

DisASTER MANAGEMENT

PLAN : 2026 - 27

Rajkot
City



Early
Warnings
for All

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PREFACE

Municipal corporations face a challenge of administrating the rapid urban growth. High rise buildings, densely populated areas, narrow roads, slums, schools, electrical systems, surrounding industrial areas, etc. are some of the traits of the urbanization. The objective of disaster management would be to implement a plan with the following criteria.

With given information including maps, disaster history, current population and economic data, available disaster management plans, development plans, and disaster organization, Analyse information about hazards, vulnerability and development to identify opportunities or situations where prevention, mitigation and preparedness measures might be applied to reduce risk and improve response. Determine the role of the various agencies/organizations in implementing disaster management programs and activities. This project will enable the readers to understand the various aspects of disaster management.

As per NDMA Guideline this will facilitate the stakeholders involving while preparing this document by providing insight into various aspect of Disaster and its preparatory strategies at the grassroot level and necessary mitigatory and response action steps to be undertaken. Again, it will be fruitful to many departments as well as authorities to mobilize and co-ordinate during any kind of disaster situation which will be a great aspect to help and protect the society and people.

ACKNOWLEDGEMENT

The process of updating this City disaster management started in 7 MARCH-2024 and was having a consolidated team management for data collection from all departments/officials as well as stakeholders followed by series of consultation from senior officials and members of disaster management committee of Rajkot Municipal Corporation. As various department suggested about updating numerous things happened past years and previous year eye witnessed live scenario.

We thank departmental authority who was associated while preparing this plan in collaboration with Gujarat state disaster management authority, Gandhinagar for all timely support by positioning their officers.

We thank the corporation as well as the district authorities for their timely engagement in providing updated information for the details of the report. Also, we gratefully acknowledge the support of various departmental authorities and stakeholders for engaging in such handful of exercises to update such plan for any future seriousness.

CHAPTER 1

INTRODUCTION

1.1 Need of the plan

Preparation of Disaster Management Plan is one of the mandatory provisions under the Gujarat State Disaster Management Act-2003 and the National Disaster Management Act-2005. With respect to the above-mentioned provisions, Gujarat State Disaster Management Authority and Relief Commissioner have issued guidelines for the preparation of City Disaster Management Plan.

- i. As per THE GUJARAT STATE DISASTER MANAGEMENT ACT, 2003 under CLAUSE 26. Sub section (1), (2), (3), (4) & (5) Of CHAPTER X - FUNCTIONS OF LOCAL AUTHORITIES, Each department of the Government in a district shall prepare a disaster management plan for the Corporation shall ensure that such plans are integrated into the Disaster Management Plan for the whole of the corporation and submit a copy of the City Disaster Management Plan, and of any amendment thereto the Authority and the Commissioner.
- ii. Under the provision of the DISASTER MANAGEMENT ACT, 2005, under Clause 30 Section (2), subsection (i) & Clause 31 Section (1) of CHAPTER IV City Disaster Management Authority, without prejudice to the generality of the provisions of sub section (1), the district authority may (i) prepare a Disaster Management Plan including District Response Plan for the district, and there shall be a Disaster Management Plan for every district of the state.
- iii. Similarly, the entire municipal corporation needs to have their own disaster management plan for respective city or municipal corporation limit.

➤ Aims and Objective:

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

1. To assess the risks and vulnerabilities associated with various disasters.
2. To develop appropriate disaster prevention and mitigation strategies.
3. To provide clarity on roles and responsibilities for rolls take holders concerned with disaster management so that disasters can be managed more effectively.
4. To develop and maintain arrangements for access sing resources, equipment, supplies and funding in preparation for disasters that might occur.

5. To ensure that arrangements are in place to mobilize the resources and capability for relief, rehabilitation, reconstruction and recovery from disasters.
6. To create awareness and preparedness and provide advice and training to the agencies involved in disaster management and to the community.
7. To strengthen the capacities of the community and establish to maintain effective systems for responding to disasters.
8. To carry out restoration and rehabilitation measures soon after the disaster strikes.

The City Disaster Management Plan of Rajkot Municipal Corporation for the Year: 2025-26

Contains Chapters-. The sections provide detailed information of the following points:

1. Need of the plan and objective of the plan
2. Brief Introduction about Rajkot City
3. Concept of Disaster Management
4. Disaster Preparedness: Role & Responsibilities; Early Warning systems and Disaster Management Trainings.
5. Hazard, Risk & Vulnerability Analysis of Rajkot City.
6. Miscellaneous essential services.
7. Emergency Response Centre (ERC).
8. Disaster Response: Key contact personnel and response resources.

1.2 What is a disaster?

A disaster is an event that disrupts the life of the people in that area and causes loss of life and property.

★ The UN (United Nations) defines a disaster as follows.

A sudden, large-scale, unfortunate disaster that disrupts the basic structure and normal life of human society. According to the duration of the disaster, it can be divided into two categories as follows.

- A slow-moving disaster
- A sudden disaster.
- Gujarat State Disaster Management Act, 2003.
- Disaster means an actual or potential natural or other natural or other occurrence in any part of the State which causes or threatens to cause all or any of the following:
 - Damage or loss to property both immovable and movable or
 - Extensive loss of human life or injury or illness to persons: or

Damage or degradation of the environment and any of the effects specified in sub-sections (1) to (3) are beyond the ability of the affected community to cope with using its own resources and thereby disrupt the normal functioning of the community.

1.3 Reference to the Act.

Preparation of disaster management plan is mandatory under Gujarat Disaster Management Act - 2003 and National Disaster Management Act - 2005. In addition, the National Disaster Management Authority has given instructions and guidelines to each state for preparing a disaster management plan. As per Gujarat Disaster Management Act - 2003 Chapter - 6 Section 15 Sub-section (1, 2 and 3) has been given guidance and guidelines for disaster management plan and strategy in the work of the Authority. According to the National Disaster Management Act - 2005, the state authorities have to make policies and plans for disaster management as per sub-section (1, 2 and 3) of Article 18 of this Act. The District Disaster Management Plan shall take into account the techno legal perspective of all the villages, talukas, municipalities, municipalities and district and state authorities in the district and other acts and policies of the Government. The policies, rules which are changed from time to time should be reviewed and necessary amendments should be made.

1.4 Objectives of Disaster Management Plan.

- Disaster management activities, law and order controls.
- Risk monitoring and control.
- Dissemination of alert received.
- Coordination of disaster response.
- Guidance in relief and rescue operations.
- Reporting on information, decision making and its classification.
- Resource inventory in times of disaster as well as ease of access to required resources.
- To properly manage all the steps and operations taken to respond to the disaster and to obtain all the information about it efficiently.
- Coordinating disaster response measures and between concerned departments and seeking assistance and co-operation from outside agencies.
- Planned operations in times of disaster.
- To rescue the people caught in the calamity and give them full protection.
- Understanding the disaster and controlling it.
- To prevent damage to goods and to take measures to avoid damage to the surrounding environment.
- Rescue work, giving treatment to the injured.
- Evacuate the affected to a safe place,
- To identify the affected person, inform their families and help them as per their need.
- A record of the causes of the disaster, preservation of news and assistance to the investigator.

A comprehensive and effective disaster management plan containing basic information has been prepared so that all possible preventive measures can be taken quickly during natural calamities and the system and people can feel close at the time of crisis and the confidence of the people is increased and the atmosphere of fear is removed. In this plan, disaster profile of Rajkot district, resource inventory and departmental S.O.P. has been included.

1.5 Concept of disaster management.

- Implementation and planning of disaster risk mitigation or mitigation measures.
- To minimize the destructiveness or consequences of a disaster.
- Preparedness for Contingencies and Disasters.
- Assessment of disaster impacts.

Crisis relief, rescue and disaster rehabilitation and reconstruction. Disaster management is a continuous process, with all types of risk management and authority thinking about disaster management, planning and efforts. All forms of risk management involve planning, considering and taking steps to avoid or mitigate all potential risks affecting the district. Empowerment means empowering citizens with education, training and support. Such an authority does not transfer the entire responsibility of disaster preparedness to any individual but is a last-ditch effort to ensure that each individual has the necessary tools and assistance to mitigate or limit the impact of the disaster. Situational stabilization is complemented by measures and capacity-building to reduce the extent or potential effects of a disaster, as well as approaches that make the recovery process faster and less expensive.

1.6 Disaster Management Approach. □

- The Government of Gujarat has a holistic approach towards disaster management. Disaster mitigation is divided into two broad areas.
- Relief and rehabilitation focusing on the planning and action needed to mitigate the effects of an immediate disaster or to accelerate the response during the slow onset of a disaster.
- Preparedness and prevention focus on plans or measures to prevent or eliminate the effects of hazards or impending disasters,
- The overall approach to disaster management is based on 6 (six) steps.
- Accurate assessment of risk and sensitivity.
- Planning and adequate allocation of resources.
- Capacity building and training.
- Provision of adequate toilets.
- Assignment of disaster management roles and responsibilities.

1.7 Mitigation, Preparedness and Prevention.

- Mitigation, preparedness and prevention measures are to be taken in advance of a disaster to reduce the likelihood of a disaster (risk minimization) or to reduce the extent of expected losses from a potential disaster (susceptibility reduction). Desensitization is given more priority than hazard minimization. A district can have up to four systems (1 or 4) to reduce risk and vulnerability. □ Long term planning for mitigation, preparedness and prevention in the district.
- Regulations particularly enforcement of construction and safety regulations and land use plans. □ Activities to review and evaluate development plans and identify ways to mitigate threats and vulnerabilities.
- Capacity building and identification of threats and vulnerabilities at community level, including provision of warning, relief and contingency assistance.
- Responsible for development plans and activities related to mitigation, preparedness and prevention using the system mentioned above with the dymc.
- Based on the interim assessment of risk and vulnerability, the district will focus on the following areas for mitigation, preparedness and prevention.

- Re-establishing the supply system of life essentials. (Water, Electricity and Communication) health care, facilities, schools and roads.
- Alleviation of sensitivity in predisposed areas.
- Reduce sensitivity to cyclones.

Improvement of disaster preparedness near industrial sites.

National Disaster Management Authority (NDMA)

Disaster is woven with men in context of present time Indian government taking this subject matter very seriously in August 1999 formed one high powered committee and after Gujarat earthquake of 2001, disaster management plan was accepted as mitigation mechanism. On 23rd December 2005, disaster management act, 2005 was enacted by Indian government and form of national disaster management authority (NDMA) under chieftain of prime minister was done as per it and decision was taken of making for proper disaster management form of state disaster management authority under chieftain of chief minister for states various tasks are to be done for facing disasters by NDMA in which risk reduction, rehabilitation like as matters are comprised above all necessary guidelines in regards to natural and man created calamities in national disaster management act 2005 have been given in.

Disaster Risk Reduction 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 (CoP21) CenterStage for future global action on Disaster Risk Reduction (DRR), sustainable development and climate change.

Sendai Framework of Actions for Disaster Risk Reduction 2015 -2030

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

● The Four priorities of actions are: -

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

- **The seven global targets are: -**

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

- **Sustainable Developmental Goals**

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

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

The CoP 21 or 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 Pré-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 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 City Disaster Management Plan (CDMP) has tried to envisage coherence across the city 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 CDMP. The key elements consist of the following:

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

• **How to use the Plan & District Plan Approach**

The aim of the plan is to establish necessary systems, structures, programs, resources, capabilities and guiding principles for reducing disaster risks and preparing for and responding to disasters and threats of disasters in respective order to save lives and property, avoid disruption of economic activity and damage to environment and to ensure the continuity and sustainability of development.

The city disaster management plan has a holistic and integrated approach with emphasis on prevention, mitigation and preparedness by ensuring that Disaster Management receives the highest priority at all levels in the district. It has a paradigm shift, similar to the lines of national and state level, from reactive and relief centric approach to disasters. The approach is aimed to conserve developmental gains and also minimize losses to lives, livelihood and property.

For efficient execution of the City Disaster Management Plan, the Plan has been organized as per these four stages of the Disaster Cycle.

1. To systematically incorporate all international, regional, national and local disaster risk reduction strategies and approaches into the implementation of emergency preparedness, response and recovery.
2. To achieve a comprehensive, all hazard, all agencies approach by achieving the right balance of prevention, preparedness, mitigation, response and recovery;
3. Prepare communities to ensure that they are fully equipped to anticipate and respond to disaster events.
4. To promote a transparent, systematic and consistent approach to disaster risk assessment and management.
5. Amoli- stake holder participatory approach including community participation at all levels
6. Develop database and in formation exchange systematic regional level.

Gujarat State Disaster Management Authority – GSDMA

Our state often becomes victim of disaster sometimes such disaster are terrible that local lives of people of state and total planning due to this disaster is disturbed this is experience of all of us policy above disaster management and restitution and rehabilitation have been determined by Gujarat state by passing Gujarat state disaster management act 2003 and 5th of month April of year 2003 was published in Gujarat gazette on 8th February 2001 form of Gujarat state management authority has been done vast project of multi-faceted reconstruction, restitution re-habilitation for getting erected affected areas of earth quake after Kutch earth quake by taken in to account with help by world bank, Asian development bank and international organizations, Indian government, state Government, voluntary institutions etc. and difficult tasks being pressable of all the world has been shown being completed in only period of two-three years. Disaster risk management program was handed by support of united nation development program by GSDMA maximum group of people by programming like a disaster management plan, awareness, competence exceeding (Trainings) up to rural level under of it one being equipped against disasters.

CHAPTER 2

HAZARD, RISK AND VULNERABILITY ANALYSIS

2.1 Introduction to Hazard and Disaster

terms and definitions of Disaster and Disaster Management as per the Disaster Management Act, 2005:

2.1.1 Hazard

It is natural or manmade phenomenon's which may causes physical damage, loss or threaten human life and wellbeing if it occurs in an area of human settlement, agricultural of industrial activity.

Category of Hazard

Natural hazards are the hazards that are caused because of natural phenomena (hazards with meteorological, geological or even biological origin). Examples of natural hazards are cyclones, tsunamis, earthquake and volcanic eruption which are exclusively of natural origin. Landslides, floods, drought, fires are socio-natural hazards since their causes are both natural and manmade. For example, flooding may be caused because of heavy rains, landslide or blocking of drains with human waste.

1. Geophysical: Geological process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. Hydro-meteorological factors are important contributors to some of these processes.
2. Hydrological: Events caused by deviations in the normal water cycle and/or overflow of bodies of water caused by wind set-up.
3. Meteorological: Events caused by short-lived/small to meso-scale atmospheric processes (In the spectrum from minutes to days).
4. Climatological: Events caused by long-lived meso- to macro-scale processes (in the Spectrum from intra-seasonal to multi-decadal climate variability).
5. Biological: Process or phenomenon of organic origin or conveyed by biological vectors, including exposure to pathogenic micro-organisms, toxins and bioactive substances that may cause loss of life, injury, illness or other health impacts, property damage, loss of Livelihoods and services, social and economic disruption, or environmental damage.

, e.g.: Epidemics/Pandemic of all types

Manmade hazards are the hazards that are caused due to human negligence. Manmade hazards which are sudden and progressive which impact with such severity that the affected community has to respond by taking immediate and exceptional measure including help from outside of the community.

1. Accidents: road, rail, sea, air, transport of hazardous material
2. Fire: Forest Fire, Building coal mines and oil refinery
3. Industrial accidents: chemical leaks, fire, explosion, plant safety failure etc.
4. Nuclear Hazard: Radioactive leaks
5. Warfare: Conventional, Chemical, Biological and Nuclear
6. poisoning: Food, Water supply
7. Civil Conflicts: Terrorist Attack
8. Ecological, Environmental Pollution

2.1.2 Risk

It is defined as the expected losses (lives lost, persons injured, damage to property, economic activities of livelihoods disrupted) to a community when a hazard event occurs. The probability of the loss will occur as the result of an adverse event, given the hazard and vulnerability.

2.1.3. Vulnerability

It is defined as the degree of loss it is sets of prevailing conditions, which adversely affect people's ability, prevent, to prepare for and respond to hazards event. These long-term factors, weaknesses or constraints affect a household or community's ability to absorb losses after disaster or to recover from the damage.

2.1.4 Disaster

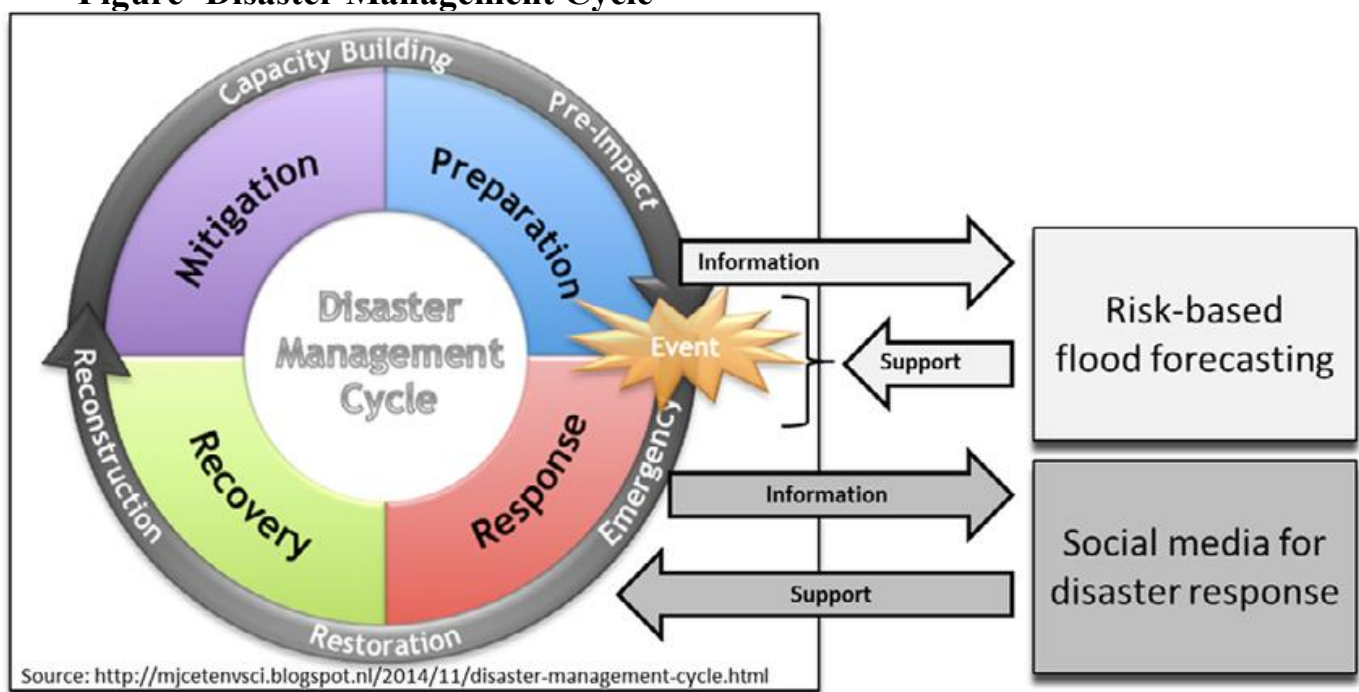
It means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.

2.1.5 Disaster management

It means a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient for—

1. Prevention of danger or threat of any disaster.
2. Mitigation or reduction of risk of any disaster or its severity or consequences.
3. Capacity-building.
4. Preparedness to deal with any disaster.
5. Prompt response to any threatening disaster situation or disaster.
6. Assessing the severity or magnitude of effects of any disaster.
7. Evacuation, rescue and relief.
8. Rehabilitation and reconstruction.

Figure- Disaster Management Cycle



2.1.6 Hazard Management and Citizen Empowerment

The concepts of all hazard management and empowerment provide the foundation for disaster management plans and efforts. All hazards management involves considering, planning for and taking actions to avoid or mitigate, all possible hazards, which may affect the district.

Empowerment means that each citizen is enabled through education, training and support, to be able to address all hazards and disasters, which may threaten their lives or livelihoods. Empowerment does not transfer full responsibility for dealing with disasters to the individual but strives to ensure that each individual has the means and support needed to avoid or limit the impact of disaster.

The district and subsidiary plans seek to limit vulnerability and reinforce the resilience of communities in the face of hazards and disasters. Addressing vulnerability generally takes place before a disaster through actions to reduce the opportunities for the disasters to occur. Reinforcement of the resilience occurs through actions to reduce the scale or potential impact of a disaster and building capacities and systems that facilitates (shorten and make less costly) the recovery process.

The Disaster Management Act, 2005 is a key document which provides guidelines for disaster management in India. The Prime & Chief Minister's Office, Ministry of Home Affairs, National Disaster Management Authority, State Disaster Management Authorities, National Institute of Disaster Management, Indian Meteorological Department and Department of Space are key institutions for disaster management in India.

According to the DM Act, 2005:

“District Plan” means the plan for disaster management for the district prepared.

“Local authority” includes Panchayati raj institutions, municipalities, a district board, cantonment board, town planning authority or Jilla Parishad or any other body or authority, by whatever name called, for the time being invested by law, for rendering essential services or, with the control and management of civic services, within a specified local area.

2.1.7 Stakeholders and their responsibilities

The Institutional framework for operationalization of the DM plan at the district level is conceived in terms of integration of both rural and urban areas and by recognizing the interdependence between line departments, district and state level authorities. The constitution of the District Disaster Management Committee will be as per the Gujarat Disaster Management Act 2003.

2.1.8 Authorities and Responsibilities

The requirement for district and subsidiary plans is set by the GSDMA under the authority of the Gujarat State Disaster Management Act of 2003. The Act authorizes the collector to secure cooperation and assistance from other parties in efforts to avoid or reduce the impact of disasters.

The Collector (Specifically) and Government authorities (generally) are responsible for managing hazards and disasters that affect a district, with support from GSDMA, the Relief Commissioner and other public and private parties as may be needed. The roles, responsibilities and obligations of the Collector and other key parties are set out in detail in the Act and are considered as part of this plan. Here, the case would be Municipal Commissioner and other departments of the corporation to coordinate and cooperate with the district administration for achieving better disaster management.

2.1.9 Warning, Relief and Recovery

Warning, Relief and Recovery actions are intended to eliminate the loss of life and property and reduce hardship as a result of disasters. Plans and SOPs at corporation level should provide a seamless mechanism of warning, relief and recovery assistance to avoid or reduce losses and hardship.

The focal point for early warning, relief and recovery is the District Collector, who directs and coordinates these efforts within the district. The Collector is also responsible for coordinating warning, relief and recovery with similar activities in neighbouring districts and with the GSDMA and Revenue Department.

The Collector is further responsible for developing long term relief, recovery and rehabilitation plans during the course of a disaster. These plans will include steps to reduce disaster impact in the future and be coordinated with the GSDMA in terms of policy and implementation.

2.1.10 Plan Review and Updating

City Disaster Management Plan is prepared and reviewed by the Municipal Commissioner in collaboration with the line departments and other organizations in the corporation. The plan reviewed annually (in the Month of May) and in special case periodically too and updated:

1. When significant changes in the nature of any hazards,
2. Lessons learnt following any major disaster or
3. When there is any significant change to organization or responsibilities of primary members of the task forces defined in the plan.

2.1.11 Financial Arrangements

With respect to the updating of the CDMP the expenditure shall be booked either from the grant provisions of GSDMA under the CDMP Updating head and time to time guide lines of GSDMA or as per the directions of Municipal Commissioner. There are other provisions which are utilized in different kinds of relief measures as per the directions released from Central Government, State Government and so the Collector & DM viz. the funds like Calamity Relief Fund (CRF), Mayor relief fund which is utilized for the affected people / nature / cattle death in case of the natural calamities, NCCF, CM Relief Fund, PM Relief Fund etc.

2.1.12 Scope of the Plan

The City Disaster Management Plan for Rajkot Municipal Corporation has been prepared for its execution by various departments and agencies of the district and other Non-governmental Agencies expected to participate in disaster management process. This plan provides for Vulnerability

Assessment and Risk Analysis, Preventive Measures, Mainstreaming disaster management concerns into Developmental Plans, Preparedness Measures, Response Mechanism, and Partnership with Stakeholders, Financial Arrangement, Roles and Responsibilities of the various agencies interlinks in disaster management and the scope of their activities. An elaborative inventory of resources has also been formalized.

(A) STATUS OF LOCAL AUTHORITY

The Rajkot city has a Municipal Corporation it was established in 1973 on the area of Municipal Corporation limit is 104.86 sq. km. The city has been divided into nineteen wards.

As per the constitution of the local body governed by the Bombay Provincial Municipal Corporation Act - 1949, there are three major administrative dimension authorities in the following manner.

- 1) General Board
- 2) Standing Committee
- 3) Municipal Commissioner

Rajkot Municipal Corporation has 68 Corporators, out of them 20 Corporators become members of Standing Committee and the Municipal Commissioner is the administrative head of local body.

Rajkot Municipal Corporation performs its duties and function according to BPMC Act.

(B) ACTION PLAN CO-ORDINATION COMMITTEE

The Action Plan co-ordination committee will comprise of following:

- | | | | |
|-----|---------------------------|---|---------------------------------|
| (1) | Municipal Commissioner | - | Chairman |
| (2) | Deputy Commissioner | - | Co-Ordinator |
| (3) | Chief Fire Officer | - | Head of Rescue Services |
| (4) | Assistant Commissioner | - | Head of Rehabilitation Services |
| (5) | Executive Engineer | - | Head of Essential Services |
| (6) | Medical Officer of Health | - | Head of Casualty Services |

The above committees will assemble at the Central Control room, Municipal Office compound, fire & emergency services, Rajkot within 30minutes after receipt of general warning and strategy shall be formed against the warning and immediate actions shall be taken accordingly. Following. Cr. Officers will be available in the control room in any emergency situation.

**Interim Guidance
Risk and Vulnerability Ranking Analysis**

(Adapted from Technical Note 1.4.1. Probability, impact and Risk Ranking Disaster Management Planning Workshop module (pages 20-21), prepared by Jeff Klenk, Interworks, for the ADB-funded CBERR Project.)

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.

Matrix of past Disaster-Flood

Step 1: identify the Hazards of Concern

Complete the hazards column for the following table. Typical hazards have already been identified, but these should be confirmed at this step and additional hazards added as appropriate.

Step 2: Assign the Probability Ratings

Assess the probability-or "livelihood" of each hazard by reaching a consensus on probability and then assign each hazard a "Probability Level," as indicated in the following table. Enter the score for each hazard in the probability column of the table in Step 1.

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 100-year period

2.2 Methodology of HRVA

Hazard risk assessment and vulnerability mapping & vulnerable elements to specific hazards. The Hazard technically is not a disaster unless the ' Trigger ' set it off. It could be weak legislation that failed to regulate the functioning of the facility. The Risk and Vulnerability factors analysed from these Hazards which vary from Minor to Major impacts affecting the smaller or larger areas of the district.

"Risk is a technical concept, which is used by engineering and management specialists to arrive at an estimation of losses in the event of disaster and the expected probability of its occurrence."

Risk = Hazards × Vulnerability Coping capacity

"Vulnerability gives the extent to which a community is affected by a disaster". The idea of danger or threat points out the possibility of physical event capable of causing damage, like earthquake, floods, industrial accidents etc. The vulnerability brings to light, the structural susceptibility of society or social group to suffer harm, based on physical event constituting a "Threat". Vulnerability concerns the relationship between the social, economic and physical elements, on which the wellbeing of the society or the group in question depends. The analysis of vulnerability is specific and based on the type of danger or threat, which is apprehended.

The table below summarizes the results of an analysis of impact of HRVA of Rajkot city. This analysis indicates that disaster planning at Rajkot city level should first focus on the functional response to the Flood, Industrial Accidents and Earthquakes which triggers to the other hazards like Dam Failure, Water logging, Fire, Failure of critical infrastructure and building collapse.

Step 3: Assign the Impact Ratings

Assess the potential magnitude or impact of each hazard and assign each an "Impact Level" as in the following table. Enter the impact score for each hazard in the table in Step 1.

Impact	Scope	Description
Catastrophic	5	Massive insecurity, substantial loss of life likely. Large and generalized assistance urgently needed for large segments of population. Additional management, administrative, and technical expertise urgently needed. Large volumes of materials inputs needed.
Major	4	Security threatened for large segments of population; substantial impacts on vulnerable groups likely. Some loss of life likely. Life-saving programs likely needed to handle impact of 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 increase in vulnerability. 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 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.

Step 3.1: Assign the "Vulnerability" Ranking

Multiply the probability and the impact scores in the table in Step 1. The resulting score indicates crude vulnerability. Scores above 15 indicate high vulnerability; scores between 7 and 15 indicate medium vulnerability and scores below 7 indicate low vulnerability.

These three classes related to the immediate vulnerability to disaster and provide guidance on disaster response planning. Assessing risk and vulnerability to low likelihood but high impact hazards (e.g., earthquakes) require a different, more long-term focused, assessment process.

Note that the rating process presumes that:

- Populations are better able to respond to disaster which more likely and do not have severe (major) impacts and,
- Steps taken to prepare for moderate or high vulnerability events will also improve the ability to respond to low vulnerability events.

The divisions between low, moderate and high crude vulnerability can be changed but should be used consistently for all similar assessments in the state

TYPES OF HAZARDS THE DISTRICT PRONE TO

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

Probability Period/Seasonality of Disasters

TYPE OF HAZARDS	TIME OF OCCURRENCE	POTENTIAL IMPACT
Flood	June –September	Loss of life, livestock, crop and infrastructure
Epidemics	Anytime	Loss to human life
Fire Accidents	March-May	Human Loss and house damage
Earth Quake	Anytime	Loss of Life, Livestock and Infrastructure
Cyclone	April-May October-November	Loss of Life, Livestock and Infrastructure
Drought	July-October	Damaged to crops
Chemical Accident	Anytime	Loss of life and property

The made degree and extent of Response to fight out any crisis depends upon the nature, degree and extent of disaster, but some of the points are almost common to all kinds of situations.

For example, it is to be ensured in all types of crises that: -

1. Appropriate steps are to be taken.
2. Preparedness is required to contain the damages and casualties out of the crisis.
3. Steps for recovery reclamation and restoration of community life within the reasonable time will have to be taken care of.

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.

Step 4: 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.

- **Outcome**

Hazards are defined as “Phenomenal that pose a threat to people, structures or economic assets and which may cause a disaster. They could be either man-made or naturally occurring in our environment.” A disaster is the product of a hazard coinciding with a vulnerable situation, which might include communities, cities or villages. 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.

- **Hazard analysis:**

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

1. Earthquake

The district is located in Zone-IV of seismic vulnerability as captured in the Vulnerability Atlas. While earthquakes cannot be predicted, a detailed mapping of seismic fault systems and seismic source regions, quantification of probability of experiencing various strengths of ground

motion at a site in terms of return period for intensity will be carried out and appropriate regulations put in place to decrease the vulnerability of built environment.

Different types of ground do shake with different severity in an earthquake. Softer soils and those with high water content generally shake more than rocky sites. Wherever possible site structures on 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.

2. Flood

River flooding is a regular hazard faced by the district. All the major river systems in the district are vulnerable to flooding, as captured in the Vulnerability Atlas. The urban areas like Rajkot City, some parts of facing flooding primarily due to drainage and increased run-off loads in hard surfaces.

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 safe guards 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 flood waters
- 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. Cyclone

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

Coastal areas of District like and some parts of 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.

4. Chemical Disasters

About 29630 small, 69 medium and large industrial units in Rajkot district. A large number of industrial units have developed in Jetpur, Gondal, Upleta, Dhoraji and Rajkot talukas of Rajkot district. Engineer, Forging, Casting, Solvent Plant, Paper Mill, Dairy, Electronic, Petroleum, Handicraft, Oil Engine, Electronic Items, Generating Mill, Electronics, Ceramic and

Pharmaceutical etc industries in the district has developed. Rajkot has achieved great success in the business of diesel engine and its parts and furniture. Various industrial units Along with this, M.A.H. in the district.

The unit is located as well as the crude oil pipelines of Crane India and Salaya Mathura Pipeline passing through various villages of Paddhari District and Rajkot Rural Taluka. Indian Oil Corporation's bulk storage and LPG bottling plant is located. CNG/PNG by GSPL Co. An industrial accident cannot be ruled out as the gas supply is also routed through Rajkot city as well as through the villages of various talukas.

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.

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, 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 adequate 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.

7. Nuclear Disaster: -

In the Past there is no any nuclear disaster was occurred...

8. Drought:

Low rainfall coupled with erratic behavior of the monsoon in the state make Rajkot 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.

9. Fire:

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

DISASTER MANAGEMENT BASIC CONCEPTS

★ **HAZARD:** A potentially damaging physical event, natural phenomenon or human activity that may adversely affect human life, property or social and economic disruption or environmental damage.

★ **VULNERABILITY:** The conditions determined by physical, social, economic and environmental factors which increase the damageability or proneness of an individual or community/society to impact of hazards.

RISK: Expected or anticipated losses from impact of a hazard at a given element over a specific period of time.

CAPACITY: The ability of stakeholders to cope with/resist/respond to the effects of a hazard or a catastrophic event.

Disaster Risk = H + V – C

Human vulnerability to disasters is inversely related to human capacity to withstand the effects of disasters.

★ **DISASTER:** Disaster Management Act, 2003 Gujarat defines Disaster as: “Disaster means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.

CHAPTER 3

Institutional Arrangements

Institutional Arrangements:

Institutional Arrangement / Response

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

In any disaster response, the initial efforts would always be taken by the District Administration. However, when Districts are overwhelmed in any situation, the support necessarily has to come from the State and National level. While the IRS is mainly relevant at the basic functional level, it is absolutely necessary that the support functionaries from the State and the National level also conform to the principles of IRS in the emergency support duties. This will be greatly beneficial for the proper coordination of the various response efforts at the National and State level with that of the district. It is therefore necessary to clearly understand the structure of the IRS in the context of State response. The hierarchical representation of RO with State EOC, Headquarters IRT and its lower level of IRTs at District levels are shown in Fig.4.

B. DDMC: -District Disaster Management Committee:

The District Collector will be responsible for coordinating all disaster management activities at the district level. There shall be a District Disaster Management Authority headed by Collector.

The District Disaster Management Authority shall approve a district disaster management planning and review all measures relating to preparedness and response to various hazards.

The District Disaster Management Committee comprises members from Jilla Panchayat, different line departments, NGOs and others to be notified by the Department of Disaster Management from time to time. In times of disasters, Dist. Collector shall constitute a District Relief Committee to oversee management of relief. following member should be club at district level committee.

Sr. No.	Detail
1	Collector
2	DDO
3	SP
4	District supply officer
5	Exe. Engineer- R&B State
6	Exe. Engineer- R&B Panchayat
7	Exe. Engineer- R&B State Irrigation
8	Superintending Engineer- PGVCL
9	District Home guard commandant
10	Superintendent. Hospital
11	Port Officer-GMB
12	District forest Officer
13	Dy. Director-Information Department
14	Chief fire officer
15	Regional Officer-GPCB
16	District Agriculture Officer
17	SDM
18	Regional Transport officer
19	Divisional Controller-State transport
20	Dy. Controller –Civil Defense
21	District Education Officer
22	District Primary Education officer
23	NGO Member

24	Media Person
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➤ **District Disaster Information Management System**

Any disaster related information flow happens in both the directions, from nodal authorities to concerned stakeholders, and from the stakeholders to the nodal authorities/ departments as well, stage wise. And for each stage, there should be a designated nodal officer, and also should be dedicated control room, to be used exclusively for the disaster related information dissemination purpose. Control room is a nodal center in terms of disaster Management which performs the function of collecting and transmitting information to the appropriate places and people. Therefore, Control room has to be equipped with the latest telecom communication facilities. All the important information of the district administration in case of emergency is also available in the control rooms. The control room is connected to all the line departments, collectorate, NGOs, police control room, and block control room which is connected to village task force and irrigation control room. Collector controls all the information flow through control room

➤ **The occurrence of the disaster will be communicated to:**

Governor, Chief Minister, Home Minister, Relief Minister and non-officials namely MPs and MLAs from the affected district. Chief Secretary, Principal Secretary, Disaster Management & Relief Department, Secretary, Disaster Management & Relief Department, Cabinet Secretary, Secretary, Home and Defense, Government of India. Secretary, Agriculture, and Joint Secretary, NDM, Ministry of Agriculture, GOI Local Area Commander of the Army.

➤ **The Occurrence of the Disaster would essentially bring in to force the following:**

The Emergency Operations Centre will be put on full alert and expanded to include Branch arrangements, with responsibilities for specific tasks, depending on the nature of disaster and extent of its impact. The number of branches to be activated will be decided by the Chief of Operations.

All Branch Officers and Nodal Officers will work under the overall supervision and administrative control of the Chief of Operations. All the decision taken in the EOC have to be approved by the Chief of Operations.

- ❖ Immediate access to the disaster site.
- ❖ Telephonic and VSAT, wireless communication and hotline contact with the Divisional Commissioner, and Collector/s of the affected district/s will be activated.

The EOC in its expanded form will continue to operate as long as the need for emergency relief and operations continue and the long-term plans for rehabilitation are finalized for managing long-term rehabilitation programmes, such as construction of houses, restoration of infrastructure etc. the responsibilities will be that of respective line departments. This will enable EOC to attend to their disaster situation, if the need be.

➤ **Forecasting and warning agencies:**

On the receipt of warning of alert from any such agency which is competent to issue such a warning, or on the basis of reports from Divisional Commissioner/District Collector of the occurrence of a disaster, all community preparedness measures including counter-disaster measures will be put into operation. The Chief Secretary/ Relief Commissioner will assume the role of the Chief of Operations for Disaster Management.

It is assumed that the district administration would be one of the key organizations for issuing warnings and alert. Additionally, the following agencies competent for issuing warning or alert are given below.

CHAPTER 4

Prevention and Mitigation Measures

3.1 Prevention and Mitigation Plan

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

Mitigation measures can be divided in two categories:

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

The taluka disaster management plan includes hazard specific structural and non-structural mitigation plans in consultation and convergence with various Departments. For example, the MGNREGA work can take up activities on construction of embankment for flood safety or the forest department may take up mangrove plantation in the coastal areas, while the water supply department can construct hand pumps on raised platforms.

Departments shall draw out its own plan, goals and milestones and review it annually for its achievements and planning for next year.

■ Disaster Preparedness:

The Idea of protective city planning suggests decentralization and isolation of vulnerable facilities from the rest of the city. The following are the typical ingredients indicate the broad scope of an urban risk reduction programme.

- The preliminary process includes hazard mapping, vulnerability assessment, resources identification and loss estimation
- Training key officials through on the job training, mentor training and workshops.
- Development of City disaster management plan as a part of District as well as state DM Plan and should have proper DM Information system module.
- Protecting lifeline resources such as key infrastructure, media resources book, schools, shelter places, communication network, key economic asset etc.
- Developing and Implementing disaster mitigation measures is a demanding task in developing nations because such measures are relatively high investments inputs such as flood response and mitigation system, early warning system etc.
- Organising community vulnerability reduction programmes to aware and prepare measures through public education system like radio, newspaper and awareness.

3.2 Structural Measures Industrial (Chemical) (in coordination with LCG, DCG district and state level authorities)

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

3.3 Migration of affected schools in low lying area.

No.	Areas name	School no.	About how many people can be accommodated
East side of the river in front of the river			
1	bedipara area or panjara pol	23 14,15	200 75,400
2	thorala area	29 23	500 200
3	near bhagavti para fatak kesari pul area	43 46	150 100
4	Rohidaspara area	43 46 32	150 100 125
The west side of the river			
5	popat para dak banglow , front of junction Refugee Colony shastri nagar mochi bazar , near sessoion corurt . manohar plot ,Against the national school. hathi khana	33 17 26 40 50 68 10 11 12	150 50 150 150 100 30 200 500 150
6	girls school	16	100
7	janglesvar mafatiya para	70	750
8	Mahatma gandhi sedule areas	29	500
9	ramnath para or Alah havale mafatiya para	16	100
10	behinde sorthiya vadi mafatiya para	62	100
11	gavlivad,bhilvas	08	150
12	laludi ternel under		
13	narsing para fle.office	10 26	200 150
14	The low lying area around the Bhomeshwar temple	44 18	75 125
15	kevda vadi		

Identification of Stake holder involve in disaster management

An emergency requires both pre and post-response. A solid Incident Response System (IRS) should be prepared for response planning. Advance preparation is useful in coordinating with various organizations, departments, identifying structured and nonstructured tasks etc.

Early warning, search and rescue, humanitarian assistance, first aid, relief, temporary shelter, water and sanitation, law and order, animal care, grievance redressal, rehabilitation and reconstruction are important in Yachak.

➤ 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 reductionist 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 code sand handspans,
- 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 plan sand activities to effect mitigation, preparedness and prevention using the mechanism noted above. Base on the in Terim assessment of risk and vulnerabilities, the Rajkot 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 to off-site Preparedness near Industrialists.

➤ **Special projects proposed for preventing the disasters.**

• **DRM**

Disaster Risk Management Programme (DRM) has taken strong roots at various levels of administration in Gujarat. The Department of Revenue & Disaster Management is the nodal Department in Government of Gujarat that handles the subject with GSDMA. Disaster Management Committees are formed at various levels and are assigned the task of implementing the programme. Representation for these committees are drawn from elected representatives, of facials of line departments, professional bodies, Civil Defense, NGO and CBO representatives and local opinion leaders. Major Activities are being carried out under DRM program are Plan Development at Various Levels, Emergency Resources Database maintain through SDRN/IDRN, Capacity Building through Trainings & Resource Mobilization, Disaster Awareness through Orientations, Campaigning, Media Management and IEC distribution. Coordinate District Administration for all Disaster Management Activities with expertise knowledge, logistics and fund allocation

4.1 Early Warning System (EWS) and Post Disaster Notifications.

It often happens that the message and warning about a disaster cannot be conveyed to the people in remote areas in time. Sometimes information spread due to rumours before and during a disaster creates panic and misunderstanding among the public. Therefore, the effects of a disaster can be minimized by delivering a clear, timely warning message to the right group. A mobile application has been prepared for quick delivery of full alert to the affected people.

Emergency Operation Canters at the district level are operational 24 hours a day 365 days a week for alert and message handling. At taluka level, warning and communication operations are carried out through special flood control rooms during the months of June to October. The district administration can use the media like satellite phone, ham radio and wireless set available with corporation and police department, Akash Vani Kendra, Door darshan Kendra. At the time of calamity, coordination with other control rooms should be done as mentioned below. At the time of disaster, a system has been set up to warn the people about the disaster using electronic and print media, radio, television, microphone with vehicle for quick messaging. Warning and messaging can be done easily with the help of cable operators and ham radio operators.

It is the duty of the DDMA to provide specialized lifesaving assistance to district and local authorities. In the event of a major disaster or emergency its operational activities include locating, extricating and providing on site medical treatment to victims trapped in collapsed structures. In the

event of any disaster the Home Guards along with the support of the Police dept. form teams to locate injured and dead and try to rescue the ones in need. There are other bodies too that help these departments in this work, like the PWD, Health dept, Fire dept and also the people that voluntarily form teams to help the ones in need. Proper training for search and rescue process needs to be undertaken so as to minimize the time taken in rescuing someone. Also, proper methodology and resources are needed to carry out a search & rescue mission.

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

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

- **School Safety Programmed:**

Gujarat School Safety Initiative (GSSI) – I & II. The pilot programs were designed for promoting a culture of disaster safety in schools and reduce risk through structural and non- structural measures in the schools.

Gujarat School Safety Initiative – I

One hundred and fifty schools were selected from the cities of Ahmadabad (100), Jamnagar (15) and Vadodara (35) cities on basis of the school's disaster vulnerability, number of students and willingness to implement the suggested measures. The following activities were conducted in each of the project schools:

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

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

Gujarat School Safety Initiative–II

This initiative was designed for creation of cadre of master trainers and a pool of trained teachers at district level in disaster risk reduction across all the 25 districts of the State. It was designed for creating a pool of 100 Master Trainers (4 from each district). These master trainers would provide training to 625 teachers (25 from each district). Twenty-five model schools were elected & School DMP plans

were prepared involving the trained teachers. It was planned that trainings will be conducted for 1,000 teachers and 7,500 students in model schools.

In order to achieve the objectives, rollout workshop was held for sensitization of education department officials, district level administrators (District Education Officers & District Primary Education Officers), teachers and students. Eighty-six master trainers were trained in 4 regional workshops, 593 teachers were trained throughout the State in 3-day workshops. Twenty-five model schools were selected where 25,543 students and 861 teachers have been trained. One model school developed for each district. Methodology for School Safety program has been developed and tested, including templates for developing School Disaster Management Plan. Training and awareness material has been developed. Also, draft text books for class VII, VIII, IX were prepared incorporating the basics of Disaster Management.

Over and above the softer issues highlighted above, GSDMA has provided all the existing Government schools in Gujarat with ISI marked portable Water-CO2 type of Fire Extinguisher (96 Government schools covered of which 30 schools). For the necessary guidance / instruction for use of fire extinguishers, GSDMA has prepared an 18 minute short education film in Gujarati on fire safety for schools. This was shown to all government primary schools through the satellite network.

Hazard – Wise Mitigation Measures

Mitigation Measures- This section would describe the strategies and interventions that the District Disaster Management Authority (DDMA) and other stakeholders will implement in order to reduce disaster risks. This may include both structural and non-structural kind of strategies. There should be strategy for Information, Education and Communication (IEC) activities under the Nonstructural measures.

Mitigation measure (Foral 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 & Country Planning Board and constitute committee of experts to evaluate the provisions of the State Town & 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, 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 and schemes running in the State and how far each programmed/scheme addresses the issue of disaster management and submit to the government.

➤ Building Bye – laws and their implementation:

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

➤ **Awareness generation on disaster mitigation:**

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

Role of local self-governments in mitigation:

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

➤ **Hazard-Wisen on–Structural Mitigation Measures:**

Structural: Structural Mitigation Measures

- a. **Retrofitting of Buildings:** In Rajkot region maximum buildings are non-engineered or kuccha, having lower seismic resistant capacity. There are mainly four major types of constructions:

Category A: Adobe, fieldstone Masonry Buildings Category B: Brick Construction Masonry Buildings Category C: R. C. C. Construction

Category: Traditional & Conventional Construction

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

After assessment of vulnerability of buildings, the priority for structural mitigation has to be defined. Generally public buildings are given first priority because they are lesser in number

and at the time of disaster people can take shelter in these public buildings. Some examples of important buildings are hospitals, clinics, communication buildings, fire and police stations, water supply, cinema halls, meeting halls, schools and cultural buildings such as museums, monuments and temples. The second priority goes to other type of buildings like housing, hostels, offices, warehouses and factories.

- a. **Construction control:** The best protection against earthquake is a strong built environment. The quality of buildings, measured by their seismic resistance is of fundamental importance. Minimum design and construction standards for earthquake and flood resistant structures legislated nationally, are an important step in establishing future minimum levels of protection for important structures. India now has building codes and regulations for seismic and flood resistant design. These codes are in constant review by the experts. The below mentioned building codes are generally practiced in India:

- **IS:1893,1984-** Criteria for earthquake resistance design of structures
- **IS: 13828, 1993** - Guidelines for improving low strength earthquake resistant masonry buildings

- **IS:13920,1993**-Ductile detailing of reinforced concrete structures subjected to seismic forces- code of practice
- **IS:13827,1993**-Guide lines for improving earthquake resistance of earthen buildings
- **IS:13935,1993**-Guidelines for repairing & seismic strengthening of buildings

NON-STRUCTURAL:

Land use planning: Damage to a building depends primarily upon the soil conditions and topology of the area. Rajkot district comes under moderate risk zone in terms of earthquake (Zone 3) and flood disaster. But a part of it is also recommended by DMI to be included under zone 4 of earthquake as it lies on a cross-fault region.

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

Mitigation strategies

The mitigation strategy for Rajkot district involves the following elements:

- Further growth of human settlements in the low-lying areas should be checked through land-use planning. Such areas are vulnerable not only from flood hazards but are also vulnerable to earthquake liquefaction, which may increase the damage manifold. The department of Town and Country Planning will take care of seismic hazards while preparing the development plans for the district;
- Appropriate building codes will be made applicable for new engineered & non engineered constructions, and should be strictly enforced by local body. The Municipal Corporation of local area will ensure the construction as per Indian Standard Building Codes;
- Infrastructure department will do the retrofitting of public buildings under their maintenance charge. Generally, PWD, Rural Engineering Services and Housing Board maintain the public buildings. The expenditure for such retrofitting will be taken care under maintenance head.
- Community awareness will be raised regarding seismic resistant building construction techniques and seismic retrofitting of existing buildings. Housing Board will be the nodal agency to provide training through workshops and demonstrations. PWD and RES will support MPHB in these efforts;

- Community awareness will be raised regarding 'do's and don'ts' in the event of an earthquake with the involvement of Panchayati Raj institutions and CBOs. Revenue department will be the nodal agency for this activity.

- **Development schemes:**

NREGS: The MGNREGA achieves twin objectives of rural development and employment. The MGNREGA stipulates that works must be targeted towards a set of specific rural development activities such as: water conservation and harvesting, afforestation, rural connectivity, flood control and protection such as construction and repair of embankments, etc. Digging of new tanks/ponds, percolation tanks and construction of small check dams are also given importance. The employers are given work such as land leveling, tree plantation, etc. It has a very broad spectrum which can be used for the benefit of the population that are vulnerable and are likely to be affected.

1. Construction of Tube wells can be done.
2. Building of Roads for places which are not connected to other parts of the district.
3. Leveling of low-lying areas during flood to a higher level to prevent those areas.
4. Construction of check dams and embankments and drainage systems to prevent flooding of those areas.

IAY: This scheme can be used for the rehabilitation of the affected villages by making constructions for the affected population.

Sarva Shiksha Abhiyan:

This scheme can be used for creating awareness about mitigation and preparedness about accidents that are in control of man, in collaboration with educational institutions to the people so that they can make use of it when required.

NRHM:

This scheme can be used to facilitate for voluntary first aid during disaster and training the local population to deal with minor injuries so that they do not have to wait for professional help to help any individual. Training of nurses can be carried out as a preparatory plan.

Mukhya Mantri Awas yojana:

The scheme can facilitate the rehabilitation programs among the affected villages or the ones that are likely to be affected and lie in the vulnerable zone. They can come up with collaboration with the construction norms.

Jal-Abhishek Abhiyan:

The aim of the scheme is to provide safe drinking water so it can be used to provide for clean drinking water during response and relief period. It can work in collaboration with sanitation systems during relief period and help in avoiding any kind of future epidemics in the affected region.

Samagra Swachta Abhiyan:

This scheme can also be used for providing sanitation in the relief camps to the affected population. Since relief camps are the places where lot of diseases and epidemics may break out, proper defecation and sanitation should be ensured by this scheme.

➤ **Training & Capacity Building**

School safety program municipal corporation areas school

- Fire and safety demonstration
- Red cross society first aid training
- 108 demonstrations
- Aga khan NGO disaster management training

The capacity of a community to withstand disasters is a function of-

- Awareness of the risks associated with disasters
- Understanding of appropriate responses to disasters
- Possessing the capacity to respond (training, research, availability of resources, skilled cadres)
- Setting up emergency response mechanism that mobilize and deploy these trained resources in a quick, efficient and systematic manner.

3.3 The above can be achieved with the help of MPSDMA and the relevant government Departments. They can ensure that personnel in specialized areas (medical care, relief, etc.) are adequately trained and available for deployment in emergency situations. The basic concepts relating to disaster management and the role of the community therein shall be included in the curriculum of schools. All this shall have a special thrust on empowering women towards long term disaster mitigation. It should enhance the existing capacity to limit damage by improving surveillance and early warning system. MPSDMA should stimulate the active involvement of the community, local groups, women and disabled people in disaster management programs with a view to facilitating the capacity of the community to deal with disasters. Promote and support research, development and the use of local knowledge in measures that are aimed at supporting risk reduction and relate to disaster management activities

CHAPTER 5

Preparedness Measures

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

a) State Level:

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

b) District Level:

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

c) On-site teams:

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

d) Emergency Operations Centre (EOC):

In a disaster situation, variable factors of intensity, affected population and severity of damage need to be quickly assessed based on which government agencies can allocate and deploy relief. Therefore, in the event of failure of the normal management mechanism, an Emergency Operations Centre becomes a nodal point for overall coordination and control of relief work.

The EOC at the State and District will be activated immediately on the event of a disaster or a disaster warning. The primary function of these EOC is to facilitate the smooth inflow and outflow of relief and other disaster response related activities. These EOC act as bridges between the center, state and district. The EOC have to be equipped with state-of-the-art communication technology and GIS enabled systems for quick and effective decision making. The structure in which EOC are housed must also be disaster resistant. The EOC In charge who has had substantial expertise in the area of disaster management and is familiar with the area of disaster should head the EOC. Since the EOC functions and activities require quick and spot decisions, the EOC equipment as well as manpower is required to be periodically evaluated and tested. Therefore, the core nucleus of the EOC will remain functional throughout the year.

E) Emergency Management Contact Directory:

An Emergency Management Contact Directory will be prepared and maintained,

Containing contact numbers of all the nodal officials in disaster management along with those of prominent NGOs. The Collector will supervise and coordinate the preparation and regular updating of this directory at the district level and send a copy to the State Department of Disaster Management.

f) Mock drills:

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

g) Role of local – self-governments in disaster preparedness:

The Chairpersons of the PRIs and ULBs will ensure necessary measures for warning dissemination, community awareness generation, evacuation drills and capacity building of their functionaries to be involved in disaster management.

f) GSDMA DRM activities

Disaster Risk Management Programme (DRM) has taken strong roots at various Levels of administration in Gujarat. The Department of Revenue & Disaster Management is the nodal Department in Government of Gujarat that handles the subject with GSDMA. Disaster Management Committees are formed at various levels and are assigned the task of implementing the programme. Representation for these committees are drawn from elected representatives, officials of line departments, professional bodies, Civil Defence, NGO and CBO representatives and local opinion leaders. Major Activities are being carried out under DRM programme Plan Development at Various Levels, Emergency Resources Database maintain through SDRN / IDRN, Capacity

Building through Trainings & Resource Mobilization, Disaster Awareness through Orientations,

Campaigning, Media Management and IEC distribution. Coordinate District Administration for all Disaster Management Activities with expertise knowledge, logistics and fund allocation.

g) Awareness Generation: -

As a part of Preparedness Awareness generation among community will be 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 community.

- Community Warning System

Indian Disaster Resource Network [State data base]:

A web-enabled centralized database for the IDRN is operational. The network will enable quick access to resources to minimize response time in emergencies. The system gives the location of specific equipment/specialist resources as well as the controlling authority for that resource so that it can be mobilized for response in the shortest possible time. The database will be made available at the district, state and national levels and will be used for all emergencies and day-to-day operations. However, the District Collector will take proactive steps to verify and update the dataset regularly. The Department of Disaster Management will update the database on a quarterly basis. All District Collectors will provide the updated information to the Department of Disaster Management regularly.

1.Search & rescue Team

S. No.	designation of trained S&R Team member
	<i>The Search & Rescue team is formed as and when required and the members & 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.)

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 Volunteers 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.

3.Evacuation:

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

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

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

- Identification of appropriate shelter areas based on safety, availability of facilities, capacity and number of victims.
- Approaches to the shelter location in light of disruption due to hazard impact and traffic blockades.
- Temporary accommodation

- Provision of essential facilities like drinking water, food, clothing, communication, medical, electrical and feeding arrangements, etc.
- Security
- Financial and immediate assistance
- First-aid and counselling

4.Types of evacuation

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

(a) Immediate evacuation, which allows little or no warning and limited preparation time as in the case of earthquakes and air accident.

(b) Pre-warned evacuation resulting from an event that provides adequate warning and does not unduly limit preparation time as in the case of flood and cyclones.

5.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 rules 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 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 centres, cooperation and involvement of all agencies viz. Community, volunteers, NGOs, NCC / NSS, Home guards and civil defence, 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 learnt
- Documentation.

6.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

7.Decision to Evacuate

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

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 evacuation.

8.Basic consideration for Evacuation

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

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

- Delivery of warning
- Transport arrangement
- Control and timing of movement
- Fulfil welfare needs including medical treatment
- Registration of evacuees

All agencies involved in evacuation operation like home guards, Police, PWD, PHED, etc. will coordinate in field. They will remain in touch with the Desk officials in the DECR for issuing warning, information and advise the public.

9.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:

CHAPTER 6

Capacity Building and Training Measures

❖ Approach

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

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

equipment, logistics, and communication systems, as well as the establishment of emergency response teams and specialized units.

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

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

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

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

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

Capability Building: At the Community Level:

Community-level capacity building primarily relies on self-directed initiatives, such as acquiring skills in swimming, securely thatching roofs, safely extricating injured individuals from debris, and rescuing

drowning victims. These self-orientated efforts empower community members to take proactive measures for disaster preparedness and response, enhancing overall resilience and safety within the community.

Capability Building: At the Ground Level Institutions:

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

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

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

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

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

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

Institutional Capacity Building

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

- i. Organizing and supporting the District Disaster Management Authority (DDMA), defining its roles and responsibilities, and facilitating the creation of the District Disaster Management Plan. This entails engaging local bodies in plan preparation and implementation, in coordination with state and village authorities.
- ii. Establishing and operating Emergency Operation Centers at both district and panchayat levels, defining their functioning modalities and roles during various response phases (L0, L1, L2), in collaboration with state and village authorities.
- iii. Ensuring the maintenance of equipment, materials, and managing stores and manpower effectively. Structured training programs are essential to orient officers to these responsibilities, considering that disaster management remains a focal point for relief efforts involving states and villages.

Capacity development is the outcome of a series of inputs aimed at enhancing understanding of issues and prompting appropriate action in specific situations. This response is not rigid but dynamic, guided by intelligence and adaptable to changing circumstances. In the realm of disaster management, this modulation is essential for district-level institutions, government departments, agencies, stakeholders beyond state entities, and local communities.

Capacity Building: Other Stakeholders

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

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

❖ **Capacity Building Plan**

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

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

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

1. Institutional Capacity Building:

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

2. Community capacity building and Community Based Disaster Management Community capacity building and Community-Based Disaster Management (CBDM) are integral components of effective disaster resilience strategies that empower local communities to prepare for, respond to, and recover from disasters. Community capacity building involves enhancing the knowledge, skills, resources, and social networks within a community to effectively address disaster risks and vulnerabilities. This may include:

- 1. Education and Training:** Providing community members with training on disaster preparedness, response techniques, and first aid skills. This empowers individuals to take proactive measures to protect themselves, their families, and their neighbors during emergencies.
- 2. Community Organization:** Facilitating the establishment of community-based organizations, such as disaster response teams, neighborhood watch groups, or community emergency committees. These organizations play a vital role in coordinating response efforts, disseminating information, and mobilizing resources during disasters.
- 3. Infrastructure Development:** Supporting the development of resilient infrastructure and basic services, such as early warning systems, evacuation routes, emergency shelters, and safe water and sanitation facilities. This helps communities mitigate the impact of disasters and enhances their ability to recover quickly.
- 4. Risk Assessment and Planning:** Conducting participatory risk assessments to identify local hazards, vulnerabilities, and capacities. Based on these assessments, communities can develop customized disaster risk reduction plans that prioritize local needs and resources.

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

- 1. Local Ownership and Leadership:** Empowering communities to lead and manage their own disaster preparedness and response efforts. Local knowledge and expertise are valued and incorporated into decision-making processes.
- 2. Participatory Approach:** Engaging community members in decision-making, planning, and implementation of disaster risk reduction activities. This fosters a sense of ownership, responsibility, and resilience within the community.
- 3. Coordination and Collaboration:** Facilitating collaboration and partnerships among community members, local authorities, government agencies, non-governmental organizations, and other stakeholders. This promotes effective coordination of resources and efforts, maximizing the impact of disaster management initiatives.
- 4. Communication and Information Sharing:** Establishing effective communication channels and mechanisms for sharing information, early warnings, and updates with community members.

Transparent and timely communication builds trust, reduces uncertainty, and enables swift action during emergencies.

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

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

Officials / Policy Makers:

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

Engineers, Architects, Masons, Doctors, Nurses, Teachers, and other Professionals: Capacity building initiatives for professionals should focus on integrating disaster risk reduction principles into their respective fields of expertise. For engineers, architects, and masons, training may include techniques for designing and constructing disaster-resilient infrastructure and buildings. Healthcare professionals can receive training on disaster medicine, triage, and emergency response protocols. Teachers and educators can be trained to incorporate disaster preparedness and risk reduction education into school curricula. Tailored training programs and workshops can equip professionals with the specialized knowledge and skills needed to contribute effectively to disaster management efforts.

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

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

Community Capacity Building:

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

Training of Trainers (ToT):

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

Civil Defence / Volunteers:

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

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

Disaster Management Education

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

Schools:

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

Colleges (Medical, Engineering, etc.):

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

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

❖ Skill up gradation and follow up training programmers'

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

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

- 2. Designing Tailored Training Programs:** Develop training programs that address specific needs and areas for improvement identified during the assessment phase. Training programs may cover a wide range of topics, including disaster preparedness, response techniques, risk assessment, communication strategies, leadership skills, and coordination mechanisms.
- 3. Hands-on Training and Simulation Exercises:** Provide opportunities for practical, hands-on learning through simulation exercises, tabletop drills, and field training. These exercises simulate real-life emergency scenarios and allow participants to apply their knowledge and skills in a controlled environment. Feedback and debriefing sessions should follow each exercise to identify lessons learned and areas for improvement.
- 4. Follow-Up and Refresher Training:** Offer follow-up and refresher training sessions to reinforce learning and update participants on new developments in disaster management. These sessions may be conducted periodically to ensure that participants remain up-to-date with the latest protocols, technologies, and best practices.
- 5. Integration of Technology:** Incorporate technology-enabled learning methods, such as e-learning platforms, webinars, and virtual reality simulations, to enhance accessibility and flexibility in training delivery. Technology can also be used to facilitate remote learning and collaboration among participants across different locations.
- 6. Monitoring and Evaluation:** Monitor the effectiveness of training programs through participant feedback, performance assessments, and evaluation surveys. Use this feedback to refine training content, methods, and delivery approaches to better meet the needs of participants.
- 7. Certification and Recognition:** Provide participants with certification or recognition upon successful completion of training programs. This serves as an incentive for continued learning and professional development, as well as a way to demonstrate competency and expertise in disaster management. By implementing skill upgrading and follow-up training programs, disaster management agencies can ensure that their personnel remain well-equipped, competent, and prepared to effectively respond to disasters and protect their communities.

Chapter 7

Reconstruction, Rehabilitation and Recovery Measures

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

2. General Policy Guidelines:

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

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

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

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

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

Section 9.2.1 of NPDM states that - Reconstruction plans and designing of houses need to be a participatory process involving the government, affected community, NGOs and the corporate sector. After the planning process is over, while owner driven construction is a preferred option, contribution of the NGOs

Damage to road, streets and bridges, 2. Damage to water control facilities such as drainage system, water channel etc., 3. Damage to public buildings and equipment, 4. Damage to public utilities, 5. Damage to parks and recreational sites and 6. Managing Debris.

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

6. Short-term recovery program

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

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

7. Roads and Bridges: This covers construction of all critical roads and bridges necessary to provide connectivity with immediate effect.
8. Drinking Water Supply: Restoration of Drinking Water supply has to be done by setting up of new hand pumps, tube wells or setting up of piped water supply in areas with no access to potable water. In case of floods, setting up of raised hand pumps is required.
9. Electricity: Restoration of power supply is also critical to immediate recovery.
10. Communication Network: After disasters, communication networks may be disrupted. The networks of mobile services providers have to be put back in operation at the earliest to make search and rescue easier, as well as to expedite coordinated response measures.
11. Reconstruction & Repair of Lifeline Buildings: Lifeline buildings are those necessary to keep the administrative machinery functioning despite the damage by disaster have to be repaired on priority.
12. Rehabilitation: In case there is a major damage from earthquake or flooding, a large segment of the population may have to be rehabilitated to new locations on a temporary basis. Communities will have to be supported with relief shelter.
13. Mass Care/Sheltering and Housing: The management of relief shelters is continued from the response phase to the immediate recovery phase. During this period, the number of victims must be identified for whom construction of houses under Indira Aawas Yojna & Sardar Awas Yojna shall be sanctioned.
14. Food: Supply of food in relief phase is more important. It becomes important to elicit support from various NGOs, Grain merchants and volunteers.
15. Debris Removal and Disposal of Dead Bodies: Removal of debris or trees from transportation routes for effective rescue and relief measures.

16. Drainage and Sewage: Drainage and sewage systems will have to be quickly re-established to decrease inundation from floods, spread of diseases and epidemics and maintaining hygiene.
17. Health Care: First Aid and Emergency Health care has to be provided at the earliest. In case the health care centres are affected by the disaster, temporary medical relief camps need to be installed while the building is retrofitted or reconstructed. Mobile Medical Units have to be pushed into action for immediately health care close to the community.

1. Long-term recovery program

Long term recovery efforts must focus on redeveloping and restoring the socio-economic viability of the disaster area(s). The reconstruction phase requires a

substantial commitment of time and resources by government and non-governmental organisations. Important to note here is that much of this commitment would be beyond the scope of traditional emergency management activity programmes. The activities involved would most often be the result of a catastrophic event that has caused substantial, long-term damage over a very large area. These efforts include:

18. Long term reconstruction of public infrastructures and social services damaged by the disaster.
19. Re-establishment of adequate housing to replace that which has been destroyed.
20. Restoration of jobs that was lost.

and corporate sector will be encouraged. Reconstruction programme will be within the confines and qualitative specifications laid down by the Government.

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

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

Chapter 8

10.1 Financial Arrangements:

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

Financial resources for implementation of plan:

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

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

- the fund to be called the Disaster Response Fund;
- the fund to be called the Disaster Mitigation Fund;

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

- a) The Ministry of Finance has allocated funds for strengthening Disaster Management Institutions for capacity building and response mechanisms, as per the recommendation of 13th Finance Commission.
- b) To carry out Emergency Response & Relief activities after any disaster the State Disaster Response Fund is made available to Commissioner of Relief, Revenue Department under which the Central Government will share 75% and the Govt. of Gujarat has to share 25%.
- c) To provide for relief for famine, drought, floods and other natural calamities, Response Fund are provided in the state budget under the head “2245-Relief on account of Natural Calamities”. Besides establishment charges, funds are provided for the grant of gratuitous relief in the shape of concessional supply of food, cash payment to indigent persons, cash doles to disabled supply of seed, fodder, medicines, prevention of epidemics, provision for drinking water, transport facilities for goods and test relief works as at District level.

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

- a) At the National level, Prime Minister’s Relief Fund was created shortly after Independence with public contribution to provide immediate relief to people in distress for Disaster Mitigation:
 - ✓ Immediate financial assistance to victims and next of kin.

- ✓ Assist search and rescue.
- ✓ Provide Health care to the victims.
- ✓ Provide Shelter, food, drinking water and sanitation.
- ✓ Temporary restoration of roads, bridges, communication facility and transportation.
- ✓ Immediate restoration of education and health facilities.

- b) At the state level, provisions have been made to provide immediate support to the distressed people affected by natural calamities and road, air and railways accidents under the Chief Minister's Relief Fund for Disaster Mitigation.

10.2 State Budget

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

10.3 District Planning Fund

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

Partnerships

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

10.4 Disaster Risk Insurance

Disaster risk insurance is a financial tool designed to help individuals, businesses, and governments manage the financial consequences of disasters. It provides coverage against losses resulting from natural or man-made disasters, such as earthquakes, floods, hurricanes, or terrorist attacks. In exchange for premium payments, policyholders receive compensation or payouts in the event of a covered disaster, helping them recover and rebuild more quickly. Disaster risk insurance plays a crucial role in promoting resilience by transferring some of the financial risk associated with disasters to insurance companies or risk pools, thereby reducing the burden on affected individuals and communities. By providing a source of rapid funding for recovery efforts, disaster risk insurance helps facilitate a more efficient and effective response to disasters, ultimately contributing to greater economic stability and resilience in disaster-prone area

CHAPTER 9

Standard operating procedure on borewell incident response

5.1 Introduction:

India is the biggest user of ground water in the world which is drawing around 230 cubic kilometre per year. There are approximately 27 million bore wells in India. Due to water scarcity, low rain falls, drought and depletion of underground water, large number of bore wells are dug. When the water gets dried, the motor along with casing pipe are removed and outer surface of bore well is not properly covered or sealed. Reports say that since 2009, more than 40 children fell into the bore well. On an average 70% of the conventional child rescue operation fails.

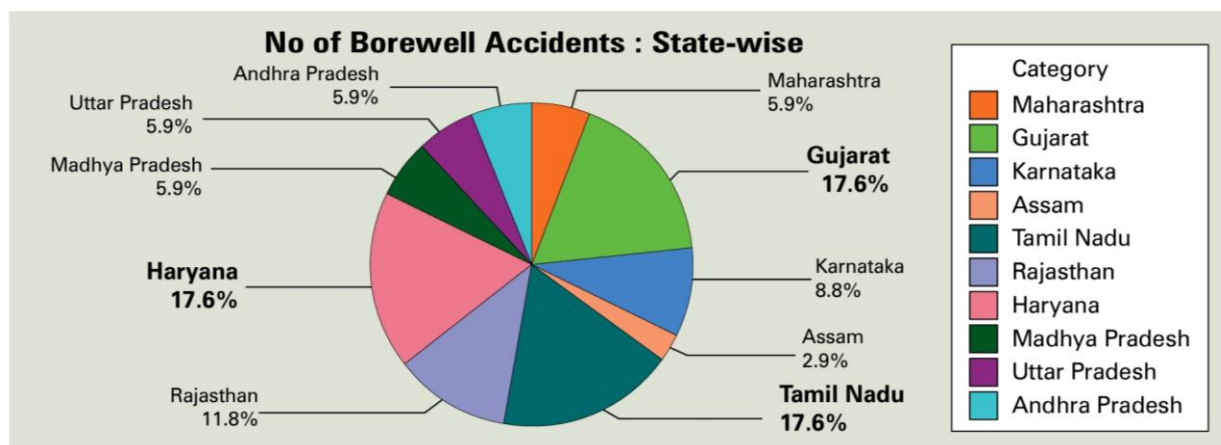
India recently has witnessed some of the most tragic but helpless incidents which touched us deeply and forced us to look after the matter seriously. As the statistics suggest in the consecutive years starting from 2006, still more than 33 deaths occurred while stuck in bore well. The most mournful fact in that figure is that 92% of that victim is under the age of 10.

The children were playing around the bore well unaware of the fact that the bore well was waiting for them in the form of a death trap. After slipping in the rotten congested pitch-black environment, they were waiting for the help to come. But the lack of oxygen and deadly atmosphere has taken their life slowly before the rescue team can reach them.

The incident of losing lives trapped in Bore well was highlighted in 2006 where a 5-yearsold child named Prince was rescued after a tough combat which lasted 49 hours. Another incident in Indore took place in the same year where a child name Deepak stuck in the pit hole and died for the lack of oxygen. After that, there were number of incidents happened in the various parts of the country of falling of child in a Bore well, where depth of Bore well varies from 50 feet to 250 feet. In rural regions of the States, bore wells are widely used due to lack of water supply or unavailability of ponds, rivers etc.

Almost all Government programmes seek to supply water through tube wells. With the falling water level, most of these tube wells are abandoned and are usually left uncapped and open. A survey sponsored by the Ministry of Water Resources in 2008 discovered that 85 percent of rural, 50 percentage of urban drinking and industrial needs, and 55 percent of irrigation needs were met through bore wells. Incidents of bore well deaths will stop only when consistent water supply where needed is ensured.

The state wise data of bore well incident is given below in the pie-chart.



2. AIM: Maharashtra Gujarat 17.6% Karnataka 8.8% Assam 2.9% Tamil Nadu 17.6% Karnataka Assam Tamil Nadu Rajasthan Haryana Madhya Pradesh Uttar Pradesh Andhra Pradesh the aim of this SOP is to lay down guidelines for NDRF Bns for responding to bore well emergencies.

3. PURPOSE: The purpose of this SOP is to establish the procedure for the response of the SAR team(s) of the Bns of NDRF in the States/UTs for bore well incident. The SOP prescribes guidelines and assigns responsibility for adopting various executive actions to ensure prompt response during incident.

4. OBJECTIVES: This SOP shall be used to formulate NDRF action plans and procedures for launching specialized Rescue response which should be instrumental in saving precious lives. The objective of this SOP is to establish operating procedures for addressing all aspects of managing during bore well incident. These are as follow: a) Guidelines for troops for rescue operation during the bore well incident. b) Achievement of best result through well planned rescue operations. c) Reducing reaction time of the teams in responding to such incidents. d) Coordinating and collaborative instructions during bore well incident.

5. SCOPE: To define a 'Standard Operating Procedure' for bore well incident response in the country. The SOP applies to all elements of the Command while performing bore well incident response operations. This SOP is a guideline and shall be subject to be reviewed periodically.

6. ROLE AND RESPONSIBILITY DURING BORE WELL INCIDENT

6.1 Role: Bore well incident preparedness provides a platform to design effective, realistic, coordinated planning and reduces duplication of efforts. The SOP unifies support for all functional areas to support a disaster requiring a coordinated response. The expertise of NDRF in strengthening the coordination amongst the various stakeholders is also very instrumental and important for effective response. Incidents of children falling into bore well/well are increasing in various parts of the country due to lack of awareness of people and do not follow the guidelines issued by Hon'ble Supreme Court. NDRF has not sufficient equipment to carry out the bore well rescue operation. However, NDRF responds in bore well incidents to rescue the precious life.

6.2. Responsibilities: a) Executives/Supervisors/Commanders: It shall be the responsibility of all the Executives/ Supervisors/ Commanders at all levels of the chain of the command of NDRF who are involved in the bore well incident response to ensure that all aspects of this SOP are adhered to. b) Responders: It shall be the responsibility of all the responders to know, understand and follow the directions of the SOP in the letter and spirit.

7. DEECISION OF Deployment:

7.1 SAR team(s) of NDRF shall be mobilized:

- A) On the request of the incident States/UT Govt., or
- b) On directions of Central Govt. Authorities (NCMC, NEC, NDMA)

7.2 The procedure of making requisition for services of NDRF is given below:

- A) The State Govt. is required to make a telephonic request to Control Room, HQ NDRF for sending SAR team(s) for disaster response followed by a written requisition through fax/email/dak on the prescribed Performa duly filled up in all respects to the HQ, NDRF-New Delhi.
- B) Under exigencies, on getting the direct request from the State Authority, Commandant of the local BN after due appreciation of the situation shall mobilize his SAR team(s) for the bore well incident response without wastage of time and simultaneously seek formal approval from the HQ, NDRF-New Delhi.
- c) In case, the Govt. of the bore well incident State/UT makes a direct requisition to the Central authorities (NCMC, NEC, NDMA), the SAR Team(s) of NDRF will be mobilized by the DG, NDRF as per the directions of Central authorities.
- d) Following authorities of the State Govts. /UTs can place requisitions for the team (s) of the NDRF during disaster: i. The Chief Secretary/Principal Secretary Disaster Management /Relief Commissioner or higher authority of SDMA. ii. Collectors/DCs/DMs of the DDMA can request for the response of the NDRF Battalion which falls in jurisdiction of local district.
- e) Finally, deployment of SAR team(s) of NDRF at the bore well incident site shall be executed under the directions of the DG, NDRF in the quickest possible time after having receipt of the requisition from the States/UTs and the same shall be intimated to the NDMA/MHA.

8. EXECUTION OF BORE WELL DISASTER RESPONSE:

India pre-dominantly being an agricultural economy relies on monsoon rains to fulfil the needs of irrigation as well for various other needs like industrial, household etc. But the erratic nature of monsoon rains and its unequal distribution have led to severe water shortage across the country. With increase in cultivable land and increase in population the demand for water is rising day by day. This has led to use of underground water by digging mechanical bore wells which are fast replacing traditional wells. With water level deepening due to unhindered extraction of water, surpassing the recharge rate, such bore wells are getting deeper day by day. This has given rise to the phenomena of infants and children falling into such bore wells. NDRF teams have responded successfully to various Bore well / well rescue incidents. The

details of operations carried by NDRF are as attached Appendix- 'F' Response to such incident is completed in five phases viz.

- i. Preparedness Phase
- ii. Activation and Mobilization Phase
- iii. Operation Phase
- iv. Deactivation and Demobilization phase
- v. Post Operation Phase

8.1 Preparedness phase:

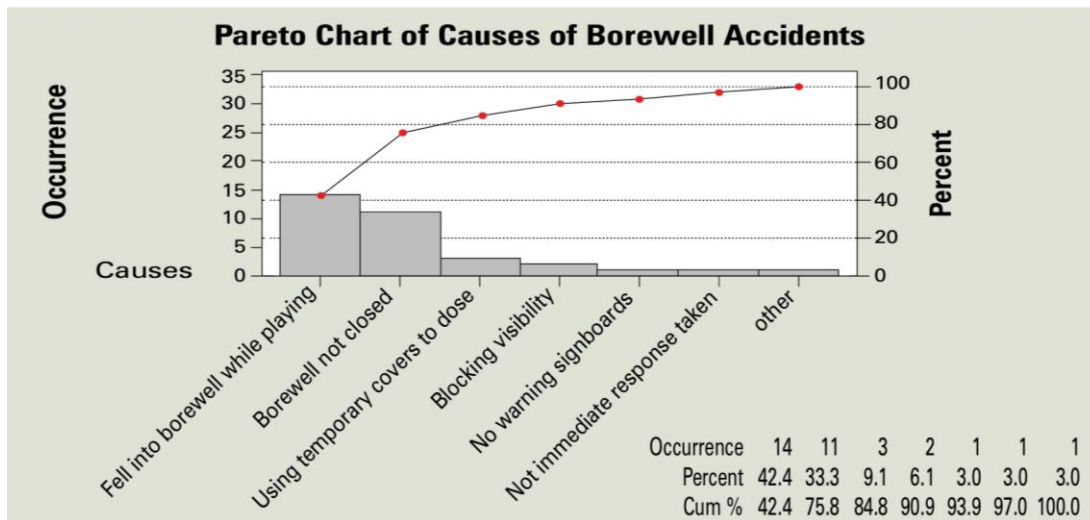
Following preparation level is expected from all the battalions of NDRF at any given time for launching bore well incident response.

- i. Training of rescuers regarding bore well rescue equipment.
- ii. Practices of different methods and approaches in different situation/work site.
- iii. Practices of vertical and horizontal shoring of vertical wall of ditch
- iv. Community Awareness- Pre-Bore well incident preparedness also includes awareness programmes for community. These programmes are conducted to focus on creating an awareness among the community. Keeping in view that Bore well incidents are increasing in various parts of the country, all NDRF units have been directed that while conducting various community awareness programmes, our teams should also spread awareness about Bore well and safety measures to be taken to avoid recurrence of such incidents. During the awareness, the villagers are advised to take following safety measures

- The simplest solution is to seal the mouth of the hole the moment it is not in use.
- Erection of barbed wire fencing or any other suitable barrier around the Bore well.
- Placing a big flat stone to cover the hole of Bore well or construction of cement/concrete platform.
- Capping of well assembly by welding steel plate
- In case of pump repair, the tube well should not be left uncovered
- Filling of mud pits and channels after completion of construction/repair work
- Filling of abandoned bore well by clay/sand/boulders/pebbles/drill cuttings etc. From bottom to ground level.
- Do's and Don'ts for the bore well incident are attached as Appendix 'G'
- Guidelines regarding bore well safety measures by Supreme court are attached as Appendix 'H'

In addition to above, to prepare ourselves, it is also necessary to discuss various aspects about borewell incidents in detail.

8.1.1. Main Causes of Bore well Accidents:



8.1.2. Bore well- Death Trap:

- Unused Bore well is kept open
- Children of different age went around due to curiosity
- Children falling in the bore well
- Confined space
- Hypoxia, unavailability of water and food

8.1.3 Classification of Bore well

Bore wells are also classified according to yield as under:

- i. High Capacity Bore well (HCB): Bore wells of casing pipe diameter 10 or 12 inches and depth >80m with design yield in the range of 20,000 gph to 45,000 gph.
- ii. Medium Capacity Bore well (MCB): Bore wells of casing pipe diameter 8 inches and depth >80m with design yield in the range of 10,000 gph to 20,000 gph.
- iii. Low Capacity Bore well (LCB): Bore wells of casing pipe diameter 6 inches and depth 30m to 50m with design yield in the range of 1500 gph to 5,000 gph.

8.1.4 Types of Bore well

Distinguished by the diameter of the bore hole.

8.1.4.1 Bore wells

- Low yielding groundwater sources are found relatively close to the surface, usually under 30 m (100 ft)
- Bore wells are constructed using a rotary bucket auger.
- Usually completed by perforating the casing or using a sand screen with continuous slot openings.
- One advantage of bored wells is the large diameter of the casing, from 450-900 mm which provides a water storage reservoir for use during peak demand periods.

- A disadvantage is of utilizing a shallow groundwater aquifer and water shortages may occur following long dry periods in summer. It is also more susceptible to contamination from surface land-use activities.

8.1.4.2 Drilled wells

- Smaller in diameter, usually ranging from 100-200 mm,
- Greater depths than bored wells, up to several hundred meters.
- The producing aquifer is generally less susceptible to pollution from surface sources because of the depth
- Also, the water supply tends to be more reliable since it is less affected by seasonal weather patterns

8.1.4.3 Most commonly used types of drilling methods

- i. Water Jetting - Shallow bores in alluvial formations
- ii. Augur Drilling - Shallow bores in alluvial formations
- iii. Calyx Drilling - Shallow bore wells in both hard rock and alluvial formation
- iv. Percussion Drilling – Deep bores in boulder formation
- v. Rotary Drilling - Most common method used for drilling large and deep bores in alluvial formations.
- vi. Down the Hole Hammering (DTH) Drilling – Most common method for drilling large and deep Bore well in hard rock formations.

8.1.5 Challenges in bore well rescue:

- i. Tender and small age of victims
- ii. Remoteness of bore well locations
- iii. Lack of supportive infrastructure
- iv. Confined space
- v. Low visibility
- vi. Law and order issues
- vii. Operation against time
- viii. Weather condition
- ix. Fallen derbies on child during rescue.
- x. Lack of immediate oxygen supply.

8.1.6 Rescue Methods/Techniques:

As of now there is no scientific or reliable method available, only manual Rescue method is used to save the child fell into the bore well, where a big hole is dug beside the bore well to the depth of the child stuck. But this process requires large amount of human resources such as rescuers, heavy machinery such as tractors, JCBs etc., even if there is a little delay in accumulating these resources reduce the chances of the child being saved alive. If in case, there is a huge rock at certain depth in a bore hole results in re-initiation of whole process. This process consumes more time, in such cases the chances of Saving children alive is very little. If the child is closer to the surface a rescuer gets in and pulls them out. However, if the child has fallen to greater depths, a camera is sent into the hole and then a parallel bore is dug. From there another the horizontal bore is dug. Quiet often the rescue succeeds

but not always. A lot Geology is involved and rescue plans must be fast and precise. But even with the best geophysical instruments, it is not easy to estimate the type and size of rock that blocks access to the point where the child is stuck. Moreover, drilling through rock can make the entire Bore collapse.

As on date the simplest solution should be to seal all the holes the moment, they are not used. Sadly, this negligence and ineptitude devour a child. 8.1.6.1. Bore Well Rescue Techniques: i. Vertical and Horizontal drilling: - In this method a parallel hole is dug adjacent to the bore well depending on geology of the area and once the vertical digging reaches the depth at which the child is stuck a horizontal hole is drilled to reach the child and before reaching near stuck child and cover the bore well hole through pointed Iron rod or wood beneath the child. To ensure that less time is wasted in horizontal drilling, the vertical hole drilling should always be planned in a manner that it is slanting towards the bore-well, instead of being perpendicular to earth and parallel to the bore-well. This makes it easier to extricate the child by reaching about 3 feet underneath the child at a distance of 1-2 feet from bore-well. This saves a lot of time in horizontal drilling and subsequent earth removal. This requires proper centring while drilling to ensure that we at exact place where the child is stuck. This is just suggestion based on the successful operations conducted by NDRF in the past. However, this is not sacrosanct and drilling technique may be adopted as per the ground reality and the depth where victim is trapped. The success of such operations also depends on the nature of soil and rock structure. ii. Techniques adopted by NDRF: - Based on the past experiences by NDRF teams, some of the techniques adopted during such incidents may be one or combination of the following techniques: -

- a. Rope rescue
- b. Magic ball
- c. Umbrella tool
- d. Cloth bucket
- e. Cameras (with LED Light along with minimum 100 ft. wire and display)
- f. Pendant jhu la
- g. Robotic machine (with camera & audio)
- h. Iron Rod in “L/J/U” shape (Dada ji ki chhadi with Iron Rod)
- i. Aluminum wire with hook
- j. Life Jacket of plastic sheet with wire

8.2 Activation and mobilization phase:

After receiving information or call for help from the authenticated source this phase activates. Team has to obtain all information about incidents through control room/ops officer in charge:

- i. Incident type, place, date and time.
- ii. Depth and dia of bore well and location of trapped victim.
- iii. Nature of soil (Rocky, Sandy or soft soil etc,)
- iv. Incident site condition, whether confined or in open area, in case of confined area nearby adjacent houses and its distance from incident site.
- v. Availability of heavy equipment like JCB, Poke land for digging.
- vi. Availability of ambulance, doctors, oxygen cylinder oxygen flow pipe.
- vii. Any other agency involved.
- viii. Availability of lighting facilities.

On the basis of above information team will pack/load additional required equipment like shoring materials, Iron plate, Wooden sheet & Iron pole etc. Team comdr should be in constant touch with civil administration for latest on site development.

8.3 Bore well Rescue Operations phase: On arrival at the incident site,

- i. Team shall establish base of operation & secure the scene.
- ii. Consult with local authorities and gather all required info/data.
- iii. Team commander will assess the situation/condition of victim, availability of heavy equipment, depth at which victim trapped.
- iv. Officer in charge/team commander will assess the nature and condition of soil with the help of irrigation department specialist/engineers.
- v. In case of confined space, officer in charge/team commander will also evaluate the condition of adjacent building/construction with the help of civil engineer and representative of civil administration before execution of approach strategy to trapped victim.
- vi. Additional requirement of shoring material.
- vii. Additional requirement of equipment.
- viii. On site availability of medical staff ambulance etc.
- ix. Confirm and update all info obtained in the activation/mobilization phase.
- x. Make/fix strategic, planning and priorities to approach and safe evacuation of victim.
- xi. Assign tasks to rescue squad.
- xii. Reassess the situation and make necessary adjustments.
- xiii. Keep providing psychological support to victim as well as the family members.

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- xiv. If the victim is conscious, seek his help to pull with improvised equipment (Loops, Rice Ball etc.)
- xv. Gain access to the victim by break/breach/dig or any other way as accordance with situation.
- xvi. When using parallel digging method, safety precautions for the rescuers must be ensured.
- xvii. Make sure that the endeavor of approach, the walls of borewell do not collapse and remain intact, parallel digging should be far enough in case of loose soil.
- xviii. When the pipe of the bore well has already been removed do not use improvised rescue umbrella, the sticks may get hooked with the bore well wall.
- xix. Extricate and stabilize the victim, provide ventilation.
- xx. Send the victim for higher medical care immediately.

8.4 De-Activation Phase:

- a) The clearance from State and districts must be taken after termination of Ops.
- b) Request administration for early filling of dug earth.
- c) The Bans shall collect feedback, need improvement and make brief report for submission to NDRF HQ within 15 days after termination of operations.
- d) The Bn shall thoroughly check all TEAs used during Ops and report of breakage/ loss/theft and malfunction shall be brought to the notice of NDRF HQ.
- e) The Chief Medical Officer shall ensure to conduct medical examination of all the rescuers after arrival from the operational area and shall give prescription and shall take action, as required.
- f) Bans shall conduct Post Trauma Stress Disorder (PTSD) and stress related classes on regular basis of Bn People. Where required help of the psychiatrics shall be taken from the nearest medical authorities.

8.5 Post Operation Phase:

A suggested format for submitting the post operation report is attached as Appendix 'E'. During this phase.

- i. De-briefing should be done.
- ii. Check teas thoroughly.
- iii. Lesson learnt and things to improve.
- iv. Proper documentation should be done.
- v. Case study must be prepared.

9 Administration and Logistic Arrangements:

9.1 The unit Commandant, DC(Ops) and other supervisory officers will coordinate the administrative and logistic arrangements with the distt. Administration and other stakeholders, even before the team reaches the site.

9.2 Any additional requirements of equipment and stores has to be coordinated in advance.

9.3 Timely replenishment of essential stores be arranged so that the rescue efforts continue non-stop.

9.4 Equipment, Tools, Communication stores & other misc. stores:

The equipment, tools, communication stores and other misc. stores which are required to be carried by a SAR teams are suggested at Appdx 'A'.

9.5 List of personal belongings of responders:

The personal belongings which are required to be carried by the members of the SAR Team members are suggested at Appdx 'D'.

9.6 Media Management:

Media and other people who do not have a direct role in the rescue work should be kept at a safe distance.

Periodical briefing by the incident commander/team commander can be done to maintain the flow of information. However, it should be ensured that such information is restricted strictly to ongoing/concluded rescue efforts only.

9.7 Following points should be kept in mind by the SAR team members in the mind:

- a) Always wear PPE during Operation.
- b) Work in Buddies.
- c) Always follow safety instructions.
- d) Drink plenty of water
- e) Be optimistic and have patient.
- f) Work professionally.
- g) Update the teams and squads about incident response.
- h) Follow local protocol.
- i) Follow the SOP.
- j) Victims and bystanders.
- k) Handle equipment with safety and follow manuals.
- l) Behave gently.
- m) Share your plan of rescue with team members.
- n) Convey frequently what is going on and the next step.

10 Conclusion:

This SOP has been prepared with the objective that all the required and approved procedures are followed in the rescue operations and all the processes and activities continue uninterruptedly and simultaneously so that the entire tasks are completed in prescribed schedule. This SOP also aims at fixation of accountability at all the stages. Efforts have been made to make this SOP exhaustive. In case of any ambiguity and for more clarifications of instructions on any issue, the Unit shall issue separate orders and instructions. This SOP shall be revised regularly as and when the procedures mentioned here are reviewed or becomes obsolete with Tim.

CHAPTER -10

Brief Introduction about Rajkot city

Specialty of Rajkot: -

The state of Gujarat is located in the geographic map of the world between 68.010 to 74.040 east longitude and 20.010 to 24.070 north latitude. While Rajkot city is located at 20.180 south and 70.510 west. The state's proximity to the Arabian Sea has unique climatic features, due to which Gujarat frequently experiences gale force winds and storms over the years. In the last thirty years there have been hurricanes in 1875, 1976, 1981, 1982, 1996, 1998 and 1999 and natural disasters like earthquakes in 1979 and 2001 and heavy rains in 2003. During the heavy rains in 2013, the overflowing of Aji dam and the flooding of Ajindi and Khokhaddadi rivers caused loss of life and destruction of houses along the riverbed.

Taking into account the above situation, exercises are conducted to deal with such natural calamities and preparations are initiated for rescue and relief operations in a wide range of potential calamities. Dt. From June 1 to September 30, flood control rooms were started in the entire state. But recently, the state government has instructed to develop an approach that works not only as a flood control room, but as an emergency response centre and accordingly, a full-time emergency response centre is started by the municipality at the city level. Efforts have been made to appoint efficient and interested employees/officers in it. To prepare a comprehensive and effective action plan with basic information so that all possible preventive and rescue measures can be taken quickly during natural calamities such as heavy rains, cyclones and earthquakes in Rajkot city and the system can be felt close to the people in times of emergency and the confidence of the people can be increased and they can face natural calamities. have tried. In this action plan, the information of Rajkot city and the work plans of the municipal officials/employees and the available information related to the disaster can be combined to play an effective role, this action plan has been prepared.

In case of natural calamities like hail/earthquake/torrential rains, all officers/employees are advised to give adequate attention to the following.

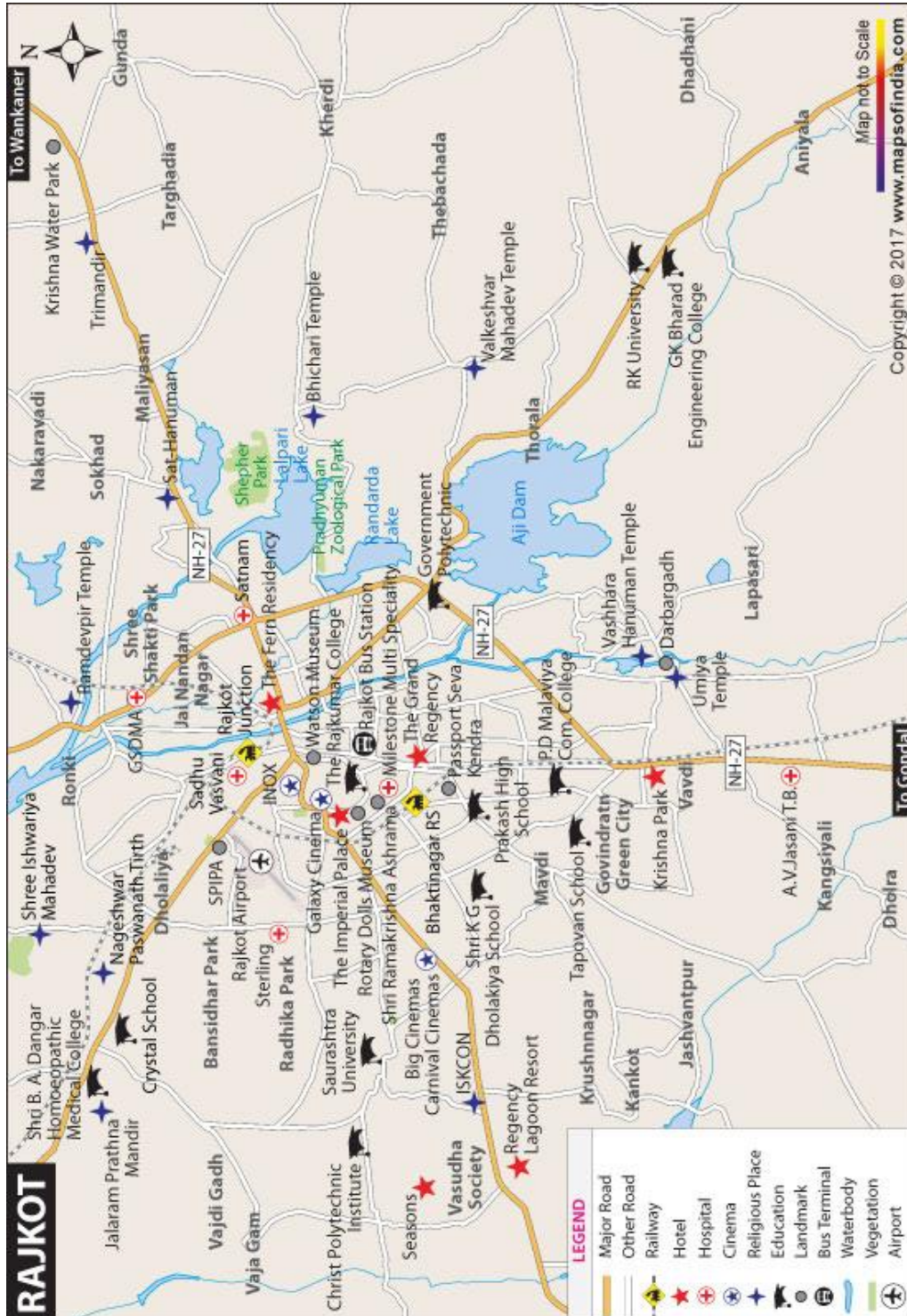
1. All Officers/Employees at their discretion, at their own level of the situation in times of disaster Demonstrates own skill and ability to review and solve problems using foresight will work.
2. In times of calamity, courage and courage are required to face the situation. Sympathetic behaviour towards the affected people considering the image and reputation of the municipality will operate through
3. Will assess the situation through effective communication and take action without even a moment's delay and communicate the details.
4. Officers/Employees of the Municipal Corporation shall provide guidance to the subordinate employees/officers through noble leadership qualities and perform with responsibility and diligence in times of calamity.

In particular, there is a saying in English that, Difference between success and failure is difference between Exactly Right and Almost Right. Accordingly, it is believed that all the officials and friends of the municipality will prepare in advance through Exactly right action and increase the prestige/image of the municipality.

No matter how meticulously the planning and information is prepared but if it is not used in the right way at the right time or is not kept up to date with the latest changes, no matter how useful the information is, it is nothing more than a set of printed books. Hence all employees/officers are expected to keep the details of this action plan updated with the latest changes.

Information Compilation of this Action Plan is detailed in its drawing by Deputy Commissioner Mahesh Jani (I.A.S.) Deputy Commissioner Shri C. K. Nandani, in charge Deputy commissioner Shri H. R. Patel in charge Chief Fire Officer Shri A. k. Dave and Deputy Chief Fire Officer Shri A. B. Zala, Mubarak Juneja has compiled and updated the entire information in a very short period of time.

Rajkot maps: -



Latitude Gujarat: - 68.01°to 74.04°East Longitude and 20.01 ° to 24.07 °North
 Latitude Rajkot: - 20.18°South and 70.51 west

1.3 Important Information of Rajkot City

The total population of the city	14,37,170 (approx. as per 2011 census figures).
The total area of the city	161.86 sq. km.
Total wards of the city are	18
Average rainfall	Year –Year-2023-651 mm/2024-1264 mm.
Places worth visiting in the city	Racecourse, Bal Bhavan, Tara Mandal, Nehru Garden, Fun world, Aji dam, Pradyuman Park Zoo, Jubilee Garden, Lang Library and Sargam Mukti Dham. National School, Kasturba Gandhi's Delo, Mahatma Gandhi Museum
The city's pilgrimage	Akshar Purushottam Temple Kalavad Road, Swaminarayan Temple Bhupendra Road, Gurukul Gondal Road, Ranchhod's Bapu's Ashram, Pancha Nath Mahadev Temple and Ramakrishna Ashram.
Number of town servants	
Mayor	Shri Dr. Nehal Shukal
Deputy Mayor	Shri Daxaben Vasani
Standing Committee Chairman	Shri Paresh Pipaliya
Municipal Commissioner	Shri Tushar Sumera (IAS)
District Collector	Shri Om Prakash (IAS)
Deputy Commissioner (RMC East Zone)	Shri Mahesh Jani (IAS)
Deputy Commissioner (RMC West Zone)	Shri C.K. Nandani
Deputy Commissioner (RMC Sentral Zone)	Shri H. R. Patel
District Development Officer	Shri Anandu Suresh Govind (IAS)
Commissioner of Police	Shri Brijesh Kumar Za (IPS)

1.4 History of Rajkot City: -

At the time of Jamsataji which happened in the third generation of Rawaljam, Akbar Badshah conquered Gujarat, at that time the last emperor of Gujarat Muzaffar Santato finally came to Jamsaheb to capture him. In 1747, on the 8th of Shravan Vad, another battle was fought, many warriors were killed, Kuvar Ajaji fell in the desert and Kuvar Jashaji took the rest of the army. After that Jamsataji reconciled with the Muslim Suba and regained the city. Jamsataji died in Savant 1664, Laghaji, son of Patvi Kuvar Ajaji, was entitled to the throne, but considering his young age, his uncle Jasaji ascended the throne.

On the death of Jasa Jam in Sawant 1680, Lakha ascended the throne, Jam Lakha's younger brother Vibhaji got the bar village of Kalavad Kunda during Jasa Jam's time, so he was more active and heroic while going there and Kalavad Pargana would not be able to provide enough for his family. Along with his mother Sardhar went to Mukame Mama. It is said that Vibhaji, married to the daughter of Vaghela Thakor of Sardhar, got Chibhada village in Daija, although the idea of creating an independent state continued to torment the heroic Vibhaji, during which Vibhaji tried to go to Delhi to meet Jahangir Badshah with his trusted Mula Langa and Raju Sindhi.

At the end of such a good effort, Savant returned to Bibhaji after getting a license to own the Sardhar on Bhadrava Sud Panchham of 1662 from the Emperor. Fulfilling his wish, Vibhaji also gave a befitting recompense to his trusted colleagues Mulu Langa and Raju Sindhi. After giving some villages to Mulu Langa, Bibhaji in AD. In 1620, to keep his friendship alive, Mitra Raju founded the village of Rajkot in the name of Sindhi, while according to the reference of 'Yaduvansh Prakash' in AD. In 1626 Vibhaji

founded and named Rajkot in memory of Raju Sindhi. Although already occupied by Raju Sindhi's family, who in AD. Stayed till 1646. At this place was the ness of Raju Sindhi.

Partition Died in 1635-36, his son Mehramanji and then his son Sahebji ascended the Sardhar throne, a.d. In 1694 Sahebji was succeeded by his son Bamaniaji who became Satanshin, but got into trouble with the Miyanas. Then Mehramanji sat on the second throne. He conquered many villages of Junagadh.

Rajkot began to grow in political importance during this period, in AD. In 1720 the Delhi Sultanate sent Masum Khan to invade Rajkot and Sardhar, in which battle Mehramanji was martyred. Masumkhan merged Sardhar, Jasdan, Bhadla, Anandpur etc. in his jagir and established the capital in Rajkot in AD. In 1722 he changed the name of Rajkot to Masumabad. Among the seven wells of Mehramanji, Ramnalji in AD. Killed Masum Khan in 1732 and regained his father's throne. Is. In 1760, the Mughal Empire set, the Marathas were collecting taxes from the kings of Kathiawad, the Maratha army was encamped in the western part of Rajkot, the Maratha camp outside Rajkot, confined within the fort, laid the foundation for future development.

The British, who had leased 638 acres of land from Rajkot Thakor, emerged as the dominant force and Rajkot became an important town.

Angrej kothi, military base, bureaucrats' bungalows, offices, Parsi agiari, civil station etc. were formed outside the Kot, west of Rajkot, Sadar area was known as civil station, the administration of civil station in the twin town of Rajkot was entrusted to a separate magistrate.

In Rajkot Railway in 1888, Rajkumar College facility in 1868, Connaught Hall, Watson Museum, Lang Library etc. buildings in 1893. Meanwhile, the existing Kuwadwa Road, Lati Plot, Bhavnagar Road etc. areas across the river got connected. India became independent in 1947, Saurashtra state was established, Rajkot got the status of capital. Along with this, Thakor Saheb's Rajkot and Sadar areas were merged and the present unbroken Rajkot came into being. Is. In 1949, the first Lokaniyukta Sudhra of the town was formed. Rajkot's initial population of six thousand increased to 36 thousand in 1901 and reached 1.31 lakh in 1951. In 1981, the population was 4.44 lakh, in 1991 it was 5.5 lakh and in 2001 it was 10 lakhs. Maharaja Shree Lakhaji Raj Bapu, who carried forward the journey of modern Rajkot development even during the British rule, also deserves credit.

- ◆ **Is. 1668** Founded by Shri Vibhaji Thakor
- ◆ **Is. 1822** Establishment of the Kathiawar Agency by the British in the Kothi compound
- ◆ **Is. 1871** Rajkumar College established
- ◆ **Is. 1879** Kaiser-e-Hind by Maharaja Shri Takht Singhji of Bhavnagar at a cost of 1.10 lakhs
Bridge construction.
- ◆ **Is. 1889** First railway between Rajkot and Wankaner started.
- ◆ **Is. 1893** Rajkot – Jetalsar railway started.
- ◆ **Is. 1895** Rs. 4. Construction of Lalpari Lake at a cost of 10 lakhs.
- ◆ **Is. 1898** Construction of Rayanaka Tower.
- ◆ **Is. 1921** Kathiawar Samiti meeting by Maharajashree Lakhajiraj

- ◆ **Is. 1923** First People's Committee established by Maharajashree Lakhajiraj
- ◆ **Is. 1925** National School started.
- ◆ **Is. 1935** According to the Rajkot movement, P. Fasting by Mahatma Gandhi
- ◆ **Is. 1942** Center of Quit India Movement
- ◆ **Is. 1948** Merger of 202 kingdoms of Saurashtra, Shri Dhebarbhai became the first Chief Minister of Saurashtra. Rajkot became the first capital of Saurashtra state.
- ◆ **Is. 1949** Establishment of Rajkot Bureau Municipality.
- ◆ **Is. 1955** Akashvani Rajkot Center started.
- ◆ **Is. 1973** Transformation of Rajkot Municipality into Rajkot Municipal Corporation
- ◆ **Is. 1983** Opening of Doordarshan Center Rajkot.
- ◆ **Is. 1998** Raya Nagarpalika, Nanmwa Nagar Panchayat, Mavdi Panchayat
- ◆ **Is. 2015** Kotharia, Vavadi Gram Panchayat Rajkot Mun. Conversion to Corp
- ◆ **Is. 2019** Madhapar, Ghanteshwar, Munjka and Motamwa Gram Panchayat Rajkot Mun.

1.5 Ward boundaries: -

Ward no. 1

Moje started from Tribheta of Vejagam, Ghanteshwar and Raia (a village in Rajkot Metropolitan Municipality area) and moving eastwards on the border of Ghanteshwar - Raia, Raya of Raya. Survey Nos. – 286, 285, 277/1 included in Wards, proceeding along the boundary to include Survey Nos. 276, 271, 270 of Raia, up to Tribheta of Raia, Ghanteshwar and Madhapar, thence proceeding southward on the Madhapar – Ghanteshwar boundary. BRTS running eastwards over the Rajkot – Madhapar border up to Tribheta of Rajkot, Madhapar and Raia. to Ring Road, thence southwards to BRTS. Proceeding on the ring road to Sheetal Park Chowk near Garbage Transfer Station, thence proceeding eastward towards the airport and proceeding towards the airport to the north-west corner of the airport, thence proceeding eastwards to the airport wall to the north-west corner of the airport. Nagar included in the Ward, up to Gandhigram Main Road, thence proceeding westward on Gandhigram Main Road, Satyanarayan Park included in the Ward, BRTS. Up to Nanavati Chowk on Ring Road, from there BRTS. Crossing the Ring Road, Stirling Hospital and adjacent R.M.C. Awas Yojana and Satadhar Park included in the ward, near Sriji Park, near Marble Factory, till the road meets Raia Road, thence proceeding westwards on Raia Road, Alap Green City, Raia village floor included in the ward, proceeding from Raia to Vejagam Road towards Vejagam. All the area included in the Ward, including the running Parasuram temple, up to the Raya-Vejagam boundary, thence northwards upto the Raya-Vejagam boundary up to Vejagam, Ghanteshwar and Tribhota of Raya.

Ward no. 2

BRTS over Rajkot-Madhapar border. Starting from the Ring Road Cross and proceeding eastward on the Madhapar-Rajkot border, Rajkot Survey No. – 516, 515, 500, 504 and 499 and Gayatri Dham Society included in the Ward up to Jamnagar Road, from there proceeding towards the city on Jamnagar Road to Vankaner Society, Bajrangwadi. , Radio Colony, railway overbridge to Police Head Quarters, Ruda Kacheri included in Ward to Ruda Kacheri Wala Chowk, thence to Hospital Chowk, thence proceeding southwards on Jawahar Road to BSNL. Office, Muslim Cemetery included in the Ward, up to Jubilee Garden Chowk, thence proceeding westwards on Sadar Bazar Main Road, crossing Gondal Road, proceeding on Sadar Bazar Main Road to Phulchab Press Chowk to Zilla Panchayat Chowk, including Police Commissioner's Office, Race Course Complex. Incorporated in ward, up to Kishanpara Chowk, thence proceeding westwards on Raia Road, crossing railway line, Subhashnagar, Sadguru Tirthdham Commercial Complex included in ward, up to Hanuman Madhi Chowk, thence proceeding northwards on Airport Road, up to Chotunagar Community Hall. , thence upwards to Rang Upavan Chowk, thence running eastwards including Rangupavan Society in Ward up to Airport Wall, thence towards West-South corner of Airport Wall towards Airport area running further northwards including Airport area in Ward, up to North West corner of Airport, thence towards West BRTS moving forward on the 18 meter road. Upto ring road Sheetalpark Bus Stop Wala Chowk, from there BRTS northwards. All-inclusive area upto Rajkot-Madhapar boundary proceeding on Ring Road.

Ward no. 3

Starting from Jamnagar Road boundary in front of Sanjaynagar Maftiyapara on Jamnagar Road, Rajkot survey no. 538, 563, 562, 553 included in wards, crossing the Rajkot-Jamnagar railway line up to Rajkot, Madhapar and Ronki's Tribhota, thence proceeding eastwards over the Rajkot-Ronki border Survey numbers of Rajkot – 606, 653, 607, 616, 618, 624 included in the ward limits up to the western limit of Aji river, from there southward Rajkot Survey No. 625 included in the ward, proceeding southwards on the western limit of Aji river, Mountain Police Line, Central Jail, Rukhdia Colony, Railway Quarter, Rajkot-Ahmedabad Railway Line Cross Kari, included the old Collector's office in the ward, Kaiser up to the western end of the Hind Bridge, thence crossing the Kuwadwa Road and proceeding southwards along the western edge of the Aji River to Bhicharinaka, thence proceeding

westwards on the road towards Mandvi Chowk on the Soni Bazar Road to Krishnalalji Haveli Wala. road, thence proceeding northwards along Krishnalalji's Haveli road to include Haveli in the ward, up to Darbargarh Chowk, thence including Old Darbargarh in the ward proceeding southwards on Soni Bazar Road, to "T" junction of the road leading to Raya Naka Tower, thence Proceeding westward on the road towards Raya Naka, passing under Raya Naka Tower, proceeding westward on Parabazar Main Road, round Bazar Triangular included in the ward, crossed Dheberbhai Road, included Jubilee Garden in the ward, up to Jubilee Chowk on Jawahar Road , thence proceeding northwards on Jawahar Road to Civil Hospital Chowk, from there proceeding on North Jamnagar Road Kothi Compound, Western Railway Office, Collector's Bungalow, Morbi House, School for Boys included in the ward, crossing the railway line over the railway over bridge and crossing the Jamnagar Road Walk ahead of the railway yard

Ward no. 4

Above the western limit of Aji river, Moje starts from Tribhota of Rajkot, Ronki and Bedi villages and proceeds eastwards along the Rajkot-Bedi border, crosses Aji river and Morbi Road and proceeds eastwards along the Rajkot-Bedi border up to Rajkot Survey No.-138, from there to Rajkot. Crossing the Lalpari river running on the Bedi border to Tribheta of Rajkot, Bedi and Anandpar village, thence southwards running on the Rajkot-Anandpar border including Survey No-36 of Rajkot in the ward and running on to the Rajkot-Ahmedabad National Highway, thence to the Rajkot-Ahmedabad National Highway. Proceeding on the highway towards Rajkot city up to the police post on Anandpar (Nawagam) road junction, from there proceeding towards the city on the Rajkot-Ahmedabad National Highway crossing the Lalpari river proceeding towards the north service road of the Rajkot-Ahmedabad National Highway up to Greenland Crossroads From where Morbi Road starts, westwards on Kuwadwa Road i.e. towards the city, including Forge and Forge Industrial Unit and Ranchoddas Ashram, Lati plots in the ward up to Dilaksh Chowk, thence southwards on Bhavnagar Road to Bedipar Road, from there Proceeding westward to include Fakhri Park in the ward proceeding above the western limit of river Aji to include the ward of river Aji to the western end of Kaiser Hind Bridge, thence northward to include river Aji running above the western limit of river Aji to the ward, Rajkot-Ahmedabad railway line cross Kari, crossing the ring road proceeding along the western boundary of Aji river to the Ronki-Rajkot boundary, thence extending along the Ronki-Rajkot boundary to Ronki, Rajkot and Bedi's Tribheta.

Ward no. 5

Starting from Deluxe Cinema Chowk on Kuwadwa Road and proceeding eastward on Kuwadwa Road, including Ranchodwadi, Patel Nagar area in the ward till Morbi Road begins, from there Greenland Hotel is included in the ward, proceeding eastward on the service road to the north to Lalpari. Crossing the river and continuing along the Rajkot-Anandpar border up to where the Rajkot-Ahmedabad highway crosses, then continuing south along the Rajkot-Anandpar border and including Lalpari Lake in the ward towards the east on the Rajkot and Amargarh (Bhichari) borders of Rajkot Survey No. 151, thence proceeding on the Amargarh-Rajkot Road, proceeding along the road with Pradhuman Park and Zoo, including Santakbir Hill and Marketing Yard in the Ward, crossing the National Highway, including Santakbir Hill and Marketing Yard in the Ward, crossing the National Highway, Santakbir Road. Junction, thence westwards on Santakbir Road till the start of Vegetable Market Road, thence including Govind Bagh Vegetable Market in the Ward on Padak Main Road up to Water Ghoda Wala Chowk, thence proceeding westwards on Padak Main Road to include Patel Wadi in the Ward Curry, upto Bhavnagar Road, thence proceeding northwards on Bhavnagar Road upto Deluxe Cinema Chowk all inclusive.

Ward no. 6

From Bedinaka Tower towards Kapila Hanuman near Aji river bank road, starting from the western boundary of Aji river, crossing Aji river and going eastwards on Fakri Park Bedipara road towards Bhavnagar road till Bhavnagar road, then south on Bhavnagar road till Patelwadi walla chowk, Thence proceeding eastward on Padak Main Road to Water Horses Chowk, thence southward on Govindbagh Vegetable Market Road to Santakbir Road, thence proceeding eastward on Santakbir Road to include Sadguru Ranchhodnagar, Gokulpark, Garhia Nagar Ward Ahmedabad-Gondal National highway, thence crossing the National Highway on the road south of Rajkot Marketing Yard to Santakbir Hill Chowk, thence proceeding on the road to Amargarh within the ward of Zoo and Pradhuman Park to Amargarh and Rajkot border, thence proceeding south on the Rajkot-Amargarh village boundary. Rajkot, Amargarh and Mahika to Tribheta, thence proceeding southwards on the Rajkot-Mahika border to Tribheta in Rajkot, Mahika and Thorala, thence crossing the Mahika Road and proceeding on the Rajkot-Thorala boundary Rajkot-Bhavnagar Road where it crosses the Rajkot boundary, thence proceeding northwards on the Bhavnagar Road to B.K. College of Pharmacy included in the Ward on Ahmedabad-Gondal National Highway up to Ajidem Chowk, thence proceeding northwards on National Highway to Dudh Dairy until Dudhsagar Marg touches the National Highway, then proceeding westward on Dudhsagar Marg to Rajkot Gopal Dairy, P. GVCL, GETCO offices included in the ward, crossing Bhavnagar Road, proceeding towards Aji River on Dudhsagar road, crossing Aji River on the Lakhajiraj Nagar road, crossing Aji River to the western limit of Aji River, thence northwards to the western limit of Aji River. Proceeding up to Ramnath Mahadev Temple of Ramnathpara in the ward to the western end of Indira Bridge, thence proceeding northwards upto the extent of river Aji to Bhicharinaka, thence proceeding northwards over the extent of river Aji to Bhicharinaka, thence proceeding northwards over the extent of river Aji. All-inclusive area starting from Kapila Hanuman moving up to the banks of the river.

Ward no. 7

Starting from railway crossing on Raia Road eastwards to Kisanpara Chowk, thence eastwards on Race Course Road to Zilla Panchayat Chowk to Phulchhab Chowk, thence eastwards on Sadar Bazar Main Road further eastwards to Harihar Chowk, thence eastwards to Gondal Crossing the road to Jubilee Chowk, thence proceeding eastward to Citizens Bank Chowk to Parabazar Main Road passing under Rayyanaka Tower to Soni Bazar Road, thence northward to Old Darbagad Chowk, thence proceeding eastward along Haveli Wala Road to Mandvi Chowk and to Bhicharinaka road, thence eastwards to the western limit of river Aji, thence proceeding southwards along the western limit of river Aji to include Ramnathpara Crematorium in the ward, proceeding further along the western limit of river Aji near Ramnath Mahadev Mandir from Ramnathpara to Satya Pool on Dudhsagar Marg, thence west towards Ramnathpara Main Road, thence proceeding northwards on Ramnathpara Main Road with Ramnathpara Police Station, crossing the Masjidwala Road connecting Ramnathpara Main Road and Hathikhana Main Road to Hathikhana Main Road, thence proceeding southwards on Hathikhana Main Road to Jayaraj Plot Main Road Sadhi i.e. straight road south of Bahir Palace, thence proceeding westward to Palace Road, thence proceeding southward on Palace Road towards Gundawadi Hospital to Sardar Vallabhbhai Patel Road (Canal Road), thence proceeding westward on Sardar Vallabhbhai Patel Road to Prahlad Plot included in Ward up to Bhutkhana Chowk on Dheberbhai Road, from there proceeding south on Dheberbhai Road Manhar plot, Vijay plot included in Ward Crossing Sir Gopaldas Road (80 feet road) proceeding on Dheberbhai Road and Swaminarayan Gurukul included in Ward south of Gurukul From the Gurukul water tank to the road towards North, thence towards Gurukul Hospital to Gondal Road, thence southwards on Gondal Road Thence proceeding southwards on the Gondal Road to the railway crossing, thence proceeding northwards on the railway line towards Bhaktinagar station Lohanagar, Bhaktinagar GIDC included in the ward, proceeding northwards on the main railway line to Bhaktinagar station. Building included in the ward, crossing the Laxminagar canal, moving north on the railway track, Virani High School, Hemu Garhvi Hall, Janakalyan Society, L. eye. C. Office included in the ward, Kalavad Tod Crossing onwards Kisanpara included in the ward and all the area included up to the railway crossing on Raia Road.

Ward no. 8

The intersection of Raia Road and Nirmala Convent Road starting from Hanumanmarhi Chowk, proceeding eastwards on Raia Road to include Ambika Park, Rajhans Society, Vaishalinagar in the ward, up to Raia Road Railway Crossing, thence southwards on the railway line to Bhaktinagar Station. Running Kalavad Road, railway crossing near Janakalyan Society and crossing the Laxminagar canal, proceeding southwards on the main railway line crossing Bhaktinagar station to Bhaktinagar station railway boundary, thence proceeding west along the railway boundary to Mahadevwadi Main Road which adjoins the railway boundary. , thence proceeding westwards on Mahadevwadi Main Road, including Nandkishore Rameshwarpark in the ward, up to Backbone Hall Walla Chowk, thence proceeding towards Mayani Nagar, up to Mayani Nagar Awas Yojana Chowk, thence proceeding northwards towards Nanamwa Main Road, in Laxmi Society Ward including up to Nanamwa Main Road, thence proceeding westward on Nanamwa Main Road to Nanamwa Chowk, thence BRTS. Crossing the Ring Road and proceeding westwards on Nanamwa Main Road, from where Sathya Sai Heart Hospital Road begins, proceeding northwards on Sathya Sai Heart Hospital Road, Golden Park, Pradyumanpark included in the ward up to Marutinagar Chowk, thence northwards to Sathya Sai Heart Hospital. Proceeding on hospital walla road till Kalavad road, from there proceeding eastward on Kalavad road, Government Quarters, Collegewadi included in wards BRTS. Crossing the Ring Road, K.K.V. Suryodaya Society, Nalanda Park, Nalanda Society included in Ward up to Kotecha Chowk, thence northwards along Nirmala Convent School Road to Hanuman Marhi Chowk.

Ward no. 9

Moje village Vejagam – Raiya village boundary which crosses the road from Raiya to Vejagam, starting from there and proceeding eastward on Raiya Road, including the crematorium of Raiya village in the ward up to the square near Raiya village, thence proceeding eastward on Raiya Road, marble factories. To the nearest Chowk, from there proceed towards North, Sreeji Park S. No. 256 included in the ward, moving eastwards, including Miranagar, Shanti Niketan, Giriraj Nagar, Nandanvan Park, up to Nanavati Chowk, where BRTS Crossing the ring road, proceeding eastwards on Gandhigram main road including Neminath Vitrag Wala apartments in the ward, proceeding towards Curry Airport up to the airport wall, thence proceeding south along the airport wall towards Deepak Society, including Nurani Para, Heeraman Nagar, Shivpara in the ward. Kari, up to the road near Rangupavan Society, here leaving the airport wall up to the road near Rangupavan Society, here leaving the airport wall along the road near Rangupavan Society in a southerly direction along the southern boundary of the Rangupavan Society in a westerly direction, to the Airport Road, thence southwards over the Airport Road Walking further to Hanuman Marhi Chowk, Thence proceeding westward on Raia Road to Raia Chowk, from there BRTS. Continuing south on Ring Road up to Indira Circle, where it meets Saurashtra University Road, continuing west on Saurashtra University Road, Jalaram – 4, Bombay Housing, Savgun Society, Triveninagar included in Ward, Rajkot Municipal School No. 92na Chowk and S.N.K. Via School Chowk Akashvani Quarter, Anamika Society, Ayurvedic Hospital, F.S.L. After including the office in the ward, passing through the gate of Saurashtra University to the first circle in the university campus, from there to the boundary of Raia Munjka, from there proceeding northwards over the boundary of Raia – Munjka, survey numbers of Raia – 312/1, 312/2 were included in the ward. , Munjaka and up to Tribheta of Vejagam, thence proceeding northwards over the Raia – Vejagam boundary till the intersection of the road from Raia to Vejagam.

Ward no. 10

Munjka – Raya border starting from survey number-14 of Munjka, passing through Saurashtra University staff quarter walla chowk and going east towards Saurashtra University Road, passing through University Gate, CBI. Quarter, Kidney Hospital, S.N.K. Panchayatnagar, including the school in the ward and continuing up University Road, Royal Park included in the ward up to Indiranagar

Circle, from there BRTS northwards. Proceeding on Ring Road including Shivsangam, Saurashtra Kala Kendra, Tirupati Nagar in Wards proceeding to Raia Chowk, thence proceeding East on Raia Road to Hanuman Madhi Chowk, thence proceeding South on Nirmala Convent Road to Kotecha Chowk, thence West Moving further up the Kalavad Road, Santiniketan Society, St. Mary's School was included in the KKV Ward. Hall Chowk, BRTS Crossing the ring road, up to Sathya Sai Heart Hospital Road near Atmiya College, thence proceeding southwards on Sathya Sai Heart Hospital Road including Swati Society, Sathya Sai Heart Hospital, Alap Heritage in Ward, up to Nanamwa Main Road, thence westwards to Nanamwa Main Moving further up the road till Jaibhim Nagar Chowk near Goal Park including Gandhi School, Vacharadada Mandir in the ward, Thence proceeding southwards towards Ambika Park and including Sri Rangnagar in the ward, up to Nanamwa – Motamwa border, from there proceeding northwards over Nanamwa – Motamwa border, including Ambedkarnagar, Everest Park in the ward, crossing Kalavd Main Road and including Prem Mandir, Gayatri Mandir in the ward. Kari, Nanamwa – Motamwa border extending Rudanagar – 2, including Vishnu Vihar Society in Ward, Nanamwa, Motamwa and Tribheta of Munjka, thence extending northwards to the extent of Raia – Munjaka border extending to the extent of Survey No. – 14 of Munjka.

Ward no. 11

Starting from Mavadi, Motamwa and Nanamwa Tribheta, from there to Jaibhim Nagar Chowk near Goal Park, from there Nanamwa Main Road starts, from there eastward on Nanamwa Main Road, running Rajkot Municipal Corporation School No. – 95, Shastrinagar, Arjun Park included in Ward B. RTS Crossing Nanamwa Circle on Ring Road, proceeding eastward on Nanamwa Main Road, upto North-Eastern corner of Nehru Nagar Cooperative Society, thence southward to include Nehru Nagar Cooperative Society in Ward, upto Mayani Nagar Awas Yojana, thence southward Proceeding on Vishwanagar Awas Yojana Road 15 meters to Patel Boarding Road, thence proceeding eastward on Patel Boarding Road to the junction of Alka Society Street No.-6, thence proceeding south on Alka Society Street No.-6 to Malviya Nagar Police Station. Road, thence proceeding westward on Mawdi Main Road, BRTS. Crossing Mawdi Chowk on ring road, proceeding westward on road, upto Bapa Sitaram Chowk near Mawdi village, from there on Mawdi village bypass road via Ramdhan, proceeding west-south on Mawdi to Paal road, proceeding above Mawdi-Pal village boundary to the Tribheta of Mavadi, Paal and Jaswantpur, thence proceeding on the Mavadi-Jaswantpur border to the Tribheta of Mavadi, Jaswantpur and Dankot, thence proceeding on the Mavadi-Kankot border to the Tribheta of Mavadi, Dankot and Motamwa thence proceeding eastwards on the Motamwa-Mawadi border Survey no. – 414, 294, 284, 271, 413, 412 as well as speedwell party plots included in the ward, all the area including Moje Mavdi, Motamwa and Nanamwa Tribheta.

Ward no. 12

Moje Mavdina S.No. 396, starting from the north-west corner of Mavdi Village Bypass Road via Ramdhan Wala Road to Bapa Sitaram Chowk near Mavdi Village, thence proceeding eastwards on Mavdi Main Road to Mavdi Chowk, from there BRTS. Cross the ring road and proceed eastward on Mavdi Main Road up to the corner of Navalnagar Street No.9, from there proceed southward on Navalnagar Street No.9 to Ankur Main Road near Girnar Society Dalibai Kanya Chatralaya Wala, then proceed eastward on Ankur Main Road Proceeding to Gokuldharm Main Road, thence proceeding southwards on Gokuldharm Main Road till the start of Gokulnagar Main Dhara Gas Godown Road, thence proceeding westward on Gokulnagar Main Road BRTS. to Ring Road, thence southwards to BRTS. Proceeding on Ring Road towards Gondal Road Crossroads to Punitnagar Chowk to Gondal Road Crossroads, from there proceeding southwards on Rajkot-Gondal National Highway to Krishna Park Hotel, Parin Furniture included in Wards to Kotharia-Kangsiali border where the National Highway crosses, from there Northwards up to Kotharia-Kangsiali Tribheta, thence westward on the Kangsiali-Wawadi border up to the Vavadi, Paam and Kangsiali Tribhetas, here the survey number-119 of Vawadi is included in the Ward and Mawadi, Vavadi and Paam are included in the ward towards the North on the Vavadi-Pal border. upto, thence proceeding over the Mawdi-Pal boundary till the Mawdi-Pal boundary where the Mawdi-Pal road crosses the Mawdi-Pal road, thence the Mawdi-Pal

road where the Mawdi-Pal boundary crosses, thence north-east i.e. Mawdi Proceeding up the road towards the village, Mawdi Survey No.-376, 389, and Survey No. 396 were included in the Ward and all the area included up to the north-west corner of Survey No. 396.

Ward no. 13

Starting from the Chowk near Mayani Awas Yojana in Mayani Nagar, proceeding eastward on Mayani Nagar Main Road to Backbone Chowk, thence proceeding eastward on Mahadev Wadi Main Road, crossing Laxminagar Main Road to railway boundary, thence eastward to Bhaktinagar Railway Station boundary Up to the railway line, thence southward on the railway line through Mavdi Road to Gondal Road Crossing, thence southward on the railway line to Gondal to National Highway, thence on National Highway to Gondal to Gondal Chowk, thence BRTS towards north. B.R.T.S crossed the Mavdi-Vavadi boundary while proceeding on the ring road. B.R.T.S crossed the Mavdi-Vavadi boundary while proceeding on the ring road. On Ring Road till Gokulnagar Main Road (Road with Dhara Gas Godown) starts, thence proceeding eastwards on Gokulnagar Main Road to Gokuldhama Main Road, thence proceeding northwards on Gokuldhama Main Road to Dalibai Kanya Chhatralaya thence westward to Ankur Proceeding on the main road to the junction of Naval Nagar Street No-9 and Girnar Society, thence proceeding northwards on Naval Nagar Street No-9 towards Mawdi Main Road to Mawdi Main Main Road, thence on Mawdi Road to Malviya Nagar Police Station. Road through Alka Society Street No-6 to Patel Boarding Road, thence proceeding westwards on Patel Boarding Road till Vishwanagar Awas Yojana Road starts, then proceeding north on Vishwanagar Awas Yojana Road to Khijda Wala All the area including crossing the road up to the Chowk near Mayani Awas Yojana in Mayaninagar.

Ward no. 14

Starting from Bhootkhana Chowk on Dhebarbhai Road and proceeding eastwards on Sardar Vallabhbhai Patel Road (Canal Road) including Milpara, Laxmiwadi, Gundawadi Wards, up to Gundawadi Hospital Chowk, thence proceeding north on Palace Road to Jayaraj Plot Main Road, from there Proceeding eastward on Jayaraj Plot Main Road to Hatikhana Main Road, thence proceeding northward on Jayaraj Plot Main Road to Hatikhana Main Road, thence proceeding northward on Hatikhana Main Road to Masjid Wala Road connecting Ramnathpara and Hatikhana Main Road, thence Proceeding East on Masjid Wala Road to Masjid Wala Road connecting Ramnathpara and Hatikhana Main Road, thence proceeding East on Masjid Wala Road to Ramnathpara Police Line Ramnathpara Main Road, thence till the start of Dudh Sagar Road, thence Aji River Proceeding on Dudh Sagar Road to the western limit of Aji River, thence proceeding south on the western limit of Aji River to the western end of the bridge over Sir Gopaldas Road (Bhaktinagar 80 feet road) including Bapunagar within the limits of District Guard, thence westward to Sir Proceeding on Gopaldas Road to Sorthiawadi Circle, thence proceeding south on Kotharia Road to Anandnagar Main Road opposite Old Neelkanth Cinema including Master Society, Swimming Pool in Ward, thence proceeding west on Anand Nagar Main Road to Old Pardi Road , thence proceeding southwards on Pardi Road and including Gayatrinagar in the ward up to Gayatrinagar end, thence proceeding westwards on Keshar Mandap Wala Road crossing Gayatrinagar Main till the commencement of Gopalnagar Street No-1, thence westward on Gopalnagar Street No-1 Proceeding to Dhebarbhai Road, thence proceeding south on Dhebarbhai Road to railway crossing near Narayan Nagar, thence proceeding north on the railway line to Gondal Road Railway Crossing, Thence proceeding northwards on Gondal Road to the road near Gurukul Hospital, thence westwards including Gurukul Hospital and Gurukul Pumping Station in the ward, up to Dhebarbhai Road, thence proceeding northwards on Dhebarbhai Road crossing Sir Gopaldas Road and including Kanta Stri Vikas Griha in the ward Curry, all-inclusive area above Dhebarbhai Road upto Bhootkhana Chowk.

Ward no. 15

Starting from the sata bridge of Dudhsagar Marg on the western border of Aji River, moving east towards Lakhajiraj Udyognagar, crossing Bhavnagar Road, moving east on Dudhsagar Marg to Shivajinagar, Bhagwati Nagar, H. J. Steel Ward up to National Highway, thence proceeding southwards on Ahmedabad-Gondal National Highway up to Aji Dam Chowk, thence proceeding east-south up Bhavnagar Road to Rajkot Municipal Corporation limits, thence proceeding southwards on Rajkot-Thorala border. Crossing Aji Dam to Tribheta in Rajkot, Kotharia and Thorala, thence proceeding over the Kotharia-Rajkot border to the western extent of river Khokhaddadi, thence proceeding north along the western extent of river Khokhaddadi to the National Highway, thence crossing the National Highway northward to the western extent of river Khokhaddadi. Proceeding up to the junction of River Aji and River Khokhdad, thence proceeding above the western boundary of River Aji, crossing Sir Gopaldas Road and proceeding northward along the western boundary of River Aji all the area included up to Satha Bridge where Dudhsagar Road commences.

Ward no. 16

Starting from Sorthiawadi Circle, proceeding eastward on Sir Gopaldas Road to the western extent of Aji River, thence southward to the western extent of Aji River, thence proceeding southward on the western extent of Aji River, including 80 feet road crematorium, Jangaleshwar area in the Ward of Aji River. Proceeding on the western boundary till it meets Khokhaddadi River, thence proceeding westward to the National Highway, thence proceeding westward on the National Highway to Kotharia Chokdi, thence proceeding north on the Kotharia Road to Hudko Police Choki, Kedarnath Society, including the old Neelkanth Cinema in the ward, the entire area upto Sorthiawadi Circle.

Ward no. 17

Starting from Dhebarbhai Road and "T" junction of Dhebarbhai Road and Gopalnagar Street No-1, proceed eastwards on Gopalnagar Street No-1 till Gayatrinagar Main Road, from there cross Gayatrinagar Main Road and proceed eastwards on Kesar Mandap Wala Road to Juna Pardi to Marg, thence proceeding northwards on Pardi Road to Anandnagar Main Road, thence proceeding eastwards on Anandnagar Main Road to Kotharia Main Road, thence proceeding southwards on Kotharia Road Ghanshyamnagar, Sinduria Mine, Nanda Hall, New Subhashnagar HUDCO TYPE " A" included in the ward up to Kotharia Road intersection, thence proceeding westwards on the National Highway to Khodiyar Hill T.P. Proceed on the road upto Haribhai Dhawa Marg near Kiran Society, from there proceed north on Haribhai Dhawa Marg till Nehrunagar 80 feet road starts i.e. till Rajalakshmi Chowk, from there proceed west on Nehrunagar 80 feet road to Shyamhol , included Babaria Colony in the ward, crossed the old Pardi road and crossed Dhebarbhai road, thence to the railway line, thence proceeding north on the railway line to the railway crossing near Narayanagar, thence coming up on Dhebarbhai road, proceeding north on the Dhebarbhai road. All the area including Dhebar Colony in Ward upto "T" Junction of Dhebarbhai Road and Gopalnagar Street No.1 above Dhebarbhai Road.

Ward no. 18

On Dhebarbhai Road Nehru Nagar 80 feet road starting from railway line opposite to where Nehru Nagar 80 feet road continues eastwards crossing Pardi Road till Haribhai Dhawa Marg, from there south to end of Haribhai Dhawa Marg, from there to Kiran Society Khodiyar hilly to the road, from there to the Khodiyar hilly road. Proceeding on the road up to National Highway, thence proceeding eastward on National Highway crossing Kotharia Chowk to the western end of Khokhaddadi river bridge, thence proceeding on western extent of Khokhaddadi river to Rajkot-Kotharia border, thence proceeding eastward on Rajkot-Kotharia border Running up to Tribheta of Rajkot, Kotharia and Thorala, thence proceeding southwards over the Kotharia-Thorala border to Lapasari, Thorala and Tribheta of Kotharia, thence proceeding southwards over the Kotharia-Lapasari border to the tribhetas of Lapasari,

Khokhaddad and Kotharia, thence westwards to Khokhaddad- Proceeding on the Kotharia border to Tribheta of Kangsiyali, Kotharia and Khokhaddad, thence crossing the Rajkot-Gondal railway line proceeding on the Kangsiyali-Kotharia border to the Rajkot-Gondal Highway proceeding on the Kangsiyali-Kotharia border, thence northwards i.e. towards Rajkot city. Proceeding on the highway Kotharia Railway Station, Kotharia Solvent, Kotharia Village Floor, Rolex Industrial Unit included in the ward up to Gondal Chowk, thence proceeding north on the National Highway to the railway line, thence proceeding north on the railway line to Ghanshyam Nagar Industries Area, Lal. Bahadur Shastri Nagar, Aarti, Amarnath Park, Attica Industries Area included in the Ward and moving forward, all the area included upto the railway opposite where Nehrunagar 80 feet road starts above Dhebarbhai Road

■ Ward officer And Engineer list municipal corporation Rajkot

Zone	Sr. No	Name	Ward	Contact No	Adress
W E S T Z O N E	1	Shri Kinjal N. Ganatra (ward officer)	1	7096985168	Ward no 1, Ramapir chowk fire station.
		Shri D. N. Kapadia (ward engineer)		9723453584	
	2	Shri Hemadriba A. Zala (ward officer)	8	6355506305	Ward no 8-A, Sojitra Nagar, near water tank, Raiya Road.
		Shri B. N. Dhamecha (ward engineer)		7600671959	
	3	Shri Sunisha R. Manek (ward officer)	9	7698799910	Ward no 9- A, Opp site Abhay Bhardwaj community hall, Near axar school.
		Shri V. C. Kariya (ward engineer)		9714980805	
	4	Shri Nilam I. Belim (ward officer)	10	7624093990	Ward no 10-A, Corner of royal park 9, near KKV chowk.
		Shri D. B. Rathod (ward engineer)		9624027501	
	5	Shri Arti R. Nimbark (ward officer)	11	7096020037	Ward no 11-A, Nana mahua chowk.
		Shri I. U. Vasava (ward engineer)		9624083830	
S E N T R A L	6	Shri Rajesh V. Chaturbhuj (ward officer)	12	9714559259	Ward no 12-A, Mavdi chowk.
		Shri A. K. Sisodia (ward engineer)		9724000003	
	7	Shri Paresh G. Chavda (ward officer)	2	9033511709	Ward no 2-A. Geet Gurjari society, main road, Near Rameshwar chowk
		Shri M. C. Joshi (ward engineer)		9624090066	
	8	Shri Ketan Sanchaliya (ward officer)	3	9099046303	Ward no 3-K, Ashtha Chowk, Sadhu Vaswani Kunj road, rail Nagar
		Shri P. S. Parmar (ward engineer)		9824355583	
	9	Shri Nikunj Chauhan (ward officer)	7	9898632158	Ward no 7-A, Near Astron cinema, Tagore Road, near Shivaji park
		Shri Jignesh A. Solani (ward engineer)		8155056700	
	10	Shri Bhavesh N. Sonigara (ward officer)	13	7096022192	

Z O N E		Shri Mahesh N. Shiyani (ward engineer)		9624065799	Ward no 13-A, Krushna agar main road, near guru Prashad society
	11	Shri Nikunk B. Dobariya (ward officer)	14	7984639031	Ward no 14- A, Near sinduriya khan shopping Senter, mastar society main road, kothariya road
		Shri V. P. Pateliya (ward engineer)		9723456350	
	12	Shri Niraj J. Rajyguru (ward officer)	17	7096014214	Ward no 17- A, Sahkar Nagar main road, Opp site Kalyan Hall
		Shri M. D. Rathod (ward engineer)		9624703600	
E A S T Z O N E	13	Shri Siddharth M. Pandiya (ward officer)	4	7096955455	Ward no 4-A, Shiv shakti park, old Morbi road, Opp site dev Lok park
		Shri Hiren B. Toliya (ward engineer)		9714850777	
	14	Shri Molik P. Gondhiya (ward officer)	5	7096077760	Ward no 5-S, Opp site Atal bihari odditorium pedak road
		Shri A.M. Vegad (ward engineer)		9624096899	
	15	Shri Kiran M. Sangada (ward officer)	6	9879785560	Ward no 6-A, Behind rajmoti mill, Bhavnagar Road
		Shri B. M, Bolaniya (ward engineer)		9723452095	
	16	Shri Nisha K. Jadav (ward officer)	15	7096077745	Ward no 15-A, Near Amul Chowk 80 feet road, near mohanbhai sarviya hall
		Shri Atul S. Rathod (ward engineer)		9824803033	
	17	Shri Dr. Falguni B. Kalyani (ward officer)	16	7698047800	Ward no 16-A, Behind nilkanth Sinema, kothariya road
		Shri R. B. Solanki (ward engineer)		9924735599	
	18	Shri V. H. Tekavani (ward officer)	18	6352902074	Ward no 18-A, Opp site Purusjrth society, kiran nagar main road
		Shri N. A. Makwana (ward engineer)		9714835858	

CHAPTER -11

Pre Monsoon and During monsoon in the city.

2.1 Low level Areas of the City (Ward Wise Information)

Areas Name	Ward No.
Jai Prakash Nagar on opposite bank of Mafatiya Para river	05
Bhagwati Para on opposite bank of Mafatiya Para river	05
On the opposite bank of the river near Mafatiya near Khodiyar	16
Lame Hanuman Bedi Naka area opposite the river	04
On the opposite bank of Mafatiya Para river near the temple of Shitla Mataji	16
Opposite the Lakhaji raj Udyognagar near the river	17
On the opposite bank of the river Kamasiya	05
On the opposite bank of the river Kasturba, Sc Minority's	09
Opposite the river Kublia Para	16
On the opposite bank of Nawa Thorala Mafatiya Para river	16
Ram Nagar on opposite bank of Mafatiya Para river	16
Rukhdia para on the opposite bank of Maftiya Para river	04
Navarang para on the opposite bank of Maftiya Para river	
Navayuga para Maftiya on the opposite bank of the river	08
It's kilns in the Aji River and Mafatiya on the opposite bank of the river	18/16
From the mouth of Gandhi Dham to the end	
New Area Gandhi Dham (Raiya)	01
Raiya Dhar Mafatiya para	01
Narsang para	04
Bhavan Nagar	08
Laludi hokali	15
Jangleswar mafatiyapara	18
Mahatma Gandhi Sc Minority's	05
Ramnath Para and Allah Hawale Maftiya Para	08
maftiya para behind Sorathiya vadi	19
Govalivad bhilvas	09
Under the laludi hokali	15
Narsingpara, fle office	04
The low-lying area around the Bhomeshwar temple	03
Ambedkar Nagar Kalavad Road Opposite New Jakatnaka	13
Sidharth Nagar ring road	10
Shri rang Nagar	13

2.2 Information on slum area in the city

No.	Area Name	Zone Name	House	Population	Caste
1	Santoshi Nagar	Central	425	1382	Muslim, Rajput, Weaver
2	parrots	Central	1146	4992	Scheduled Caste, Weaver, Koli
3	Rukhdia para – 2	Central	280	750	Devipujak, Muslim
4	Narsang para	Central	151	535	Muslim, Weaver, Rajput
5	Rukhdia para – 1	Central	342	1281	Ahir, Rajput
6	Near Sheetal Park	Central	28	158	Muslim, Ahir
7	Bajrangwadi	Central	62	245	Muslim, Rajput, Weaver
8	Parsananagar	Central	65	412	Muslim, Rajput, Weaver
9	Near Bhomeshwar Temple	Central	228	737	Weaver, Koli
10	Kalyannagar	Central	55	232	Scheduled Caste Weaver, Koli
11	Bhistiwad	Central	126	340	Ahir, Muslim
12	Kitipara	Central	306	750	Scheduled Caste
13	Jhulelal Nagar, Behind Refugee Colony	Central	140	348	Scheduled Caste
14	Artillery	Central	23	94	Koli, weaver
15	Dhararnagar	Central	160	844	Muslim, weaver
16	Parsananagar-2, Harijanvas	Central	14	37	Weaver, Koli
17	Jalaramnagar	Central	56	117	SC, Koli, Weaver
18	Bhomeshwar	Central	218	669	Weaver, Muslim
19	Lohanagar	Central	310	1354	Muslim, Rajput, Weaver
20	Attica	Central	76	378	Koli, weaver
21	Devipujak Vas	Central	210	940	Devipujak, weaver, Rajput
22	Krishnanagar	Central	228	1007	Ahir, Koli, Rajput

23	New Age	Central	257	2324	Muslim and Ghanchi
24	Bapunagar	Central	223	2176	Scheduled Caste
25	Lululiwonkali	Central	376	4266	Scheduled Caste
26	Near Nagarik Bank, Sorthiawadi	Central	228	2092	Rajput, Koli
27	Bhawaninagar	Central	386	1428	Devipujak, Koli
	Central Zone Total Slum Area		6222	29897	
1	Vivekanandanagar	East	137	504	Weaver, Koli
2	Yadavnagar	East	79	290	Scheduled Caste
3	Babaria Colony	East	280	553	Muslim, weaver, Rajput
4	Ashapurannagar – 1	East	648	2504	Ahir, Rajput
5	Jungleshwar	East	1215	6058	Muslim, Ahir
6	Ashapura nagar – 2	East	62	410	Koli, weaver
7	Sorathiya wadi	East	29	148	Muslim, Rajput, Weaver
8	Indira Nagar	East	99	302	Weaver, Koli
9	Ghanshyam Nagar – 2	East	369	262	Scheduled Caste, Weaver, Koli
	East zone Total slum area		2921	13391	
1	Hinglajnagar	West	298	943	Scheduled Tribe, Muslim
2	Laxminagar	West	564	2268	Scheduled Caste
3	Dasijivan Par	West	75	342	Koli, weaver
4	Dr. Ambedkarnagar	West	388	1395	Weaver, Koli
5	Behind Kidney Hospital	West	45	25	Muslim, Rajput, Weaver
6	Jai Bhim Nagar	West	133	471	Koli, weaver
7	Raiadhar	West	159	865	Anu. Tribe, Muslim
8	Nuranipara	West	1245	4745	Scheduled Caste
9	150 feet ring road slum area	West	59	304	Muslim, Weaver, Ahir
10	Shivapara	West	857	1734	Scheduled Caste, Weaver, Koli
11	Natrajnagar	West	298	1440	Weaver, Koli
	West Zone Total Slum Area		4124	14863	

2.3 Detail of dams and ponds near the city.

- **1. Aji dam** This dam is built on the Rajkot – Bhavnagar Road at a distance of 1 km near Rajkot city, the dam is built to stop the water coming from the edge of Sardhar to Aji Nadi Rajkot, the overflow level of which is 29 feet. The dam last overflowed in 2007 at a level of 1.5 feet.

In the year 2007, due to heavy rains, flood situation occurred in the area of Jangaleshwar in the low-lying area of this dam, 50 houses in the area near 70 schools were washed away and 10 persons died. The river passes through the center of the city of Rajkot, due to which the human population on both the eastern and western banks has settled along the banks of the river. Also, brick kilns are pushed into the river banks, causing havoc during heavy rains and Aji dam overflows.

- **2. Lalpari Dam and Randarda Lake**

Behind the marketing yard in the eastern part of the city, this dam is located, this dam was built in the year 1895. Lalpari Dam embankment area at rear of marketing yard, R.T.O. OFFICE SURVEY NO. The area of 134 is up to the National Highway and the area around Randarda Lake is from the back of Aval Puja Ranchod das Bapu's Ashram to Morbi on Housing Board Dairy Land, Ranchhod Nagar and Kuwadwa Road. The area above both banks of which gets affected during monsoon. During heavy rains in 2010, 40 to 50 houses in the low-lying area were affected and 4 persons were stranded due to heavy water inundation and overflowing of dams and ponds.

- **3. Nyari Dam**

10 km west of Rajkot city. This dam, owned by the Rajkot Municipal Corporation, is built in the year 1973 at a distance of 1,000 km, whose catchment area starts from Shaper Veraval and reaches Kankot village. The dam has an overflow level of 27 feet and its catchment area is Nyaridam -2 river bank area.

2.4 years -2024 Areas with more waterlogging complaints in Rajkot city.

1. Area behind Dharam Nagar.
2. Opposite Raiya Road, Ramdev Chowkdi.
3. Mochi Nagar, Jamnagar Road.
4. Sadhu Vaswani Road.
5. Area near Savani Hospital (Kidney).
6. Mawdi Suggested Area.
7. Ambedkar Nagar, Near Gol Residency.
8. Railway canal area behind Hemu Garhvi Hall.
9. Kothariya Sinduria Mine Maftiu.
10. Maheshwari Nagar Wonkla Kantha Area School No. Up to 70.
11. Survey no.134 Free parking near marketing yard.
12. Wonkla bank area behind Shri Ranchoddas Bapu's Ashram up to Morbi Road.
13. Nana Mawa S.R.P The area near Wonkla near the camp
14. Ambedkar Nagar at 80 feet
15. Area of Papatapara Railway Canal
16. The terraced area of Laludi Wonkadi
17. Kotharia village.
18. Vavadi village.
19. Gondal Road P.d.Malviya
20. Gondal Road, S.T.workshop
21. Nanamauwa Quartet
22. Sant Kabir Road

23. Nanda Hall
24. Sorthiawadi Chowk
25. Beside Mavdi Chowkdi Overbridge
26. Rail Nagar Under Bridge

3. Pre Monsoon activities

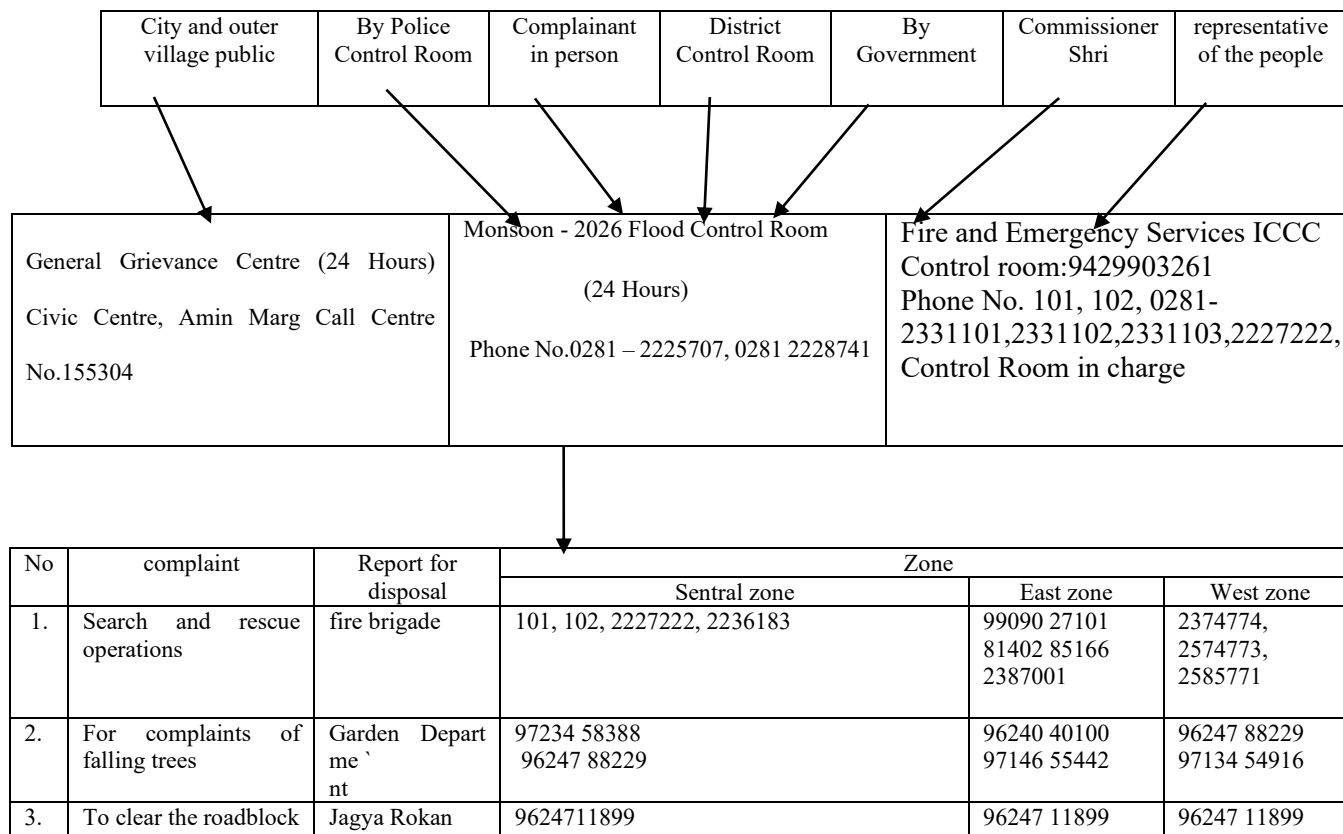
- Rainfall average in the last five years -1121.mm Highest -1331 mm (2021) Lowest – 560mm (2018)
- Rajkot Municipal Corporation's Disaster Management Plan- 2025 has been updated
- Main Aji River, Wokla- 52 Lakes- 07 (Rainwater drainage line-169 km, Drainage line-1558 km.)
- A control room will be set up at ICCO Nana Mawa Circle during the monsoon season. In which 1000 people will be in the city. Cameras have been installed, including 6 rain sensor cameras, so that proper monitoring and control can be done on all of them during the ongoing rains.
- SWM: There are a total of 52 urinals in the city, the cleaning of which is currently in the process.
- Total threatened properties of the city – 1695 have been given notice. (Out of which 28 have been repaired and 14 - dilapidated parts of the property have been given)
- Total drainage manholes of the city – 51,173. Out of which 15,357 have been cleaned. 30% work completed
- Total valve chambers of the city are – 5,819. Out of which 2,946 have been cleaned. 50% work completed
- Total storm water drainage manholes of the city are –12,652. Out of which 4,060 have been cleaned. 40% work completed
- Total – 90 laborers for patchwork in the city, 5 laborers per 18 gangs
- There are a total of 84 water logging points in the city. Out of which 15 are red zones, 66 are yellow zones, 3 are green zones. These zones have been classified keeping in mind the period of water drainage.
- The pumping unit chambers of all the four under bridges of the three zones have been cleaned. And their pumps and DG sets are functional.
- The arrangements for the 72 schools and 13 community halls for the displaced in the three zones will be checked by the ward officer. Arrangements have been made to accommodate approximately 33,600 people.
- In all three zones, the Garden Branch has trimmed 289 trees out of a total of 827 trees on the roads as required.
- The control room of the fire brigade is functional. Apart from this, all the equipment required for monsoon like rescue van, rescue boat, JCB,
- dewatering pump etc. are functional as verified by the department. Also, fire stations in all the three zones are on top.

- The rain gauge is operational and has been tested.
- A team has been formed in all three zones by appointing one officer per zone to fill the potholes on the roads due to heavy rains.
- During heavy rains, it is mandatory to open the manholes of underground sewers and install warning signs/stop stands at all places where rainwater is discharged and ensure that the lids are closed after discharge.
- Health Department: Stocks of necessary medicines have been kept for hospitals/health centers in case of an outbreak of an epidemic during heavy rainfall.
- Precautions have been taken to prevent the spread of disease through contaminated water.
- All shelters in low-lying areas where water has been inundated have been provided with electricity, water and necessary infrastructure facilities.
- Project Branch: - Extensive consultation has been conducted with the city's NGOs to ensure that all people in the affected area get sufficient food packets at all times.
- The work of checking the safety and non-hazardousness of electric wires and electric poles of public places and main roads of the city by the Lighting Department is in progress. Also, coordination is being done with the staff of PGVCL if necessary.
- Various agencies have been appointed to fit different dewatering pumps used for the drainage of rainwater in low-lying areas of the city. (20 diesel pumps of different sizes as well as 04 vehicle mounted dewatering pumps)
- The fogging machines have been tested. 56 portable hand foggers and 5 vehicle mounted fogging machines are available in working condition.
- The dangerous hoarding boards installed on the public roads of the city by private and municipal agencies, whose structural stability certificate/safety assurance is to be obtained.

Annexure1

(RESPONSE SYSTEM)

➤ Rajkot Municipal Corporation Control Room



• Duties of Monsoon – 2026 Emergency Response Control Room

1.Fire & Emergency Services Control Room is maintained at Main Fire Station Kanak Road and 24 Hours Call center for General Complaints at Civic center on Amin Marg, while Monsoon Emergency Response center from 1st June to 31st October through Administration Department and Engineering Department. Jubilee Pumping Station (Water Works) has been implemented in the premises. This control room is not only intended as an "Emergency Response center" for Monsoon-2026 complaints disposal.

2.During Monsoon Emergency Response, fire & emergency services are also staffed by the office department as Monsoon Emergency Response center as well as engineering control room and a special control room is also staffed and this control room "Emergency Response center" is open 24 hours for all urgent emergency search and rescue operations. capable and interested employees/officers are appointed for the same.

3. Heads of Departments are urged to ensure that their subordinate officers/staff are compulsorily present at Headquarters during times of emergency/disaster.
4. Effective communication is a very basic requirement in times of urgent disaster. The officials who have been given the facility of mobile phones in addition to telephones by the Municipal Corporation, do not switch them off during the time of need, special urgency is given to keep such telephones and mobile phones open.
5. The Control Room Officer is advised to co-ordinate the steps taken and also to maintain the necessary note telephone registers and arrange the position of giving the same report to the Chief Officer at the end of the day.
6. Communicate the warnings/messages issued by the District Control Room to the responsible authorities without delay.
7. To be recorded in the Control Room Register provided by the District Control Room.
8. Communicating and obtaining necessary information from time to time to District Control Room/Collector/Relief Commissioner/Chief Executive Officer (Gujarat State Disaster Management Authority – Gandhinagar).
9. Keep an up-to-date list of telephone numbers of the Collector, District Control Room and Police and Municipal Corporation etc. so that they can be contacted immediately at any time.
10. To prescribe duty chart to the employee on duty in the control room.
11. In case of unavoidable circumstances, if an officer/employee has occasion to go on leave, the person sanctioning the leave concerned has to make an alternative arrangement to assign duty to another officer/employee in his place and approve the leave.
12. The in-charge of the control room should be present in the shift of the flood cell and monitor that the work assigned to him is done properly. Deputy Executive Engineer has not been appointed in the shift (bench). The first rank technical employee of that shift shall perform the duties of the Deputy Executive Engineer.
13. Regarding the dam overflow and upstream rainfall, the CT Engineer should arrange for advance warning and monitoring system in Rajkot and direct contact with the Commissioner and get the notification to the control room.
14. Record of important messages of flood cell, daily information record of flood cell, operation of related registers etc. and operation of soft copy/hard copy etc. of correspondence of flood cell is assigned to Control Room In charge.

Important contact phone numbers for reporting to the State Government during heavy and excessive rains, dam overflows, flood emergencies, cyclones.

No	Office Name	Phone No	Fax No/Mobile/E-Mail
1	Collector Office, Disaster Management Cell	0281-2447763, +91281 1077,9427207252	Dismgmt-raj@gujarat.gov.in
2	Relief Director, State Control Room, Gandhinagar	1070	9978406087
3	Relief Commissioner, State Control Room, Gandhinagar	+9179 23251506, ++9179 23251509	9978407674
4	Department of Urban Development and City Housing, Gandhinagar	079 23251008	Us-ud@gujarat.gov.in
5	Director (How. & Emergency Comm.), State Project Officer, D.R.M., Programme, G.S.D.M.A.	91-79-23259246	Fax-23259275
6	State Emergency Operational Centre, Toll-free number 1070	079 1070, Tall free No 1070,23251902/07/ 08/14	23251912/16, Satellite phone no. 881621467711
7	IMD, Rajkot	-	9427136107
8	Jilla Panchayat	0281-2441248,2477008	2479128
9	Police	100, 2457777, 2472400	2453501
10	Executive Engineer Road and Building District Panchayat	2453127	9898098298, exep-raj-rnb@gujarat.gov.in
11	irrigated	0281-2443205	9426401595, exeiri-dd- raj@gujarat.gov.in: rjtpid@gmail.com
12	G.E. B	-	0281-2370916
13	Laxmi Nagar PGVCL Reception	2380425 / 27,2226755	9925209176, serjc.pgvccl@gebmil.com
14	weather account	2451296,079-29705010	mc.ahm@imd.gov.in
15	Navlakhi Port, Morbi	2232470	9665294210
16	Airport	-	9427207439, apdvahs@aai.aero
17	S. T	2235025, 2235026	9999853184
18	District Manager B.S.N.L.	2378800	-
19	Deputy Conservator of Forests	2476497	9879006216, dcfrjt@gmail.com
20	Fire & Emergency Services	1,011,022,227,222	2236183

Aggravating circumstances: -

- ◆ **LEVEL – 1** The following areas of the eastern and western banks of the Aaji river are in dire condition due to the inundation of the Aji River up to the foothills of the Ramnath Mahadev temple and Ota.

East	west
Three streets of Balakdas Maftiya, two streets of Chunarawad Maftiya adjacent to Satha Bridge.	Two streets of Ramnath Para, three streets of Bhawani Nagar, right side of Ramnath Para Old Crematorium.

	Two Streets of Maftiya behind Zilla Garden, Three Streets of Maftiya near 80 feet Crematorium, School no. Three streets of 70
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◆ **LEVEL – 2 Situation when Ramnath Mahadev Temple gets submerged.**

East	west
Balakdas five to seven streets of Maftiya, Chunarawad five to seven streets of Maftiya Adjacent to sata bridge.	Five Streets of Ramnath Para, Five to Six Streets of Bhawani Nagar, Right Side of Ramnath Para Old Crematorium.
A whole Maftiya near Samshan of the Maftiya Koli caste on the banks of the river Thorala.	4 to 5 streets of Maftiu and Narsinghampara and Jaiprakash Nagar may get submerged in the river in the lower part of Bhagwati Para.
Mafatiu Akhu opposite Meera Udyog in the river belt behind Aji Industrial Area,	Maftiya Behind Zilla Garden, Three Streets of Maftiya Near 80 Feet Crematorium, School no. Three Streets of 70, Four to Five Streets of Ghachi Wad next to District Garden, Jangleshwar School no. 70 Mafati located in the lower part of Hasan Chowk 4 to 5 streets, streets of 4 and 5 in Jangleshwar, 7, 11, 22, 23, 24, 25, 26, 27 and 28 of Jangleshwar, living in the river.
Behind the old office of the District Collector, Vasel Maftiyu Akhu, Parrot Parano Maftiyu in the river.	Meena Datar under Khokhad Dadi Bridge, street number 4 to 7 of Naloda Nagar, Naloda – 3 na Chowk, Murali Dhar's residence on the bank of the river.

□

LEVEL – 3 If the Ramnath Mahadev Temple gets submerged and the Aji Dam overflows and there is continuous rain for 24 hours, the flood level can reach the road on both the banks of the river in the east zone and the west zone and the ponds that gather in the Aji River. As the water also pushes back, areas of the Wonkada bank are also troubled and may become submerged. So that along with LEVEL-2 advice, LEVEL-3 danger situation warning and immediate evacuation of low-lying area should be carried out on war footing evacuation operation and continuous advice through mobile unit and T.V. and turning on by radio.

3.5 Pre-Preparations: -

In view of LEVEL – 1 and LEVEL – 2 above the houses in the following areas, the danger level of high flood level has been marked in the river belt.

80 feet in river right above cemetery wall under bridge over road.

Inside the crematorium (Jangleswar Me. Road) on the wall in front of the chimney.

Above the last pillar on the river bank inside Ekta Colony.

Ekta Colony – On the pillar in front of 2 Kadri Pan.

Corporation School no. 70 on the bottom wall of the board.

Ekta Colony Street no. Between 4 and 5.

Husheni Chowk, next to Imran Rubber.

JANGLESHWAR MAIN ROAD, BAGHDAD CHOWK STREET NO. 2 on the end pillar.

Jangleshwar – 2nd end near pay & toilet on top of pillar.

Jangleshwar – 4 over the wall near Suresh Cycle Service.

Jangleshwar – On the pillar at the end of 5

Jangleshwar – 7, 11, 22, 23, 24, 25, 26, 27 and 28 streets above the last pier on the river bank.

Jangleshwar – At the end of 31 in front of Dulapir Building, on the pier in front of Budhnagar Pay & Toilet.

On the last pillar on the river bank of Radha Krishna (Jangleshwar – 4).

On the last pillar on the river bank of Radha Krishna (Jangleshwar – 3).
 On the last pillar on the river bank of Radha Krishna (Jangleshwar – 9).
 On the last pillar on the river bank of Radha Krishna (Jangleshwar – 10).
 Radha Krishna on the last pier on the river bank above the pier in Khodiyar Chowk.
 Radha Krishna (Jangleshwar – 11) On the last pillar of the river bank above the last pillar of the street in front of the Velnath temple.
 On the last pillar on the bank of Radha Krishna (Jangleshwar – 13) On the last pillar on the river bank.
 Radha Krishna (Jangleshwar – 14) On the last pillar on the river bank above the last pillar on the river bank.
 Above left embankment wall under Khokhaddadi Bridge (Bypass Road).
 On the wall opposite the corner of Nalodanagar 4/7.
 Nalodanagar – in 3rd square.
 Nalodanagar – 4 above the pillars of Ramdev Niwas.
 Nalodanagar – 4 Opposite Kanaiya Dairy.
 Nalodanagar – 4/A closed street above wall corner.
 Near Nalodanagar Main Road, End Theri Board Pillar.
 Suryadeep – On the corner of the house in front of Chamunda House in Chowkma Road 40 feet.

- **Warning**

1. Low-lying areas especially in the Aji River bed are inhabited by free-living animals which may be submerged due to a sudden rise in the water level in the Aji River.
2. Aji dam overflowing in Aji River in a suddenly low-lying area or flood in Khokhadali river causing a situation where the low-lying area is strained and there is a possibility of loss of life.
3. Heavy rains and heavy to very heavy rains in the city and severe situation due to overflow of Aji dam, areas near Maftiya along the banks of Aji including Jangleshwar, Khodiyarpara, Mafatiya of Balakdas, Bhawani Nagar, Mafatiya behind district garden area near Ramnath Ghat and old collector's office And Bhagavati Para mainly has more effect on the area of the papatapara and the opposite side. To save it the warning is started 4 hours in advance.

- **Guideline for warning.**

1. If the water fills more than 70% of the storage capacity in the reservoir, a warning is given as warning stage.
2. If the water fills more than 80% of the storage capacity in the reservoir, an alert is given.
3. If the water fills more than 90% of the storage capacity in the reservoir, a warning is given as high alert stage.

Rain and heavy rain information and action to be taken.

Precipitation (mm)	
00.00	No rain at all.
01 to 2.4	Extremely light rain.
2.5 to 7.5	Light rain.
7.6 to 34.9	Good rain.
35.00 to 64.9	Somewhat heavy rain.
65.00 to 124.00	Heavy rain.
More than 125	Extremely heavy rain.
Note: - H.F.L in the Mafatia suburbs of Aaji River-I when heavy rains. Mark has been made. It will be necessary to evacuate all the areas as well as some heavy rains and the dam overflow is on and the H.F.L. Evacuation is required in the marked.	

Emergency Evocation

This situation is at such a level that water is fixed in the village / city. This is quite necessary after going through both of the above situations. In such circumstances, migration (first masses and livestock and then the transfer of goods required) is determined without any waiting. The urgent shifting process has to be carried out in front of the events that are being organized by organizing the preparations made during the blue signal earlier. This process should be done keeping in view the situation of the village / city as well as the situation of the rains at that time. This action has to be taken with the help of the Home Guard / Police Force to move the affected person.

Warning Signal

White signal: - This signal means warning. □ **Definition of Alert:** - When the water released from Poona or Dam crosses both the banks of the river and it is necessary to move the public or private cattle / goods / property etc. in the village or area of the coastal area, the term is used to inform the local resident in advance. Based on this information, the main purpose is to ensure only the seriousness of the flood or flood area. □

Blue signal: - This signal means "Alert for Evocation ie Migration Alert".

Alert for Evocation: - Information from the above circumstances is to increase the revenue of the water released from the flood or dam and due to the constant rainfall, the signal is used in case of no possibility of water flowing along the river bank. Considering this signal, the village / city or areas where the river passes through, the general public and their goods will have to be moved to move the district / taluka level with the preparation of transportation and food packages as well as the government which can touch the water of the area. □

Red Signal: - This signal means "imideley evocation."

- **The lower areas of the east and west banks of the Aji River.**

• East	• West
• After the Kesari bridge, Mahatma Gandhi street no. - 1 and Khodiyar Para street no. 1 to 3	• Mafatiu Paru near the Dargah of Syed Pir Miradatar
• Behind the Railway Staff Quarter, Rukhdiya Para Rajivnagar Mafatiu, and Rukhia Para pit, Nipark Para street no. All areas of 2.	• Mafatiu, situated on the bank of the river near Jangaleshwar, Tawakal Chowk
• The area behind the Nia Quarters Swami Vivekananda Nagar, ahead of Rukhdiya Para	• Mafatiu School no. This place was further damaged in the year 1 adjacent to Mafatiu Vonkala, located on the bank of the river.
• From the Chunarwad bridge to the Bedipara fire station, the mafatu paru behind the place of Balak Das on the river bank	• 1, Mafatiu near the river bank behind the foot cemetery.
• Bhavnagar Road Rajmoti Oil Mill behind Chunarwad and Manharpara area.	• The mafati of the ghanchi fence behind the children's cemetery behind the District Garden
• Mafatiyu in front of Mianyawal behind Bhagwati Para, Bhagwati Para Street no. - The area opposite 1 and the Dargah road of Ashaba Pir and Vijayavat Sosa. All the area in front.	• Mafatiu located in the river on both sides of Bhavani Nagar and Ramnath Para Temple
• Jay Prakash Society Street no. Back side from 1 to 5	• Mafatiu Narashang Para, located on the bank of the river behind the office of the old Collector
• Ramnathpara Bhavani Nagar Street no. An area near Bahucharaji Chowk near Ramnathpara Temple	• Mafatiu in the river behind the popat para suburb. (Rukhiya Colony and Popat Para)

Annexure 2

Fire & Emergency Services Vehicle Information

- Kanak Road Fire Station



No	Type of Vehicle	Vehicle No
1	Officer car	GJ-03GA-9945
2	Fire Fighter	GJ-03G-2590
3	Fire fighter	GJ-03GA-1209
4	Water browser	GJ-03GA-2840
5	Mini Fire Fighter	GJ-03G-0865
6	Mini Fire Fighter	GJ-03GA-2610
7	Fire Bullet	GJ-18G-7875
8	Ambulance	GJ-03GA-1718
9	Ambulance	GJ-03GA-1830
10	Died body vehicle	GJ-03G-0920
11	Died body vehicle	GJ-03GA-1253

- **Kalawad Road Fire Station**



No	Type of vehicle	vehicle no
1	Hydraulic Platform Bronto Sky Lift (81 m)	GJ-03-GA-1558
2	Form tender	GJ-3-GA-2452
3	Water browser	GJ-03-GA-1755
4	Water browser	GJ-03-GA-2531
5	Fire Tender	GJ-03-G-2592
6	Mini fire tender	GJ-03-GA-1645
7	Bolero	Gj-03-GA-1154
8	Ambulance	GJ-03-926
9	Ambulance	GJ-03-G-923
10	Died body vehicle	GJ-03-GA-1087
11	Died body vehicle	GJ-03-GA-1355

- **Bedi Para Fire Station**



No	Type of vehicle	vehicle no
1	Fire tender	GJ-3GA-1340
2	Fire tender	GJ 03GA-1792
3	Fire tender	GJ-03GA-2585
4	Mini Fire Tender	GJ-03GA-2633
3	Ambulance	GJ-3G-1959
4	Died body vehicle	GJ-3GA-1064
5	Died body vehicle	GJ-3GA-1831

- **Mavdi Fire Station**



No	Type of vehicle	Vehicle No
1	Hydraulic Platform	GJ-03-G-0818
2	Fire Tender	GJ-3GA-1761
3	Fire Tender	GJ-03GA-2269
4	Mini Fire Tender	GJ-3GA-1624
5	Mini Bolero	GJ-03-GA-1220
6	Ambulance	GJ-03-GA-1239
7	Ambulance	GJ-03-G-1957
8	Died body vehicle	GJ-03-GA-1922

- **Kothariya Road Fire Station**



No	Type of vehicle	vehicle no
1	Fire Fighter	GJ-03-GA-1468
2	Form Tender	GJ-03-GA-2491
3	Mini Fighter	GJ-03-GA-2563
4	Fire Bullet	GJ-18-G-7876
5	Ambulance	GJ-03-G-0927
6	Ambulance	GJ-03-GA-1461
7	Died body vehicle	GJ-03-GA-1617

- **Ramdevpir Chowk Fire Station**



No	Type of vehicle	vehicle no
1	Fire Fighter	GJ-03-GA-1997
2	Water bowser	GJ-03-GA-2351
3	Mini Fire Fighter	GJ-03-GA-2681
4	Ambulance	GJ-03-GA-0924
5	Ambulance	GJ -03-GA-1604
6	Died body vehicle	GJ-03-G-0921
7	Died body vehicle	GJ-03-GA-1657
8	Fire bullet	GJ-03-G-5228

- **Rail Nagar Fire Station**



No	Type of vehicle	vehicle no
1	Water Bowser	GJ-03-GA-2413
2	Fire Fighter	GJ-03-GA-1129
3	Water Bowser	GJ-03-GA-2832
4	Mini Fire Bolero	GJ-03-GA-1378
5	Ambulance	GJ-03-GA-1293
6	Ambulance	GJ-03-G-0925
7	Died Body Vehicle	GJ-03-G-0922

- **Emergency Response Centre, Morbi Road, Rajkot**



No	Type of vehicle	vehicle no
1	Fire Tander	GJ-03-G-2591
2	Fire Tander	GJ-03-G-2593
3	Fire Tander	GJ-03-G-0866
4	Fire Tander	GJ-03-GA-2929
5	Ambulance	GJ-03-GA-1958
6	Died body vehicle	GJ-03-GA-1594

➤ **D. Watering Pump / Portable Pump**

No	Name of Department/Vendor	D. Watering pump	portable pump	Total	Phone no.	Mobile no.	Name
01	Fire and Emergency Services Rajkot	-	04	04	0281-2227222	9714504346 7622019100 9714687865	Shri A. K. Dave (I/c. CFO) Shri A. B. Zala (Dy. CFO) Shri M. K. Juneja (Dy. CFO)
02	Drainage Section 5 HP capacity 6.5 HP Capacity	02 02		04	0281-2224738	9624718240	Shri B. D. Dholariya
03	Irrigation Mechanical Department, Multi Storey Building, Block no. 5, 5th Floor Rajkot 50 HP capacity 6.5 HP capacity	01 05		06		9537369578	Shri Kalola (A.A.E)
04	R. P. Agency, Rajput Para-6 (For Rent)					9426226165	Shri Shaileshbhai patel
05	Deepak Eng. Works Opposite Bus Station (For Rent)					9428740082	Shri Rohit bhai

➤ **Wooden cotter at the fire station**

No	Station Name	Number of wooden cutters	Life Boya	Life jacket
1	Kanak road fire station	3	23	2
2	Bedi para fire station	6	97	15
3	Kalawad road fire station	4	30	14
4	Mavdi fire station	2	25	14
5	Kothariya road fire station	8	23	7
6	Ramapir fire station	6	33	8
7	Rail Nagar fire station	3	30	8
8	Emergency Response centre	3	12	8
	Total	35	273	76

➤ **Number of vehicles above the fire station.**

vehicle	total no	Kanak Road	Kalawad Road	Bedipara	Mavdi road	Kothariya road	Ramdevpir chok	Reil nagar	E.R.C
Officer car Scorpio	1	1	-	-	-	-	-	-	-
Hydraulic plat form	2	-	1	-	1	-	-	-	-
Water brauser	6	1	2	-	1	-	1	2	-
Fire tender	15	2	1	3	2	1	1	1	4
Rescue with screin	-	-	-	-	-	-	-	-	-
Form tender	2	-	1	-	-	1	-	-	-
Mini fire fighter	7	2	1	1	1	1	1	-	-
Mini fire fighter Bolero	3	-	1	-	1	-	-	1	-
Fire bullet	3	1	-	-	-	1	1	-	-
Ambulance	14	2	2	1	2	2	2	2	1
Deatbody vehicle	12	2	2	2	2	1	2	1	1
Portable pump	5	-	1	1	1	1	-	1	-
Fiber boat	6	-	1	1	1	1	1	1	-
Urban Search and Rescue Container with Hook Arm Truck	-	-	-	-	-	-	-	-	1
Medical mask container with hook arm truck	-	-	-	-	-	-	-	-	1
	76	11	13	09	10	09	09	09	06

➤ **Fire and Emergency Services staff set-up.**

No	Vacancy Total	Vacancy	full recruitment	Vacant recruitment	Extra
1	Chief fire officer	01	01	00	
2	Ad. Chief fire officer	01	00	01	
2	Deputy chief fire officer	04	03	01	
3	Manager	02	01	01	
4	Office Superintendent	01	00	01	
5	Divisional officer	04	00	04	
6	Station officer	32	13	19	
7	Sub officer fire	70	18	52	
8	Leading Fire Man	70	47	23	
9	Work Assi civil	10	00	10	
10	Senior Clerk	05	02	03	
11	Junior Clerk	15	08	07	
12	Fire operator Male	440	328	112	
13	Driver	30	30	00	04
14	Peon	02	01	01	
15	Cleaner	12	02	10	
	Total	699	454	245	04

List of merchants that can be found in the bulk / vaccine wholesale.

No	Merchant Name	Adress	Teli phone no.	Mobile no
1	Ashok Bhai Cotan Vale	Para bazar		9824212044 9879370707
2	Kaushikbhai cotan vale	Para bazar	2236934	98250 79322 9825079378
3	Kirit Bhai Cotan vale	Para bazar	2223836, 2236273/2450266	9428250903 9825072559
4	Natwarlal Cotan vale	Kuwadva road	-	9825005517 9825434818
6	Bipin bhai Cotan vale	Kuwadva road	-	9825672320

➤ **IDRN Indian Disaster Resource**

FORM-1
(www.idrn.gov.in)

- **Department or Agency details (The Fields mark with (*) are mandatory)**

* Dept. Name / Agency Name	Rajkot Municipal Corporation		
* Dept. Name / Agency Name	Fire & Emergency Service		
* Contact Person Name	A. K. Dave		
* Contact Person Address	Old Airport Road, Rajkot		
* Telephone Number 1	O. 0281 - 2227222		
* Telephone Number 2	M. 97149 04346		
* Telephone Number 3	R.		
* Mobile Number	O. 97149 04346		
Fax Number			
Email ID			
Source:	Semi Govt.√.... PS Unit..... Military		
Activity Name-Search and Rescue		Category Name – Cutters	
Enter details of items under this category on form 2-A			
Item Code	Item Name	* Item present in the department / Agency (yes/no)	
101	Gas Cutters	3 Dead	
102	Cold Cutters	0	
103	Bolt Cutters (Shears)	2	
104	Electric Drill	0	
105	Circular Saw with Diamond Blade	0	
106	Chipping Hamer	50+50=100	
107	Chain Saw - Diamond	0	
108	Chain Saw – Bullet	0	
109	Pneumatic Chisel	0	
110	Cutters – Hydraulic	3	
111	Cutters – Battery	Nil	
Category Name – Spreaders			
Enter details of items under this category on form 2-A			
112	Spreaders - Hydraulic	3	
113	Spreaders – Battery	Nil	
Category Name - Lifting Equipment's			
Enter details of items under this category on form 2-A			
114	Air Lifting bags (different Capacity) /Tools	67 tons - 2 Nos. 40 tons - 4 Nos.	29 tons - 4 Nos. 05 tons - 0 Nos.
115	Jack with 5ton lift	-	
116	Iron shod levers, 10 ft. Long collapsed Structures	Nil	
151	Search and Rescue Teams with canines	Nil	
Activity Name - Flood Rescue		Category Name - Specialized flood / Rescue equipment's	
Enter details of items under this category on form 2-A			
152	Rescue back board	3	
153	Diving Suit	Nil	

154	Under Water BA set	1
155	Life Boya	12
156	Life Jackets	4
157	Basket Stretcher	1
158	Pneumatic Rope Launcher	1 dead
Category Name - Rescue Boats		
Enter details of items under this category on form 2-A		
159	Inflatable boat (06 persons)	1 dead
160	Fiber boat (10 persons)	1 dead
161	Motor boats	Nil
162	Motor Launch	Nil
163	Country Boats	Nil
Enter details of items under this category on form 2-B		
164	Divers Teams	
165	Search & Rescue Teams for Flood	0
Activity Name - Fire Fighting Category Name - Protective equipment's - Specialized		
Enter details of items under this category on form 2-A		
166	Suit - Fire entry	Nil
167	Suit - Fire proximity	Nil
168	Suit - Fire approach	Nil
169	Suit - NBC	Nil
170	Clothing - Chemical protective (ABC)	Nil
Category Name - Breathing Apparatus Set		
Enter details of items under this category on form 2-A		
171	Breathing Apparatus-Self Contained	4
172	Breathing Apparatus-Compressor	1
Enter details of items under this category on form 2-A		
173	Pump - high pressure portable	Nil
174	Pump - floating	Nil
Enter details of items under this category on form 2-A		
175	Extension Ladder	9 fixed f/f
Category Name - Fire extinguisher		
Enter details of items under this category on form 2-A		
176	ABC Type	1
177	CO ₂ Type	1
178	Foam Type	1
179	CCP Type	Nil
180	Halons Type	Nil
181	Fire Tender	2 dead
182	Foam Tender	1 dead
183	Rescue Tender	3 dead
184	Control Van	Nil
185	Hydraulic Platform	Nil
186	Turn Table Ladder	Nil
187	DCP Tender	Nil
188	Hazmat Van	Nil
189	B.A. Van	Nil
Category Name - Critical Supplies		
Enter details of items under this category on form 2 - C		
190	Fire Fighting Foam	8 barrel, 200 ltrs.
191	Dry Chemical Powder	Nil
192	Halons	Nil
Category Name - Skilled Human Resource		
Enter details of items under this category on form 2 - B		
193	Oil Installation - Firefighting team	Nil
194	High Rise Building-Firefighting team	Nil
195	Port - Firefighting team	Nil
196	Aviation - Firefighting team	Nil

197	Mines - Firefighting team	Nil
198	Thermal Power Plan-Firefighting team	Nil
199	Nuclear Powerplant-Firefighting team	Nil
Activity Name - Health Services Category Name - Equipment's		
Enter details of items under this category on form 2 – B		
200	Spine boards	Nil
201	Stretcher normal	2
202	Stretcher medical evacuation	2
203	Incubators for adults	Nil
204	Incubators for Children	Nil
205	First Aid kits	nil
206	CT scan	nil
Enter details of items under this category on form 2 – A		
214	Mechanical ventilators	nil
215	Defibrillators	nil
Category Name - Mobile Units		
Enter details of items under this category on form 2 – A		
216	Mobile OT unit	nil
217	Mobile blood bank	nil
218	Mobile lab services	nil
219	Mobile hospital	nil
220	Mobile medical van	nil
Category Name – Hygiene		
Enter details of items under this category on form 2 – A		
221	Water filter	nil
222	Water tank	nil
223	Reservoirs treatment tank	nil
Category Name - Critical Supplies		
Enter details of items under this category on form 2 – C		
224	Bronchodilators	nil
225	Vaccines	nil
226	Anti snake venom	nil
227	Chlorine tablets	nil
228	Halogen tablets	nil
Category Name - Skilled human resource		
Enter details of items under this category on form 2 - B		
229	General physician	nil
230	Trauma Specialist	nil
231	Surgeon	nil
232	Anesthetist	nil
233	Gynecologist	nil
234	Radiologist	nil

➤ Sheet showing rainfall year from 1981 to 2025.

No	Year	First Rain	inch	Total inch	Total M.M
1	1981	25-06-1981	0.56	26	645
2	1982	07-05-1982	0.12	24.8	498
3	1983	15-04-1983	0.27	24	600
4	1984	13-06-1984	0.20	22	550
5	1985	30-05-1985	0.50	11	275
6	1986	31-05-1986	0.16	08	200
7	1987	11-06-1987	0.12	7.43	186
8	1988	11-06-1988	0.10	40.40	1017
9	1989	08-06-1989	0.25	17.2	427
10	1990	27-06-1990	0.25	18.4	454
11	1991	28-06-1991	0.82	13	325
12	1992	20-06-1992	1.08	25.11	636
13	1993	15-06-1993	0.28	14.10	360
14	1994	06-06-1994	0.90	40.15	1015
15	1995	15-06-1995	1.02	11.10	296
16	1996	14-06-1996	1.06	24.15	615
17	1997	05-06-1997	0.98	24.20	670
18	1998	08-06-1998	0.74	24.90	609
19	1999	15-06-1999	0.31	9.72	247
20	2000	29-06-2000	0.51	12.19	325
21	2001	30-05-2001	15.14	15.14	389
22	2002	11-06-2002	13	13	325
23	2003	15-06-2003	4.00	33.96	849
24	2004	09-05-2004	0.47	25.44	636
25	2005	18-06-2005	0.29	40.54	1013.50
26	2006	01-06-2006	0.75	42.20	1055
27	2007	01-07-2007	2	52.68	1317
28	2008	04-06-2008	2.75	24.05	814.00
29	2009	30-06-2009	0.01	22.92	573.00
30	2010	02-06-2010	0.04	55.50	1380
31	2011	10-06-2011	4	39.09	984
32	2012	13-06-2012	12	19	475
33	2013	07-06-2013	25	47.04	1294
34	2014	20-04-2014	25	15.10	385
35	2015	03-06-2015	4	31.33	796
36	2016	27-06-2016	18	22.36	559
37	2017	11-05-2017	5	51.7	1292.5
38	2018	23-06-2018	2	22.4	560
39	2019	13-06-2019	0.04	61	1528
40	2020	06-06-2020	0.341	44.633	1133.667
41	2021	17-05-2021	1.00	53.24	1331
42	2022	24-05-2022	4.00	37.97	964.66
43	2023	06-03-2023	0.459	25.630	651.00
44	2024	02-03-2024	0.289	49.764	1264.00
45	2025	05-05-2025	0.12	24.89	632.33

Annexure-3

Line department contact directory

➤ Officers of Rajkot Municipal Corporation

No	Name	Designation	Phone / Fax	Mobile No.
1	Shri Tushar D. Sumera (IAS)	Municipal Commissioner	2224133 2239973 Fax.2224258	97145 03701
2	Shri Mahesh Jani (IAS)	Deputy Commissioner, Est zone	2237050 Fax.2389274	9714503703
3	Shri Pathik Patel (GAS)	Deputy Commissioner, Est zone (Technical)	-	97145 03738
4	Shri C. K. Nandani	Deputy Commissioner, West Zone	2220938	97145 03704
5	Shri H. R. Patel	Deputy Commissioner, Sentral zone	2221608	97145 03745
6	Shri S J. Dhaduk	Assi, Commissioner, Hed Quarter Director, IT department	-	97145 03742
7	Shri B. L. Kathrotiya	Ass, Commissioner Sentral zone	-	96247 18518
8	Shri V. D. Dhoniya	Assi, Commissioner, Hed Quarter	-	96240 96396
9	Shri H. P. Rupareliya	Assi, Commissioner, Est zone	-	97145 03721
10	Shri D. M. Dodiya	Assi, Commissioner, West Zone	-	96247 11899
11	Shri K. D. Vadher	Ass, Commissioner Sentral zone	-	73830 60590
12	Shri M. K. Ramanuj	PA Too Commissioner, Ass, Commissioner, Mahekam	-	96247 71500
13	Shri D. N. Jesadiya	Municipal secretary	-	96248 77750
14	Shri Brijesh J. Maheta	I/C Chef auditor	-	98257 15930
15	Shri M. R. Shrivastav	in charge City Engineer Est zone	-	70167 46191
16	Shri A. A. Raval	Adi city engineer in charge	-	97149 17174
17	Shri K. P. Dethariya	City Engineer (water man. Unit Dreneg)	-	96247 38181
18	Shri Kuntesh Maheta	City Engineer special west zone	-	96240 29188
19	Shri B. D. Jivani	Adi city engineer in charge Roshni department	-	96240 85850
20	Shri P. C. Solanki	Environment Engineer	-	97149 59591
21	Shri R. D. Parmar	Town planning officer	-	
22	Shri Vivek R. Maheta	Manager, Mahakam Department	-	96240 96396
23	Shri J. L. Vakani	Health officer, Health department	-	90338 60599
24	Shri Vaishaliben Rathod	Biologist, Malaria department	-	96240 94671
25	Shri Shardaben Desai	Program officer, icds department	-	98793 96232
26	Shri jayshriben Sakariya	CDPO, icds department Est zone	-	74055 53010
27	Shri Pujaben Joshi	CDPO, icds department Sentral Zone	-	98986 18171
28	Shri Ansuyaben	CDPO, icds department West zone	-	98279 16830
29	Shri A. S. Vora	PIO and Nodal officer RTI	-	97149 75757
30	Shri R. M. Gameti	Manager fire department	-	97234 67670
31	Shri Amit L. Savjiyani	Chief Accountant, Accounting Branch	-	97149 68686
32	Shri Dr. R. K. Hirpara	Zoo Superintendent Director (p & g) Garden	-	99789 11245
33	Shri M. A. Gandhi	Manager Asted department Sentral zone	-	94269 14286
34	Shri P. D. Adhiya	General manager RSCDL Smart	-	96240 59199
35	Shri S. K. Gupta	Lo officer, Legal department	-	97149 10199

36	Shri A. K. Dave	in charge Chief fire officer	-	97145 04346
37	Shri K. B. Unava	Manager, Cultural department	-	83479 89800
38	Shri Bhumiben Parmar	Manager Building branch	-	83477 04076
39	Shri Pranav Pancholi	I/c Manager store Department	-	99245 12124
40	Shri R. B. Zala (DYSP)	Police Superintendent, Security Department	-	94275 65007
41	Shri P. J. Baraiya	Encroachment office, Pressure relief	-	96247 11899
42	Shri Ramesh bhai Jethava	Shasa Adhikari, Nagar primary education comity	-	98252 10324
43	Shri Himanshu S. Dave	P.A too Commissioner (technical)	-	97149 82820
44	Shri A. J. Parsana	D.E.E Shri, Sivil commissioner Department	-	73595 04440
45	Shri B. T. Rathod	P. R. O	-	95749 38999
46	Shri A. G. Parmar	Deputy Executive Engineer, Mechanic hand pump	-	97234 51964

➤ **Office Bearers of Rajkot Municipal Corporation**

No	Name	Designation	Office	Mobile No.
1	Shri Dr. Nehal Shukul	Mayor	2221511	7990160700
2	Shri Daxaben Vasani	Deputy Mayor	2221522	9426817925
3	Shri Paresh Pipaliya	Chairman Standing Committee	2221520	9825214446
4	Shri Hiren Khimaniya	Leader Ruling Party	2221524	9725788888
5	Shri Sanjaysinh Rana	Dandak Ruling Party	2221524	9825215912
6	Shri Ashwinbhai Boraniya	Chairman Construction Committee	2221529	9426930233
7	Shri Kirtiba Rana	Chairman Sanitation Committee	2221527	9624647789
8	Shri Manishbhai Bhatt	Chairman Social Welfare Committee	2221540	9825477501
9	Shri Dr. Rinkalbhai Meghani	Chairman Health Committee	2221542	9825182546
10	Shri Pareshbhai Thakar	Chairman Lighting Committee	2221530	9426960006
11	Shri Jaysukhbhai Katharotiya	Chairman Water Works Committee	2221550	9426267255
12	Shri Jayrajsinh Jadeja	Chairman Law and Rules Committee	2221543	9638620999
13	Shri Mohitsinh Jadeja	Chairman Market Committee	221528	9558929591
14	Shri Anilkumar Chauhan	Chairman Town Planning Committee	2221545	9637511111
15	Shri Dilipbhai Lunagariya	Chairman House. Improvement and Clearance Committee	2221544	9825216176
16	Shri Kiranben Harsoda	Chairman Drainage Committee	2221546	9712393098
17	Shri Shri Raxit kalola	Chairman Garden and Zhu Committee	2221548	9426268685

18	Shri Ketanbhai Thummar	Chairman Shishu Kalyan Special Grant Managed Schemes and Fire Brigade Committee	2221547	9925800089
19	Shri Sonalben Selara	Chairman Intermediate Education and Secondary Education Committee	2221549	9227161001
20	Shri Kankuben Udhreja	Chairman Estate Management Committee	2221541	9712164238

➤ **List of Commissioners of Municipal Corporation of Gujarat**

No	City Name	Commoner Name	Office	Mobile number
1	Ahmedabad	Shri Banchanidhi Pani	079 25352828	99784 44779
2	Ananad	Shri Milind Bapna	0269 2243942	99784 11491
3	Bhavnagar	Shri Dr. N. K. Mina	0278 2510532	99784 04900
4	Gandhi Dham	Shri Manish Gurvani	0283 6226573	99784 44024
5	Gandhinagar	Shri J. N. Vaghela	0792 3220440	99784 45135
6	Jamnagar	Shri D. N. Modi	0288 2552321	99784 02983
7	Junagadh	Shri Tejas Parmar	0285 2650450	99784 00501
8	Mehsana	Shrimati Jasmin Hasrat IAS (I/C)	0276 2254568	
9	Morbi	Shri Swoanil Khare	0282 2220551	99784 22063
10	Nadiad	Shri J. B. Desai GAS (I/C)	0268 2551376	
11	Navsari	Shri Dev Chaudhari	0263 7250253	99784 08118
12	Porbandar	Shri H. J. Prajapati	0286 2240936	99784 89945
13	Rajkot	Shri Tushar D. Sumera	0281 2224133	9978407527
14	Surat	Shri Nagrajan M	0261 2422244	99784 08744
15	Surendra Nagar	Shri Dr. Navnath K Gavhane	0275 2282858	99784 99589
16	Vadodara	Shri Arun Mahesh Babu	0265 2433344	63599 30396
17	Vapi	Shri Yogesh Chaudhari	0260 2463378	99784 45101

➤ **INSTITUTE OF SEISMOLOGICAL RESEARCH, GANDHINAGAR**

NO	NAME	DESIGNATION	PHONE NUMBER	E-MAIL
1	SHRI D. D. JADEJA (IAS)	DIRECTOR GENERAL (I/C)	079-66739015	DG-ISR[AT]GUJARAT[DOT]GOV[DOT]IN
2	SHRI SANTOSH KUMAR	SCIENTIST - E	66739007	
3	DATA CONTROL ROOM		66739000	

➤ **SATELLITE FONE NUMBER**

NO	SATELLITE FONE	SATELLITE FONE NO	ID
1	COLLECTOR SHRI RAJKOT	8991115028	762483382
2	COMMISSIONER SHRI RMC	8991115016	

➤ **GUJRAT STAT EMERGENCY RESPONSE SENTER (ERC)**

No	DISTRICT	ERC CONTROL ROOM	PHONE NUMBER	MOBILE
1	AHMEDABAD	27760511	27551681	9427306201
2	KUCH	2252347	2250020	9427306213
3	SURAT	2246112	222471121	9427306222
4	VADODARA	2427592	2423100	9427306224
5	RAJKOT	2471573	2479351	9427706220

➤ **CENTRAL GOVT CONTROL ROOM.**

No	OFFICE	PHONE NO	FAX NO
1	NATIONAL DISASTER MANAGEMENT AUTHORITY, NEW DELHI	011 26701728	01126701700
2	METEOROLOGY (SEISMOLOGY), NEW DELHI	011 24619943 011 24624588	01124619943 01124649850
3	METEOROLOGICAL DEPARTMENT (MET), NEW DELHI	011 22865012	01122865449 01122864742

➤ **GUJARAT STATE DISASTER MANAGEMENT AUTHORITY, GANDHINAGAR**

No.	NAME	DESIGNATION	PHONE NUMBER	
			OFFICE	MOBILE
1	SHRI RAJESH MANJHU	C.E.O. GSDMA	23259276	-
2	SHRI DHAVAL PANDYA	AD. C.E.O GSDMA	23259302	9428562172
3	SHRI ANKITA PARMAR	DIRECTOR DM GSDMA	23259292	97377 70293
4	SHRI ISHVAR PRAJAPATI	DIRECTOR (DRM)GSDMA	-	98245 13580
5	SHRI SAMIR MAHETA	DIRECTOR (FINANCE) GSDMA	23259219	-

6	SHRI YASVANTSINH PARMAR	SECTOR MANAGER	-	84692 88345
7	SHRI PRASHANT MAKWANA	SECTOR MANAGER	-	98254 98315
8	SHRI SANJAY MALL	SECTOR MANAGER	-	91738 63052
9	SHRI DHARMIK PUROHIT	CONSULTANT	-	9033092791
10	SHRI POOJA J. VAGHMORE	DPO DISASTER RAJKOT	2471573	9558710558
11	SHRI HASMUKH BHASKAR	PROJECT OFFICER DISASTER RMC	-	7984161037

➤ **HEAD OF ALL BRANCHES RAJKOT**

SR NO	NAME	DESIGNATION	MOBILE	LANDLINE NO
1	SHRI OM PRAKASH (IAS)	COLLECTOR SHRI	99784 06220	2473900 2479351
2	SHRI TUSHAR D. SUMERA (IAS)	MUNICIPAL COMMISSIONER SHRI	97145 03701	0281 2224133
3	SHRI BRIJESHKUMAR ZA (IPS)	POLICE COMMISSIONER	99784 06061	2459888
4	SHRI ANANDU SURESH GOVIND(IAS)	DISTRICT DEVELOPMENT OFFICER	99784 06245	0281- 2477008, 2444336
5	SHRI M. S. JANI (IAS)	REGIONAL COMMISSIONER OF MUNICIPALITIES	97145 03703	2444505
6	SHRI JATIN UPADHYAY (IAS)	MANAGING DIRECTOR (PGVCL)	9825603160	0281 2370561
7	SHRI N. K. MUCCHAR (GAS)	RESIDENT ADDITIONAL COLLECTOR (I/C)	99784 05218	0281- 2476374
8	SHRI VIJAYSINH GURJAR (IPS)	SUPERINTENDENT OF POLICE	99784 05080	2433444
9	SHRI V. J. VYAS	DY SP HQ	8160501041	0281 2447317
10	SHRI VAGISHA JOSHI (IPS)	SUPERINTENDENT CENTRAL JAIL RAJKOT	99784 05897	-
11	SHRI HARPAL SINGH JADEJA (IPS)	DCP TRAFFIC RAJKOT CITY	99784 05918	-
12	SHRI HETAL PARMAR (IPS)	DCP ZONE-1, RAJKOT CITY	99784 06339	-
13	SHRI RAKESH DESAI (IPS)	DCP ZONE -2, CITY RAJKOT	99784 07284	-
14	SHRI JAGDISH BANGARAVA (IPS)	DCP CRIME, RAJKOT CITY	99784 05485	-
15	SHRI A. K. VASTANI (GAS)	DIRECTOR DRDA	99784 47471	2474305,24 49681
16	SHRI G. V. MIYANI (GAS)	CEO RUDA	99784 56900	2476874

17	SHRI I. K. CHAUHAN (GAS)	AD. COLLECTOR REGONER COMMISNOR	99784 99031	-
18	SHRI J. D. GADHAVI (GAS)	ADDITIONAL COLLECTOR SAURASTRA-KUTCH IRRIGATION	63525 50580	2476329
19	SHRI J. K. JOGARANA	DEPUTY DIRECTOR LAND OFFICE SURVEY BUILDING	96620 55152	2476247
20	SHRI NITIN TOPARANI (I/C)	DIRECTOR PLANING OFIICER	98252 79605	2443417
21	SHRI A. S. ZAPADA	DISTRICT SUPPLY OFFICER	75670 21682	2476891
22	SHRI CHANDNI PARMAR	PROVINCIAL OFFICER, CITY -1	82649 00777	2479042
23	SHRI MEHAK JAIN	ASSISTANT COLLECTOR AND PROVINCIAL OFFICER	75743 53999	2450362
24	SHRI VIMALKIRTI CHAKRVARTI	PROVINCIAL OFFICER, RAJKOT RURAL	75670 09433	2471092
25	SHRI R. R. KHAMBHARA	PROVINCIAL OFFICER, JASDAN	75670 09530	221232
26	SHRI RAHUL GAMARA	PROVINCIAL OFFICER, GONDAL	75670 09536	280008
27	SHRI N. M. TARKHALA	PROVINCIAL OFFICER, DHORAJI	75670 09541	226681
28	SHRI ISHITA MER	DEPUTY COLLECTOR, STAMP DUTY EVALUATION SYSTEM, RAJKOT RURAL	95749 80070	2474940
29	SHRI DILIPSINH VALA	DEPUTY COLLECTOR, STAMP DUTY EVALUATION SYSTEM, RAJKOT CITY	95745 16898	2457617
30	SHRI VIMALKIRTI CHAKRVARTI (I/C)	SPECIAL LAND ACQUISITION OFFICER	82005 97875	2457351
31	SHRI NAMRATA NATHAVANI	ICT OFFICER COLLECTOR OFFICE	94286 99499	2447761
32	SHRI PRASHANT TRIVEDI	ASS. INFORMATION DIRECTOR	9106575915	2228513
33	SHRI R. CHENTHIL KUMAR	DEPUTY FOREST CONSERVATOR	98790 06216	2476497
34	SHRI JAY GAUSWAMI	DY DDO PANCHAYAT (DISTRICT)	75670 18789	2444336
35	SHRI PRIYANK GALCHAR	DY DDO REVENUE (DISTRICT PANCHAYAT)	95589 54446	2476061
36	SHRI ILABEN GOHIL	DY DDO DEVELOPMENT (DISTRICT PANCHAYAT)	75670 17773	2476061
37	SHRI SAMIR DHADUK	DY MUNICIPAL COMMISSIONER HEAD QUARTER RMC	9714503742	-
38	SHRI JATIN B. UPADHYAY	SUPERINTENDENT ENGINEER PGVCL RAJKOT CITY LAXMI NAGAR	99252 09176	2226755
39	SHRI JATIN B. UPADHYAY IC	SUPERINTENDENT ENGINEER PGVCL RAJKOT RURAL LAXMI NAGAR	98256 03160	2370561

40	SHRI M. K. CHIKHALIYA	EXECUTIVE ENGINEER	99099 40567 89800 31356	-
41	SHRI H. A. DER	DEPUTY ENGINEER	99252 09578	-
42	SHRI H. R. PATEL	SUPERINTENDENT ENGINEER (R & B DEPARTMENT) DISTRICT DRYAGNIK ROAD	99798 74582	2465014
43	SHRI S. S. JANI	SUPERINTENDENT ENGINEER (R & B DEPARTMENT) CITY DR YAGNIK ROAD	75679 19382	2465583
44	SHRI S. R. PATEL (I/C)	SUPERINTENDENT ENGINEER (R & B DEPARTMENT (PANCHAYAT) JILLA PANCHAYAT	98980 98298	2453127
45	SHRI VIVEK GOHEL	SUPERINTENDENT ENGINEER IRRIGATION SCHEME DEPARTMENT BAHUMALI BHAVAN	9426401595	2453161
46	SHRI AKASH PATEL (I/C)	SUPERINTENDENT ENGINEER IRRIGATION DEPARTMENT BAHUMALI BHAVAN	99582 97718	2441125
47	SHRI VIVEK GOHEL	SUPERINTENDENT ENGINEER IRRIGATION DEPARTMENT PANCHAYAT JILLA PANCHAYAT	94264 01595	-
48	SHRI NIRAV PIPALIYA	SUPERINTENDENT ENGINEER, NATIONAL HIGHWAYS DEPARTMENT, KASHI VISHVNATH PLOT RAJKOT	76000 02458	2446605
49	SHRI ANKIT GOHEL (I/C)	SUPERINTENDENT ENGINEER, WATER SUPPLY BOARD, JALBHAVAN UNI ROAD	82007 15265	2563745
50	SHRI PURVAGIBEN GOSAI	SUPERINTENDENT ENGINEER, MECHANICAL DEPARTMENT WATER SUPPLY BOARD, BAHUMALI BHAVAN	99784 07205	-
51	SHRI ANKIT PINARA	SUPERINTENDENT ENGINEER, SAUNI YOJANA BAHUMALI BHAVAN	97732 86982	2443231
52	SHRI MIHIR CHAVDA	DEPUTY EXECUTIVE ENGINEER, (ELECTRICITY) (R & B DEPARTMENT) DRYAGNIK ROAD	89057 14743	2465015
53	SHRI DR. CHETAN MAHETA	DEPARTMENTAL DEPUTY DIRECTOR, HEALTH AND MEDICAL SERVICES, BEHIND SARKARI PRESS, SHROFF ROAD	97129 02184	2459488
54	SHRI R. R. FULMALI	CHIEF DISTRICT HEALTH OFFICER	97277 00031	2443235
55	SHRI DR. MONALI MAKADIYA	MEDICAL SUPERINTENDENT, PDU HOSPITAL	93277 55668	2453414 2450669
56	SHRI R. H. JOSHI	MOTHER AND CHILD WELFARE OFFICER DISTRICT PANCHAYAT	75678 85255	-
57	SHRI BIMAL PATEL	DISTRICT REGISTRAR, COOPERSTIVE SOCIETIES, BAHUMALI BHAVAN	90334 42466	2445223
58	SHRI DIXIT PATEL (I/C)	DISTRICT EDUCATION OFFICER, KARANPARA	99099 71694	-

59	SHRI DIXIT PATEL	DISTRICT EDUCATION OFFICER, JILLA PANCHAYAT	99099 71694	-
60	SHRI MITESH LADANI	JOINT DIRECTOR AND GENERAL MANAGER DISTRICT INDUSTRIES CENTRE	88799 66892	2476376 2440662
61	SHRI DR. S. V. GARARA	DEPUTY DIRECTOR OF ANIMAL HUSBANDRY, JILLA PANCHAYAT	94272 20147	-
62	SHRI H. R. RATHOD	DISTRICT SOCIAL WELFARE OFFICER, JILLA PANCHAYAT	94287 48585	2443851
63	SHRI JANAKSINH GOHIL	PROGRAM OFFICER ICDS JILLA PANCHAYAT	99251 52595	2447775
64	SHRI J. R. SAVNER	ASSISTANT GEOLOGIST, COLLECTOR OFFICE	9537029556	2449875
65	SHRI I. S. TANK	REGIONAL TRANSPORTATION OFFICER NEAR OLD MARKET YARD	75670 23898	2701833 2703366
66	SHRI H. R. JOSHI	DEPARTMENTAL DIRECTOR, S.T. DIVISION, GONDAL ROAD	63599 19039	2386340
67	SHRI SIDHARTH LUKHI	TOWN PLANNER	90331 46749	-
68	SHRI TRUPTI PATEL	DISTRICT AGRICULTURE OFFICER, JILLA PANCHAYAT	97264 93873	2440889
69	SHRI H. V. DIHORA	DISTRICT YOUTH DEVELOPMENT OFFICER, BAHUMALI BAHVAN	98792 90940	2442362
70	SHRI V. P. JADEJA	DISTRICT SPORTS OFFICER, RAJKOT CITY, BAHUMALI BHAVAN	97371 60066	-
71	SHRI RAMABEN K. MADRA	DISTRICT SPORTS OFFICER, NEAR PREM MANDIR KALAWAD ROAD	88661 23185	-
72	SHRI N. K. PATEL	DISTRICT INSPECTOR, LAND OFFICER, SURVEY BHAVAN, JAMNAGAR ROAD	96649 32297	2471211
73	SHRI CHETNABEN MARDIYA	DIRECTOR OF ASSISTANT EMPLOYMENT, BAHUMALI BHAVAN	98795 22005	2440419
74	SHRI J. L. GOHIL	ASSISTANT DIRECTOR OF FISHERIES, OLD COLLECTOR OFFICE COMPOUND	98254 52992	2447864
75	SHRI JAYDIPSINH JADEJA (I/C)	ASSISTANT LABOR COMMISSIONER, JILLA SEVA SADAN-3	97277 62105	2227341
76	SHRI ANKIT CHANDARANA	GOVERNMENT LABOR COMMISSIONER, JILLA SEVA SADAN-3	94082 12454	-
77	SHRI DEVKARAN PIPALIYA	DEPUTY DIRECTOR DEVELOPMENTAL WELFER, BAHUMALI BHAVAN	96017 62690	2447362
78	SHRI ANANDBA KHACHAR	DEPUTY DIRECTOR SCHEDULED CASTE WELFARE	76238 18033	2444902
79	SHRI PRATHNABEN SHERASIYA	CHILD MARRIAGE BAN CO	90993 30928	2448590
80	SHRI ALASHI KARMUR	DISTRICT AID INSPECTOR LOCAL FUND	99788 22004	-

81	SHRI J. L. ARDESHARA (I/C)	ASSISTANT CONTROLLER, LEGAL WEIGHT SCIENCE, UNIVRSITY ROAD	81560 20086	-
82	SHRI V. P. KORAT	DEPUTY AGRICULTURE DIRECTOR, EXTENSION	99799 56814	2482044 2452043
83	SHRI DHARMESH VAGHELA	DISTRICT TOURISM OFFICER, GUJARAT TOURISM CORPORATION	88662 12821	2234507
84	SHRI H. K. PATEL	ASSISTANT COMMISSIONER, FOOD DRUG REGULATORY SYSTEM, UNIVRSITY ROAD	75675 32279	2575719
85	SHRI N. R. CHAUDHARI	DEPUTY DIRECTOR, INDUSTRIAL SAFETY AND HEALTH	98259 73316	2443280
86	SHRI K. K. LAKUM (I/C)	REGIONAL OFFICER, GUJARAT POLLUTION CONTROL BOARD, RACE COURSE RING ROAD	91064 44307	2474524 2459831
87	SHRI I. R. PATEL	DEPUTY TAX COMMISSIONER, CIRCLE-22 GST	94291 94560	2441016
88	SHRI K. S. GOHIL	DEPUTY TAX COMMISSIONER, CIRCLE-23 GST	94260 25523	2441465
89	SHRI AJAY ACHARY	TRIBAL DEVELOPMENT OFICER, BAHUMALI BHAVAN	81403 31602	2478375
90	SHRI DR. A. M. DADHANIYA	DEPUTY ANIMAL HUSBANDRY DIRECTOR, INTIMATE ANIMAL CORRECTION, PEDAK ROAD	94272 39981	24776724
91	SHRI SAMIR BHARAI	ASSISTANT ELECTRICAL ANSPECTOR, JILLA SEVA SADAN- 3	99252 04739	-
92	SHRI SUNIL HAPALIYA	DISTRICT AYURVEDA OFFICER, JILLA PANCHAYAT	95583 34482	-
93	SHRI JANAKSINH GOHIL	DISTRICT WOMEN AND CHILD OFFICER, JILLA SEVA SADAN-3	99251 52595	-
94	SHRI ABDULA KHAN	PROJECT DIRECTOR NATIONAL HIGHWAY AUTHORITY OF INDIA	81300 06125	-
95	SHRI H. D. VADI	PROJECT DIRECTOR, ATMA JAMNAGAR ROAD	98251 84276	-
96	SHRI V. P. KORAT	DEPUTY DIRECTOR OF AGRICULTURE, INPUT, OLD COLLECTOR OFFICE COMPOUND	98251 84276	-
97	SHRI RASHIKBHAI K. BOGHARA	DEPUTY HORTICULTURE DIRECTOR	94294 73224	-
98	SHRI A. A. KARMUR	TREASURY OFFICER, BAHUMALI BHAVAN	-	-
99	SHRI DIPAK BARAEYA	UNIT NANAGER, WASMO	99787 88490	-
100	SHRI A. V. GAUSVAMI (I/C)	DISTRICT CHILD PROTECTION OFFICER, BAHUMALI BHAVAN	82002 01266	-
101	SHRI S. S. GHOSH	ASSISTANT MANAGER, GOVERNMENT PRESS	95454 37385	-
102	SHRI SURESH RANA	REGIONAL MANAGER GIDC, GONDAL ROAD	90999 68874	2540001
103	SHRI K. B. PATEL	PRINCIPAL ITI, BHAVANAGAR ROAD	96876 30346	-

104	AJAY S. CHAREL	REGISTRATION INSPECTOR, DISTRICT REGISTRATION BHAVAN	96629 64444	247481
105	SHRI DR. BHARAT VANVI	SUPERINTENDENT PDAMKUVARBA HOSPITAL, GUNDAVADI	8799517263	2227136
106	SHRI K. BISVAN	LEAD BANK MANAGER, SBI, JIMKHANA BRANCH	96649 30649	2222552
107	SHRI SHREYANSH SIDHAPARA	DEPUTY EXECUTIVE ENGINEER, PIU HEALTH, ABC MEDICAL QUARTER	75679 03334	2222552
108	SHRI DIGANT BORAH	DIRECTOR HIRASAR INTERNATIONAL AIRPORT	94272 07439	-
109	SHRI P. M. JADEJA	TREASURY OFFICER, PENSION PAYMENT OFFICE	99248 69799	-

➤ **GUJARAT STATE FIRE PREVENTION SERVICES GANDHINAGAR UNDER REGIONAL OFFICERS LIST.**

NO	OFFICER NAME	DESIGNATION	OFFICE NAME	MOBILE NO
1	SHRI NALIN CHOUDHARY	DIRECTOR	GANDHINAGAR	9978411037
2	SHRI V.N. SOLANKI	DEPUTY DIRECTOR	GANDHINAGAR	83470 33611
3	SHRI ANIL CHAVDA	DEPUTY DIRECTOR (TECHNICAL)	GANDHINAGAR	9875226996
4	SHRI HIMANSHU B. PATEL	REGIONAL FIRE OFFICER	RAJKOT	70413 21132
5	SHRI P. B. GADHVI	REGIONAL FIRE OFFICER	SURAT	99743 35667
6	SHRI HIMANSHU B. PATEL	REGIONAL FIRE OFFICER	BHAVNAGAR	70413 21132
7	SHRI PRAVIN SARASVAT	REGIONAL FIRE OFFICER	AHMEDABAD	91540 97796
8	SHRI PRAVIN SARASVAT	REGIONAL FIRE OFFICER	GANDHINAGAR	7041321132
9	SHRI ANIRUDH GADHAVI	REGIONAL OFFICER	VADODARA	98791 22663
10	SHRI PUNIT PATEL	DY REGIONAL FIRE OFFICER	AHMEDABAD	99746 03529
11	SHRI RAGHVENDRA ZALA	OFFICE SUPERINTENDENT	GANDHINAGAR	90990 09284

➤ **STATE MUNICIPAL CORPORATION CHIEF FIRE OFFICER**

SR.NO	CHIEF FIRE OFFICER	CITY	CONTACT NUMBER		
			PHONE NO	FAX	MOBILE
1	SHRI AMIT ANANDRAV DONGARE	AHEMDABAD	22148466 25391811	22148598	92744 94725
2	SHRI RAJUBHAI PATEL	GANDHINAGAR	079- 23222141	079- 23222742	97145 54586
3	SHRI VASANT KUMAR PARIKH	SURAT	0265- 24237503	2451935 2422110	97243 45553
4	SHRI AMITBHAI CHAUDHARI	VADODARA	2420881/2	2420881	90994 26206
5	SHRI AMIT K. DAVE	RAJKOT	0281- 2227222	0281- 2226185	97145 04346

6	SHRI PRDHUMANSINH JADEJA	BHAVNAGAR	0278-2424814	2430061	98252 04004
7	SHRI K. K. BISNOI	JAMNAGAR	2550340	2552321	98795 31101
8	SHRI V. V. TIMBADIYA	JUNAGADH	2652101/101	2651510	8980015469

➤ **RAJKOT CITY POLICE**

Sr. No	Officers Name	Designation	Police Station	Office	Mobile
1	Shri Brijesh Kumar Zha	CP	Rajkot City	2459888	9978406298
2	Shri Chaitanya Mandalik	Addl. CP	Rajkot City	2474888	9978400145
3	Shri Hetal Patel	DCP Zone-1	Rajkot City	2474497	9978406339
4	Shri Rakesh Desai	DCP Zone – 2	Rajkot City	2457416	9978407284
5	Shri Jagdish Bangarva	DCP Crime	Rajkot City	2455880	9978407284
6	Shri Harpalsinh Jadeja	DCP Traffic	Rajkot City	2457681	9978405918
7	Shri B. V. Jadav	ACP	East Division	2242757	9825355493
8	Shri V. B. Jadeja	ACP	North Division	2230235	9825290500
9	Shri Radhika Bharai	ACP	West Division	2574388	9978408304
10	Shri B. J. Chaudhari	ACP	South Division	2450360	9512336099
11	Shri B. B. Bashiya	ACP	Crime Branch	-	9033690990
12	Shri M. I. Pathan	ACP	PHQ	2440411	9925012109
13	Shri C. M. Patel (I/C)	ACP	Ciber Crime	2433611	7880408310
14	Shri C. M. Patel	ACP	SC-ST Sell	2472483	8780408310
15	Shri R. S. Baraiya	ACP	Women Sell	-	9925035833
16	Shri V. G. Patel	ACP	Police Control	2457777	9978913796
17	Shri M. M. Lalivala	ACP	Traffic Branch	-	9727511537
18	Shri K. P. Parmar	ACP	Wireless	-	9428199272
19	Shri J. S. Gamit	PI	Traffic Branch	-	9727511537
20	Shri R. G. Barot	PI	Traffic Branch	-	8469250021
21	Shri M. G. Vasava	PI	Traffic Branch	-	9909493920
22	Shri M. D. Gadhavi	PI	Traffic Branch	-	9825059504
23	Shri S. S. Rane	PI	B. Division Police Station	2230638	9712422046
24	Shri B. P. Rajiya	PI	Kuvadva Road	2704050	9904201350
25	Shri R. N. Savaliya	PI	Airport	-	9978822989
26	Shri N. G. Vaghela	PI	Thorala Police Station	2389551	9925664446
27	Shri M. M. Sarvaiya	PI	Bhakti nagar Police Station	2391058	9909974447
28	Shri A. B. Jadeja	PI	Aji dam Police Station	7433814808	9687500111
29	Shri B. V. Borisagar	PI	A Division Police Station	2226659	8128248373
30	Shri J. R. Desai	PI	Malaviya nagar	2380046	4724028768
31	Shri D. M. Hirpara	PI	Rajkot Taluka	2563340	7383313325
32	Shri S. R. Meghani	PI	Gandhigram Police Station	2588085	9712947436
33	Shri S. N. Patel	PI	University Police Station	2575124	9510122762
34	Shri V. R. Vasava	PI	Pradhyuman Nagar	2446055	9726698473

35	Shri S. N. Rathod	PI	Women Police Station	6359627432	8469250021
36	Shri M. R. Gondaliya	PI	DCB	2444165	9687654989
37	Shri M. L. Damor	PI	DCB	-	9712928591
38	Shri C. S. Jadav	PI	DCB	-	9824772969
39	Shri S. M. Jadeja	PI	SOG	2459303	9714900997
40	Shri C. Y. Mahale	PI	Cyber Crime	-	9586833702
41	Shri J. M. Kaila	PI	Cyber Crime	2433611	9979705076
42	Shri R. G. Padhiyar	PI	Cyber Crime	-	8320475922
43	Shri S. D. Gilva	PI	Cyber Crime	-	9898389446
44	Shri M. A. Jankat	PI	Cyber Crime	-	
45	Shri B. B. Jadeja	PI	Cyber Crime	-	8200639608
46	Shri K. P. Patel	PWI	Cyber Crime	-	9904355383
47	Shri N. H. Nimavat	PWI	Cyber Crime	-	9427237824
48	Shri N. V. Hariyani	PI	IUCAW	-	8000020976
49	Shri B. M. Jankat	PI	AHTU	-	7698983267
50	Shri K. J. Krpada	PI	EOW	-	9825183529
51	Shri P. R. Dobariya	PI	EOW	-	9978194661
52	Shri G. R. Chauhan	PI	Special Branch	2441076	9909200968
53	Shri K. P. Taretiya	PI	Reder Branch	2475501	9712223226
54	Shri M. R. Gondaliya	PI	PCB (I/C)	-	9678654989
55	Shri B. T. Akbari	PI	Lisench Branch	-	9726635189
56	Shri M. S. Bhati	PI	MOB	-	9428312577
57	Shri P. M. Makvana	PI	Passport	-	9427280034
58	Shri S. K. Jadeja	PI	Comand & Control	2472484	9998165040
59	Shri K. K. Javiya	PI	Comand & Control	-	7600600476
60	Shri S. B. Zala	RPI	Police head quarter	2440411	8320120929
61	Shri A. B. Makvana	RPI	Police head quarter	2440411	9712321913
62	Shri S. S. Baraiya	RPI	Police head quarter	2440411	9712321913
63	Shri J. G. Teraiya	PSI	Perol	-	9974261386
64	Shri M. K. Movliya	PSI	LCB-1	-	9978201685
65	Shri R. H. Zala	PSI	LCB-2	-	9825855350
66	Shri Abhisekh Tiwari	PWSI	Computer sell	2476232	9925199090
67	Shri R. S. Bhatt	PSI	M.T	-	9824452659
68	Shri V. P. Sarvaiya	PSI	Dog Scot	-	9784917979
69	Shri S. M. Solanki	PSI	QRT	-	8530708010
70	Shri Anopsinh Vaghela	ASI	BDDS	-	9904300768
71	Shri Gauriben Sindhe	ASI	Cortroom	-	9879641052
Police Control Room Rajkot City – 0281-2457777/2457681/2457682/100 Fax-2458526 Email Id-cr-cp-raj@gujarat.gov.in					

➤ **List of swimmers of Rajkot city police department.**

Sr. No	Designation	Name	Police station	Mobile
1	Police had constable	Anirudhh Sinh Tapubha	Police had quatre	9879527827
2	Police constable	Dipak Bhai Jitendra Kumar	Police had quatre	8153584248

3	Police constable	Devendra Bhai Pratapdan	Police had quatre	9904251511
4	Police constable	Vimal Bhai Mansukh Bhai	Police had quatre	9427759202
5	Police constable	Bipin Bhai Savjibhai	Police had quatre	9924680100
6	Police constable	Jaydip Sinh Aniruddhsinh	Police had quatre	7600000151
7	Police constable	Lalji Bhai Kbabhai	Police had quatre	9574918518
8	H. Lock Rakshak	Mayur Dhvij Sinh Jadeja	Police had quatre	7043299997
9	H. Lock Rakshak	Hiren Kumar Kalu Bhai Sabhad	Police had quatre	7567629021
10	H. Lock Rakshak	Shailendra Sinh Kiritsinh Zala	Police had quatre	9904300009
11	H. Lock Rakshak	Ajay Bhai Bhimji Bhai Sindhav	Police had quatre	8141929984
12	H. Lock Rakshak	Pratik Bhai Anil Bhai Chauhan	Police had quatre	9924407580
13	H. Lock Rakshak	Rohit Bhai Shailesh Bhai Parmar	Police had quatre	9033348248
14	H. Lock Rakshak	Dipak Bhai P. Bavaliya	Police had quatre	8758064891
15	H. Lock Rakshak	Ajay Bhai Matra Bhai Khamhaliya	Police had quatre	8000490098
16	H. Lock Rakshak	Hitesh Kumar Khibhai Dabhi	Police had quatre	7567717176

➤ **List of swimmers of Rajkot city Home Guard department.**

Sr. No	Home Guard Name	Charter No	Zone	Mobile No
1	Jitendra Dinkar Rai Vyas	N-01	North	9925088088
2	Raviraj Sinh Guman Sinh Jadeja	N-49	North	8905559702
3	Mehul Bhai Jivaraj Bhai Malkia	N-56	North	9998385041
4	Nitin Bhai Govind Bhai Rthod	N-68	North	9998994896
5	Vipul Bhai Chagan Bhai Parmar	E-28	East	9824419700
6	Subhash Bhai Raghuram Bhai Niranjani	E-55	East	9377392538
7	Sarfaraz Satar Bhai Solanki	E-82	East	9879595522
8	Haresh Bhai Khodu Bhai Khachar	E-83	East	9662756677
9	Anil Bhai Valji Bhai Chauhan	E-87	East	9913390149
10	Paras Tulsi Bhai Makavana	E-91	East	9228701296
11	Hardip Bhai Lkshaman Bhai Jadavbheda	E-95	East	7046597972
12	Babu Bhai Soma Bhai Zala	W-60	West	9624160501
13	Prabhat Shiva bhai Jakhaliya	W-61	West	9726878388
14	Chandradipsinh Pruthavirajsinh Parmar	W-128	West	7878099699

➤ **List of social institutions located in Rajkot city**

Sr. No	NGO Name	Steersman Name	Phone Number		
			Office	Fax	Mobile No
1	Bal Bhavan	Mansukh Bhai Joshi	2440930	-	9825229900
2	Sargam Club	Gunvant Bhai Delavala	2467717	-	-
3	Andh Mahila Vikas Gruh	Prakash Bhai Mankodi	2361650	-	9427943710
4	Arvind Bhai Maniyar Trust	Vallabha Bhai Kathiriya	2450101	2445800 2445700	-
5	Youth Hostel Marke O	Janardhan Pandya	-	2386138	-
6	Kuch Prod Counsel	Achu Bhai Dave	2226935	2226935	9426254053
7	Kathiyavad Balashram	Jayen Bhai Desai	2222071 2231340	-	9426668923 9409696068
8	Andh Sarvoday Mandal	-	2481424	-	-
9	Freedom Yuva Grup	Bhagyesh Bhai Vora	2570596	-	9427730462
10	Kanta stri Vikas Gruh	Sunila Ben Seth	-	-	-
11	Lafin Club	M. N. Davda	2474827	-	9427154230 9899240161
12	Machin Tools Manu. Asso	Shailesh Bhai Kava	-	-	982532312
13	Pujit Rupani Memo. Trust	Bhavin Bhai	2704545	-	9426998701
14	Punit Seva Samaj	Chandu Bhai	2232922	-	9427637484
15	Stat Government Pensioners	A.V. Joshi	-	-	-
16	Ramkrushn Ashram	Svami Dhruveshanand ji	2463000	2480404	9879514670
17	Saurashtra Plastic Mans Asso	Parag Bhai	-	2221183	9824221780 9825520489
18	Viveka Nand Youth Club	Anupam Bhai Joshi	2365682	-	9428833796
19	Special Home for Boys	Pankaj Bhai Dudharejiya	2441160	-	9429571900
20	Ranchod Das Ji Ashram	Jigna Ben Nimavat	24570014243	-	-
21	Bolbala Cheri Table Trust	Jignesh Bhai Chotai	-	-	9374103523
22	Pragat Cheri Table Trust	Jagdish Bhai Bhatt	-	-	9925017888
23	Swami Narayan Gurukul	Purna Nand Swamiji	2377701	-	9825073005
24	Daudi Vora Trust	-	2229582	-	9825072989

➤ **Organizations Providing Food Packets**

Sr. No	NGO Name	Steersman Name	Phone No
1	Shri Swami Narayan Gurukul, Gondal Road	Shri Purn Prakash Swamiji	9825073005 0281 2377701/02
2	Shri Axar Mandir , Kalavad Road	Shri Bramh Tirth Swamiji	9998993030 0281 2451800
3	Shri Ranchod Das ji Ashram, Kuvadva Road	Nisha Ben Udani Pravin Bhai	-

4	Shri Ram Krushn Ashram, Dr. Yagnik Road	Shri Jagdish Maharaj	9328859719
5	Bolbala Cheri Tebal Trust, 9/18 Laxmi Vadi	Shri Jayesh Bhai Upadhyay	9374103523 0281 2243008
6	Shri Pragat Cheri Tebal Trust	Shri Jagdish Bhai Bhatt	9925017888 9825335484
7	Shri Bhavnath mitral Mandal Trust, Gurujan Society	Shri Raju Bhai Sorathiya	-
8	Shri Daudi Vora Trust	Shri Pallu Bhai Shri Akbar Bhai Shri Ikbal Bhai Shri Jnab Anil Saheb	9825072989 9898225252 9375707252 0281 2229552
9	Satynam Rachnatmak Vikas Mandal	-	-
10	Vatsalaya Education & Cheritebal Trust	Shri Jaydip Bhai Kacha	9904919151

➤ **Other ambulances and dad body vehicle Services in the city.**

Sr No	NGO Name	Adress	Phone No
1	Dhakan Hospital	Behind Manu bhai Cotan vala, Kuvadva Road	Abhishek Bhai 9376155510
2	Geban shah pir Dargah	Near Kothi Compaund, Junction road	Yusuf bhai 8000307860
3	Rail way Hospital	Jamnagar road	-
4	Police Department Police Comi.	Police Commissioner Area	2443660/484/645
5	N. M. Virani General Hospital	Kalavad Road	0281 6694300
6	Shri Sargam Club	Ramnath para Muktidham	2221950/2221911
7	Shri Jogi Seva Samaj	80 Feet road, Kothariya colony	7043210175
8	Shri Mdhuram Hospital	Dhebar Road South	0281 2391388
9	Bolbala Trust	Millpara	9374103523
10	Udaybhai	-	9978011135
11	Rajubhai Amreliya, Pragati Hospital	-	9724181890 9974726670
12	Rasulbhai Bhatti	-	9924890995
13	Ramnikbhai Parmar	-	9978055604
14	Sardar Patel	-	9924248150

➤ **COMMUNITY HEALTH CENTR**

SR. NO	BLOCK	MEDICAL OFFICER	HEALTH CENTER	PHONE NUMBER	MOBILE NO
1	UPLETA	DR. ASHOK J. KANANI DR. SAUFUDIN SIDIKI	BHAYAVADAR		75678 76156 80587 73058
2	KOTADA SANGANI	DR. VIRANCHI J. VAGHASIYA DR. VIJAY G. VAGHELA DR. DEVANSHI SONI	SHAPAR		91572 07477 87588 26475 63558 13516
3	DHORAJI	DR. VISHVA J. BOSAMIYA DR. SAKSHI R. CHAIYA	MOTI MARAD		75676 34327 73590 96943
4	LODHIKA	DR. VIMAL A. CHAUHAN	LODHIKA		88666 45488

		DR. KARAN S. MAHETA DR. KRUNAL RAIYANI			74359 60654 99980 06083
5	JASDAN	DR. MAHESH D. CHAVDA DR. ADITYA M. KADEVAL DR. KHUSHAL K. THUMAR	SANTHALI		99749 71008 93136 63360 81406 60927
6	GONDAL	DR. CHANDRESH P. BELADIYA DR. NENSHI LAKHANI	KOLITHAD		96248 17242 63597 92192
7	KOTADA SANGANI	DR. P. R. RAMANI DR. R. G. NAKUM DR. MANVIR SINDHAV	KOTADA SANGANI		99099 87766 99797 40124 77272 77401
8	JAM KANDORANA	DR. BHARAT M. BAMROTIYA DR. DHURVRAJ S. PAGHDAL	JAM KANDORANA	0282 4271438 0282 4271438	63515 42220 70691 89935
9	JETPUR	DR. B. D. DODIYA DR. H. P. MEHATA	VIRPUR JALARAM	02823 281416	94282 82321 9426159408
10	RAJKOT	DR. P. P. PATEL	KUVADAVA		97235 91425
11	PADDHARI	DR. V. R. CHAVDA DR. SAKSHI CHAPANI	PADADHARI	02820 233441	94097 57712 63555 60588

➤ **R.C.H.MO of Center and Address of Health Centre**

No	Zone	Ward no	Health centre name	Health centre Address	Medical Officer Name	Mobile number
1	Central Zone	2	Bajrangvadi Health center	Bajrangvadi Main Road, Jamnagar Road	Dr. Vikash M. Chavda	9227984587
2		3	Junction plot Health centre	Opposite Railway Junction, Beside Ward Office	Dr. Jay Kumar B. Kalariya	9227984588
3		3	Rail Negar Health Centre	Astha chow, Rail Ngar Main Road	Dr. Sahil Khokhar	9227984589
4		7	Ramnathpara Health centre	Ramnath para street no-21	Dr. Toral P. Shah	9227984585
5		7	Vijay Plot Health centre	Vijay nagar main road, Behind R.P.Bhalodiya colaage	Dr. Aman Patel	9227984590
6		13	Narayan Nagar Health centre	Near PDM Fatak, Dhebar road	Dr. Pratik B. Maheta	9227984581
7		14	Akhil hind mahila parishad Health centre	Gatrad chow, Laxmivadi main road	Dr. Mauli Ganatra	9227984584
8		17	New Raghuveer Health centre	Raghuveer Society, Babariya main road	Dr. Chandan V. Makavana	9227984582
9		17	Hudko Health Centre	Opp site hudko police station, haridhava road	Dr. Krishma Khimsuriy	9227984583
10		3	Madhapar Health Centre	Manharpur-1, Jamnagar Road	Dr. Manal Dholakia	9227984586
11	East Zone	4	Bhagvati Para Health Centre	Bhagvati Para Street No.-5	Dr. Vishal Dangar	9227985188
12		4	Morbi road Health centre	Morbi Road, Jakat Naka	Dr. Charmi Madhani	9426672067
13		5	I M A Health centre	Satellite chow, B Division police station, near word office 5	Dr. Anjali Pedhadiya	9227985190

14		5	Maldhari Health centre	Narsinh Nagar Street No.-3, Behind RTO Office	I/C Dr. Mitul Chavda	9737010455
15		6	Kabir van Health Centre	Kabir van Society Street no1, sant Kabir Road	Dr. Darshit Muliya	9227985184
16		6	Ram Park Health Centre	Ram Park Coman plot, Bhavnagar Road	Dr. Tejal Boricha	9227985187
17		15	Champak bhai Vora Health Centre	Near Ambedkar Gait, Amul chowk 80 feet road	Dr. Vishal A. Pandya	9227985186
18		16	Parnami chowk Health Centre	Parnami chowk, Siyani main road	Dr. Madhuri N. Bhatt	9227985183
19		18	Kothariya Health Centre	Sumangal gait, Near Gyandeep School, Kothariya man road	Dr. Yasmin Bavani	9510229766
20		18	Kothariya Solvent Health Centre	House no-187, Narayan nagar main road, near relve fatak	I/C Dr. Shital Ranchani	9773493330
21	West Zone	1	Shyam Nagar Health Centre	Near Baleshwar Temple, Shyam Nagar, Gandhi gram	Dr. Harsida Namera	9274398146
22		1	Raiya Dhar Health Centre	Near Nana mauva chwok	Dr. Jigar Nath Gausvami	9664894410
23		8	Nana Mauva Health Centre	Near Nana Mauva chwok	Dr. Mansi M. Dodiya	9274394073
24		11	Kankot Road Health Centre	Near Nana Mauva Chwok	Dr. Jaypal D. Chauhan	9274394078
25		9	Munjka Health Centre	Munjka gam, Near Harivandna collage	Dr. Maulik Thakar	9274394123
26		9	Nandan van Health Centre	Nandan van Society, Opp site Gandhigram police station	Dr. Nishita Somaiya	9274398149
27		10	Deepvan Health Centre	Prabhu Krupa -6, Ram park, Opp site Siddhnath Temple	Dr. Ayusi Charan	9274394084
28		11	Mavdi Health Centre	Mavdi Village Dada Mekaran Chwok , Mavdi Road	Dr. Umesh Manvar	9274394082
29		12	Vavdi Health Centre	Near Punit Nagar Tank, 150 Feet Ring Road, Vavadi Village	Dr. Kuldip Lunasiya	9274394085

30		13	Ambedkar Nagar Health Centre	Ambedkar Nagar, Gokul Dham Main Road, Samrat Industrial Area	Dr. Bhavin Maheta	9274394096
31		14	Laxmi Nagar Health Centre	Laxmi Nagar Main Road, 6A Corner	Dr. Rahi Sakariya	7433035197

➤ **Irrigation Department**

Sr. No	Name	Designation	Office	Residential	Mobile No
1	Shri S. J. Ramani	Executive Engineer	Irrigation Panchayat Department	23. Mehul Nagar, Sant Kabir Road	9979908090
2	Shri R. S. Jadav			B-202, Ajmera Apartment Jamnagar Road	9624931184
3	Shri K.M Tank	Deputy Executive Engineer	Irrigation Panchayat	172, Kumbhar street, Iev nagar t, d. Junagadh	7984612066
4	Shri J. B. Tank	Ass. Executive Engineer	Subdivision-1 Rajkot	Government quater unit no.18, block no.c-13, behind bahumali bhavan reach cores	9909385421
5	Shri D.M. Limbasiya	Deputy Executive Engineer	Irrigation Panchayat Subdivision-1 Rajkot	75 Sai baba park, behind Saty Sai hospital, kalavad road	8154891975
6	Shri B.S. Muliya	Executive Engineer		Bhagvati para, street no-2, parevadi chowk	7874036515
7	Shri N. D. Srivastav	Deputy Executive Engineer	Irrigation Panchayat	Jasdan	9727741006
8	Shri d. k. Dhadiya	Executive Engineer	Subdivision Jasdan	Jasdan	992420694
9	Shri J. P. Rabadiya	Executive Engineer	Irrigation Panchayat	301, Gopinath Palac, Opp site Ayushman hospital Sumit Nagar Rajkot	846913595

10	Shri D. M. Bhanderi	Work assistant	Subdivision Gondal	Rajmoti society, old Morbi road, behind Astha Velina Rajkot	8140405498
11	Shri M. D. Ahir	Deputy Executive Engineer	Irrigation Panchayat Subdivision Upleta	Radhakrishna house Kolki road behind Astha Velina Rajkot	7878452052
12	Shri T. A. Khunt	Executive Engineer	Irrigation Panchayat	Jamnavad road, hosing bord society, Dhoraji	9726722874

➤ **P.G.V.C.L. City Department**

Sr. No	NAME	DESIGNATION	OFFICE NAME	CONTACT NUMBER	
				OFFICE	MOBILE
1	J. B. UPADHYAY	SUPERINTENDT ENGINEER	RAJKOT CITY CIRCLE OFFICE		6357428958
2	M. M. GOHEL	EXECUTIVE ENGINEER	RAJKOT CITY SECTION-1		9925209041
3	M.K. SARVIAYA	EXECUTIVE ENGINEER	RAJKOT CITY SECTION-2		9925209041
4	S. G. SOJITRA	EXECUTIVE ENGINEER	RAJKOT CITY SECTION-3		9925209109
5	M. A. CHAVDA	DEPUTY ENGINEER	AJI INDUSTRIAL	02812384454	9925209066
6	SMT B. R. RAVAL	DEPUTY ENGINEER	PRAHLAD PLOT	02812225590	9925209057
7	G. V. KUVARDA	DEPUTY ENGINEER	AJI -1	02812701200	9925209062
8	S. M. PATEL	DEPUTY ENGINEER	KOTHARIYA ROAD	02812364669	9925209068
9	D. P. RATHOD	DEPUTY ENGINEER	MILLPARA	02812225603	9925209060
10	B. M. KOTADIYA	DEPUTY ENGINEER	AJI-2	02812704549	9925209063
11	D. S. SHIYANIYA	DEPUTY ENGINEER	SORATHIYA VADI	02812364669	9925209061
12	H.G. SOLANKI	DEPUTY ENGINEER	H.T.-1	02812226817	9925209119
13	D. N. PATEL	DEPUTY ENGINEER	MORBI ROAD		6357327341
14	K. B. KANANI	DEPUTY ENGINEER	BEDINAKA	02812238762	9925209086
15	P. D. LIMBASIYA	DEPUTY ENGINEER	LAXMINAGAR	02812368041	9909932492
16	P. P. BHARDVAJ	DEPUTY ENGINEER	MAHILA COLLAGE	02812574665	9925209081
17	N.P. BAGATHALIYA	DEPUTY ENGINEER	PRADHYUMAN NAGAR	02812457178	9925209078
18	M. N. CHANDRPAL	DEPUTY ENGINEER	UDHYOG NAGAR	02812362252	9925209083
19	V. R. PANCHAL	DEPUTY ENGINEER	MADHAPAR	02812222453	9925209112
20	R. S. JADEJA	DEPUTY ENGINEER	RAIYA ROAD	02812370114	7334870854
21	R. J. PRAJAPATI	DEPUTY ENGINEER	H.T-2	02812232000	9925209086
22	S. T. ZALA	DEPUTY ENGINEER	KALAVAD ROAD	02812586544	9925209095

23	N. R. KANDORIYA	DEPUTY ENGINEER	MAVDI ROAD	02812312921	9925209123
24	S. K. CHAUHAN	DEPUTY ENGINEER	NANA MAHUVA	02812360112	9925213916
25	S. K. SHYARA	DEPUTY ENGINEER	VAVDI	02812702527	9925209110
26	D. P. BHATTI	DEPUTY ENGINEER	H.T-3	02812238311	9925209110
27	Y. K. SOLANKI	DEPUTY ENGINEER	KHOKHAD DAD	-	7069006719
28	J. L. AMRUTIYA	DEPUTY ENGINEER	MOTA MAHUVA	-	6357327351
29	A.M. GHODASARA	DEPUTY ENGINEER	PAL ROAD	-	6357084867

➤ **City Circle Fault Center**

Sr. no	City Circle Office Name	Divisional Officer Name	Sub Division Office Name	Phone No.	Mobile No.
1	Rajkot City Circle Office	Costemer care center		18002331553 33	9687639533 9687639538
2	Rajkot City Circle Office	Rajkot city Department-1	Prahlad plot		9687633692
3	Rajkot City Circle Office	Rajkot city Department-1	Sorathiya vadi	02812233158	9687633718
4	Rajkot City Circle Office	Rajkot city Department-1	Aji -1	02812706012	9925209768
5	Rajkot City Circle Office	Rajkot city Department-1	Aji industrial	02812384453	9687633714
6	Rajkot City Circle Office	Rajkot city Department-1	Millpara		9687633713
7	Rajkot City Circle Office	Rajkot city Department-1	Aji – 2	02812701165	9687633717
8	Rajkot City Circle Office	Rajkot city Department-1	Kothariya Road	02812232928	9687633715
9	Rajkot City Circle Office	Rajkot city Department-1	Morbi road		6357327348
10	Rajkot City Circle Office	Rajkot city Department-1	H.T.-1		9925209774
11	Rajkot City Circle Office	Rajkot city Department-2	Pradyuman Nagar	02812477397	9925209782

12	Rajkot City Circle Office	Rajkot city Department-2	Udyog Nagar	02812366134	9925209779
13	Rajkot City Circle Office	Rajkot city Department-2	Raiya Road	02812583732	9099904770
14	Rajkot City Circle Office	Rajkot city Department-2	Madhapar	02812222473	9925209761
15	Rajkot City Circle Office	Rajkot city Department-2	Mahila Collage	02812471411	9925209780
16	Rajkot City Circle Office	Rajkot city Department-2	Laxmi nagar	02812360333	9925209786
17	Rajkot City Circle Office	Rajkot city Department-2	Bedi naka	02812477618	9925209777
18	Rajkot City Circle Office	Rajkot city Department-2	H.T.-2		9925209787
19	Rajkot City Circle Office	Rajkot city Department-3	Vavdi		9925209765
20	Rajkot City Circle Office	Rajkot city Department-3	Kalavad road	02812585644	9925209781
21	Rajkot City Circle Office	Rajkot city Department-3	Khokhaddad		6357084868
22	Rajkot City Circle Office	Rajkot city Department-3	Mavdi road	02812312823	9925209773
23	Rajkot City Circle Office	Rajkot city Department-3	Nana mahua	02812360114	9925209783
24	Rajkot City Circle Office	Rajkot city Department-3	Mota mahua		6357373416
25	Rajkot City Circle Office	Rajkot city Department-3	H.T.-3		9925209767

➤ **Other Teli Phone Number**

No	Department	Phone No
1	P.G.V.C.L Corporation office	2380425/ 27
2	Street Light Control Room Office	2450077
3	Customer care centre	96876 39533 / 38
4	Customer care toll free	18002331 55333
5	Electricity Theft Complaint Number (Toll Free)	18002333 0 30
6	Laxmi Nagar Reception (for PGVCL information)	2380425 / 27

➤ **P.G.V.C.L. Rural**

Sr No	Officer Name	Office Name	Designation	Phone No	Mobile No
1	Rajkot Rural Circle	J. B. Upadhyay	South east	0281 2370561	9825603160
2	Rajkot Rural Circle	J. A. Harsoda	Deputy Engineer		9925209125
3	Dhoraji	B. P. Rada	EE	02824 220114	9925209152
4	Gondal	N. J. M	EE	02825 220040	9925209133
5	Jetpur	D. K. Jethva	EE		8238657632
6	Jasdan	D.M. Sosa	EE		8160963928
7	Rajkot Rural	K. G. Patel	EE		6359976261

➤ **Water Supply Department**

No	Designation	Officer mobile no	Residential address
1	Executive Engineer (in charge)	9737528284	Gokul Dham Society, Block No-333, Street No-5, Umaiya Chowk, 150 Feet Ring Road Rajkot.
2	Deputy Executive Engineer.	9737528284	
3	Deputy Executive Engineer (in charge)	9978443576	"Adarsh City" Block No-6, Behind Udagam School, 80 Feet Main Road Rajkot.
4	Deputy Executive Engineer (in charge)	9875682867	Jagruti Deep Heights, Sheetal Park, 150 Feet Ring Road, Rajkot
5	Deputy Executive Engineer (in charge)	-	Currently serving as in-charge on transfer of regular N.K.E.
6	Deputy Executive Engineer (in charge)	-	

➤ **Road And Building Department (Rajkot city / District)**

Sr. No		Designation	Phone/Fax No	Mobile No.
1	Shri S. R. Patel	Executive Engineer i/c	2465014/2468873	9979874582
2	Shri S. D. Makwana	Superintendent, Circle-2	2448490/2448878	
3	Shri M. D. Dabhi	Deputy Executive Engineer, Rajkot, Lodhika, Paddhari	2468873	9825652515
4	Shri M. I. Jadeja	Deputy Executive Engineer, Subdivision Gondal (Gondal, Jasdan, Kotada sangani, vichiya)	02825-220169	9998199517
5	Shri A. A. Baranval	Deputy Executive Engineer, Subdivision Gondal (Jetpur, Jam kandorana, Dhoraji, Upleta)	02823-221247	7389549432
6	Shri S. S. Jani	Executive Engineer class-1, City		7567919382
7	Shri H. R. Parmar	Deputy Executive Engineer-2 City Subdivision		8160931655

8	Shri N. V. Pipaliya	Deputy Executive Engineer- Class-2 Bandhkam		7600002458
9	Shri D. M. Chovatiya	Deputy Executive Engineer Class-2, Police campus		9099223530
10	Shri P. J. Vaniya	Deputy Executive Engineer		9879404035
11	Shri S.V.Vasavda	Manager Serkis house		9428015101
12	Shri M. K.Chavda	Deputy Executive Engineer		8905714143
13	Shri B. L.Karmata	Section Officer, yantrik		9426222788
14	Shri P. B. Patel	Executive Engineer		9427206321
15	Shri A. S.Chaudhari	Deputy Executive Engineer		9825114889

➤ **Names, addresses and phone numbers of crane holders.**

No	Name	Adress	Contect No
1	Dhiren Crane Girish Bhai Dangar	3, Bhaktinagar station	9824040842
2	New Patel Crane, Haresh Bhai, Nilesh Bhai	Near Shaper CNG Pump	9825726849 9913074173
3	Himalya Crane, Girish Bhai	Near Penchant Mahadev temple, lambda Chowk	0281-2231980 0281-223598
4	Krupa Crane Services, Jayesh Bhai	Khokhaddal river, Ahmedabad Road	8306003331
5	Murlidhar Crane Services, Arjun Nagar		9825206330
6	Gujrat crane services, Bharat Bhai	Newar Punit Nagar Tanka, Gondal Road	9824423285
7	Ishwar crane services, Balvirsinh	Near Hargange Way Bridge, GIDC, Shaper	9825497683
8	India crane services, Rafik Bhai	Near Atika Fatak, Dhebar Road	9913803111
9	Mazar crane services, Hasam Bhai	Near Atika Fatak, Dhebar Road	9173317298
10	Shyam crane services	Meera Udyog, Plot no.1, Aji GIDC side.	9033353775 9429166102
11	Jay Bharat crane services, Arvind bhai	150 Feet Ring Road, Punit Nagar Beside Water Tank	9978178789 9427430147
12	Sai crane services Nanda Bhai	Rajkot District Co. Op Bank, Chandra chowk, Mavdi Main Road	9998389999 9825790914
13	Deep crane services, Ranjit Bhai		9879500107 8238500005
14	Jay hind crane services, Nageswar Bhai	Near Shital Mataji Temple, Bhunawa	9925117207 9687617207
15	Kamal crane services, Nizam Bhai, Altaf Bhai	Near Dholrana Patiya, Gondal Road	9879626424 9712293637
16	Jay Sardar Crane services	Near Ashok Leyland	8320805247
17	Shriram crane services	Gondal Road	9924353911 9727503691
18	Banshidhar crane services	Shaper village	8238500005
29	Patel Crane Services	Shaper village	9824521317
20	Himalaya crane services		02812226795
21	Harsiddhi crane services, Ramesh Bhai	Shaper	9824950710 9904213171
22	Egal crane services, Ramesh Bhai	Near Attica fatal	9427727567
23	Mahakali crane services, Ramsing Bhai	Near Bhakti Nagar Railway Station	9824246662 9879298369
24	V. V. Motor Garej, Pravin Bhai Sabhaya	Bhavnagar Road Rajkot Near Bedi Para Fire Brigade	
25	Police commissioner Shri	Police Commissioner's Office, Near Racecourse, Rajkot	Control Room100 Office.2459888

26	Central work shop, Shri Ashokbhai	R. M. C. Bhavnagar Road, Recovery Van-1	Office .2387419 Resid. 2277666
27	S. T. Work Shop	ST Divisional Mechanical Divisional Manager	O. 2386449
28	Omkar Crane Services	Gondal Road	9825497683

➤ **Gas Cutting Holders in Rajkot City**

Sr No	Holders Name	Adress	Phone No
1	Vijay Welding Warkes	Bhakti Nagar station road	2461583
2	Steel fabric Eng. Kiritbhai kamdar	10 Lati plot	-
3	Forg and forg	Kuvadva road	-
4	H.J. Steel	Dudhsagar road	-
5	K. Rasik lal	80 feet ring road	-
6	Welding house Raju Bhai/ Ravi Bhai	Bhakti Nagar station plot-5	9427725146 8141415544
7	Jayesh bhai	Lati plot-5	9824409156
8	Maa Gas Welding Hitesh Bhai	Opp site Kedar gait, kothariya road	9925362916
9	Kanu bhai Mistri	Hari om park, kothariya road	-
10	Steel self ind. Kishor Bhai Chitroda	Ahir chwok, Bolbala marg	-

➤ **Municipalities and chef officer in Rajkot Zone.**

Sr No	District	Municipalities	Chief officer name	Mobile No	Class	Remark
1	Kuch	Bhuj	Twinkle A. Patel	9925013857	2	Cadre
2		Rapar	Tarun G. Gadhavi	9978406889		Agreement
3		Bhachau	Anirudh Sinh B. Zala	9979677111	3	Deputation
4		Anjar	Tushar R. Zalariya	9638144607		In Charge
5		Mundra Baroi	Vaibhav K. Vyas	9428080504	3	Deputation
6		Mandvi	Jignesh Barot	9537356755	2	Cadre
7		Nakhatrana	Bhavin K. Kandhani	8780263154	2	Cadre
8	Rajkot	Gondal	Ashwin Bhai J. Vyas	9428988881	2	Cadre
9		Jetpur	Parthiv Parmar	9898998498	3	Cadre
10		Dhoraji	Jaimal Modhavadiya	9978015005	2	Cadre
11		Upleta	Uday R. Nasit	7016848701	3	Cadre
12		Jasdan	Mehul J. Jodhpura	9825049312	2	Cadre
13		Bhayavadar	D. N. Kandoriya	9978776558		Agreement
14	Morbi	Vankaner	Dhaval Vekariya	9898746753	2	Cadre
15		Tankara	Girish R. Saraiya I/C	9978400065		In Charge
16		Halvad	Tushar R. Zalariya	9638144607	3	Cadre

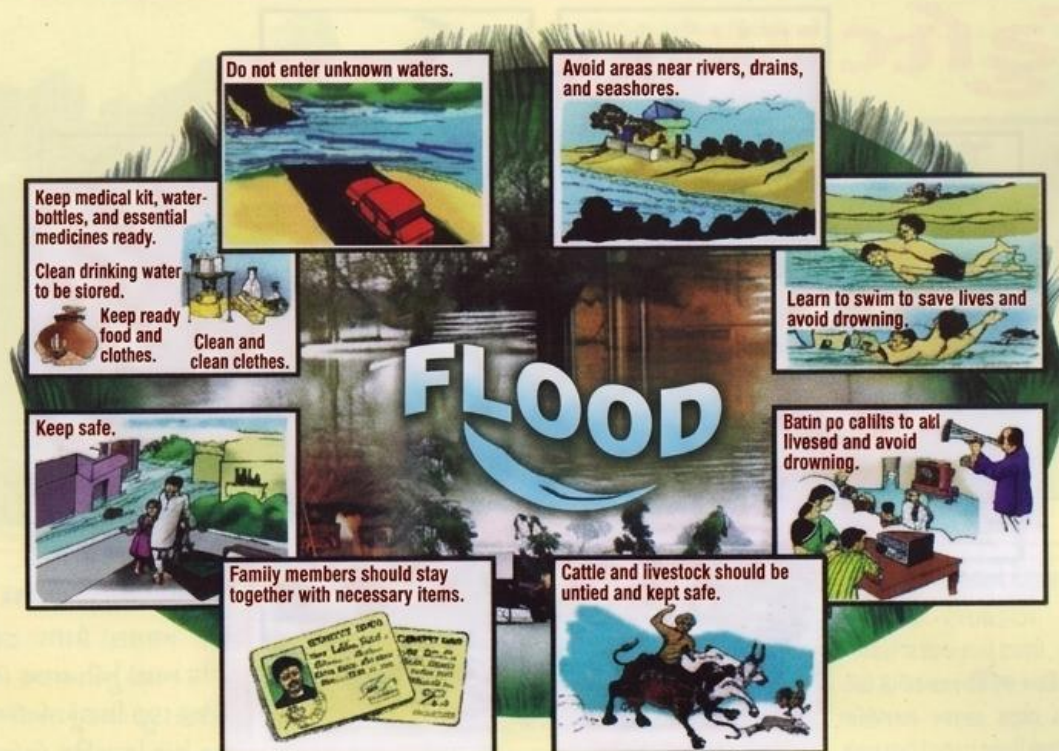
17		Maliya Miyana	Mayur Joshi	7984238730	3	Cadre
18	Jamnagar	Dhrol	Girish R. Saraiya	9978400065	3	Cadre
19		Jamjodhpur	Brijraj Sinh Vala	9998815672	2	Cadre
20		Kalavad	Nikunj D. Vora	9016664645	3	Cadre
21		Sikka	Rahul K. Karmur i/c	7046465432		In Charge
22		Okha	Ashvin Gadhavi i/c	9979887921		In Charge
23	Dwarka	Dwarka	Ashvin Gadhavi	9979887921	2	Cadre
24		Khambhaliya	Rahul K. Karmur	7046465432	3	Cadre
25		Salaya	Chetan B. Dundiya i/c	9909017970	1	In Charge
26		Bhanvad	Bhaves G. Batva	7602061643	3	Cadre
27		Jamraval	Bhaves G. Batva i/c	7602061643		In Charge
28	Porbandar	Ranavav	Jigisha Ben K. Bhatt	9426830800	3	Deputation
29		Kutiyana	Nilam Ben Ghetiya	9574345493	3	Cadre

➤ **Taluka Development Officer Rajkot District**

Sr No	District	Taluka Name	TDO Name	Mobile Number	
				Personal No	Gov. No
1	Rajkot	Rajkot	Shri Vanraj P. Chauhan	9925735453	-
2		Kotada Sangani	Shri G. K. Zala	9426464721	7567019860
3		Paddhari	Shri Jyoti Ben Boricha i/c	9909496178	-
4		Vinchiya	Shri B. J. Dave	9727162424	7567019279
5		Lodhika	Shri Jyoti Ben Boricha	9909496178	7567015453
6		Jam Kandorana	Shri G. D. Vamja	9724715930	7567015450
7		Upleta	Shri R. M. Trivedi	9978469903	7567015284
8		Dhoraji	Shri Hardip Sinh N. Gohil	9712972424	7567015452
9		Gondal	Shri G. K. Zala i/c	9426464721	7567019279
10		Jasdan	Shri Hitesh R. Vaghela	9099310931	7567015444
11		Jetpur	Shri P. S. Dangar	7990052293	7567015408



DO THIS AT LEAST



BEFORE THE FLOOD SITUATION

- Do not spread rumors, stay calm, and avoid panic.
- Charge your mobile phones fully.
- Know the nearest safe routes and evacuation spots.
- Tune into the radio for flood warning updates and official news.
- Keep in touch with local authorities and follow their instructions.
- Ensure ropes, batteries, extra lights, and extra battery cells are ready.
- Keep basic medical first aid kit, snake venom, diarrhea/vomiting dervisines, and bandages ready.
- Keep food, water, and clothing separate and safe with wooden boxes or covers.
- Keep essential items for livestock safe and untie them.
- Ensure clean water, ready-to-eat food, utensils, candles, matches, firewood, kerosene, etc., are available.

IN CASE OF EVACUATION:

- Prepare essential clothes, medicines, and valuable documents in waterproof packaging.
- Place all furniture and essential items on the bed or table above ground level.
- Lock your house doors, and reach a designated safe location by the specified route.
- Take livestock and pets to high, safe ground for shelter.
- Do not venture into unknown and deep water.

DURING THE FLOOD

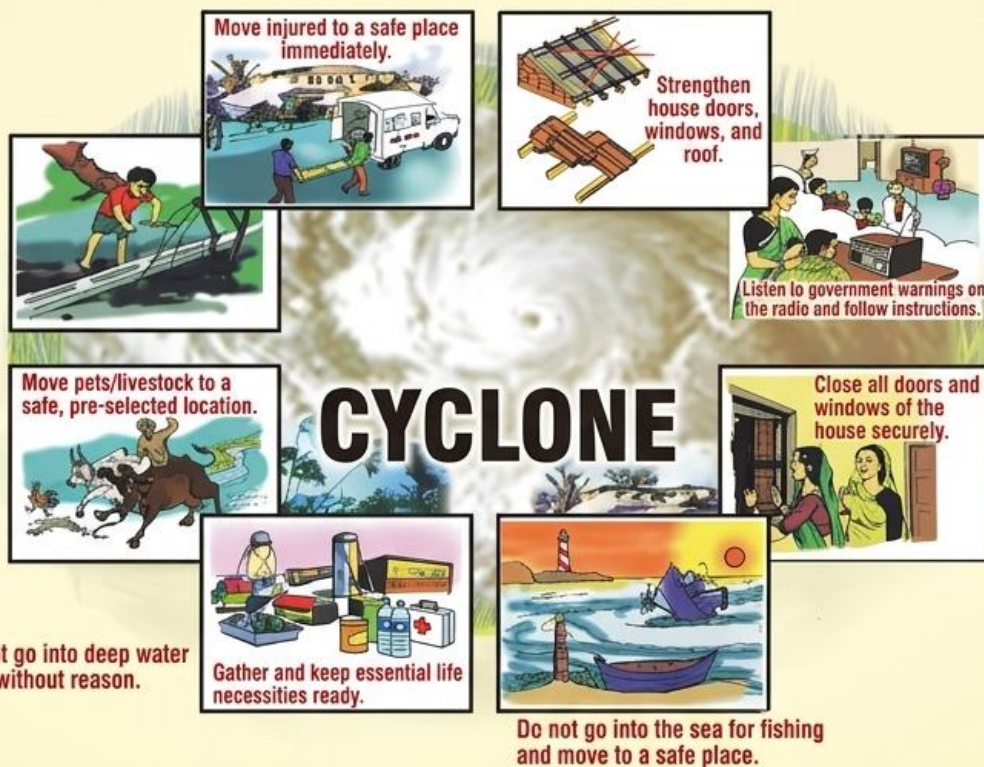
- Do not enter floodwaters unless absolutely necessary; use proper footwear.
- Stay away from drains and water currents.
- To prevent electric shocks, stay away from electric poles and fallen electric wires.
- Do not leave children unattended.
- Keep children inside safe areas and supervise them.
- Place pesticides and cleaning powders safely.
- Keep cooked food items covered and drink filtered or boiled water.
- Cooperate and follow instructions of the medical team for safety.

AFTER THE FLOOD

- Cooperate with local authorities and medical teams' advice.
- Before entering your home, check for gas leaks and damage.
- Check and ensure that all electrical wiring is safe, or have a professional inspect it.
- After flood levels recede, clean the surrounding areas with care.
- Local government and relief workers should coordinate rescue and relief operations with full cooperation.
- In case of emergencies, call the emergency control room number.
- Dispose of spoiled food items and medical waste properly.
- Protect yourself from diseases and follow health advisories.



PLEASE DO THIS MUCH



BEFORE A CYCLONE

- Do not spread rumors, stay calm, and do not panic.
- Charge your mobile phone completely.
- Listen to news and warnings continuously.
- It is advisable to use battery-powered radios.
- Check that your radio set is working.
- Attempt to stay in constant contact with local officials.
- If you live in a risky area, evacuation is advisable at the first warning of a cyclone.
- Follow any evacuation instructions from the government carefully.

DURING A CYCLONE

- Do not take shelter under dilapidated buildings or trees.
- Listen to news on radio or TV and follow instructions.
- Do not attempt to go outside during the cyclone.
- If no order to evacuate has been given, stay in a strong, safe part of your house.
- Rail and sea travel during a cyclone is not advisable.
- Avoid staying on the upper levels of high-rise buildings or on house roofs.
- If you are outdoors, stay away from electric wires, poles, and do not touch electrical equipment.

AFTER A CYCLONE

- Do not try to enter damaged buildings.
- Help other affected individuals.
- Use the phone only as needed.
- If the house is safe, then stay inside the house.
- Before going outside, ensure that the cyclone has completely passed.
- Act according to instructions from local officials.
- Wait until a clear message of safety is received on the radio or TV.
- Stay away from broken electric wires, poles, and damaged buildings.
- Be cautious of metal sheets, glass pieces, snakes, and insects that may have been disturbed by the debris.
- Stay away from flood-affected areas.
- Before going for sea travel or fishing, wait for a full 24 hours.

DO THIS WITHOUT FAIL



- It is not proper to cause harm to others for one's own habits or interests.
- Do not carelessly throw away burning matchsticks, cigarettes, or hot ash anywhere.
- Wear tight clothing in the kitchen. Ensure the clothes do not catch fire from the stove or burner.
- Do not forget to turn off the gas regulator at night.
- Get the electrical wiring in your home checked regularly.
- Avoid overloading electrical outlets by plugging too many devices into a single socket.

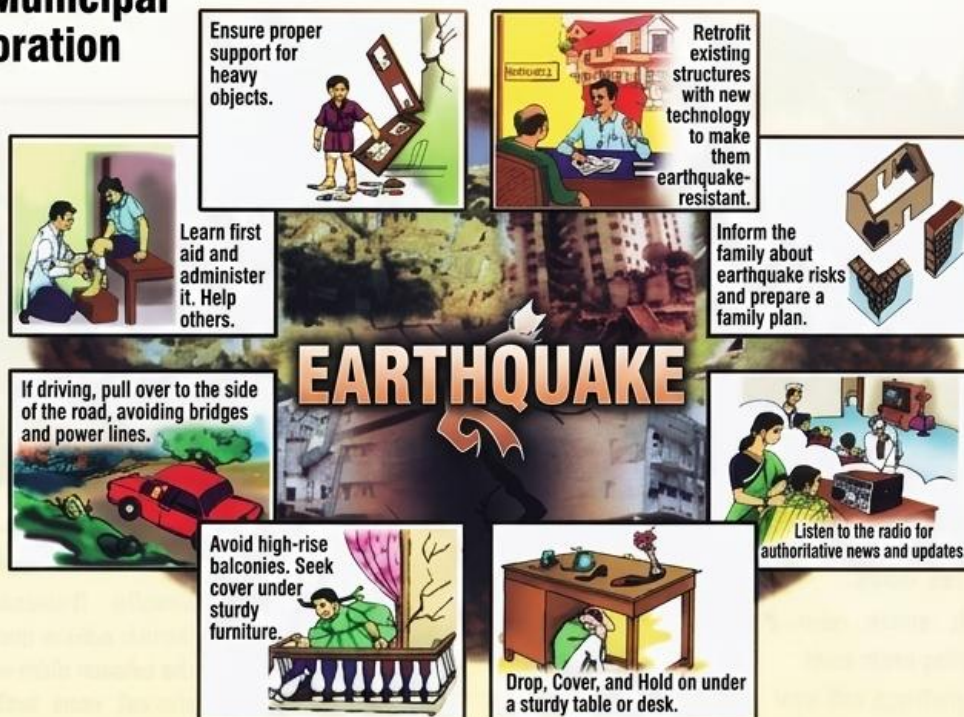
- Short circuits can happen.
- In case of a gas leak, keeping windows and doors open reduces the chance of fire.
- Apart from water, sand and blankets can be used to extinguish a fire.
- Do not smoke near petrol stations or gas godowns.
- Install fire extinguisher cylinders and learn how to use them.
- If possible, throw water over a burning person, but **never** extinguish a fire if a blanket or cloth is already wrapped around them, to avoid trapping heat against the skin.

- Extinguish the fire completely.
- Do not pierce skin blisters after being burned. This can damage the skin and cause infection.
- In case of a fire, if there is a lot of smoke, sit low or crawl to exit. This makes breathing easier.
- Do not enter a burning house.
- Take an injured person to the hospital immediately.
- Keep children away from flammable materials like fireworks and matchsticks.



DO THESE WITHOUT FAIL

Rajkot Municipal Corporation



BEFORE AN EARTHQUAKE

- Discuss and prepare a comprehensive earthquake plan with family members.
- Retrofit older houses using proper technological reinforcement.
- Secure loose objects and heavy furniture.
- Acquire basic first aid and fire extinguisher training.
- Keep heavy items on lower shelves.
- Ensure your building has adequate insurance.

DURING AN EARTHQUAKE

- Don't panic. Remain calm and think clearly.
- Seek cover immediately in an open space, or if indoors, Drop, Cover, and Hold on under a sturdy object. Do not use lifts/elevators.
- If near an exterior door, drop and seek cover near an interior wall, away from glass.
- In a high-rise, drop and cover under under a desk; do not use elevators.
- If in a moving vehicle, pull over to the side of the road, avoiding bridges and overhead structures. Remain inside.

AFTER AN EARTHQUAKE

- Expect aftershocks; they are common after a main earthquake.
- Perform first aid and aid the injured. Check for small fires and extinguish them.
- If you smell gas, open windows, leave the building, and contact to the the gas gas company or authorities. Do *not turn on switches or light matches.
- Stay informed. Keep telephone lines clear for emergency services.
- Be aware of falling objects and potential structural damage. Avoid damaged structures.
- Turn off all power at the main breaker box if it is safe to do so.



SURELY DO THESE THINGS

CLIMATE IS CHANGING



GLOBAL WARMING

GAS CYLINDER SAFETY MEASURES

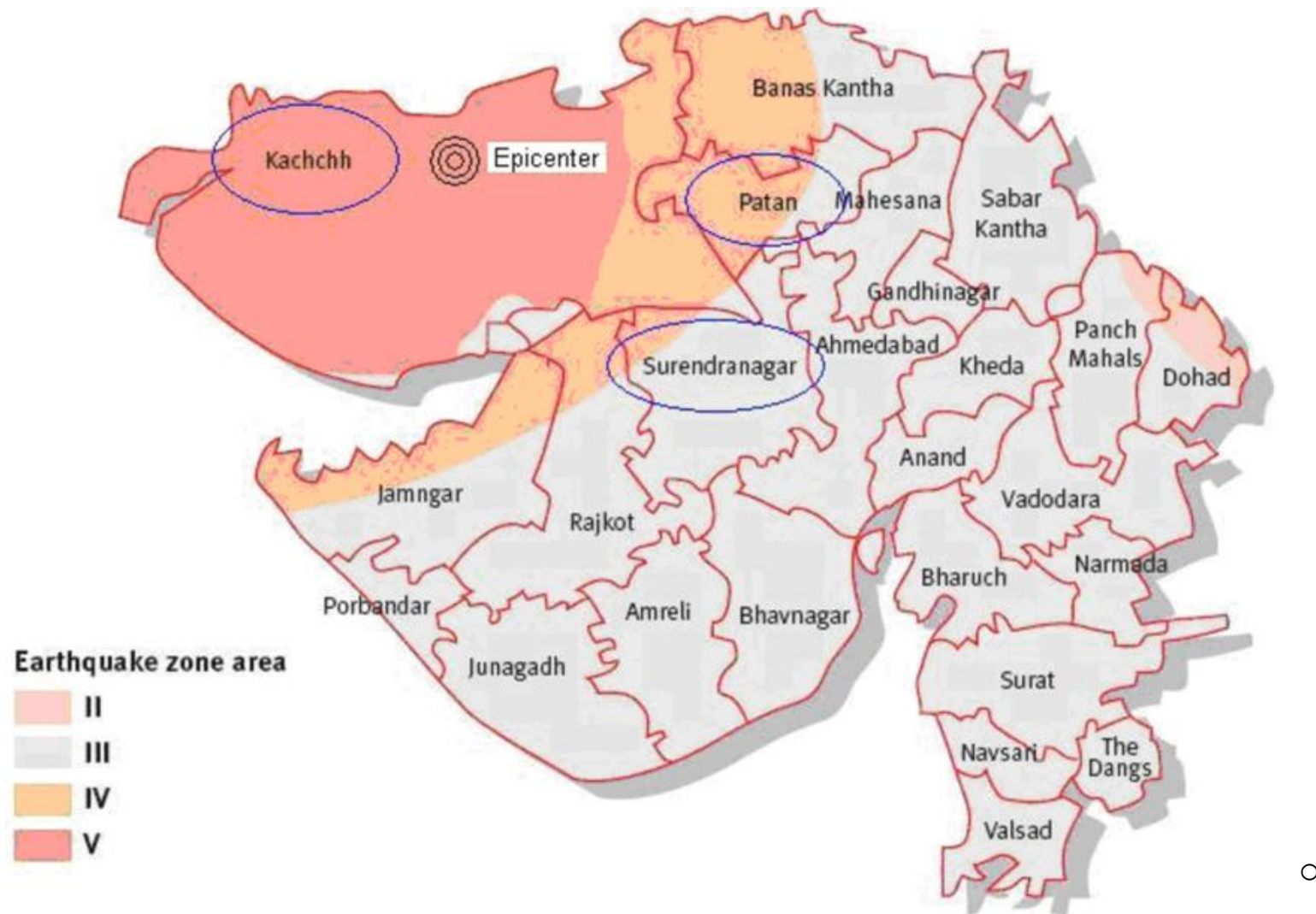
✓ DO THIS.....

1. When unloading the gas cylinder, use a proper ramp to avoid jerks and control.
2. During regulation and transport, use a cylinder cap.
3. During storage, segregate inert, toxic, non-combustible, and combustible cylinders.
4. Separate the 'empty' and 'full' cylinders which are not properly identified.
5. Apply labels to the storage area.
6. When moving the gas cylinder, use a pedal.
7. Always keep gas cylinders upright and in a position so that water does not accumulate beneath the base ring.
8. Display 'NO SMOKING' sign at the gas cylinder storage place.
9. Keep flammable cylinders away from ignition sources.
10. Use trolleys for safe handling and transport.
11. Keep cylinders in storage and separate them from distribution stations.
12. Leave valve caps (lids) securely on the neck joint unless they are connected for use.

✗ DO NOT.....

1. Do not use the cylinder by dragging it.
2. Do not use the cylinder without a pressure regulator.
3. Do not open the cylinder valve in heat and light.
4. Do not change the color of the cylinder.
5. Do not use a hammer (iron) to open the cylinder valve.
6. Do not transfer gas from one cylinder to another.
7. Do not store gas cylinders in damp conditions or close to waterways.
8. Do not store cylinders in small and enclosed cupboards.
9. Do not subject cylinders to a pressure beyond their test pressure.
10. Do not transport cylinders on two-wheeled vehicles or cycles.
11. Do not start using a gas cylinder without proper identification.
13. Do not store gas cylinders in places with direct sunlight.
14. Do not use magnets to turn gas cylinders on or off.

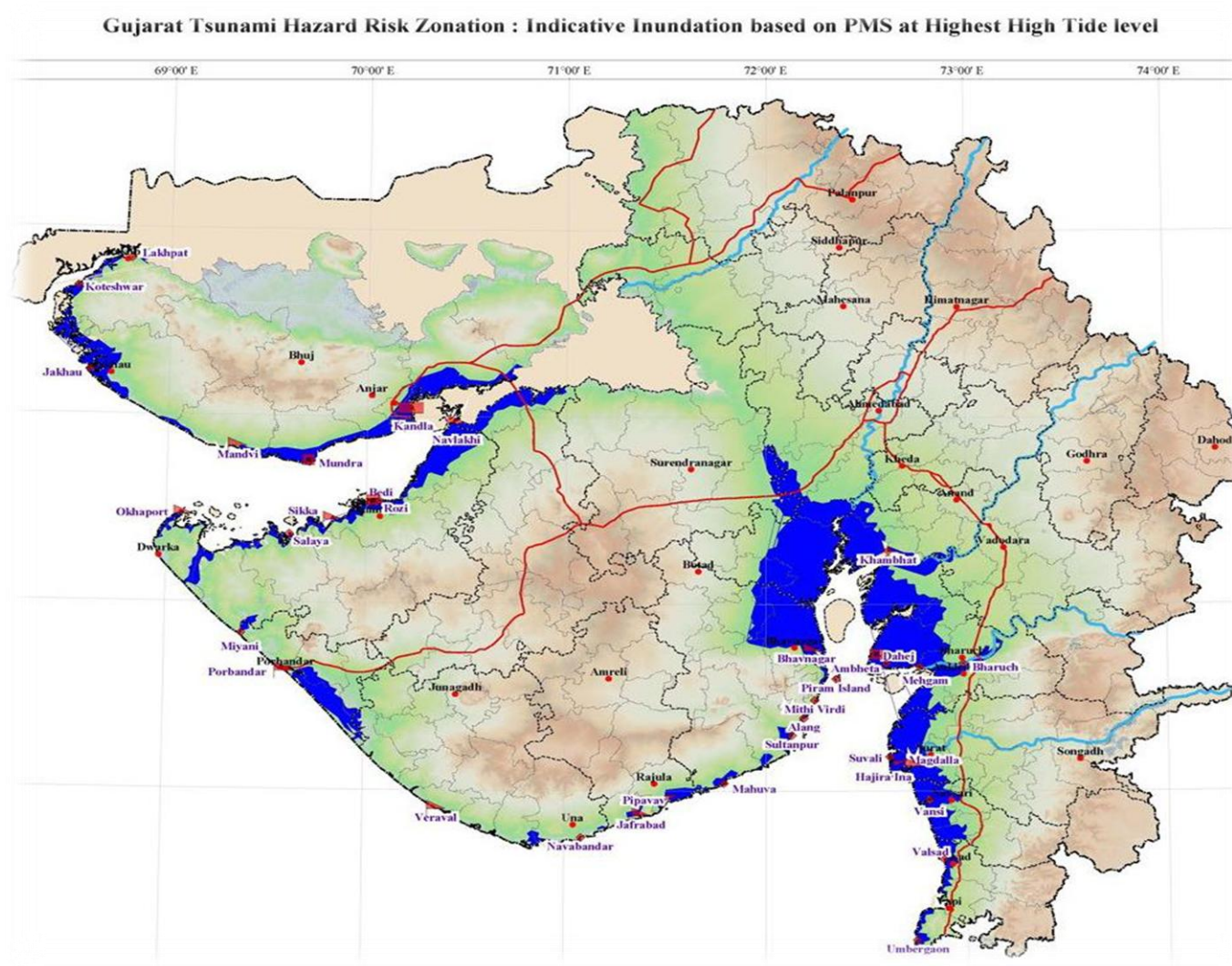
❖ Earthquake Hazard Map



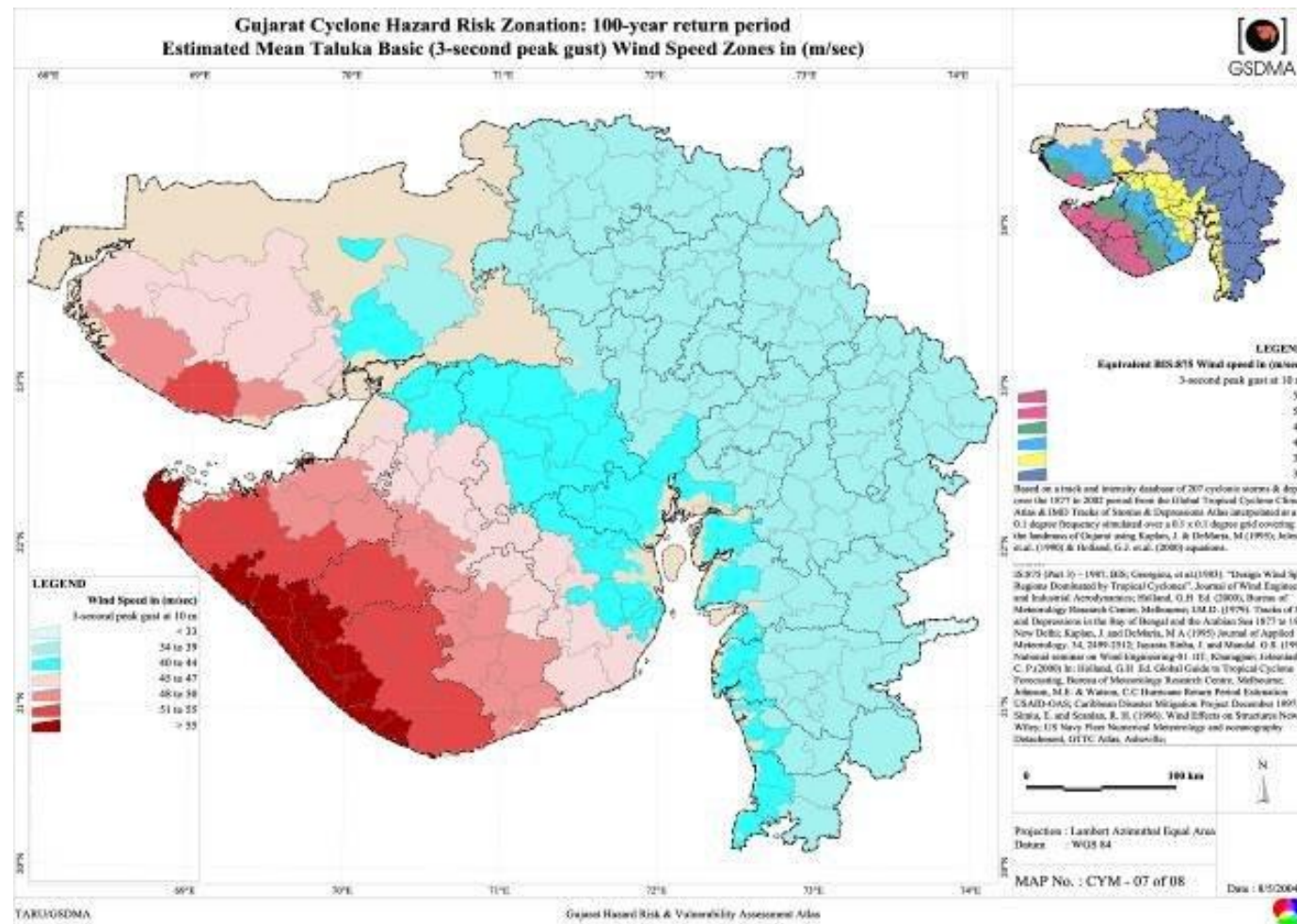
❖ Gujarat Maps



❖ Cyclone Hazard Prone Map



❖ Flood Hazard Prone Map





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Thank You