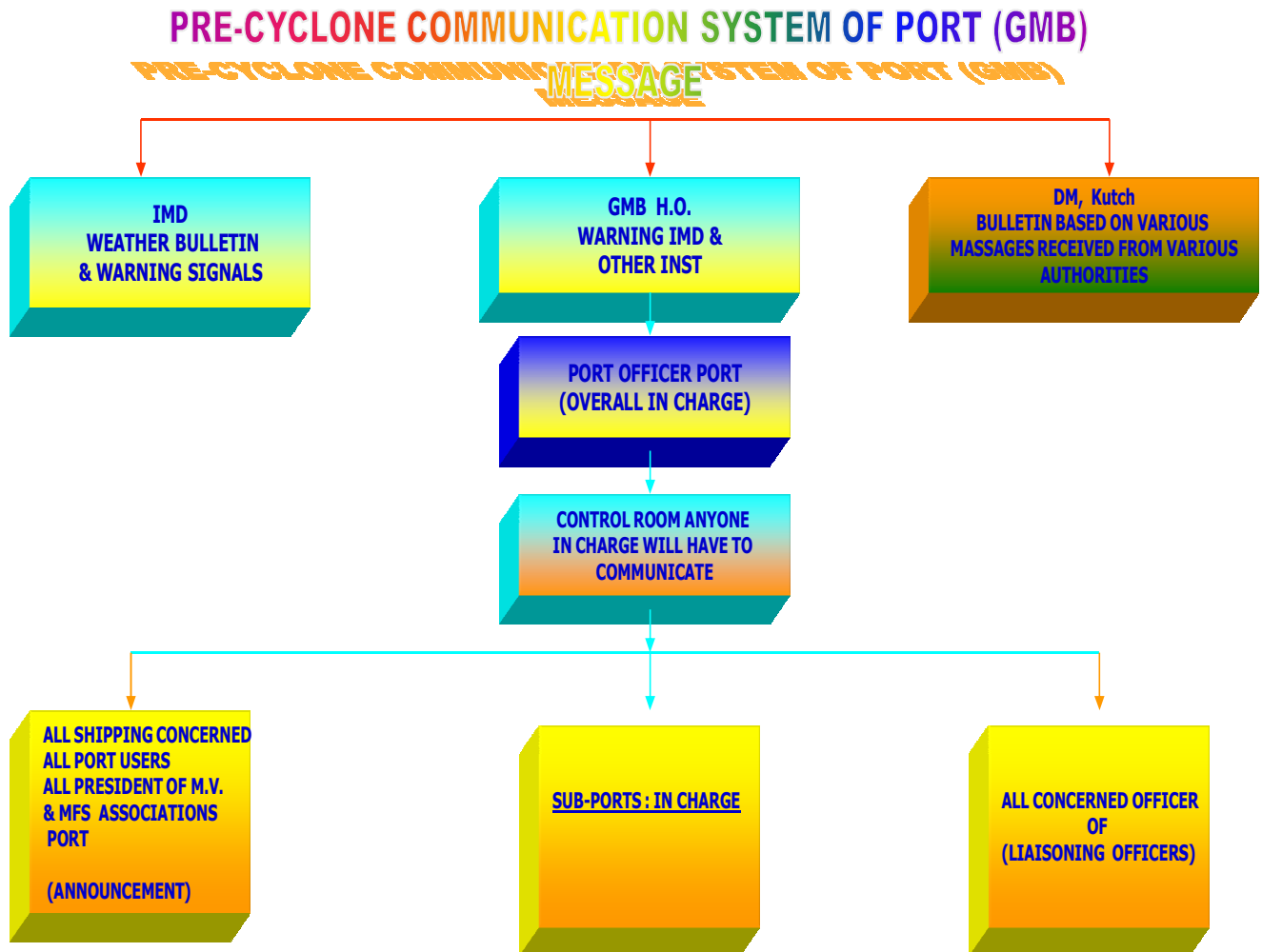
Annexure:36

Cyclone Signal: Port signal

PORT STORM WARNING SIGNAL NO.	DAY SIGNAL	NIGHT SIGNAL	MEANING
1			<i>DISTANT CAUTIONARY (There is a region of squally weather in which a storm may be forming.)</i>
2			DISTANT WARNING (A storm has formed.)
3			LOCAL CAUTIONARY (The port is threatened by squally weather.)
4			LOCAL WARNING (The port is threatened by a storm but it does not appear that the danger is as yet sufficiently great to justify extreme measures of precaution.)
5			DANGER (The port will experience severe weather from a cyclone expected to move keeping the port to the left of its track.)
6			DANGER (The port will experience severe weather from a cyclone expected to move keeping the port to the right of its track.)
7			DANGER (The port will experience severe weather from a cyclone expected to move over or close to the port.)
8			GREAT DANGER (The port will experience severe weather from a severe cyclone expected to move keeping the port to the left of its track.)
9			GREAT DANGER (The port will experience severe weather from a severe cyclone expected to move keeping the port to the right of its track.)
10			GREAT DANGER (The port will experience severe weather from a severe cyclone expected to move over or close to the port.)
11			FAILURE OF COMMUNICATIONS (Communications with the Meteorological Warning center have broken down and the local officer considers that there is danger of bad weather.)

Annexure:37

Cyclone Warning Mechanism



Annexure 38

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 124.9mm"	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

(C) Emergency Situation

1. When water level is rising above the danger of H.F.L
2. When intensity of rainfall is above 65 mm /hr.
3. When breaches are anticipated and may lead to disaster.
4. When water levels are rising alarmingly.

(D) Evacuation

Sr. No.	Signal	Activity
1	White Signal	Alert condition
2	Blue Signal	Ready for Evacuation
3	Red Signal	Immediate Evacuation

Annexure:39

Dos and don'ts in various disaster**Cyclone Safety**

A cyclone is a storm accompanied by high-speed whistling and howling winds. It brings torrential rains.

Where does a cyclone come from?

A cyclonic storm develops over tropical oceans like the Indian Ocean and Bay of Bengal and the Arabian Sea. Its strong winds blow at great speed, which can be more than 118 kilometers per hour.

What are the visible signs of a cyclone?

When a cyclonic storm approaches, the skies begin to darken accompanied by lightning and thunder and a continuous downpour of rain.

How does a cyclone affect us?

- A cyclone causes heavy floods.
- It uproots electricity supply and telecommunication lines. Power supply shuts down and telephones stop functioning.
- Road and rail movements come to halt because floods damage rail tracks and breach roads. Rail movements are also disrupted because of communication failure.
- The inclement weather conditions also disrupt Air services. Seaports stop work due to high winds, heavy rains and poor visibility. Sometimes ships overturn or are washed ashore. The high-speed winds bend and pluck out trees and plants.
- A cyclone tears away wall sidings and blows off roofs of houses.
- Houses collapse and people are rendered homeless. In villages kacha houses get blown away. The speeding winds cause loose metal and wooden sheets to fly turning them to potential killers. Broken glass pieces can cause serious injuries.
- The floodwaters can take time to recede.
- The floodwaters can turn the fields salty.
- Bridges, dams and embankments suffer serious damages.
- Floods wash away human beings and animals and make water unfit for drinking. There can be outbreak of diseases like Cholera, Jaundice or Viral fever due to intake of impure water. Water gets contaminated because of floating corpses of animals and human beings and mixing of sewage stored food supplies, gets damaged.

Which areas are exposed to a cyclone in Gujarat?

In Gujarat, the Saurashtra-Kutch region experiences a cyclone. The port towns of Veraval, Porbandar, Jamnagar, Dwarka, Okha, Kandla and Bhavnagar and other minor port towns suffer most.

Does a cyclone follow a particular path?

It is often difficult to predict where a cyclone will strike. When it starts moving from oceans (in Gujarat it is Arabian Sea) towards the land area, a cyclone can change track and hit areas other than those anticipated earlier.

Has any early warning system been evolved for the occurrence of a cyclone?

Yes. In India, the Indian Meteorological Department has developed a four-stage warning system for a cyclone.

How does the system operate?

This warning is about the possibility of a cyclone when a low-pressure depression develops in oceans. For Gujarat, the development of such a depression in the Arabian Sea is indicative of a cyclone attack.

- **The Alert stage**

This warning is given 48 hours prior to the time when a cyclone is expected to hit the land.

- **The Warning stage**

This is the stage when a cyclone gets formed. The warning is given 24 hours before the anticipated time of arrival of a cyclone.

- **Cyclone arrival**

This warning is issued 12 hours before a cyclone is due to hit the land. The warning gives information about cyclone and will continue until the winds subside. In sea ports, danger signal is hoisted about the impending cyclone.

From where can people access cyclone storm warnings?

Warnings about storms, their intensity and the likely path they may take are regularly broadcasted by radio and television network continuously until the storm passes over.

What to do before and during a cyclone.

- Have your dwellings checked before a cyclone season starts and carry out whatever repairs that are needed.
- Talk to children and explain about cyclones without scaring them.

- Create storm awareness by discussing effects of a cyclonic storm with family members so that everyone knows what one can and should do in an emergency. This helps to remove fear and anxiety and prepares everyone to respond to emergencies quickly.
- Keep your valuables and documents in containers, which cannot be damaged by water.
- Keep information about your blood group.
- Keep lanterns filled with kerosene, torches and spare batteries. These must be kept in secure places and handy.
- Make plans for people who are either sick, suffer from disabilities, aged and children.
- Store up at least seven-day stock of essential food articles, medicines and water supply.
- Keep blankets and clothes ready for making beds. Also keep cotton bandages and several copies of photographs of family members in case they are needed for identification purposes after the storm.
- Store some wooden boards so that they can be used to cover windows.
- Keep trees and shrubs trimmed. Remove damaged and decayed parts of trees to make them resist wind and reduce the potential for damage. Cut weak branches and make winds blow through.
- All doors, windows and openings should be secured.
- Continue to listen to warning bulletins and keep in touch with local officials. Keep radio sets in working condition. Battery powered radio sets are desirable.
- Evacuate people to places of safety when advised.
- Take steps to protect your assets.
- Store extra drinking water in covered vessels.
- Remain calm.

What one should not do during a Cyclone attack?

- During the storm do not venture out unless advised to evacuate.
- If you have a vehicle and wish to move out of your house, leave early before the onset of a cyclone. It is often best to stay at home
- Avoid remaining on the top floor of dwellings. Stay close to the ground.

Earthquake safety

- Tell the facts about earthquake to your family members
- Construct new buildings with earthquake resistant method and strengthen the old buildings
- Insure your house and family members
- Take the training for first aid and fire fighting
- Do not keep cots near the glass window
- Do not keep heavy and fragile things in the selves
- Do don't hang photo frames, mirrors, or glasses up your bed
- Keep your important documents, some cash and necessary articles ready in a bag
- Get your house insured before the earthquake

- Identify special skills of neighbor (medical, technical) so that it can be utilized in emergency

During Earthquake

- Do not panic
- If already inside, than stay indoors! Get under a heavy desk or table and hang on to it.
- If fire breaks out, drop on the floor and crawl towards the exist
- If you are out doors during the quake, keep away from buildings, trees and electricity lines. Walk towards open places, in a calm and composed manner.
- If you are driving, quickly but carefully move your car as far out of traffic as possible and stop. Do not stop on or under a bridge or overpass or under trees, light posts, power lines, or signs. Stay inside the car until shaking stops
- If you are in a school, get under a desk or table and hold on

After the Earthquake

- Do not be afraid of the aftershocks
- Listen to radio-TV and other media for Government Announcement
- Check for injuries to yourself and those around you. Take first aid where you can
- Extinguish fire, if any
- Examine walls, floors, doors, staircases and windows to make sure that the building is not in danger of collapsing
- Do not enter into the unsafe or risky houses or buildings
- Inspect for Gas leaks-If you smell gas or hear blowing or hissing noises, open a window and quickly leave the building. Don't light your kitchen stove if you suspect a gas leak.
- Do not keep telephone lines busy unnecessarily
- Switch off electric lines

Fire safety

Dos

- Buy Fireworks from the licensed shop.
- Keep fireworks in a closed box
- Store crackers away from source of fire or inflammation
- Follow all safety precautions issued with the fire works
- Go to open spaces like playgrounds, fields
- Light them at arm's length using a taper.
- Stand back while lighting the crackers
- Discard used fireworks in a bucket of water
- Keep buckets of water and blankets ready, in case a firebreak out.

- Wear thick cotton clothes for maximum safety from fire.
- If clothes catch fire, Stop, Drop and Roll
- In case of uncontrolled fire wrap the victim in a blanket, till it stops.
- In case of burns splash tap water (not ice water), the process may be repeated till the burning sensation reduces.
- If fingers or toes are burned, separate them with dry, sterile, non-adhesive dressings.
- Make sure the burn victim is breathing, if breathing has stopped or if the victim's airway is blocked then open the airway and if necessary, begin rescue breathing.
- Elevate the burned area and protect it from pressure and friction.
- Cover the area of the burn with a moist sterile bandage, of clean cloth (do not use blanket or towel for healing burns).
- Consult the doctor as soon as possible for the proper medication
- Consult an ophthalmologist immediately in case of eye injuries.
- Do contact at the Fire Brigade (Tel. No. 101), for getting the details of the doctors on duty during the festival.

Don'ts

- Don't burn crackers in crowded, congested places, narrow lanes or inside the house.
- Don't let children burst crackers unaccompanied by an adult
- Don't put fireworks in your pocket or throw them
- Don't cover crackers with tin containers or glass bottles for extra sound effect
- Don't dare to examine sunbursts crackers...leave it!! Light a new cracker
- Don't show the Dare-devilry of lighting crackers on own hands.
- Don't use fireworks inside a vehicle
- Avoid long loose clothes, as they are fast in catching fire
- Don't remove burnt clothing (unless it comes off easily), but do ensure that the victim is not still in contact with smoldering materials.
- Don't apply adhesive dressing on the burnt area.
- Don't break the burst blister

Flood Safety

Do's and Don'ts after flood

- There is a possibility of spread of water borne diseases after flood, and hence
- Medical treatment should be taken immediately.
- Do not enter deep, unknown waters.
- Do not go near the riverbank even after the floodwater has receded.
- Sprinkle medicines in the stagnant dirty water.

- Inspect your house for any cracks or other damage. Check all the walls, floor, ceiling, doors and windows, so that any chance of house falling down can be known and you can be aware about the immediate danger.
- If the floodwater has entered the house or has surrounded the house, then it is advisable not to enter such house.
- Keep listening to weather forecast on radio and television. Move to your residence only when instructed by the competent authority. It is not safe to believe that the problems have ended after the flood water have receded
- Inform the competent authority/officer for restoration of the necessary connections like gas, electricity, telephone, drainage, etc.
- Beware of the various insects or poisonous snakes that may have been dragged inside the house along with the floodwater.
- Destroy the food commodities that have been affected by floodwater.
- Check properly all the electric circuits, floor level furnace, boilers, gas cylinders, or electric equipment's like motor pump etc. Check whether any inflammable or explosive item has not entered along with the floodwater.
- Switch off the main electric supply, if any damage is noticed to the electric equipment's.
- If you find any breakage in the drainage system stop using latrines and do not use tap water.
- Do not use polluted water.
- Sewerage system should be checked and any damage should be repaired immediately so as to curtail spread of diseases.
- Empty the water clogged in the basement slowly with help of water pump so that damage to infrastructure can be minimized
- Check gas leakage which can be known by smell of gas or by hearing the sound of leakage; immediately open all windows and leave the house.
- Boil drinking water before usage and drink chlorinated water.
- Eat safe food.
- Rescue work should be undertaken immediately after flood situation as per the instruction. Do not follow any shortcut for rescue work.
- Do not try to leave the safe shelter to go back home until the local officials declare normalcy after flood and instruction to return home are not given.

Tsunami:

The phenomenon Tsunami is a series of traveling ocean waves of extremely long length generated primarily by earthquakes occurring below or near the ocean floor:

Following safety measures need to be learnt before, during and after the occurrence of tsunami:

Before

- Be familiar with the tsunami warning signals. People living along the coast should consider an earthquake or a sizable ground rumbling as a warning signal. A noticeable rapid rise or fall in coastal waters is also a sign that a tsunami is approaching.
- Make sure all family members know how to respond to a tsunami. Make evacuation plans. Pick an inland location that is elevated.
- After an earthquake or other natural disaster, roads in and out of the vicinity may be blocked, so pick more than one evacuation route.
- Teach family members how and when to turn off gas, electricity, and water
- Children should be taught in advance about the evacuation plans
- Prepare emergency kit beforehand. The emergency kit should contain Flashlight and extra batteries, battery-operated radio and extra batteries, First aid kit
- Emergency food and water, Essential medicines etc

During

- Listen to a radio or television to get the latest emergency information, and be ready to evacuate if asked to do so.
- If you hear a tsunami warning, move at once to higher ground and stay there until local authorities say it is safe to return home.
- Move in an orderly, calm and safe manner to the evacuation site
- Stay away from the beach. Never go down to the beach to watch a tsunami come in.
- If you can see the wave, you are too close to escape it.
- Return home only after authorities advise it is safe to do so.

After

- Stay tuned to a battery-operated radio for the latest emergency information.
- Help injured or trapped persons.
- Stay out of damaged buildings. Return home only when authorities say it is safe.
- Enter your home with caution. Use a flashlight/torch when entering damaged buildings. Check for electrical shorts and live wires. Do not use appliances or lights until an electrician has checked the electrical system.
- Open windows and doors to help dry the building.
- Shovel mud while it is still moist to give walls and floors an opportunity to dry.
- Check food supplies and test drinking water.
- Fresh food that has come in contact with flood waters may be contaminated and should be thrown out

Heat Wave

Dos and don'ts poster should be pasted in each government offices in order to increase the awareness, immediately after receiving the Heat Wave warning from the concerned department. To mitigate the effects of Heat Stroke, the following measures are useful:

Do's

- i. Provide cool drinking water at the bus stand, railway stand and near workplace.
- ii. If you work outside, use a cap or an umbrella and use a damp cloth on your head, face, neck and limbs.
- iii. Drink sufficient water and make your body hydrated even if not thirsty.
- iv. Use fans, damp clothing and take a bath in cold water frequently.
- v. Listen to Radio, watch local TV for a news alert, read Newspaper for the local weather forecast to know if a heat wave is on the way.
- vi. Wear light-colored, lightweight, loose, and porous cotton clothes. Use protective genuine goggles, shoes or chappals while going out in sun.
- vii. Schedule strenuous jobs to cooler times of the day.
- viii. Pregnant workers and workers with a medical condition should be given additional attention.
- ix. Recognize the signs of heat stroke, heat rash or heat cramps such as weakness, dizziness, headache, nausea, sweating and seizures. If you feel faint or ill, see a doctor immediately.
- x. Increasing the frequency and length of rest breaks for outdoor activities.
- xi. Caution workers to avoid direct sunlight.
- xii. Keep animals in shade and give them plenty of water to drink.
- xiii. Keep your home cool, use curtains, shutters or sunshade and open windows at night.
- xiv. Use ORS, homemade drinks like lassi, lemon water, buttermilk, etc. which help to re-hydrate the body
- xv. While traveling, carry a water bottle with you.

Don't

- i. Avoid high carbonated soft drinks, alcohol, tea and coffee, which dehydrates the body.
- ii. Avoid cooking during peak hours. Open doors and windows to ventilate cooking area adequately.
- iii. Avoid going out in the sun, especially between 12:00 noon and 3:00 PM
- iv. Do not leave children or pets in parked vehicles.
- v. Avoid wearing heavy, dark and tight clothing.

List of Divisional Hospital/Sub Divisional Hospital:

Sr. no	Name Of DH/SDH	Name of Superintendent	Contact No
1	Sub District Hospital, Anjar	Dr. Harish Matani	98253 80576
2	Rambagh Hospital, Gandhidham (SDH Gandhidham)	Dr. Harish Matani	98253 80576

List of Hospitals with contact details of officers:

List of PHC;

SN	Taluka	PHC	Name of MO	Mobile No
32	GANDHIDHAM	KIDANA	Dr. Sanjay Sinha	94087 52630
33		MITHI ROHAR	Dr. Krusha Patel (Ayush Mo)	94091 54206

List of UPHC:

Sr. No	Name of Taluka	Name of UHC	Urban Health officer Mobile No.
1	Gandhidham	Gandhidham	9909949330