



सत्यमेव जयते

PANCHMAHAL DISTRICT DISASTER MANAGEMENT PLAN 2026-27

**District Emergency Operation Center
Collector office, Panchmahal, Godhra**



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FOREWORD

Disasters both natural and man-made are barrier to sustained growth as they pose threat to economy as well as to infrastructure. Climate change is a reality and is affecting every walk of our life. Compounded by other facts of environmental changes, viz., land use changes and natural resource degradation. Climate change impacts on natural systems and processes compound to produce extreme events and disasters, causing losses to live, and serious damage to infrastructure and property. Local level resilience, planning, and role of community and capacity building of associated functionaries and stakeholders is pivotal need of the hour for enabling the resilience into development.

Hence, the need is to develop means to grow economically while building resilience to disasters and climate change by incorporating disaster risk reduction strategies and risk transfer. This calls for a paradigm shift in the approach to address both disaster resilience as well as developmental activities.

I hope that the Panchmahal District Disaster Management Plan 2026-2027 will be beneficial to all the relevant departments and supplement the understanding of disasters and ensure better coordination in Disaster Risk Management.


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Contents

Chapter I	9
Introduction.....	9
1.1. Background.....	10
1.2. Need for the Plan.....	11
1.2.1. Disaster Risk Reduction Post-2015	11
1.3. Prime Minister's 10 Point Agenda towards Disaster Risk Reduction.....	13
1.4. Vision	14
1.5. Aims and Objectives of the DDMP.....	14
1.6. Authority for the DDMP: DM Act 2005.....	14
1.7. Evolution of the Plan	15
1.8. Stakeholders and their responsibilities.....	16
1.9. How to use the plan	21
1.10. Approval Mechanism of the Plan.....	21
1.11. Plan review and updating: Periodicity.....	22
Chapter 2	25
Hazard, Vulnerability, Capacity and Risk Assessment	25
2.1. Socio – economic profile of the district.....	26
2.2. Hazard, Vulnerability, Vulnerability and Capacity (HRVC) Assessment	27
2.2.1. Seasonality of hazards	27
2.2.2. Risk and Vulnerability Analysis.....	28
2.2.3. Taluka-wise mapping.....	29
2.3. Heritage and Culture	31
➤ Earthquake	33
➤ Cyclone	35
➤ Flood	36
➤ Fire	39
➤ Industrial and Chemical Disasters	40
Need to identify helpless groups	42
People with disabilities and those who are hindered in performing certain activities such as	42
2.4. Capacity Analysis.....	43
Chapter 3	45
Institutional Arrangements for DM	45

3.1. Institutional Arrangements:.....	46
3.2. D.M. organizational structure at the national level.....	46
➤ Armed Forces	47
➤ Central Paramilitary Forces	47
➤ National Disaster Management Authority (NDMA)	47
3.3. D.M. organizational structure in the state	49
➤ State Police Forces and Fire Services	51
3.4. D.M. organizational structure in the district	51
Institutionalization of Disaster Management at District Level	52
Chapter 4	66
Prevention and Mitigation Measures	66
4.1. Prevention measures.....	67
4.2. Mitigation Measure	69
Pre-disaster phase	70
During Disaster	71
After Disaster	72
Electronic Support for resources utilization and information	74
4.3. Prevention measures in development plans and programs in District:	79
4.2. Special projects proposed for preventing the disasters	82
Chapter 5	84
Preparedness Measures	84
5.1. Identification of stakeholders involved in disaster response	87
5.2. Formation of persons and training	88
5.3. Training need analysis	90
5.4. Protocol for seeking help from other agencies.....	93
5.5. Mechanism for Checking and certification of logistics, equipments and stores	93
5.6. Operational check-up of Warning System.....	93
5.7. Operational check-up for Emergency Operation Centre.....	94
5.8. Seasonal inspection of facilities and critical infrastructure.....	94
5.9. Command and coordination – identification of quick response teams.....	94
5.10. NGOs and other stakeholders’ coordination – Activate NGO coordination cell	95
5.11. Seasonal preparedness for seasonal disasters like flood and cyclone.....	95
5.12. Community Preparedness	96
Chapter 6	106

Capacity Building and Training Measures.....	106
6.1. Approach	107
6.2. Capacity Building Plan.....	110
6.3. Disaster Management Education	113
6.4. Skill upgradation and follow up training programmes	114
Chapter 7	118
Response and Relief Measures	118
7.1. Response planning (multi-hazard), preparedness and assessment	119
7.2.1. Alert Mechanism.....	135
7.2.2. TASKFORCE RESPONSE PLANNING.....	140
Emergency Support Functions Coordination and Planning:	140
Warning:.....	143
Search and Rescue (including evacuation):.....	146
Public Works:.....	149
Power:.....	154
Animal Health and Welfare	159
Shelter.....	160
Media & information Management:.....	167
7.11. Demobilization and winding up.....	181
Chapter 8	184
Reconstruction, Rehabilitation and Recovery Measures.....	184
8.1. General Policy Guidelines	185
Chapter 9	202
Financial Resources for implementation of DDMP	202
9.1. Financial Arrangements:.....	203
9.2. State Budget.....	204
9.3. District Planning Fund	204
9.4. Disaster Risk Insurance	204
Chapter 10.....	207
Procedure and methodology for monitoring, evaluation, updating and maintenance of DDMP.....	207
Chapter 11.....	213
Coordination Mechanism for implementation of DDMP.....	213
11.1. Coordination Mechanism	214
Chapter 12.....	219

Standard Operating Procedures (SOPs) and checklist	219
12.1. Definition of disaster situations.....	220
12.2. Action on receipt of warning and warning dissemination	220
12.3. SOP's and Checklist.....	220
12.5. Relief and Rehabilitation Norms (Standards) Emergency Response/ Support Functions:.....	226
12.6. Humanitarian relief and assistance	227

Annexture

Annexure - 1	Panchmahals District Profile	230
Annexure - 2	Rivers and Dams of Panchmahals	235
Annexure - 3	List of Code for Safety of Building	239
Annexure - 4	Standards of Emergency Relief Kit	243
Annexure - 5	List of Government Ambulance	245
Annexure - 6	List of Ambulance available with Industries	247
Annexure - 7	List of 108 Ambulance	249
Annexure - 8	List of Dumper / Trucks	250
Annexure - 9	List of Crane	252
Annexure - 10	List of Loader	254
Annexure - 11	List of CHC	256
Annexure - 12	List of PHC	258
Annexure - 13	List of Major Private Hospital	262
Annexure - 14	List of Private Doctors	269
Annexure - 15	List of Equipment with Mamlatdar office	285
Annexure - 16	List of Equipment with Nagarpalika	286
Annexure - 17	List of MAH unit	288
Annexure - 18	List of Antidote with MAH units	290
Annexure - 19	List of Fire Tender with Industries	292
Annexure - 20	Details of Industries with Medical Facilities	293
Annexure - 21	Details of Industry MoU List with hospital	296
Annexure - 22	List of Industry Safety Officer	300

Annexure - 23	MGVCL Departmental DM Plan	304
Annexure - 24	Forest Department DM Plan	307
Annexure - 25	List of Swimmers	312
Annexure - 26	List of NGOs	322
Annexure - 27	List of Equipment with NDRF	323
Annexure - 28	Details of Water logging areas of	326
Annexure - 29	Road and Building Department State /Panchyat	336
Annexure - 30	Irrigation Department	353
Annexure - 31	Resources Available with fisheries Department	354
Annexure - 32	Contact Details of District officials	359
Annexure - 33	Contact Details of Mamlatdar	364
Annexure – 34	Contact Details of TDOs	365
Annexure - 35	Contact Details of Chief officer	366
Annexure- 36	Contact Details of Neighboring District	367
Annexure- 37	GSRTC Details	

MAPs

Panchmahals District Map	368
Godhra Taluka Map	369
Halol Taluka Map	370
Kalol Taluka Map	371
Jambughoda Taluka Map	372
Ghoghamba Taluka Map	373
Shahera Taluka Map	374
Morva Hadaf Taluka Map	375

Chapter I

Introduction

1.1. Background

In our rapidly changing and uncertain world, the looming specter of disasters poses significant challenges to communities, economies, and ecosystems alike. To navigate these challenges effectively, districts must develop comprehensive Disaster Management Plans (DMPs). These plans act as crucial roadmaps, providing guidance to authorities and stakeholders in navigating the complexities of disaster preparedness, response, and recovery efforts.

India is widely recognized as one of the most hazard-prone countries globally, facing a multitude of natural calamities. With approximately 60% of its landmass vulnerable to earthquakes of varying intensities, extensive flood-prone areas covering 40 million hectares, a coastline stretching over 5,700 km susceptible to cyclones and tsunamis, and the Himalayan region prone to landslides, the country confronts an array of challenges. Notably, Gujarat emerges as one of India's multi-hazard districts, facing a diverse range of risks. Consequently, there arose a critical need to devise a comprehensive plan aimed at enhancing the district's disaster response capabilities, mitigating risks, and bolstering community resilience.

Recognizing the significance of a coordinated approach to disaster management, it was imperative to establish a structured plan ensuring all stakeholders understand their roles in disaster response and preparedness. While the district's Incident Response Team takes on the primary responsibility for on-site disaster response, the State and Central authorities play pivotal roles in offering supplementary support, guidance, and external resources during major disasters. This collaborative framework ensures effective coordination and timely assistance, reinforcing the district's capacity to mitigate and respond to disasters efficiently.

Over the past years, Gujarat has encountered various calamities, including the significant 2001 earthquake, the cyclone vaayu 2019, Tauktae 2021, Biparjoy 2023 and 1978, 2017, 2023 flood, and all other disasters leaving lasting impacts on the state. Following the devastating earthquake in 2001, the Gujarat government took proactive measures by establishing the Gujarat State Disaster Management Authority (GSDMA) to streamline disaster management efforts across the state. Over the past decade, GSDMA has played a pivotal role in formulating, implementing, and periodically updating disaster management plans, focusing on risk assessment, response planning, and mitigation measures. Moreover, GSDMA aims to enhance the involvement of local self-government institutions in disaster preparedness and response activities.

The district disaster management planning process is envisaged to extend from the village to the taluka and district levels, ensuring comprehensive preparedness and coordination at all administrative tiers. This initiative aims to harmonize disaster management plans at various levels, facilitating seamless coordination and integration of efforts. Additionally, there is a concerted effort to link village-level plans with taluka-level plans, enhancing the coherence and effectiveness of disaster management strategies. By fostering collaboration and

alignment across all levels of governance, Gujarat is striving to strengthen its resilience and readiness to confront future disasters.

Panchmahal District Disaster Management Plan underscores our dedication to protecting the lives and livelihoods of our residents from the diverse array of risks posed by both natural and man-made disasters. Crafted through collaborative efforts involving government agencies, emergency responders, community organizations, and key stakeholders, this plan symbolizes our collective commitment to strengthening resilience and readiness to tackle challenges proactively.

The vision of Plan is to enable disaster resilient development in Panchmahal district and continuity of services essential for life and dignity of citizens during disaster and non-disaster situations.

The NDM Act 2005 defines disaster as;

“Disaster means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or manmade 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.”

The losses and impacts that characterise disasters usually have much to do with the exposure, vulnerability and coping capacity of people and places as they do with the severity of the hazard event. Therefore, there is no such thing as a natural disaster, but disasters often follow natural hazards.

1.2. Need for the Plan

In accordance with Section 15(3) of The Gujarat State Disaster Management Act, 2003, it is mandated that the Authority shall develop and maintain a master plan for the State. Additionally, Section 23(1) of The Disaster Management Act, 2005 specifies the necessity of a State Disaster Management Plan for each state. Given the state's hazard profile and past disaster occurrences, there is a pressing need for a comprehensive state disaster management plan to ensure efficient and coordinated disaster management efforts across the state.

1.2.1. Disaster Risk Reduction Post-2015

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

1.2.2. 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 disaster 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: -

- I. 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
- II. 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
- III. Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030
- IV. Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030
- V. Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020
- VI. Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this Framework by 2030
- VII. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030

1.2.3. 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.

1.2.4. Paris Agreement on Climate Change Action and Disaster Risk Reduction (CoP21)

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 pre-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 District Disaster Management Plan (DDMP) has tried to envisage coherence across the state's efforts for DRR, sustainable development, and the actions in response to climate change.

1.3. 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 during November 2016 (AMCDRR), which has also been incorporated in the DDMP.

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

10. Bring about greater cohesion in international response to disasters.

1.4. Vision

The vision of Panchmahal District's disaster management plan is to create a resilient community equipped to effectively respond to and recover from various hazards. Through proactive risk assessment, robust early warning systems, coordinated emergency response strategies, and active community engagement, the plan aims to minimize loss of life, property damage, and disruption to essential services during disasters. By fostering collaboration among stakeholders and prioritizing preparedness, the plan seeks to build a safer and more resilient Panchmahal District.

1.5. Aims and Objectives of the DDMP

The aims and objectives of the Plan is to mitigate the loss of human lives and safeguard social, private, and community assets from both natural and man-made disasters.

- Identify areas in the district that are prone to natural and manmade disasters.
- Understand the existing vulnerabilities and coping mechanisms of the community by conducting panchayat level assessment exercise.
- Identify the measures that ought to be taken by the district administration for prevention and mitigation of disasters.
- Build awareness among different stakeholders both at the administrative as well as the community level by directly engaging them in the process of district disaster management planning.
- Specify key areas for improving disaster resilience by awareness, training and capacity-building of the stakeholders.
- Highlight preparedness measures required to be undertaken by the district administration to be able to better respond to any threatening disaster situation;
- Prepare the response plan for quick and effective response; and
- Establish the reconstruction, rehabilitation and recovery plan in order to restore the vital life support systems to minimum operating standards at a first moment and work towards rehabilitating them to at least the original standards.

1.6. Authority for the DDMP: DM Act 2005

Disasters, whether natural or man-made, result in significant loss of life, property damage, and environmental degradation, disrupting the normal social and economic functions of society. Recognizing the imperative for a proactive, comprehensive, and sustained approach to disaster management to mitigate adverse impacts on overall socio-economic development, the Government of India enacted the Disaster Management (DM) Act in 2005, emphasizing the pivotal role of District Disaster Management Plans (DDMPs). Similarly, the Government of Gujarat advocates the necessity of such plans in every district to articulate a clear vision and strategy for disaster management within the state. To facilitate effective disaster management, GSDMA provides guidelines to various stakeholders involved in disaster

management activities. As mandated by the DM Act, each district establishes a District Disaster Management Authority (DDMA) as the focal point for the preparation, implementation, and review of DDMPs. The scope of DDMPs is extensive, covering all phases of disasters (pre, during, post, and non-disaster periods). These plans assist decision-makers in making critical decisions and provide guidance to subordinates during emergencies, thereby saving valuable time typically spent on consultations and obtaining approvals. It is the responsibility of DDMA members to oversee district and sub-district institutionalization activities related to disaster management, including periodic reviews of DDMPs and associated functions. DDMPs serve as operational frameworks for district administrations, owned by the DDMA, facilitating effective mitigation of various disasters using locally available personnel and resources.

During the development of the Panchmahal District Disaster Management Plan, data collected from multiple sources was compiled, including information from line departments. This comprehensive dataset was consolidated using the State Disaster Resource Network (SDRN), an in-house IT system. SDRN facilitates seamless access to information for officials at the Taluka, District, and State Secretariat levels, ensuring efficient coordination and decision-making in disaster management efforts.

1.7. Evolution of the Plan

The objective of the plan is to establish comprehensive systems, structures, programs, and resources within the respective district to effectively mitigate disaster risks, prepare for potential disasters, and respond promptly to any threats or occurrences. This aims to safeguard lives, property, economic activities, and the environment, ensuring the continuity and sustainability of development efforts.

The District Disaster Management Plan (DDMP) adopts a holistic and integrated approach, prioritizing prevention, mitigation, and preparedness measures across all levels of the district. It marks a significant shift away from reactive and relief-focused strategies towards proactive measures aimed at preserving developmental progress and minimizing losses to lives, livelihoods, and assets.

To ensure the efficient implementation of the DDMP, it is structured according to the four stages of the Disaster Cycle, facilitating organized and coordinated actions at each phase.

The process is not necessarily successful if flaws are not found, but rather if the appropriate measures are undertaken in face of the necessary improvements. In view of this, the role and responsibilities of the DDMA are:

- Ensure a year-round implementation
- Check the level of preparedness
- Assess the training imparted for capacity building
- Determine the adequacy of resources.
- Verify if the coordination between departments and agencies.

Non disaster stage: Activities include disaster mitigation¹, leading to prevention²& risk reduction. Before disaster stage: Activities include preparedness to face likely disasters, dissemination of early warnings. During disaster stage: Activities include quick response, relief, mobilization of search & rescue, damage assessment. After disaster stage: Activities include recovery & rehabilitation programs in disaster affected areas.

1.8. Stakeholders and their responsibilities

Any type of disaster is it natural or manmade, leads to immense loss of life, and also causes damage to the property and the surrounding environment, to such an extent that the normal social and economic mechanism available to the society, gets disturbed. The Govt. of India recognized the need to of a proactive, comprehensive, and sustained approach to disaster management to reduce detrimental effects of disasters on overall socio-economic development of country and came out with Disaster Management (DM) Act 2005, highlighted the role and importance of District Disaster Management Plan. The Govt. of Gujarat also believes that there is a need for a Disaster Management Plan in every district that articulates its vision and strategy for disaster management in the state. In this context the GSDMA provides guidelines to various entities involved in disaster management in the state.

to discharge their responsibilities more effectively. Further, as per the DM Act, the District Disaster Management Authority is to be formed in each district and it will be the nodal agency for preparation, functioning and review of the District Disaster Management Plan (DDMP). The scope of district disaster management plan is very wide, and it is applicable in all the stages of disasters (before, during, after & non disaster time).

DDMPs can help officials in making important decisions and provide guidance to direct subordinates in emergencies. DDMP helps in saving precious time, which might be lost in consultations, and getting approval from authorities. It will be the responsibility of the District Disaster Management Authority members to look after the district and sub district level institutionalization activities pertaining to disaster management, including the periodic review of district disaster management plan and allied functions. DDMP is an operational module for district administration (owned by the DDMA) and it helps to effectively mitigate the different types of disasters with locally available persons and resources. It also ensures a checklist for all the stakeholders for an action-oriented response structure and to study their preparedness level.

General role and linkages of main key departments in district disaster management plan.

Sr. No.	Department	Dealing with Hazards	Role of Department
1.	Agriculture Department	1. Floods 2. Cyclones 3. Climate induced - Heatwaves - Drought etc.	- Agriculture losses/damage - Remedial measures can be taken to save the crops - Alternative measures are suitable for the area and type of soil.
2.	Revenue Department	With all Hazards 1. Floods 2. Cyclones 3. Fire 4. Road Accidents 5. Rail accidents 6. Climate induced - Heatwaves - Drought etc.	- Nodal department for coordination in Disaster management, - Management of a emergency/sudden event - Assisted by the concerned line Departments/agencies to fulfill the responsibilities assigned. Pre, during and post action plans in coordination with the line departments - Conducting relief, rescue and rehabilitation is the main activity
3.	Education Department	With all Hazards	- Schools and schoolchildren
		1. Floods 2. Cyclones 3. Fire 4. Road Accidents 5. Rail accidents 6. Climate induced - Heatwaves - Drought etc.	safety - Ensure work smoothly to reduce this vulnerability and to play an important role in the community in responding to disasters.

4.	Police Department	With all Hazards 1. Floods 2. Cyclones 3. Fire 4. Road Accidents 5. Rail accidents 6. Climate induced - Heatwaves - Drought etc.	- Department is one of the key departments both in the normal times when no disasters occur and in times of disasters, - First responses - Assist in evacuation process and - Maintaining law and order in and around shelters.
5.	Transport Department	With all Hazards 1. Floods 2. Cyclones 3. Fire 4. Road Accidents 5. Rail accidents 6. Climate induced - Heatwaves - Drought etc.	- It is statistically proven that road accidents cause more deaths in a year than all disasters put together. - Death by drowning in boat accidents swells the figure even more. - The Department of Transport therefore requires larger input of disaster management than normally provided. - The Department of Transport shall be the lead department in case of road and boat accidents, and a major support providing department in disaster response.
6.	Fire Department	With all Hazards 1. Floods 2. Cyclones 3. Fire	- Department is capable of rendering life-saving service to the people involved in disasters both natural and man-made.
		4. Road Accidents 5. Rail accidents 6. Fire etc.	

7.	Bharat Sanchar Nigam Ltd. (BSNL)	With all Hazards 1. Floods 2. Cyclones 3. Fire 4. Road Accidents 5. Rail accidents 6. Fire etc.	- Establish radio Communications with state control rooms, district control room and departmental offices within the district. - All personnel required for Disaster Management should work under the overall supervision and guidance of District Collector.
8.	Information department	With all Hazards 1. Floods 2. Cyclones 3. Fire 4. Road Accidents 5. Rail accidents 6. Fire etc.	- Department of information & public relations is an important link between the media and people/ Government during normal times. - During natural calamities, their role is as equally important as with the other key departments.
9.	Water Resources and Water Supply Department	With all Hazards 1. Floods 2. Cyclones	- The Department of Water Resources shall be the lead organization for working out floods related prevention, mitigation and preparedness measures. - In the process, the department in association with Department of Agriculture, Department of Minor Irrigation and PHED, shall survey, study and explore the options to integrate the flood management with drought management so that excess of water resources in one case meets the dire requirements in the other.
10.	Women & Child Development Department	With all Hazards 1. Floods 2. Cyclones 3. Road	- Women & Child Development Department is having a well-developed network for providing its services to the

		Accidents 4. Rail accidents 5. Fire etc.	beneficiaries. However, during natural calamities like floods, cyclones, earthquake and disease epidemics the institutional network gets disrupted. - Awareness and capacity building needs to be provided on subjects related to degree and intensity of disaster (limited to low and medium magnitude). - To provide effective relief services, assistance from Voluntary agencies, H&FW, Panchayat Raj, Rural Development, Police etc. is required.
11.	R&B Department	With all Hazards 1. Floods 2. Cyclones 3. Earthquake 4. Fire etc.	- As this Department is dealing with, and responsible for construction work and its day today maintenance for road, bridge, C.D. Works along with all public building works under its control, - All the field officials starting from Executive Engineers, Assistant Engineer and Junior Engineers are warned for such identification of structures accordingly,
12.	Panchayat, Rural Housing and Rural Development Department	With all Hazards 1. Floods 2. Cyclones 3. Earthquake 4. Fire etc.	- The whole approach towards rehabilitation work may end up being „top down“ in nature. As the relief and restoration efforts involve investment of hundreds and thousands of cores rupees, there should be satisfaction of having utilized them properly and efficiently. - Activities like distributing immediate relief in the form of money, food grains, medical care, clothes, tents, vessels drinking water and other

			necessities, activities of restoration, rehabilitation and reconstruction efforts of damaged villages and towns can be implemented better with the involvement of local bodies.
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1.9. How to use the plan

The District Disaster Management Plan (DDMP) can be effectively utilized during the Action, Reference, and Remark stages of disaster management as follows:

During the Action stage, the DDMP plays a crucial role in coordinating emergency response activities. It outlines specific roles and responsibilities for emergency responders, establishes communication protocols, and provides guidance on resource allocation and deployment. By following the protocols and procedures outlined in the DDMP, emergency responders can effectively address immediate threats and mitigate the impact of disasters on affected communities.

In the Reference stage, the DDMP serves as a valuable reference tool for decision-makers at all levels of government and within various organizations involved in disaster management. It contains detailed information on the risks and vulnerabilities faced by the district, as well as an inventory of available resources, including emergency shelters, medical facilities, and equipment. Decision-makers can use this information to make informed decisions about resource allocation, prioritize response efforts, and coordinate with external agencies and partners.

In the Remark stage, the DDMP facilitates post-disaster evaluation and learning. By conducting a thorough review of response efforts and outcomes, stakeholders can identify strengths and weaknesses in the existing disaster management framework. This information can then be used to revise and update the DDMP, incorporating lessons learned and best practices to improve preparedness and response capabilities for future disasters. Through this iterative process of evaluation and revision, the DDMP ensures continuous improvement in disaster management practices and enhances the resilience of the district against future hazards.

By effectively utilizing the DDMP during the Action, Reference, and Remark stages, districts can enhance their capacity to mitigate disaster risks, respond effectively to emergencies, and build resilience in the face of future disasters.

1.10. Approval Mechanism of the Plan

Line departments and other stakeholders within the district are required to submit their respective disaster management plans, along with any amendments, to the Collector for approval. Upon receiving these submissions, the Collector is responsible for forwarding a

copy of the district disaster management plan, along with any revisions, to the State Disaster Management Authority and the Relief Commissioner for their approval. This ensures that all disaster management plans within the district are reviewed and endorsed by relevant authorities at both the district and state levels.

1.11. Plan review and updating: Periodicity

Line departments and other stakeholders within the district are tasked with the responsibility of regularly reviewing and updating their disaster management plans. They are required to submit a copy of their plans, along with any amendments, to the Collector for review. Additionally, the compiled District Disaster Management Plan (DDMP) document is regularly updated and submitted to the Disaster Management Authority and State Relief Commissioner for their review.

Typically, the District Disaster Management Plan undergoes two updates annually to ensure its accuracy and relevance. The initial preparation of the plan takes place in the pre-monsoon phase, typically in May, while updates are made during the post-monsoon phase, usually in November each year. This systematic approach ensures that the DDMP remains current and aligned with evolving disaster risk factors and response strategies.

The need for reviewing and updating the District Disaster Management Plan (DDMP) can be attributed to two primary categories:

- a) **Internal changes:** These pertain to developments occurring within the district itself, such as modifications in operational procedures, alterations in geographic features, updates in physical resources, or enhancements in knowledge and expertise.
- b) **External changes:** These encompass shifts in regulatory frameworks or other external factors that may impact disaster management practices. Such changes necessitate adjustments in the DDMP to ensure compliance with updated regulations and alignment with evolving standards and best practices.

Regarding external changes, it is imperative to update the plan annually, preferably within the first month of the new financial year. This ensures timely incorporation of regulatory revisions, emerging standards, and best practices to maintain the plan's relevance and compliance with evolving requirements.

External factors such as changes in legislation, emerging standards, and best practices in disaster management necessitate regular review and revision of the plan. By conducting annual updates, the DDMP can remain responsive to the latest developments in disaster risk reduction and management.

Timely incorporation of regulatory revisions ensures that the DDMP remains compliant with legal requirements and guidelines set forth by relevant authorities. This helps to avoid potential

discrepancies or non-compliance issues during emergency response operations. Additionally, updating the plan allows for the integration of emerging standards and best practices identified through lessons learned from recent disasters or advancements in the field of disaster management.

Annual revisions also provide an opportunity to reassess the district's risk profile in light of changing socio-economic, environmental, and technological factors. This allows for the identification of new hazards, vulnerabilities, and exposure pathways that may have emerged since the previous update. By staying abreast of these changes, the DDMP can better anticipate and address emerging risks, enhancing the overall resilience of the district.

Furthermore, annual updates foster stakeholder engagement and ownership of the DDMP by providing regular opportunities for input and feedback from relevant agencies, organizations, and community members. This collaborative approach ensures that the plan reflects the diverse perspectives and expertise of those involved in disaster management efforts, thereby enhancing its relevance and effectiveness in protecting lives and livelihoods during times of crisis.

Every time that the DDMP is reviewed and updated, it must be uploaded on the website of the Gujarat State Disaster Management Authority (GSDMA) and the updated version should distinctly mention the major changes and newly added components so that any block or district official, community-based organization, NDMA, can easily study the plan etc. Additionally, the updated DDMP must be circulated to all stakeholder departments, agencies and organizations.

Chapter 2

Hazard, Vulnerability, Capacity and Risk Assessment

The Hazard, Vulnerability, Risk, and Capacity (HVRC) Assessment offers a comprehensive analysis of potential risks and vulnerabilities to various hazards within Panchmahal District. It identifies high-risk areas, vulnerable populations, and critical infrastructure susceptible to disasters. The assessment evaluates the community's ability to cope with crises and identifies areas of need and preparedness. It includes an evaluation of economic, social, housing, and environmental vulnerabilities, as well as an inventory of resources, communication systems, emergency facilities, and volunteer organizations operating within the district. This assessment serves as a valuable tool for enhancing emergency preparedness and response efforts in Panchmahal District.

2.1. Socio – economic profile of the district

In 1997, The Gujarat Government, through its notification no: GHM-97-85-M-PFR-1097-L dated: 24-04-1997, formed the new Dahod district from Panchmahal district by dividing Panchmahal district. And through notification number: JHM-97-120-M-PFR-2397-2593-L. dated: 15-10-1997, Lunavada taluka belonging to Panchmahal district was divided into Lunavada and Khanpur Talukas and Godhra Taluka was divided into Godhra and Morva (Hadaf) Talukas. After division, with total 11 new talukas namely, (1) Khanpur (2) Kadana (3) Santrampur (4) Lunawada (5) Shahera (6) Morva (h) (7) Godhra (8) Kalol (9) Halol and (11) Jambughoda, a new boundary of Panchmahal district came into existence on 02-10-1997. After that, in the year 2013, the notification of Govt. Of Gujarat: GHM-2013-73-M-PFR-102013-139-L-1 dated: 13-8-2013 divided the Panchmahal district into new district of Mahisagar. The headquarters of Seven talukas of Panchmahal district, (1) Shahera (2) Morva(h) (3) kalol (4) Godhra (5) Ghoghamba (6) Halol and (7) Jambughoda, was kept as Godhra and Lunavada was kept as headquarters of newly formed Mahisagar district. Thus, again the new boundary of Panchmahal district came into existence on 13-08-2013.

The district's population has seen a notable increase, with an estimated population of 23,88,267, of which 12.51% were urban as of 2001. The total area of Panchmahal district is 5,210 square kilometers. Panchmahal is a significant agricultural district, with rice, maize, and other crops like wheat, pulses, ground nuts, and tobacco being cultivated. A large portion of the working population is employed in agriculture, and the district is known for its horticultural crops, including mangoes, bananas, and other fruits. Dairy farming is a major source of employment and income generation in the district, with the Animal Husbandry Department and local dairy cooperatives playing a crucial role in its development. Panchmahal is also producer of quartz in Gujarat, with 97% of the state's quartz supply coming from the district. Other minerals like marble, granite, and manganese ore are also mined commercially. Moreover Godhra, Halol and Kalol taluka houses several industrial estates, attracting manufacturing companies in various sectors like automobiles, engineering, chemicals, and pharmaceuticals.

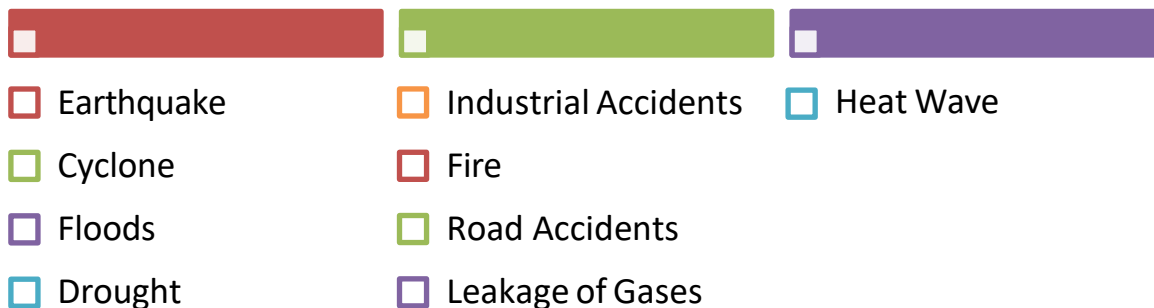
Furthermore, the district grapples with environmental pollution and dust from industrial activities, exacerbating the impact of Flood in monsoon periods, heatwaves during the summer months. Despite these challenges, District remains resilient, with ongoing efforts to enhance disaster preparedness, promote sustainable development, and safeguard the well-being of its inhabitants.

2.2. Hazard, Vulnerability, Vulnerability and Capacity (HRVC) Assessment

Natural

Man made

Climate Induced



The prominent natural and manmade hazards in the district are as below;

2.2.1. Seasonality of hazards

Hazard	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Earthquake	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cyclone	---	---	---	---	---	Y	Y	Y	Y	Y	Y	Y
Flood	---	---	---	---	---	---	---	Y	Y	Y	Y	Y
Water Logging	---	---	---	---	--	---	---	Y	Y	Y	Y	Y
Fire	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Accident	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Industrial Accident	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Heat wave	---	---	Y	Y	Y	Y	---	---	---	---	---	---
Animal Attack /Snake bite	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

2.2.2. Risk and Vulnerability Analysis

Hazards	Probability Rating	Impact Rating	Vulnerability Ranking	Vulnerable Areas/Talukas
Industrial Accidents	5	4	12 (moderate)	Industrial areas of Godhra, Kalol, Halol, Ghoghamba Taluka.
A) Fire	4	3	12(moderate)	Mostly in urban pockets and industrial areas (including rural areas), and domestic fires in rural areas.
B)Leakage of Gases	4	3	12 (moderate)	Industrial area of Godhra, Kalol, Halol and Ghoghamba Taluka
C) Oil Spill	3	2	10 (moderate)	Industrial area of Godhra, Kalol, Halol and Ghoghamba Taluka
Drought	4	3	12(moderate)	Whole District
Flood	5	5	20(High)	Mostly low-lying Areas
Epidemics	5	4	25(High)	Whole District
Heat Wave	4	3	12(Moderate)	Whole District
Rail/Road/Air Accidents	4	2	10(moderate)	Whole District
Earthquake	3	2	16(High)	Zone-3

Terrorism 1) Cyber 2) Robbery	2	5	15(moderate)	District
Boat Sinking	2	1	2(Low)	Majorly the areas surrounded by rivers i.e. Shahera, Morva(H), Godhra, Halol, Janmughoda Taluka
Building Collapse	1	2	2(Low)	Majorly the urban areas
Dam Failure	2	1	2(Low)	District has 3(Panam, Hadaf, Deo \) major dams and 1(Karad) medium / minor dams Dam can be the vulnerable.
Failure of Critical Infrastructure	2	1	2(Low)	The Petroleum cross-country pipeline running across the district may be affected

2.2.3. Taluka-wise mapping

Sr. No.	Block	Flood	Drought	Earthquake	Heat Wave	Industrial Accident	Road Accidents
1	Godhra	Moderate	Low	Moderate	Moderate	Moderate	Moderate
2	Kalol	Moderate	Low	Moderate	Moderate	High	Moderate
3	Halol	Moderate	Low	Moderate	Moderate	High	Moderate
4	Ghoghamba	Moderate	Low	Moderate	Moderate	High	Moderate
5	Jambughoda	Moderate	Low	Moderate	Moderate	Low	Moderate
6	Shahera	Moderate	Low	Moderate	Moderate	Low	Moderate
7	Morva(H)	Moderate	Low	Moderate	Moderate	Low	Moderate

Sr. No.	Type of Risk	Sources	Resulting Emergencies	Effect
1.	Environmental risk – Due to man-made disaster (Air pollution)	Leakage, spillage, escaping of toxic, flammable, explosive, reactive, poisoning chemical vapor, dust, fume in atmosphere from storage, manufacturing, handling, transportation operation from the factory by the abnormalities in operation, maintenance, startup / shutdown, failure of equipment, use of substandard / wrong material, civil commotion and armed conflicts, sabotage, war, riots, civil disturbance	Toxic release in atmosphere or Land poisoning or Water poisoning or Fire or explosion or Combination of them	Injury to humans and other living creatures, or Land poisoning or Water poisoning or Damage to property or Plant poisoning or Combination of them
2.	Environmental Risk – Due to man-made disaster (Water pollution)	Leakage, spillage, penetrate of industrial waste such as solid or liquid on or in the land due to abnormalities in operation, maintenance, failure of equipment, civil commotion and armed conflicts, sabotage, breakage or choking of pipeline	Same as above	Same as above
3.	Environmental risk – Due to natural calamities i.e. earthquake, cyclone, flood (water and air pollution)	Leakage, spillage, penetrate of toxic, flammable, explosive, reactive, poisoning chemical vapors, dust, fume in atmosphere from storage, manufacturing, handling, transportation operation from the factory and leakage, spillage penetrate of industrial waste such as solid or liquid on or in the land due to	Same as above	Same as above

		natural calamity		
4.	Environmental risk – Due to man-made Natural Calamity disaster while transporting of chemical by road, rail & pipeline	Leakage, spillage, escaping, penetrate of toxic, flammable, explosive, radioactive, poisoning chemical liquid, vapors, dust, fume in atmosphere or on or in the land due to rupture of pipeline, on or in the land road transport containers / vessel, railway wagon, equipment failure because of natural calamities or manmade or combination of them disaster	Same as above	Same as above

2.3. Heritage and Culture

Sr. No.	Description	Places/Centers/ Spots	Hazard Risk
1	Places of Tourist Interest		
A	Champaner - UNESCO World Heritage Site	Champaner-Pavagadh, a UNESCO World Heritage Site, has a rich history dating back to the 8th century when Vanraj Chavda established the city. It was a strategic trading route and saw periods of rule by various dynasties, including the Chavdas, Chauhan Rajputs, and the Gujarat Sultanate. Sultan Mahmud Begada captured and made Champaner his capital in 1484.	Stampede, Old Structure collops.
B	Jambughoda Wildlife Sanctuary	Located in the Panchmahal district of Central Gujarat and 130.38 km ² . area declared as a sanctuary in May 1990, Jambughoda Wildlife Sanctuary is home to a variety of animals and plants. The sanctuary's wildlife depends on these two reservoirs. It is a forest of teak , bamboo and other miscellaneous species. Flora here include Sag, sadad, shisham , khair , mahuda, bamboos, timru, bor, dhav, bili and dudhalo. Jambughoda Wildlife Sanctuary hosts 17 mammalian species including large colonies of Indian flying fox . Indian giant squirrel was photographed for the first time in March 2016. A rusty-spotted cat was sighted in October 2013 preying on a bat . Among the other carnivores are the Leopard, hyena , wolf and jackal . The Indian sloth bear is occasionally reported from the area. Besides civets , mongoose , porcupine and several species of rodents are found in the area. The area has also many varieties of reptiles as well, which include big-4 venomous and non-venomous snakes.	Wild Animal Attack, Honeybees Attack, Snake Bite.

		The <u>python</u> , <u>crocodile</u> and other herpetofauna also exist here. Birdlife is plentiful. In the past, the <u>junglefowl</u> was abundant here, but the species is now exterminated from the area, or has become rare. The <u>barking deer</u> , <u>four horned antelope</u> , <u>Blue bull</u> and <u>wild boar</u> are the <u>ungulates</u> occurring in the sanctuary.	
C	Hathni Mata Waterfall and.	Hathni Mata Waterfall is a stunning waterfall located in Shiv Rajpur, Panchmahal. This 100-metre-long body of water cascades gracefully over a precipice. The fresh waterfall runs best during the monsoon season. The name of these waterfalls translates to 'small elephant'; history has it that many years ago, the local tribal group discovered a rock that resembled a newborn elephant. If you go to the waterfall's base, you can still see this rock. It has a holy fabric dress and is decorated with flowers.	Wild Animal Attack, Snake Bite, Slipping and Falling, Drowning, Cliff Hazards, Powerful Currents.
D	Khuniya Mahadev Waterfall	Khuniya Mahadev Waterfall is a beautiful waterfall near the Pavagadh Hills in Panchmahal. It's named after an old temple dedicated to Mahadev (Lord Shiva) nearby. The waterfall is very popular, especially during the monsoon season when it looks even more amazing. Many people who love nature come to visit this wonderful place.	Wild Animal Attack, Honey Bees Attack, Snake Bite, Slipping and Falling, Drowning, Cliff Hazards, Powerful Currents.
2	Places of Religious and Cultural importance		
A	Maa Kalika Madir, Pavagadh	Located on the top of mountain pavagadh, according to ancient religious tradition, the right toes of Goddess Sati, also known as Goddess Mahakali, are believed to be resting on the top of Pavagadh mountain. This sacred site holds immense significance for devotees of the goddess, who gather here to offer prayers and seek blessings. The Pavagadh mountain is in the western state of Gujarat in India, and the legend of Goddess Sati is deeply rooted in Hindu mythology. It is said that the goddess sacrificed herself in a fire pit, and her body parts fell in different parts of the country, each of which became a sacred site for devotees. The presence of the goddess's right toes atop Pavagadh mountain draws countless devotees to this holy site every year.	Stampede

B	Mardeshwar Mahadev Madir, Shahera.	This is a temple of Lord Shiva namely Swyambhoo Mardeshwar Mahadev. This is one of the ancient temple of lord shiva and famous for the huge size of shivling. According to mythology the shivling getting bigger by the size of rice seed every year. The shivlig has four layers. Thousands of people visit this holy place on Monday, during Shravan and on occasion of Mahashivratri. The silver cobra having weight of 160 KG also dedicated to shri Mardeshwar Mahadev. This temple is situated at Palikhand village on Lunawada Highway, at distance of 2 K.M. from Shehera. Two temples Mardeshwar Mahadev temple, is an ancient and adjoining new Mahakali temple .	Stampede
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➤ Earthquake

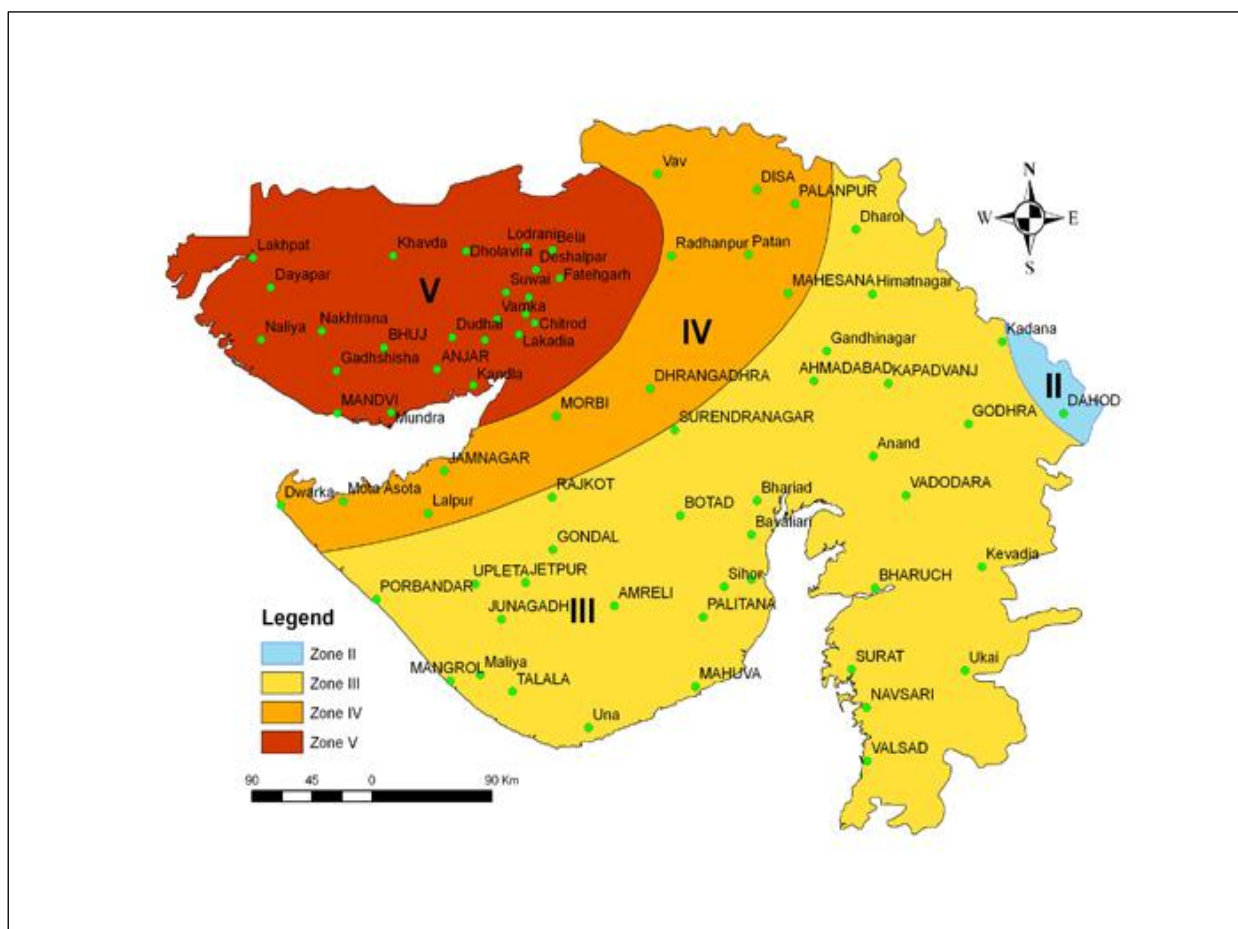
Panchmahal fall under zone-III according to the zoning map, that's why it can be possible that an earthquake between magnitudes of 4-5 can strike the district. But as there is fault line going through the district, earthquakes of magnitude up to 7 can also strike and very high possibility of failure of various infrastructures and very high chances of risk of loss of live properties too in certain highly populated areas of the district.

The response mechanism would be the same as described with the general response mechanism chapter, here the focus will be on well-populated areas in particular city areas and the district disaster response group.

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- ❖ As disaster declares the response managed and monitored through DEOC.
- ❖ All concerned DDMC members with Liaison officers and response group members are intimated to respond to the situation as described in the chart below.
- ❖ As per the impact of disaster it will manage through DEOC/TEOC and if needed support of State or Central departments will be requested to deal with the situation.
- ❖ Departmental DM Plan of all concerned departments, TDMP, CDMP and other DM Plan will be referred to as when it is required to respond in case of earthquake.
- ❖ Database of SDRN and IDRN (Manually and Electronic) will be referred for flood response.

Zones	Magnitude
Zone – V	Greater than 7
Zone – IV	Greater than 5, Less than or equal to 7
Zone – III	Greater than 4, Less than or equal to 5
Zone – II	Greater than 3, Less than or equal to 4
Zone- I	Less than 3



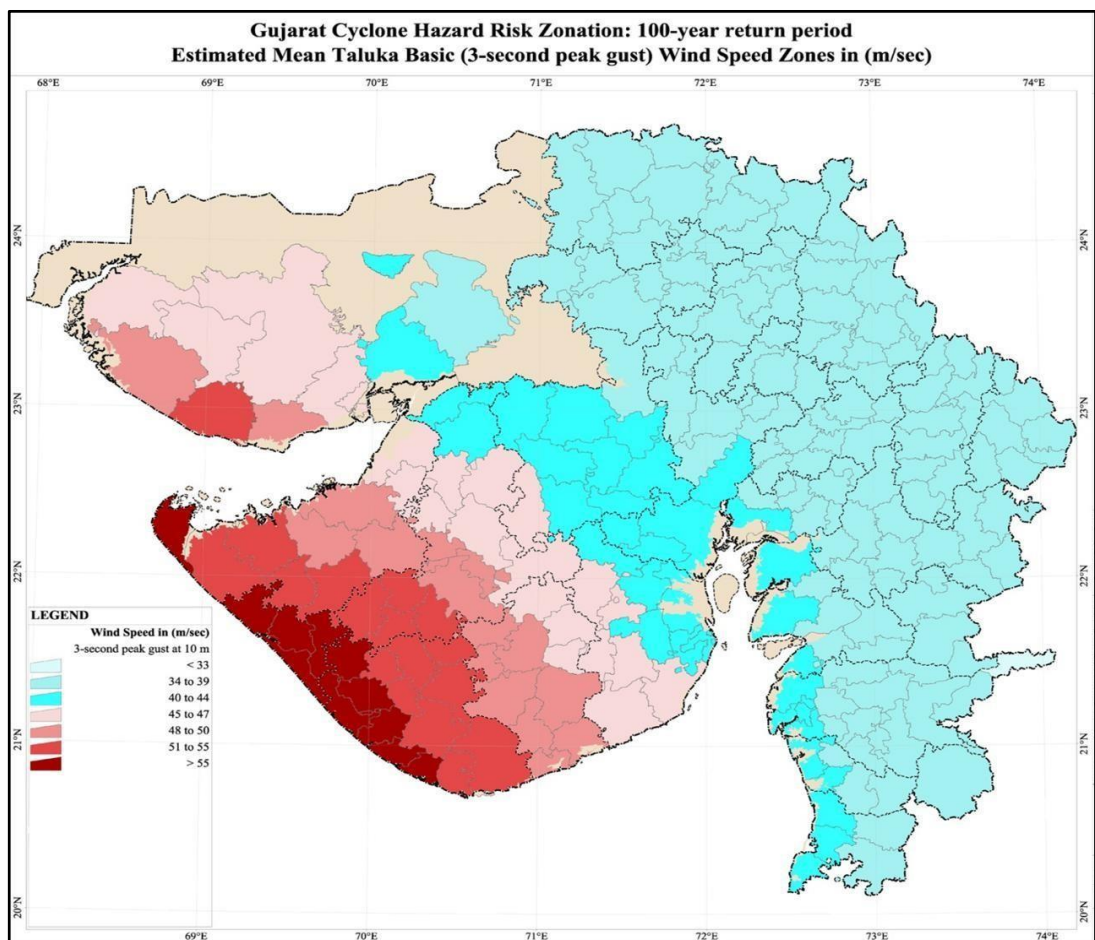
Gujarat Earthquake Hazard Risk Zonation Map

➤ Cyclone

A Cyclone is a swirling cloud of smoke and high-velocity winds. This is born from the sea and comes to land. Due to low pressure in the atmosphere, these cyclonic winds, formed in the Arabian Sea or Bay of Bengal, generally move in the north-west direction and strike the land from the sea. Heavy to very heavy rain can also occur under the effect of storm.

- A massive heat wave in north-west India is a factor in producing cyclones.
- Air becomes lighter or rises due to heating, creating an area of air pressure.
- Another wind moves to this side to fill this space.
- In this way a huge mass of clouds with steam from the Arabian Sea moves forward and rises towards the pressure zone over the coast.

A storm rotates in a counterclockwise direction. It is 8 to 12 km above sea level. Can be up to height. The width of the storm can be 20 to 50 kms. The calm center in the center of the storm is called the “eye” of the storm. The inner circle and the outer circle of the eye are part of the storm. Depending on wind speed and direction.



Gujarat Cyclone Hazard Risk Zonation Map

Cyclones in Gujarat mostly come from the Arabian Sea and move in a north, northwestern direction. It mostly affects coastal areas and bay areas. It includes areas of Kutch, Rajkot, Jamnagar, Porbandar, Junagadh, Amreli, Bhavnagar, Bharuch, Surat, Valsad districts.

A storm does not have a specific duration. There is a high possibility of a storm coming in Gujarat before or after the monsoon. That is, from the month of May to the month of October, the danger of storms is high. It usually moves at a speed of 15-25 km/h. Speed is less at sea. When it comes to the ground, the speed increases. But there are also cases of storms settling in one place for a long time. In this regard it is imperative to follow the weather forecast. Locally there can be no perfect predictions. Wind direction changes from one side to the other in the areas passing through the center of the storm and the wind calms down in between, so extra care is required.

➤ Flood

A flood is an overflow of water on land that is usually dry. Floods can occur due to various reasons, such as heavy rainfall, rapid melting of snow, storm surges from hurricanes or typhoons, overflow of rivers or lakes, or the failure of dams or levees. Floods can range from minor events, causing minimal damage and inconvenience, to major catastrophes that result in widespread destruction of property, loss of lives, and disruption of communities. Floods can have both immediate and long-term impacts on the affected areas, including damage to infrastructure, contamination of water sources, displacement of populations, and economic losses. Flood management strategies often involve a combination of measures such as early warning systems, floodplain zoning, construction of flood defenses, and sustainable land use planning.

As per the risk and vulnerability analysis of the district. Panchmahal has risk of floods in many area of district .The District has two major rivers viz. the river Panam that flows across the Godhra, Morva(H) and Shahera Taluka and the river Mahi flows across Shahera and Godhra Taluka through the district; more over to these, major water bodies like Hadaf Dam, Panam Dam and Deo dam and Karad reservoir are also the possible sites from where the risk of floods is possible.

The talukas of the district with major wards of the city are the possible sites which are either affected during the heavy rain fall or water logging or by water release from the dams or reservoirs.

Early Warning & Communication:

GENERAL TERMINOLOGY USED IN WEATHER BULLETINS

(A) Intensity of Rain fall all Terminology Used

1. 0.1. mm to 2.4 mm (24 hrs.) ----- Very light rain
2. 2.5 mm to 7.5 mm -----Light rain.
3. 7.6 mm to 34.9 mm ----- Light to Moderate rain
4. 35.0 mm to 64.9 mm -----Moderate rain
5. 65.0 mm to 124.9mm -----Heavy rain
6. Exceeding 125 mm-----Very Heavy rain.

(B) Special distribution of weather phenomenon Percentage Area Covered Terminology Used

- 1. 1 to 25----- Isolated
- 2. 26 to 50 ----- Few Places
- 3. 51 to 75 ----- Many Places
- 4. 76 to 100----- At most Places

(C) Emergency Situation

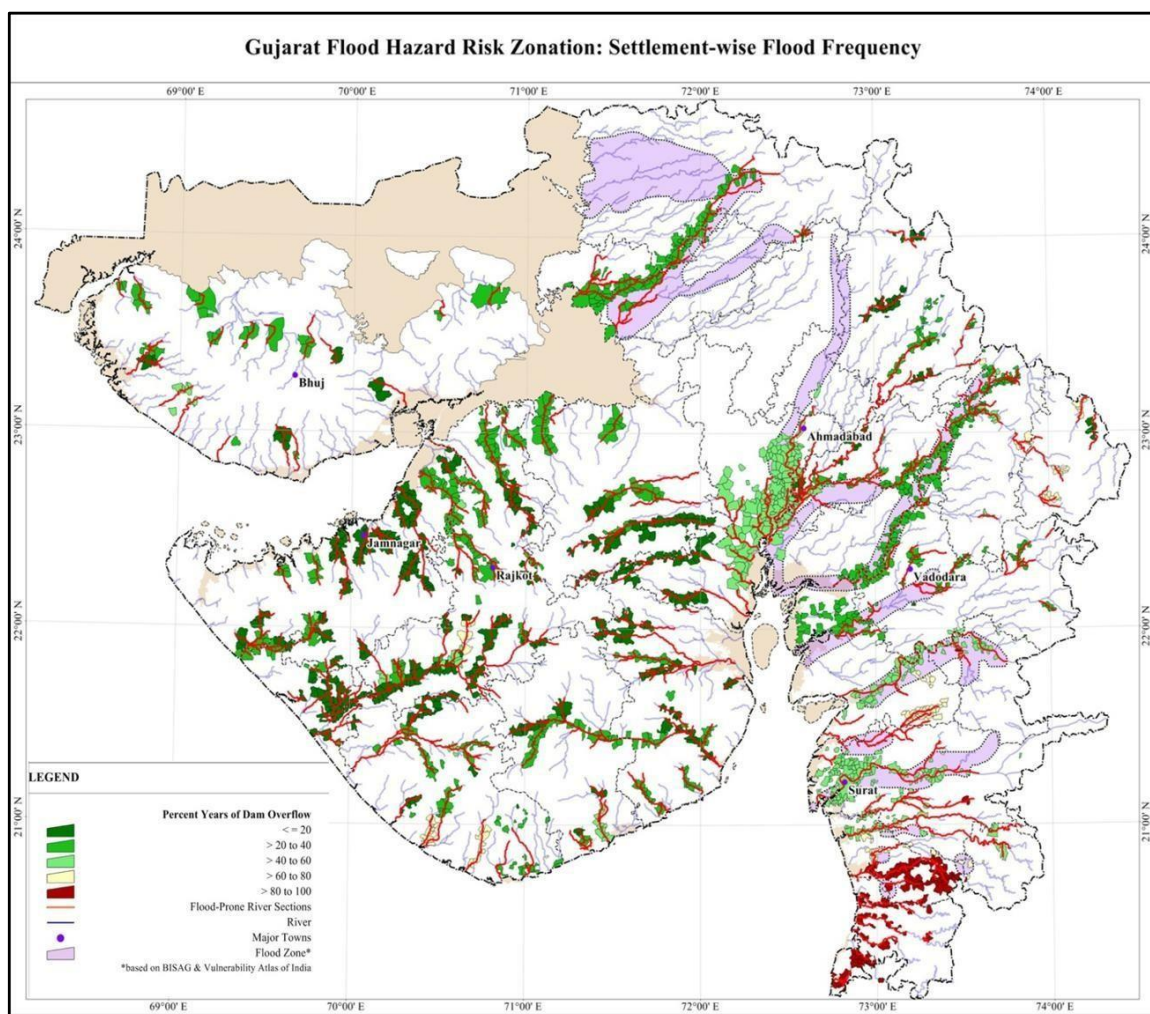
- 1. When water level is rising above the danger of H.F.L
- 2. When intensity of rainfall is above 65 mm/hr.
- 3. When breaches are anticipated and which may cause disaster
- 4. When water levels are rising abruptly and which may cause disaster

(D) Evacuation

- (1) White Signal-Alert condition
- (2) Blue Signal-Ready for Evacuation
- (3) Red Signal-Immediate Evacuation

As and when the warning come from Indian Metrological department (IMD), or from Irrigation department regarding heavy rainfall or water release the following channel has been intimated and appropriate message conveyed to the concerned department / official / control rooms / community members using telecommunication, wireless message, by fax or in written by DEOC.

In city area the route has been finalized for early warning, accordingly early warning task force leading by fire brigade personnel, spreads the message of alert in respective low line areas, in villages local methodologies of early warning has been used (by beating up of drums etc.) to communicate the message of alert to the affected population of the village.



Gujarat Flood Hazard Risk Zonation

Flood risk zone places in Panchmahal District:

Sr. No.	Scheme's name	District	Taluka	
1	Panam Dam	Panchmahal	Shahera	Ramji-ni-nal , Khotha, Undara, Mor, Baluji-na Muvada.
2	Wanakbori Weir	Panchmahal	Shahera	Kharoli,Bilitha, Hadkimata na Muvada, Ramadi, Bhimthal, Navi Bordi, Nathuri na Muvada, Valavpura, Poyda, Vadi, Bordi, Vahaka
			Godhra	Nadisar, Kabaria, Juni Dhari, Nani Dhari, Nadhara, Gothda, Timba
3	Deo Dam	Panchmahal	Halol	Sonaviti, Rasgagar, Gadit, Sonipur, Kuberpur, Indral, Badharpuri

➤ Fire

Fires in Panchmahal District present a multifaceted challenge, stemming from various causes including accidents, electrical malfunctions, negligence, gas leaks, and mishandling of flammable materials, compounded by the region's industrialization. The bustling industrial landscape increases the risk of fire incidents, requiring stringent safety measures to mitigate potential disasters. Each year, fires claim lives, cause injuries, and inflict substantial damage to property and infrastructure, imposing significant economic burdens on affected individuals and communities. Addressing this threat demands a comprehensive approach encompassing prevention, preparedness, and response strategies. This includes enforcing fire safety regulations, promoting public awareness, conducting regular inspections, and equipping emergency responders with the necessary tools and training to effectively combat fires.

Efforts to mitigate the impact of fires in Panchmahal District must prioritize collaboration among government agencies, industries, emergency services, and community stakeholders. By fostering partnerships and implementing proactive measures, such as enhanced fire safety education and infrastructure improvements, the district can bolster its resilience against fires and minimize the devastating consequences they inflict. Through collective action and a commitment to fire prevention and response, Panchmahal District can work towards ensuring the safety and well-being of its residents while safeguarding against the destructive effects of fires.

Panchmahal District has taken proactive measures to enhance fire safety. District have 4 fire station latest equipment and vehicles and other fire prevention facility with private industries to handle emergency and safeguarding the community against fire-related hazards.

➤ Heat Wave

During the summer months in Panchmahal District, the region experiences scorching temperatures, with maximum readings often soaring to 41 degrees Celsius or higher. These extreme heat conditions give rise to severe heat waves, posing significant risks to the population, especially vulnerable groups such as the homeless, gardeners, outdoor laborers, auto drivers, and those engaged in daily wage work under direct sunlight.

The intensity of the heat waves can have devastating consequences, leading to a tragic loss of life among those exposed to prolonged periods of extreme heat. Without adequate shelter or access to cooling facilities, individuals who are forced to work outdoors, often without protective gear, are particularly susceptible to heat-related illnesses such as heatstroke, dehydration, and heat exhaustion.

Among the most vulnerable are the homeless population, who may lack access to shelter or safe refuge from the blistering heat. Additionally, gardeners and outdoor laborers, whose livelihoods depend on working outside, face heightened risks of heat-related ailments due to their prolonged exposure to the sun.

Daily wage workers, including construction laborers and agricultural workers, are also at significant risk, as they are often required to work long hours in the heat to earn a living. Moreover, auto drivers who spend extended periods driving in non-air-conditioned vehicles are

exposed to high temperatures, increasing their susceptibility to heat stress.

In summary, the severe heat wave conditions experienced during the summer in Panchmahal district pose a serious threat to public health and safety, particularly impacting vulnerable individuals who are unable to escape the scorching temperatures. Efforts to mitigate the impacts of heat waves should include providing access to cooling centers, distributing hydration kits, raising awareness about heat-related illnesses, and implementing measures to protect those most at risk from the adverse effects of extreme heat.

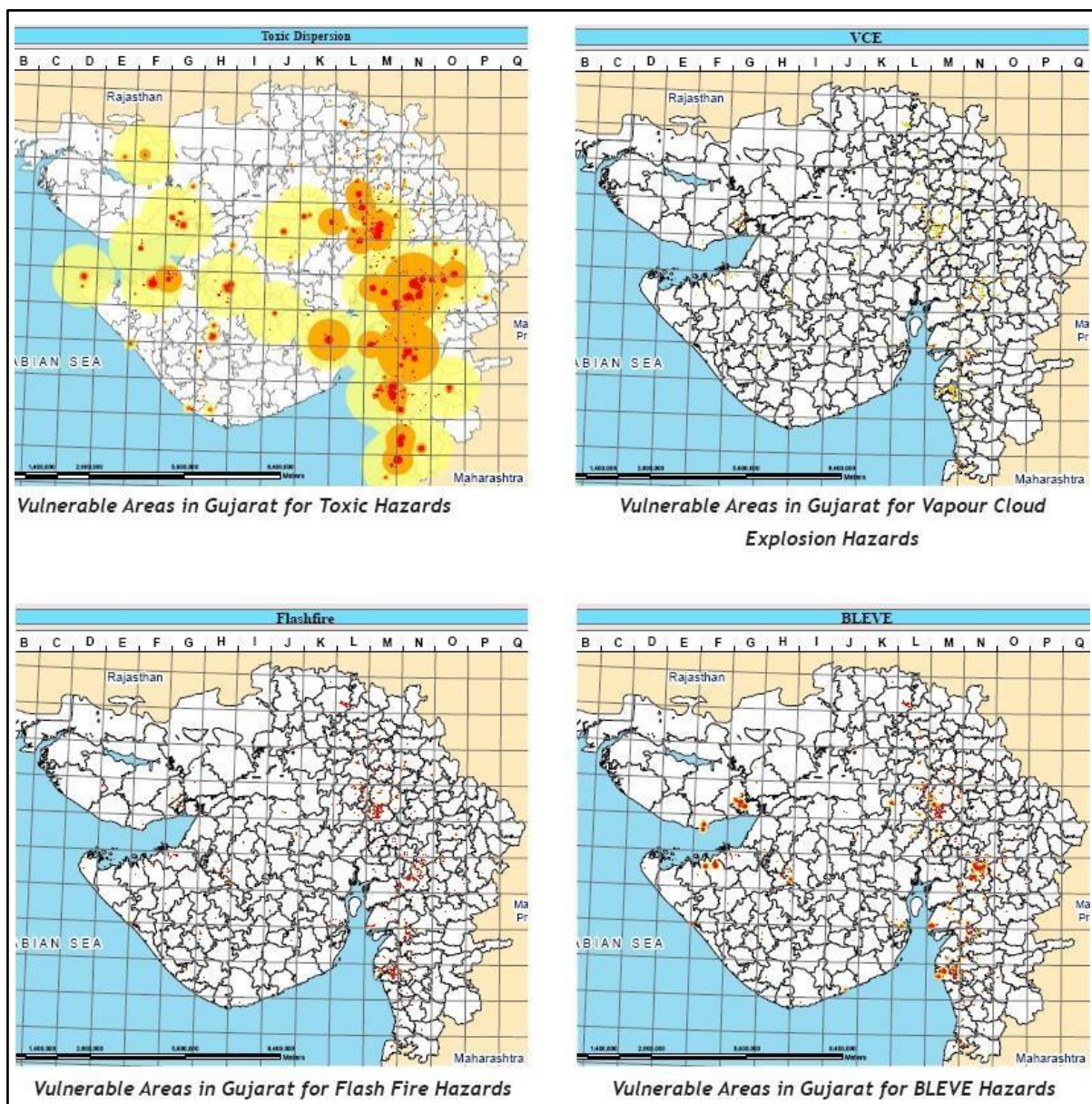
➤ Industrial and Chemical Disasters

The major industrial locations in the district are Kalol, Halol and Godhra. The focused industry sectors are mineral, engineering and automobile, dairy farming. Panchmahal is the largest producer of quartz and the district has a 6 MAH Unit.

Panchmahal is a major producer of quartz, trap, and quartzite in Gujarat. The district has a significant presence of engineering and automobile-related industries like MG Motors, Mero moto, JCB, etc. The district has a well-established dairy industry, with the Panchmahal District Co-operative Milk Producers Union Limited playing a key role. Gujarat Fluoro Chemicals Limited and Kusha Chemicals Pvt. Ltd. are examples of companies in the chemicals sector. Alembic Pvt. Ltd, Sun Pharmaceutical Industries Ltd. and Avyansh Pharma are examples of pharmaceutical manufacturers in the district.

The Koyali-Ratlam Product Pipeline (KRPL) does pass through the Panchmahal district in Gujarat, India. The KRPL is a 265-km long product pipeline commissioned in 2009 that carries petroleum products from Koyali Refinery to Ratlam Marketing Terminal. Gujarat Gas Limited (GGL) has offices in the Panchmahal district, including Godhra and Halol. GGL provides natural gas distribution services in the area, including CNG filling stations. The company's Godhra branch is located on Bamroli Road. The Halol office is near the Government Rest House.

- Fire due to gas leakage.
- Leakage in the main Gas pipeline which is made of steel
- Pipeline breaks due to any other reason.
- Fire in customer area.
- Blockage in pipeline.
- Ruptures in pipelines due to natural calamities like-floods, earthquakes.



Areas of Gujarat Vulnerable to Industrial and Chemical Hazard

MAH list of Chemical and Industrial companies prone to Disaster in District

No	Factory Name & Add	Chemical Used	Storage	Hazards
1	Hero Motocorp Ltd 102, GIDC, At-Navariya, Halol Ta-Halol	Propane (48 MT)	Bullet	Fire & Explosive
2	Paushak Ltd At-Panelav, Tajpura	Chlorine (133 MT)	Tonner	Toxic

	Ta-Halol	Toluene, Methanol, Ethanol (69 KL)	Tank Each	Fire
		Phosgene (100 Kg)	Holding in pipeline	Highly Toxic
3	Gujarat Floro Chemicals (GFL Ltd) S.No.-16/3, At-Ranjitnagar Ta-Ghoghamba	Chloroform (600 MT)	Tank	Toxic
		Oleum 23% (100 MT)	Tank	Corrosive & Toxic
		Solvent	Tank	Fire
4	Styrenix Performance Materials Limited (Formerly known as INEOS Styrolution (India) Ltd.), At-Katol, Halol-Godhra Road Dist.:Panchmahal, Gujarat, 389330	Styrene (1360 M3)	Tank	Highly Toxic
		Acrylonitrile (536 KL)	Tank	Toxic
		Solvent	Tank	Fire
5	Panchmahal Steel Ltd 1, GIDC, Kalol Ta-Kalol	LPG (40 MT)	Bullet	Fire & Explosive
6	Kusa Chemicals Pvt Ltd At-Popatpura, Halol-Godhra Road Ta-Godhra	Ethylene Oxide (15 MT)	Bullet	Fire & Explosive
		Solvents	Barrels	Fire

Need to identify helpless groups

People with disabilities become more vulnerable during a disaster, so individuals and groups with special needs should be identified and their needs should be prioritized in action plans. People who have one or more physical impairments or disabilities like blind or visually impaired, difficulty in walking, speaking, hearing, memory may find it difficult during a disaster. Special arrangements should be made for quick assistance to such individuals and groups. Some disabilities are obvious, while others are difficult to detect and understand, such as heart disease, mental pain, arthritis, allergies, asthma, chemical reactions, breathing problems, vision and brain problems, etc.

People with disabilities and those who are hindered in performing certain activities such as

- Difficulty walking or using steps (joint pain, people using mobility aids – wheelchairs, blind people walking with sticks, crutches or hand crutches), feeling tired immediately, shortness of breath, fainting (temporarily and permanently)

- Heart disease, asthma, lung problems or any other symptoms that cause shortness of breath due to stress, fatigue and movement.
- Mental-Intellectual, thinking and understanding problems.
- Blind/ Unable to see.
- Not being able to hear.

2.4. Capacity Analysis

The Capacity Analysis of Panchmahal District's Disaster Management Plan (DDMP) assesses the district's readiness and capability to effectively respond to emergencies. This analysis evaluates the resources, infrastructure, and human capital available for disaster preparedness and response efforts. It identifies strengths, weaknesses, and gaps in the district's capacity, informing strategies to enhance resilience and mitigate risks. By understanding the district's capacity, the DDMP can prioritize investments, allocate resources, and build partnerships to strengthen emergency response mechanisms and better protect the community from potential hazards.

Traditional Coping Capacity:

It is important to identify and recognize traditional coping capacity of the community to enable them to enhance their capacity to withstand disasters.

Hazard	Early Warning	Preparedness	Early Response
Flood	Monitoring water resources through community	Identification of high elevation places and rescue teams	Evacuation, Search and rescue and First aid support
Cyclone	Information Local Community, Local News, social media.	Evacuate to safe place	Search and rescue and First aid support
Earthquake	---	Identification of Safe Places	Search and rescue and First aid support
Draught	Own assessment mechanism	Fodder storage, Food Storage at individual level	
Industrial/ Chemical Hazard	Local Administration	OCR, DISH and EOC	Local Response Teams

Chapter 3

Institutional Arrangements for DM

3.1. Institutional Arrangements:

The Disaster Management Act 2005 provides for an effective institutional mechanism for drawing up and monitoring implementation of disaster management plan for prevention and mitigating effects of disasters and for taking a holistic, coordinated and prompt response to any disaster situation. Under Section 78 of the DM Act 2005, powers are conferred to the State Government for making rules to carry out the provisions of this Act and notify such rules in the official gazette.

The institutional mechanism for disaster management at the district level, as envisaged in the national plan and other national guidelines, is as given below –

1. District Disaster Management Authority
2. District Disaster Management Advisory Committee
3. Local Self Government
4. District EOC

3.2. D.M. organizational structure at the national level

Legal framework constitutes the foundational pivot around which different aspects of an activity are interwoven. It is probably for this reason that in institute modern democratic political systems, it has been found essential to ordain that based on a written Constitution. This enclosed the issues and activities that could not find place in the scheme of a written Constitution, for obvious reasons, have been provided with a sound legal basis by enacting a framework law on the subject. In India, one such issue has been the management of disasters. Despite being one of the most disaster-prone countries in the world, the subject of disaster management could not find a place in the Constitution of India for reasons explained later in the paper. In fact, for a fairly long period of time, disasters, both natural and manmade, had been found to be managed in the classical colonial mode of trial and error resulting into untold miseries for the people and massive loss of lives and Property. The lurking dangers of climate change and its colossal impact on the occurrence of natural disasters prompted the international community to go for a recasting of the disaster management system in all parts of the world. In such an overhaul of the disaster management systems, central place was afforded to the provision of a sound legal framework. In the wake of these persuasions, Indian Parliament enacted the Disaster Management Act in 2005 to provide for the legal framework in which the structures, functionaries and activities related to management of disasters should organize and operational zed to make the country disaster free.

3.2.1. Role of Central Ministries and Departments

As disaster management is a multidisciplinary process, all Central Ministries and Departments will have a key role in the field of disaster management. The nodal Ministries and Departments of the Government of India (i.e., the Ministries of Agriculture, Atomic Energy, Civil Aviation, Earth Sciences, Environment & Forests, Home Affairs, Health, Mines, Railways, Space, water Resources etc.) will continue to address specific disasters as assigned to them. National Crisis Management Committee (NCMC) The NCMC, comprising high level officials of the Government of India headed by the Cabinet Secretary, will continue to deal with major crises which have serious or National ramifications. It will be conducted with 13 Institutional and Legal Arrangements supported by the Crisis Management Groups (CMG) of the Central nodal

Ministries and assisted by NEC as may be necessary. The Secretary, NDMA may be a member of this Committee of state Governments. The primary responsibility for disaster management rests with the States. The institutional mechanism put in place at the Centre, State and District levels will help the States manage disasters in an effective manner. The Act mandates the State Governments inter alia to take measures for preparation of Disaster Management Plans, integration of measures for prevention of disasters or mitigation into development plans, allocation of funds, establishment of early warning systems, and to assist the Central Government and other agencies in various aspects of Disaster Management. District Administration At the District level, DDMA's will act as the district planning, coordinating and implementing body for disaster management and will take all measures for the purposes of disaster management in the District in accordance with the guidelines laid down by NDMA and SDMA. Management of Disasters Impacting more than one State. At times, the impact of disasters occurring in one State may spread over to the areas of other States. Similarly, preventive measures in respect of certain disasters, such as floods, etc., may be required to be taken in one State, though the impact of their occurrence may affect another. The administrative hierarchy of the country is organized into National, State and District level administrations. This presents some difficulties in respect of disasters impacting more than one State. Management of such situations calls for a coordinated approach, which can respond to a range of issues quite different from those that normally present themselves, before, during and after the event. NDMA will encourage identification of such situations and promote the establishment of mechanisms on the lines of Mutual Aid Agreement for coordinated strategies for dealing with them by the States, Central Ministries and Departments and other agencies concerned.

➤ Armed Forces

The Armed Forces are called upon to assist the civil administration only when the situation is beyond their coping capability. In practice, however, the Armed Forces form an important part of the Government's response capacity and are immediate responders in all serious disaster situations. Because of their vast potential to meet any adverse challenge, speed of operational response and the resources and capabilities at their disposal, the Armed Forces have historically played a major role in emergency support functions. These include communication, search and rescue operations, health and medical facilities, and transportation, especially in the immediate aftermath of a disaster. Airlift and movement of assistance to neighboring countries primarily fall within the expertise and domain of the Armed Forces. The Armed Forces will participate in imparting training to trainers and DM managers, especially in CBRN aspects, heli-insertion, high-altitude rescue, waterman ship and training of paramedics. At the National level, the Chief of the Integrated Defense Staff to the Chairman Chiefs of Staff Committee has already been included in the NEC. Similarly, at the State and District levels, the local representatives of the Armed Forces may be included in their executive committees to ensure closer coordination and cohesion.

➤ Central Paramilitary Forces

The Central Paramilitary Forces (CPMFs), which are also the Armed Forces of the Union, play a key role at the time of immediate response to disasters. Besides contributing to the NDRF, they will develop adequate disaster management capabilities within their own forces and respond to disasters which may occur in the areas where they are posted. The local representatives of the CPMFs may be co-opted/invited in the executive committee at the State level.

➤ National Disaster Management Authority (NDMA)

The NDMA, as the apex body for disaster management, is headed by the Prime Minister and

has the responsibility for laying down policies, plans and guidelines for DM and coordinating their enforcement and implementation for ensuring timely and effective response to disasters. The guidelines will assist the Central Ministries, Departments and States to formulate their respective DM plans. It will approve the National Disaster Management Plans and DM plans of the Central Ministries/Departments. It will take such other measures, as it may consider necessary, for the prevention of disasters, or mitigation, or preparedness and capacity building, for dealing with a threatening disaster situation or disaster. Central Ministries/Departments and State Governments will extend necessary cooperation and assistance to NDMA for carrying out its mandate. It will oversee the provision and application of funds for mitigation and preparedness measures. NDMA has the power to authorize the Departments or authorities concerned to make emergency procurement of provisions or materials for rescue and relief in a threatening disaster situation or disaster. The general superintendence, direction and control of the National Disaster Response Force (NDRF) are vested in and will be exercised by the NDMA. The National Institute of Disaster Management (NIDM) works within the framework of broad policies and guidelines laid down by the NDMA.

1. Experience in major disasters in the last decade has clearly established the need for prepositioning of some essential reserves at crucial locations, including some for the high-altitude areas. These reserves are intended to augment the resources at the State level. Mitigation reserves will be placed at the disposal of the NDRF to enhance their emergency response capabilities for assisting the State Governments during a disaster or disaster-like situation. Existing Institutional Arrangements Cabinet Committee on Management of Natural Calamities (CCMNC) and the Cabinet Committee on Security (CCS)

2. CCMNC had been constituted to oversee all aspects relating to the management of natural calamities including assessment of the situation and identification of measures and programs considered necessary to reduce its impact, monitor and suggest long-term measures for prevention of such calamities formulate and recommend programs for public awareness for building up society's resilience to them. The CCS deals with issues related to defense of the country, law and order and internal security, policy matters concerning foreign affairs that have internal or external security implications, and economic and political issues impinging on National security, High Level Committee (HLC)

3. In the case of calamities of severe nature, Inter-Ministerial Central Teams are deputed to the affected States for assessment of damage caused by the calamity and the amount of relief assistance required. The Inter-Ministerial Group (IMG), headed by the Union Home Secretary, scrutinizes the assessment made by the Central Teams and recommends the quantum of assistance to be provided to the States from the National Calamity Contingency Fund (NCCF). However, assessment of damage by IMG in respect of drought, hailstorm and pest attack will continue to be headed by the Secretary, Ministry of Agriculture and Cooperation. The HLC comprising the finance minister as Chairman and the Home Minister, Agriculture Minister, and Deputy Chairman of the Planning Commission as members approves the Central assistance to be provided to the affected States based on the recommendations of the IMG. The constitution and composition of HLC may vary from time to time. The Vice Chairman, NDMA will be a special invitee to the HLC. Central Government.

4. In accordance with the provisions of the Act, the Central Government will take all such measures, as it deems necessary or expedient, for the purpose of DM and will coordinate actions of all agencies. The Central Ministries and Departments will take into consideration the recommendations of the State Government Departments while deciding upon the various pre-disaster requirements and for deciding upon the measures for prevention and mitigation of disaster. It will ensure that the Central Ministries and Departments integrate measures for the prevention and mitigation of disasters into their developmental plans and projects, make

appropriate allocation of funds for pre-disaster requirements and take necessary measures for preparedness and to effectively respond to any disaster situation or disaster. It will have the power to issue directions to NEC, State Governments/SDMAs, SECs or any of their officers or employees, to facilitate or assist in DM, and these bodies and officials shall be bound to comply with such directions. The Central Government will extend cooperation and assistance to the State Governments as required by them or otherwise deemed appropriate by it. It will take measures for the deployment of the Armed Forces for disaster management. The Central Government will also facilitate coordination with the UN Agencies, International Organization and Governments of Foreign Countries in the field of disaster management. The Ministry of External Affairs in coordination with the Ministry of Home Affairs (MHA) will facilitate external coordination/cooperation.

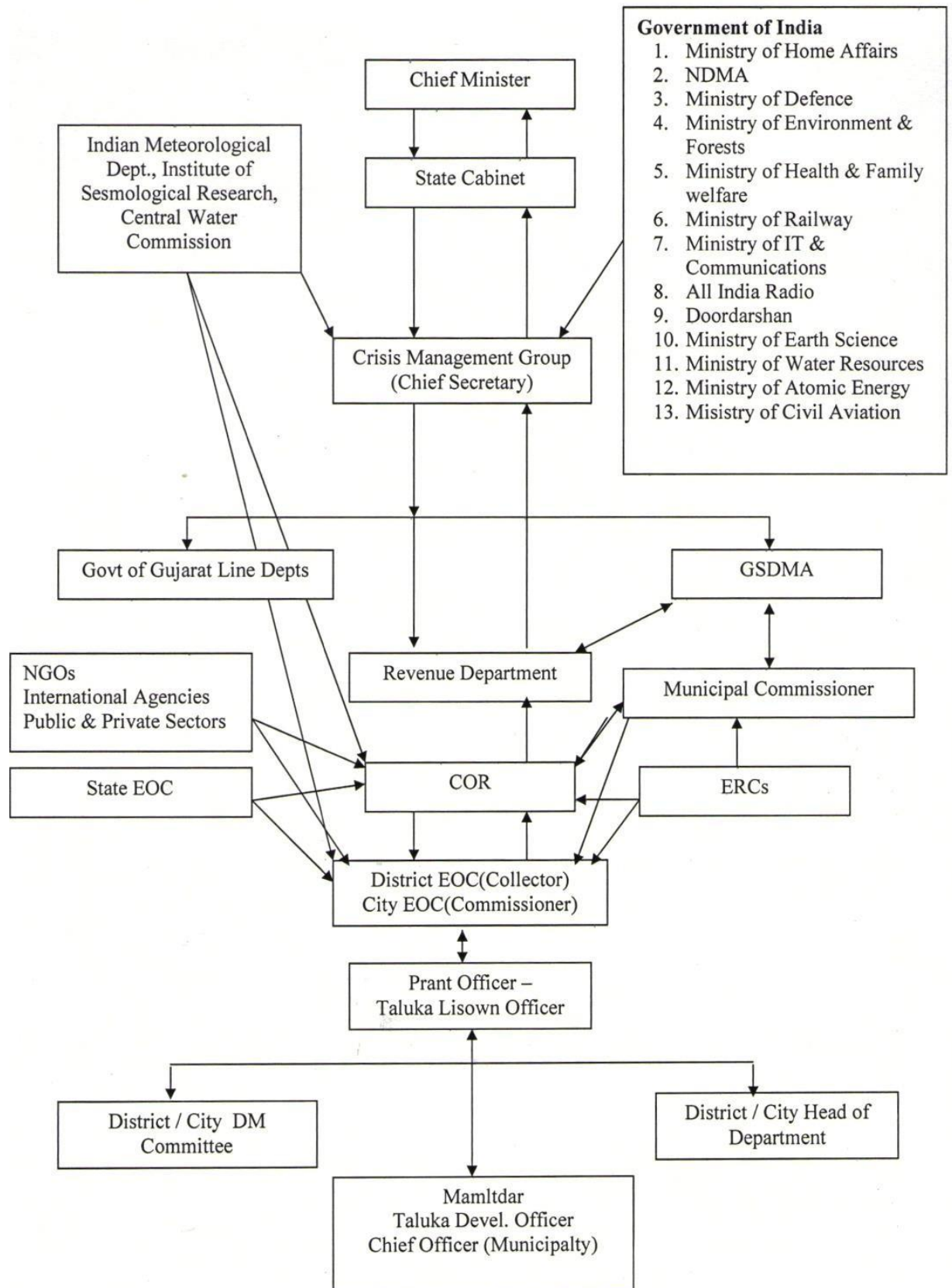
3.3. D.M. organizational structure in the state

The organizational structure for disaster management in the state typically comprises several key entities and agencies working in tandem to ensure effective preparedness, response, and recovery efforts. At the apex level, there is often a State Disaster Management Authority (SDMA) chaired by the Chief Minister or a designated minister. The SDMA sets the overarching policies and guidelines for disaster management in the state.

To formalize disaster management efforts within the state, the Government of Gujarat (GoG) has instituted the Gujarat State Disaster Management Authority (GSDMA) as a central agency. The GSDMA is tasked with facilitating, coordinating, and overseeing disaster management initiatives across Gujarat, aiming to promote effective disaster mitigation practices. Its establishment signifies a pivotal step in the state's disaster management strategy. Additionally, the GoG plans to enact the Gujarat State Disaster Management Act, intending to establish a legal framework to support and enhance disaster management endeavors statewide.

Additionally, there are often specialized agencies or departments dedicated to specific aspects of disaster management, such as fire services, emergency medical services, search and rescue teams, and civil defense forces. These agencies operate at both the state and district levels and play a crucial role in emergency response and relief efforts.

Disaster Management Structure in the State



➤ State Police Forces and Fire Services

The State Police Forces and the Fire Services are crucial immediate responders to disasters. The Police Forces will be trained and the Fire Services will be upgraded to acquire multi-hazard rescue capability.

1. *Civil Defense and Home Guards*

The mandate of the Civil Defense and the Home Guards will be redefined to assign an effective role in the field of disaster management. They will be deployed for community preparedness and public awareness. A culture of voluntary reporting to duty stations in the event of any disaster will be promoted.

2. *State Disaster Response Force (SDRF)*

States will be encouraged to create response capabilities from within their existing resources. To start with, each State may aim at equipping and training one battalion equivalent force. They will also include women members for looking after the needs of women and children. NDRF battalions and their training institutions will work in coordination to quick response to mitigate the intensity of disaster.

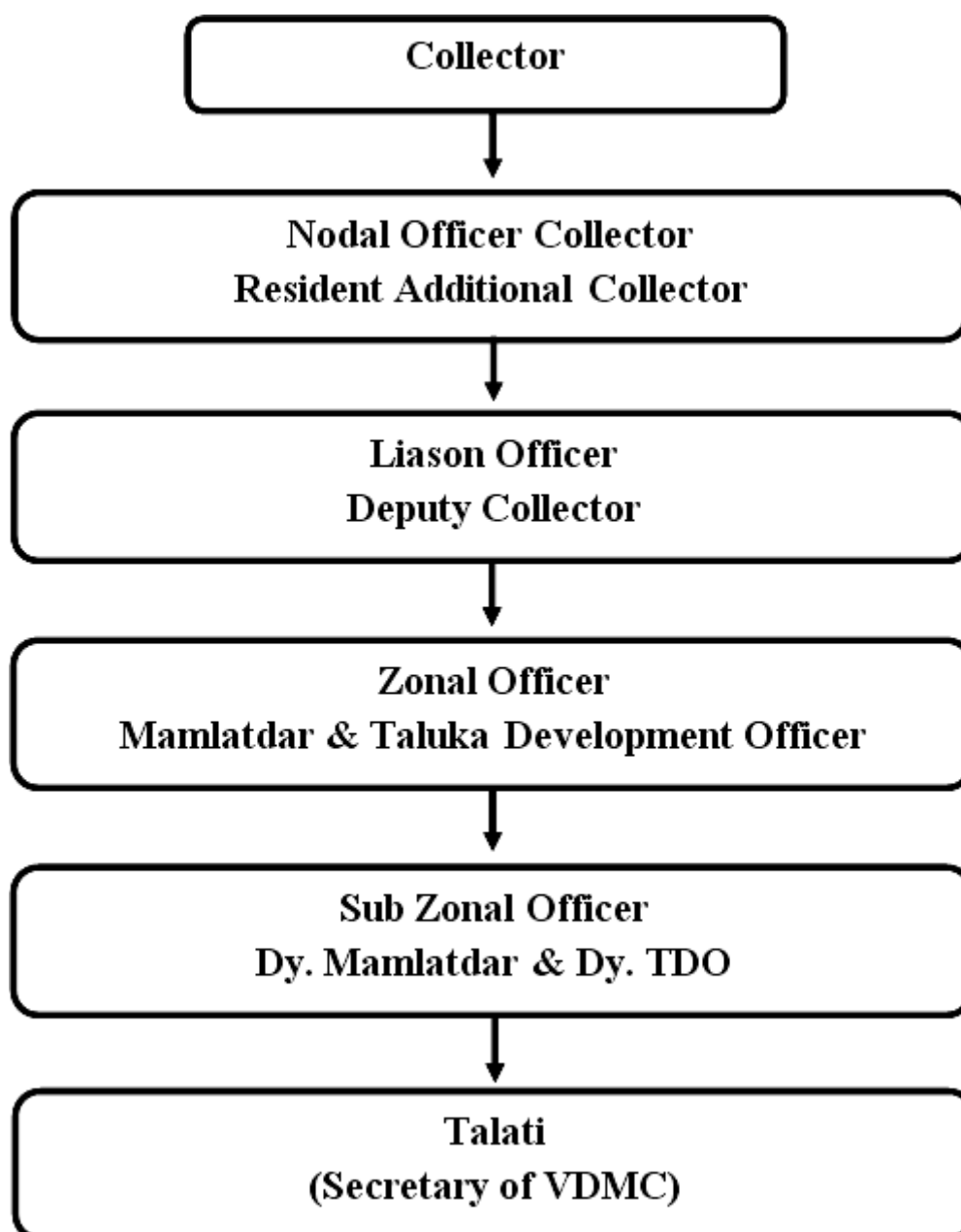
3.4. D.M. organizational structure in the district

Section 25 of DM Act 2005 & National Policy on DM 2009 – mandates establishment of DDMA for every district and provides its composition. DDMA will be headed by the respective District Magistrate/District Collector (DC)/Deputy Commissioner as the case may be, with the elected representative of the Local Authority as the Co-Chairperson ex officio. DDMA will act as the planning, coordinating and implementing body for DM at District level and take all necessary measures for the purposes of DM in accordance with the Guidelines laid down by the NDMA and SDMA. It will, inter alia, prepare the District DM plan for the District and monitor the implementation of the National Policy, the State Policy, the National Plan and the State Plan concerning its District.

The DDMA will also ensure that the Guidelines for prevention, mitigation, preparedness and response measures laid down by NDMA and SDMA are followed by all Departments of the State Government, at the district level and the Local Authorities in the District, DM structure in the district is as per the Gujarat State Disaster Management Act – 2003. The district has existing institutional arrangements in place for addressing the roles / responsibilities envisaged through the provisions.

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

Institutionalization of Disaster Management at District Level



District Disaster Management Advisory Committee

Section 28 of DM Act 2005 empowers DDMA to constitute a committee or sub committees and enables it to make payment of allowances to any person associated as an expert with these committees. An expert committee can also be constituted to assist DDMA.

At the district level, the District Disaster Management Committee (DDMC) serves as the high-powered body responsible for overseeing disaster management and emergency response initiatives. Chaired by the District Collector, the committee comprises policymakers from the district, nodal officers from various departments, Additional District Magistrate (ADM), Sub-Divisional Magistrates (SDMs), and representatives from relevant organizations. The ADM

serves as the convener of the DDMC, facilitating its operations and meetings. Additionally, the Gujarat State Disaster Management Authority (GSDMA) appoints a District Project Officer (DPO) to oversee day-to-day disaster management affairs, alongside the Mamlatdar Disaster Management in the district. The DDMC convenes regularly to strategize and implement measures for crisis prevention and mitigation, with meeting minutes circulated among members. Furthermore, each DDMC member is also designated as a member of the Emergency Support Functions (ESFs) in the district, ensuring comprehensive coordination and collaboration in emergency response efforts.

District Disaster Management Advisory Committee

Section 28 of DM Act 2005 empowers DDMA to constitute a committee or sub committees and also enables it to make payment of allowances to any person associated as an expert with these committees. An expert committee can also be constituted to assist DDMA.

Local Self Government Authorities:

Local Authorities would include Panchayati Raj Institutions (PRIs), Municipal bodies, District and Cantonment Boards and Town Planning Authorities, which control and manage civic services. These bodies will prepare DM Plans in consonance with the Guidelines of NDMA, SDMA and DDMA and will ensure capacity building of their officers and employees for managing disasters, carry out relief, rehabilitation and reconstruction activities in the affected areas.

3.4.1. District Crisis Management Group

The District Crisis Management Group, also known as the Task Force, is a vital component of the disaster management structure at the district level. Comprising representatives from various departments and agencies, this group is responsible for coordinating and implementing crisis response activities during emergencies. Chaired by the District Collector or a designated official, the Task Force collaborates closely with relevant stakeholders to ensure a swift and effective response to disasters. Its primary functions include assessing the situation, mobilizing resources, coordinating rescue and relief operations, and facilitating communication and information dissemination to the public. The Task Force plays a crucial role in safeguarding lives and property and mitigating the impact of disasters on the community.

Sr. No.	Emergency Taskforce	Functions & Co-ordination with of Control Rooms
1.	Coordination and Planning	Coordinate early warning, Response & Recovery Operations
2.	Administration and Protocol	Support Disaster Operations by efficiently completing the paperwork and other administrative tasks needed to ensure effective and timely relief assistance
3.	Warning	Collection and dissemination of warnings of potential disasters
4.	Law and Order	Assure the execution of all laws and maintenance of order in the area affected by the incident.

5.	Search and Rescue	Provide human and material resources needed to support local evacuation, search and rescue efforts.
6.	Public Works	Provide the personnel and resources needed to support local efforts to re-establish normally operating infrastructure.
7.	Water	Assure the provision of sufficient potable water for human and animal consumption (priority), and water for industrial and agricultural uses as appropriate.
8.	Food and Relief Supplies	Assure the provision of basic food and other relief needs in the affected communities.
9.	Power	Provide the resources to re-establish normal power supplies and systems in affected communities.
10.	Public Health and Sanitation	Provide personnel and resources to address pressing public health problems and re-establish normal health care systems.
11.	Animal Health and Welfare	Provision of health and other care to animals affected by a disaster.
12.	Shelter	Provide materials and supplies to ensure temporary shelter for disaster-affected populations
13.	Logistics	Provide Air, water and Land transport for evacuation and for the storage and delivery of relief supplies in coordination with other task forces and competent authorities.
14.	Survey (Damage Assessment)	Collect and analyze data on the impact of disaster, develop estimates of resource needs and relief plans, and compile reports on the disaster as required for District and State authorities and other parties as appropriate.
15.	Telecommunications	Coordinate and ensure operation of all communication systems (e.g., Radio, TV, Telephones, and Wireless) required to support early warning or post disaster operations.
16.	Media (Public Information)	Provide liaison with and assistance to print and electronic media on early warning and post-disaster reporting concerning the disaster.

The designated task forces are entrusted with specific response roles and responsibilities, which are efficiently coordinated through the Incident Command System (ICS) or a similar framework such as the Gujarat State system. For instance, in flood scenarios, search and rescue operations fall under the purview of the Operations section, while transportation logistics are managed by the Logistics Section. Additionally, dissemination of public

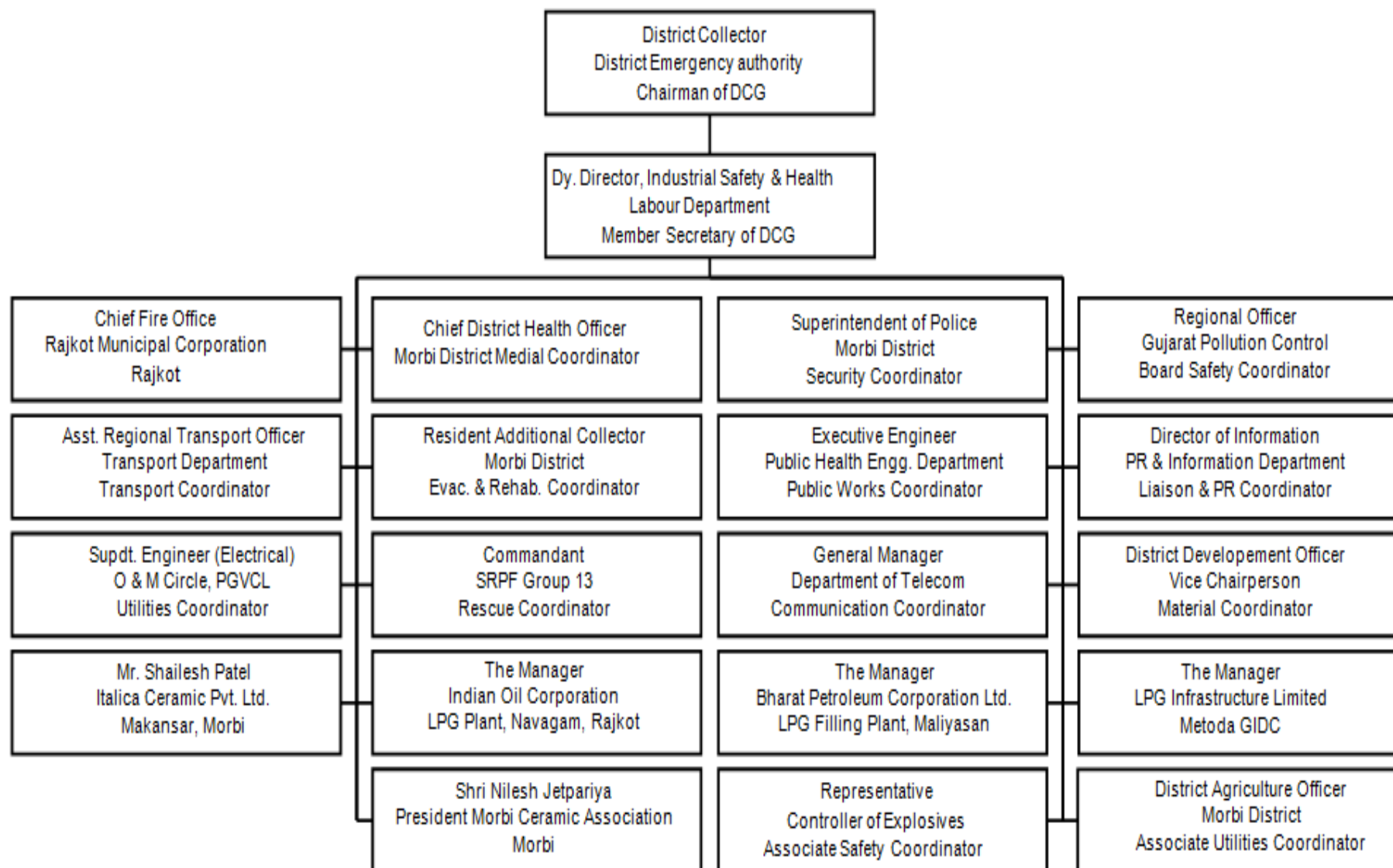
information is overseen by the Public Information Unit, ensuring a structured and coordinated approach to disaster response efforts.

3.4.2. District Crisis Management Committee and Taskforces:

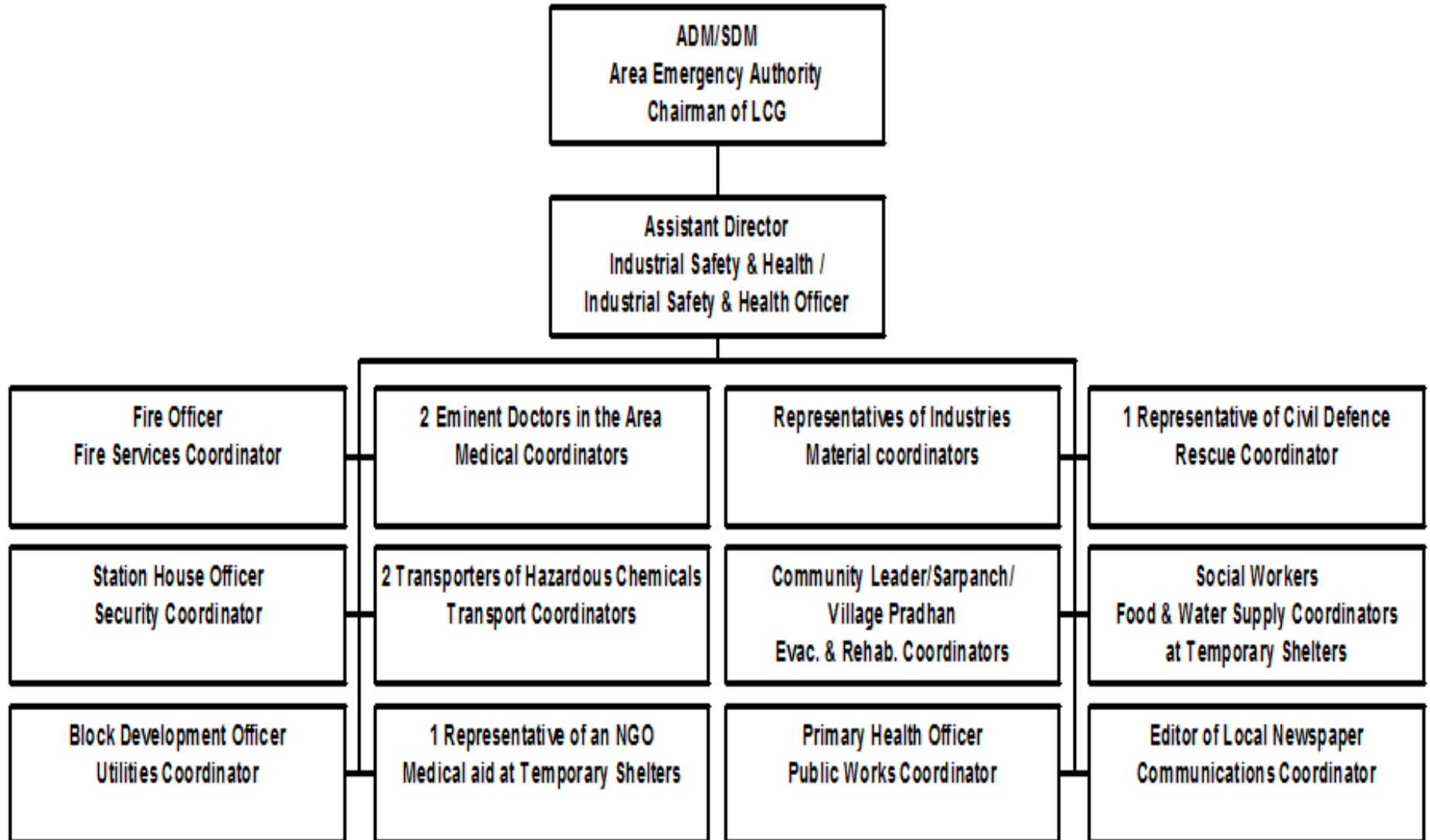
No.	Task Force	Taskforce Leader	Supporting members/ Organizations
1.	Planning and Coordination	Collector	DDO, SP, Chief Officer, RAC and Mamlatdar
2.	Administration & Protocol	Collector	DDO, SP, Chief Officer, RAC and Mamlatdar
3	Damage Survey/ Assessment	Collector	DIC, Dy. DDO, Ex. Engr., R&B, DAO,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

			Home guard
14	Power	Supt. Engr. GEB	Ex. Engr., Dy. Engr. Technical, GEB, Transport
15	Public Health & Sanitation	Chief District Health Officer (CDHO)	Supt. Govt. Hospital, Municipality, PHCs, CHCs, Red Cross, Fire Brigade, Civil Defense, R&B, NGOs, Doctors, TDO, Mamlatdar
16	Animal Health & Welfare	Dy. Director Animal Husbandry	Veterinary Inspector, NGOs

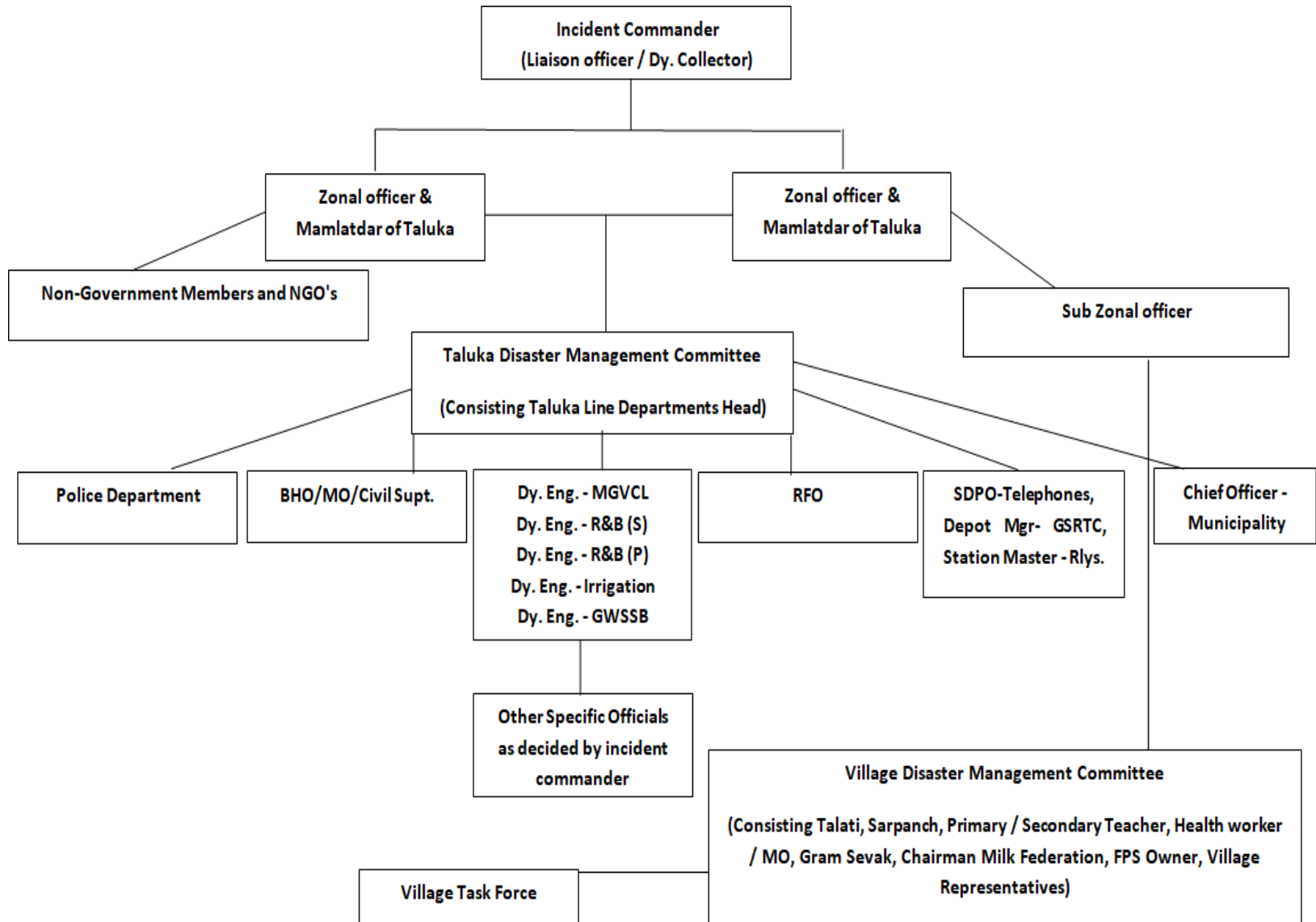
Emergency Organization of the District Crisis Group (DCG)



Emergency Organization of the Area Local Crisis Group (LCG)



DRM Diagram for Taluka level



3.4.4. Incident Response System in the District

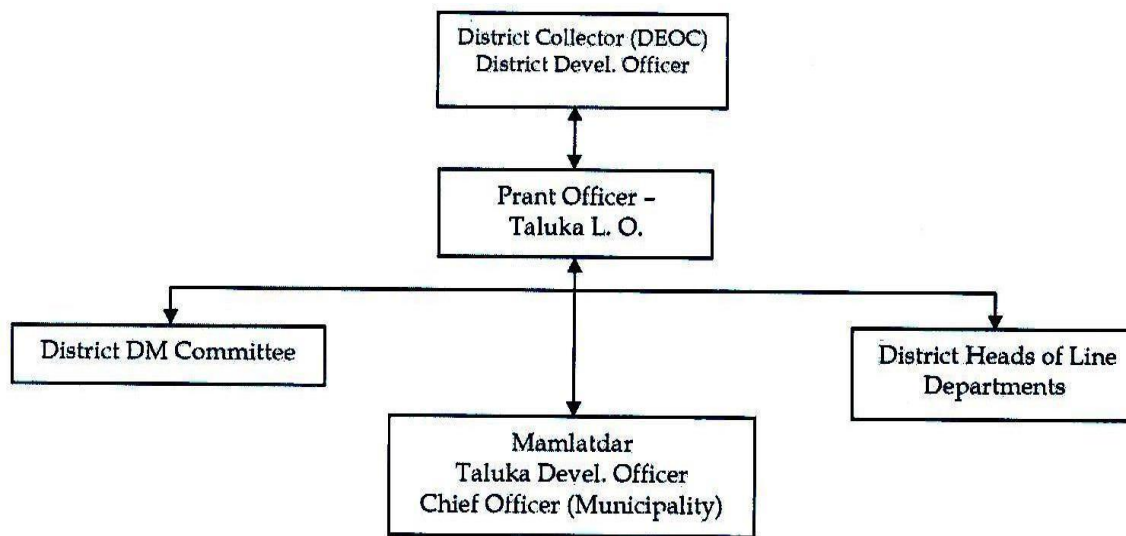
As mandated by the Act, the District Magistrate serves as the chairperson of the District Disaster Management Authority (DDMA). Prior to any disaster event, the roles and responsibilities of DDMA members are determined through collaborative discussions with relevant stakeholders. Additionally, the duties of other line departments are clearly outlined in the District Disaster Management Plan (DDMP), which is disseminated to all concerned parties for reference and adherence.

The Incident Response Structure (IRS) varies depending on the nature of the disaster. For instance, during floods and earthquakes, the primary focus is on rescuing affected individuals and providing relief. Given the urgency and potential for vulnerability, law enforcement agencies such as the Police and Armed Forces are best equipped to lead the operations section, ensuring effective management and security. In the case of fire emergencies at the Corporation and Nagarpalika level, the Fire Officer assumes a pivotal role in addressing the situation. Similarly, health-related disasters are managed by the District Chief Medical Officer, ensuring a specialized response tailored to the specific needs of the situation. Each disaster scenario requires a coordinated and specialized approach, with designated authorities leading response efforts to mitigate risks and ensure the safety and well-being of affected communities.

Certain natural hazards are accompanied by established early warning systems, while the district maintains an operational 24/7 Emergency Operations Center (EOC) or Control Room. Upon receiving information about an impending disaster, the EOC promptly notifies the District Collector, who then activates the necessary Incident Response Team (IRT) and mobilizes resources accordingly. The extent of deployment is determined by the severity of the incident, ensuring a scalable and efficient response tailored to the magnitude of the disaster.

During emergencies at the Sub-Division and Taluka levels, the designated heads such as the Taluka Development Officer (TDO), Mamlatdar, and Block Health Officer (BHO) assume the role of Incident Commander (IC) within their respective Incident Response Teams (IRTs). In preparation for potential disasters, the District Collector is responsible for facilitating capacity building initiatives for IRT members, ensuring they are equipped with the necessary skills and knowledge to fulfill their roles and responsibilities effectively.

In situations where central teams like the National Disaster Response Force (NDRF) or Armed Forces are deployed, the District Magistrate (DM) takes proactive steps to resolve any conflicts that may arise. To facilitate seamless coordination and conflict resolution, the DM may appoint a representative from these agencies to the District Emergency Operations Center (DEOC). Here, conflicts can be addressed and resolved at the highest level, ensuring efficient response efforts. The DM works closely with the DEOC and reports to the State Relief Commissioner and Chief Executive Officer of the Gujarat State Disaster Management Authority (CEO-GSDMA), maintaining a cohesive and coordinated approach to disaster management.



3.4.5. EOC setup and facilities available with the location

Situated at the District Collector's Office, the District Emergency Operations Center (DEOC) serves as the nerve center for disaster management activities. It functions as the primary hub for gathering, processing, and making critical decisions to address disasters effectively. Strategic decisions pertaining to disaster management are predominantly made within this control room, utilizing the information gathered and processed. The Incident Commander assumes control at the DEOC and oversees emergency operations in accordance with the organizational chart of the Incident Command System.

- *Facilities in District Control Room*

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

- 2 Telephones Lines
- Satellite phone
- 1 Hot Line Connected with SEOC
- Two PCs with GSWAN based e-mail, web site facilities and Printers
- TVs for updated News telecasts.

3.4.6. Alternate EOC if available and its location

At the Taluka level, Control Rooms are established at the Office of the Mamlatdar. In times of emergency, the Liaison Officers of the respective Talukas assume responsibility for overseeing the Control Room operations. These Liaison Officers play a crucial role in facilitating coordination between task group members operating at disaster sites and the Taluka Emergency Operations Center (TEOC). They ensure efficient mobilization of resources and dissemination of instructions received from the District Emergency Operations Center (DEOC), enabling effective response efforts at the Taluka level.

Public and private emergency service facilities available in the district

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

1. 108 EMRI Green Health Ambulance have their Spot on pre identified locations
2. All Nagarpalika have their Fire Fighting Equipments and Staff.
3. R&B, S.T., Forest, Health, Irrigation and Police Department have their limited Emergency Services to co-ordinate during Emergency Situation in District.
4. Private Industries also have their Fire Fighting Equipments and Staff and other Emergency services

3.4.7. Public and private emergency service facilities available in the district

Development activities involve both private and public enterprises. To mitigate disasters and create better prepared society for disasters and other hazards, strong public-private coordination is critical. In order to achieve community resilience and preparedness, public and private owners of critical infrastructures and key resources like manpower, technical expertise & equipment need to work together, before, during and after a disaster. The key issue is to recognize and embrace the public-private interfaces that can improve the ability of a community to manage the response and recovery phases of disaster management. DDMP should spell out clear role and responsibilities of both Public and Private Sector and Private sector must be involved closely into community development and organisation of mock drills etc. A resource inventory be maintained indicating the capabilities in terms of human, equipment and infrastructure both in public and private sector.

3.4.8. Forecasting and warning agencies

The meteorological department undertakes observations, communications, forecasting and weather services. During the cyclone and flood seasons, the State Government keeps close contact with the IMD office for weather related forecasts. Earthquakes occurring in the State which are of magnitude 3.0 and above on Richter scale are also reported by the IMD and ISR to the District Authority immediately.

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

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

Chapter 4

Prevention and Mitigation Measures

4.1. Prevention measures

Prevention measures play a crucial role in reducing the risk and impact of disasters in Panchmahal District. These measures encompass a range of strategies aimed at identifying and addressing underlying vulnerabilities, mitigating hazards, and promoting resilience within the community. Key prevention measures include implementing and enforcing building codes and land-use regulations to ensure the construction of resilient infrastructure, conducting regular maintenance of critical facilities and utilities to minimize the risk of failures, promoting sustainable environmental practices to mitigate the effects of climate change and natural hazards, and investing in early warning systems and public education campaigns to raise awareness and encourage proactive preparedness actions. By prioritizing prevention measures, Panchmahal District can significantly reduce the likelihood and severity of disasters, safeguarding lives, livelihoods, and assets against potential threats.

4.1.1. Special projects proposed for preventing the disasters

1. *Disaster Risk Management Programme (DRM)*

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

2. *National School Safety Programme:*

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

- *Gujarat Initiative School Safety Programme*

The Gujarat Initiative School Safety Programme is a comprehensive initiative aimed at enhancing the safety and resilience of schools across the state. This program focuses on implementing measures to protect students, teachers, and school infrastructure from various hazards, including natural disasters, such as earthquakes and floods, as well as man-made incidents, like fires and accidents. Key components of the program include conducting risk assessments of school buildings, retrofitting or constructing structures to meet safety

standards, establishing emergency response plans, and conducting drills and training sessions to ensure preparedness. By prioritizing the safety of educational institutions, the Gujarat Initiative School Safety Programme aims to create a secure environment conducive to learning and to minimize the impact of disasters on students' education and well-being.

3. *Aapada Mitra*

Aapda Mitra Project in Gujarat is a noteworthy initiative designed to empower communities and individuals to effectively respond to disasters. The project aims to train and mobilize volunteers, known as "Aapda Mitras" or disaster friends, who serve as frontline responders during emergencies. These volunteers receive specialized training in disaster response, search and rescue techniques, first aid, and community preparedness. They play a crucial role in assisting local authorities and emergency services in providing immediate assistance to affected populations during disasters. Through the Aapda Mitra Project, Gujarat fosters a culture of community resilience and collective action, ensuring that communities are better equipped to mitigate the impact of disasters and to recover swiftly in their aftermath.

4. *Mainstreaming in development plans and programs*

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 nonstructural 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 plantation for increase forest cover, while the water supply department can construct hand pumps on raised platforms. Each department shall draw out its own plan, goals and milestones and review it annually for its achievements and planning for next year.

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

- Long term planning for mitigation, preparedness and prevention investments in the district,

- Enforcement of regulations, particularly building and safety codes and land use plans,
- Review and evaluation of development plans and activities to identify ways to reduce risks and vulnerability,
- Capacity building, including warning, the provision of relief and recovery assistance and community-level identification of risk and vulnerability.

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

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

4.2. Mitigation Measure

In Panchmaals district a structured approach to disaster management is implemented, consisting of three key phases: pre, during, and post-disaster activities.

During the pre-disaster phase, the focus lies on prevention, mitigation, and preparedness. This involves various crucial tasks such as extensive data collection, maintaining directories of resources, developing action plans, capacity building, training, and community awareness initiatives. The district administration, along with other government departments, local authorities, and relevant agencies, has been actively involved in formulating and implementing plans to prevent and mitigate disasters. Efforts are directed towards building capacity and ensuring preparedness to effectively respond to disasters when they occur. Collaboration with the private sector, NGOs, and the community is integral, with active participation in training and other activities aimed at enhancing disaster management capabilities.

In Panchmahal district, the District Administration, alongside different government line departments, serves as the nodal agency for disaster mitigation, preparedness, and capacity building in specific field areas, adhering to the guidelines set forth by the State government and GSDMA (Gujarat State Disaster Management Authority). Furthermore, strategic linkages have been established with various stakeholders including lending agencies, government departments, local authorities, NGOs, the private sector, and community groups. This collaborative approach aims to share knowledge and augment capacity holistically. It's worth noting that the capabilities developed during this phase are foundational and play a critical role in all subsequent phases of disaster management.

Districts employ a multifaceted approach to prevention measures aimed at reducing the risks associated with natural and manmade disasters. One significant aspect is Earthquake Management, which involves assessing seismic risks, retrofitting vulnerable structures, and

raising awareness about earthquake preparedness among residents. Districts may enact building codes that incorporate seismic design standards, conduct seismic retrofit programs for older buildings, and develop emergency response plans to minimize casualties and damage in the event of an earthquake. Public education campaigns often focus on earthquake safety procedures, such as "Drop, Cover, and Hold On," to ensure that individuals are adequately prepared to respond during a seismic event.

Flood plain management is another critical component of disaster prevention efforts undertaken by districts. This entails mapping flood-prone areas, implementing regulations to restrict development in these zones, and constructing flood control infrastructure such as levees, dams, and stormwater drainage systems. By managing floodplains effectively, districts can mitigate the impact of flooding events, reduce property damage, and safeguard lives.

Furthermore, districts address the prevention of industrial hazards through various measures designed to mitigate risks associated with hazardous materials, industrial processes, and infrastructure. This includes implementing industrial safety regulations, conducting inspections of industrial facilities, and promoting emergency preparedness and response training for workers and first responders. Districts may also establish buffer zones between industrial sites and residential areas, implement pollution control measures, and enforce strict adherence to environmental regulations to prevent industrial accidents and minimize their impact on surrounding communities. Through a combination of proactive measures, districts strive to reduce the likelihood and severity of industrial disasters, thereby enhancing public safety and environmental protection within their jurisdictions.

Pre-disaster phase

During the pre-disaster phase in Panchmahal District, the collaborative efforts of the District Collector, along with other district line department heads and members of the District Disaster Management Committee, are crucial for effective disaster management. Here's a breakdown of key activities undertaken during this phase:

1. Planned Development: Recognizing the interplay between disasters and development, a long-term approach to disaster management has been adopted. Planning activities for development are conducted with a focus on robust mitigation practices. The District Administration and various Government Departments ensure that planning activities incorporate disaster risks and provide suitable preventive and mitigation measures.

2. Development of Policies, SOPs, and Guidelines: Clear guidelines are essential for effective disaster management. SOPs have been developed for Panchmahal district, and department-specific and private sector-specific SOPs can be developed accordingly. These guidelines ensure compliance by all government authorities, private sector entities, and the public.

3. Establishment of Chain of Command: A clear chain of command is established for effective management of post-disaster activities. The Panchmahal DEOC serves as the focal control room, headed by the District Collector. It facilitates coordination across all entities responsible for disaster management in the district.

4. Risk Assessment: Before initiating preventive and preparedness activities, it's crucial to identify and assess different types of risks. Relevant departments coordinate with the District Administration to assess hazards and vulnerabilities. This assessment informs the development of detailed contingency plans and mitigation measures.

5. Development of Disaster Management Plans: Tailored disaster management plans enable systematic and effective response to disasters. District administration, DEOC, different line departments, and expert agencies collaborate to develop and constantly review these plans.

6. Repositories of Information: Quick establishment of contact with people and resources post-disaster is critical. DEOC and relevant government departments maintain comprehensive repositories of information, easily accessible to relevant authorities.

7. Communication Networks: A robust district-wide communication network is established for managing disasters and ensuring effective district administration. DEOC and different line departments establish comprehensive communication networks up to the village level.

8. Early Warning Mechanisms: Early warning mechanisms are set up to enable timely preventive measures and reduce disaster damage. DEOC, control rooms, and departments establish early warning mechanisms for hazards like cyclones and floods.

9. Building Capabilities & Expertise: Strong capabilities and expertise are built for handling various aspects of disasters. The District Administration, with support from GSDMA, enhances the capabilities of officials, community members, and NGOs through disaster management trainings and provision of rescue equipment.

These pre-disaster phase activities form the foundation for effective disaster management in Panchmahal District, ensuring readiness and resilience in the face of potential disasters.

During Disaster

During any disaster, the District Disaster Management Plan dictates a structured response mechanism. The District Collector assumes the role of the Responsible Officer, overseeing the coordinated efforts of all line departments and agencies. The primary objective is to restore routine life as swiftly as possible while minimizing the impact of the disaster. Rescue and relief operations take center stage, with response teams mobilized to restore normalcy in the affected areas. Under the guidance of the District Collector, all relevant entities work together to mitigate the damage caused by the disaster and facilitate the recovery process.

After Disaster

In the aftermath of any disaster, the primary focus shifts towards rehabilitation and reconstruction efforts, guided by the directives of the State Government and overseen by the Chairperson and District Collector. Task forces, departments, and agencies collaborate to execute these tasks, aiming to restore normalcy in the affected areas. Mitigation, preparedness, and prevention measures are crucial components undertaken prior to disasters to reduce their likelihood or minimize the expected damage. Priority is given to vulnerability reduction to enhance resilience against future disasters.

Given Panchmahal district's susceptibility to floods and industrial hazards due to its proximity to rivers and industrial zones, mitigation strategies are imperative to mitigate the impact of such disasters. The development of mitigation strategies forms a critical aspect of disaster management in the district. The following flowchart illustrates the Disaster Management and Mitigation aspects across the three phases of Disaster Management.

Here are the measures taken for mitigation, preparedness, and prevention in Panchmahal District, based on an interim assessment of risk and vulnerabilities:

Ongoing Construction of Artificial Drain: In City area of District construction work on an Artificial Drain is underway to address flooding and waterlogging issues. This initiative aims to mitigate the impact of heavy rainfall by improving drainage systems and reducing the risk of inundation in urban areas.

Installation of Over Bridges: To alleviate connectivity problems caused by waterlogging between different areas, talukas, and villages, multiple over bridges have been constructed throughout the district. These structures not only facilitate smoother traffic flow but also minimize the risk of road accidents and congestion during adverse weather conditions.

These initiatives demonstrate the district's commitment to mitigating disaster risks, enhancing preparedness, and preventing potential hazards, thereby ensuring the safety and well-being of its residents.

Several initiatives have been implemented to enhance emergency response capabilities across the district and nearby region.

- **Establishment of Emergency Response Centre (ERC):** In Vadodara, an Emergency Response Centre (ERC) has been established to effectively respond to emergencies in all districts of the Central Gujarat Region.

- **Introduction of EMRI 108 Emergency Services:** The 108 emergency services have been fully implemented to provide essential health support during emergencies, including man-made and natural disasters, as well as routine healthcare emergencies. This service ensures timely medical assistance to victims across the district, contributing to the overall emergency response framework. In Panchmahal District EMRI 108 Emergency Services equipped with 20

Ambulances including 1 ICU on wheels and 1 Backup ambulance, List is attached in annexture.

- Activation of District Emergency Operations Center (DEOC): The DEOC, situated in Seva Sadan campus, Godhra, plays a pivotal role in response, preparedness, and other disaster management aspects, particularly concerning industrial accidents. Equipped with communication instruments such as Landline, Hotline and Toll free and Satellite phone the DEOC enhances coordination and communication during emergency situations, ensuring efficient response operations.

These initiatives underscore the commitment to strengthening emergency response mechanisms and ensuring the safety and well-being of its residents in the face of diverse hazards and challenges. The Disaster Risk Management Programme of GSDMA implemented in Panchmahal district encompasses several preparedness measures:

1. Development and Updating of Disaster Management Plans: Various level-specific plans, including District, Departmental, Offsite Emergency, Taluka, Village, City, and School Disaster Management Plans, are prepared and regularly updated under the guidance of the District Emergency Operations Center (EOC).

2. Maintenance of Contact Detail Diary and Resource Inventory: The District EOC ensures the preparation and timely updating of district-level contact details, resource inventories, and communication plans to facilitate effective coordination during emergencies.

3. Database Management: The database of Disaster Management Plans is regularly updated on platforms such as the State Disaster Resource Network (SDRN) and the Indian Disaster Resource Network (IDRN).

4. Capacity Building: Ongoing capacity-building initiatives target all stakeholders, including government officials, agency representatives, Panchayati Raj Institutions (PRI's), and community members. Subject-specific training, such as First Aid, Search & Rescue, EOC Management, Early Warning & Communication, and Masons training, are organized to enhance preparedness levels.

5. Awareness Generation Programmes: Various awareness programmes are conducted to sensitize stakeholders and community members on Disaster Management through meetings, competitions, school programmes, rallies, IEC handout distribution, poster exhibitions, video screenings, street plays, and media channels.

6. Training and Rehearsals: Regular training sessions and rehearsals are conducted at all levels (District, Taluka, Village, City) to familiarize key personnel with their roles and responsibilities, ensure the efficacy of emergency response mechanisms/resources, and review and improve the overall plans.

7. Mock Drills: Full-scale mock drills are conducted annually at the district level to validate

emergency response mechanisms and assess the performance of the Emergency Management Team. Taluka and village level mock drills are also organized regularly to evaluate preparedness measures and response capabilities for different hazards.

Every year , a mock exercise simulating Chemical and Industrial Disaster was conducted with MAH industries, Flood rescue mock drill also performed by Fire and emergency services, Pavagadh ropeway safety mock drill also conducted with NDRF and shared findings with concerned agencies for necessary improvements. Regular mock drills are conducted to enhance community capacity and assess response time, aiming to minimize delays during actual disasters.

Electronic Support for resources utilization and information

1. *State Disaster Resource Network: (SDRN)*

SDRN is Web base data base system/portal and can be utilized for the DM related resource details/ information of Taluka, City and Village of whole Panchmahal district. SDRN consists of contacts related as well as resources related to both types of details of the Gujarat State. This portal can be utilized from Taluka, District and from state level both GSWAN and private connectivity. For utilization of the same one can use the following link:

<http://sdrn.gsdma.org>

2. *India Disaster Resource Network: (IDRN)*

IDRN is nationwide database portal and utilized through district and from state and national level. IDRN consist online database of equipments, skilled men power and critical supplies of whole nation. This database can be utilized at the time of crisis; the hard copy of updated equipment related details is having with DEOC separately. For utilization of the same one can use the following link:

<http://www.idrn.gov.in>

MITIGATION MEASURES:

- **Structural Mitigation Measures for Flood (Identified works of concerned Departments are indicative):**

Probable Mitigating Measures	Identified Locations and Villages	Implementing Departments	Convergent with Scheme/ Program	Time Frame
Repair and maintenance of Flood Channels, canals, natural drainage, storm water lines	-	Irrigation department	Departmental or special plan	Continuous
Construction of Safe Shelters (new construction through Indira Awas, Sardar Awas and Ambedkar Awas)	Respective villages	Rural Development	Housing Scheme	Continuous
Desilting of water bodies like river and ponds	Village ponds and River streams	Irrigation TDO Rural Development	Departmental program	Continuous

- **Non-Structural Mitigation Measures for Flood:**

Non-Structural measures	Locations/ coverage area	Implementing Departments	Convergence with agency/ program	Time Frame
Safety audit of existing and proposed housing stock in risk prone areas	Flood risk prone villages	TDO, Rural development	IAY, Sardar Awaas and other rural housing schemes	Continuous

Promotion of Traditional, local and innovative practices like bamboo/plastic bottle rafts etc	Flood risk prone	TDMC, SHGs and youth groups, NGOs	Training and capacity building plan for disaster management	Continuous
Capacity building of volunteers and technicians	Flood risk prone	TDMC	Training and capacity building plan for disaster management	Continuous

- **Structural Mitigation Measures for Earthquake:**

Structural measures	Identified Locations and Villages	Implementing Departments	Convergence with Scheme/ Program	Time Frame
Retrofitting (if required) of public utility buildings like offices, schools/ banks/ markets etc.	Whole District	R & B (State and Panchayat), Panchayat, Rural department		Continuous
Retrofitting Of unsafe rural houses		DDMC, DDO	Ruralhousing schemes and departmental programs	Continuous
Identifying and safely dismantling unsafe structures		R & B department		Continuous

- **Non-Structural Mitigation Measures for Earthquake:**

Non-Structural measures	Location/ coverage area	Implementing Departments	Convergence with agency/program	Time Frame
Capacity building of architects, engineers and masons on earthquake resistant features	Whole district	R & B (State and Panchayat), DDMC		Continuous
Registration of trained and certified mason		R & B (State and Panchayat), DDMC		Continuous
Strict enforcement of guideline pertaining to seismic safety for government rural housing		DDO	Rural housing schemes	Continuous
Mock-drills for Schools, Hospitals and , Public Buildings and trainings for mason, engineers and architects		DDMC, Schools		Continuous

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

Structural measures	Activities	Implementing Departments	Convergence with agency/ program	Time Frame
Monitoring impact of industries on NRM (land, water and air)	Data collection of impact on natural resources (ground water monitoring wells, air quality test, etc)	DDMC, TDMC, LCG, GPCB		Regular interval

Safety assessment	Carry out structural safety inspection/audit	DISH, DCG, LCG (Dy. Industrial safety and health)		Regular interval
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- **Industrial (Chemical) Non-Structural Measures (in coordination with LCG, DCG district and state level authorities)**

Non structural Measures	Activities	Implementing Departments	Convergence Agencies	Time Frame
Planning	Prepare an onsite and offsite emergency plan	Occupier, DISH		Yearly
	Conduct mock drills as per the regulations	DCG, DISH and LCG		regular interval
	Update the plan as per the requirement	Occupier, DISH		regular interval
	Monitor similar activities in all the factories/ industries	DISH and LCG		regular interval
Capacity Building	Develop IEC material for Publication & Distribution	DDMC, TDMC		Yearly
	Awareness generation to general public and medical professional residing near MAH factories for immediate steps	DDMC, TDMC, LCG		Yearly
	Organize training programmes, seminars and workshops (e.g. for transport, line departments officers, Mamlatdar etc)	DDMC, TDMC, LCG		Yearly

	List of experts/ resource person/ subject specialist (District emergency Off site plan)	DDMC,TDMC, LCGX`		Yearly
	Encourage disaster insurance	Labour & employment department		Yearly
Medical	Listing of hazardous chemicals and gases.	Occupier, DCG, LCG, DISH, BHO		Yearly
	Keep check on availability and validity of relevant antidotes for chemical hazards prevalent in District	Occupier, DCG, LCG, DISH, BHO		Yearly
	Workshops and trainings for medical professionals to handle potential chemical and industrial hazard	BHO, DCG, Occupier, LCG, DISH		Regularly
Compliance	Environmental Protection Act, Factory Act, Mutual Aid SOPs	DISH , GPCB		Regular interval

At the District level, the District Crisis Management Group (DCG) is an apex body to deal with major chemical accidents and to provide expert guidance for handling them. DCG has a strength of 34 members which includes District Collector, SDM and Dy. Collector, DDO, Dy. Director – Industrial Safety & Health, DSP, PI, Fire Superintendent of the City Corporations or important Municipalities, Chief District Health Officer, Civil Surgeon, SE, Chief Officer, Dy. Chief Controller of Explosives, Commandant – SRPF Group-5, 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.

4.3. Prevention measures in development plans and programs in District:

In Panchmahal district, long-term mitigation goals are integral to enhancing resilience and minimizing the impact of natural disasters on communities. One key objective is to provide

better early warning methods for floods, storms, and cyclones. This involves investing in advanced technology such as weather monitoring systems, satellite imagery, and communication networks to detect and forecast severe weather events accurately. By improving early warning capabilities, Panchmahal district can alert residents in a timely manner, allowing them to take proactive measures to protect lives and property.

Another crucial goal is to reduce the destruction and loss of life within buildings. Panchmahal district may achieve this by enforcing strict building codes that incorporate resilient design standards, particularly for structures located in hazard-prone areas. Additionally, initiatives such as retrofitting vulnerable buildings, conducting public education campaigns about safety measures can further enhance building resilience and minimize casualties during disasters.

Panchmahal district aims to provide safer environments for transportation systems by implementing measures such as road maintenance programs, upgrading infrastructure to withstand extreme weather events, and establishing emergency response protocols for transportation accidents. Additionally, the district focuses on eliminating flooding in populated areas through comprehensive floodplain management strategies, including the construction of flood control infrastructure and the implementation of land use regulations to prevent encroachment in flood-prone zones.

Ensuring redundant water supply systems is another critical goal, involving the development of alternative water sources, the establishment of water storage facilities, and the implementation of water conservation measures to mitigate the impact of droughts and water shortages. Panchmahal district prioritizes reducing environmental degradation and restoring livelihoods by promoting sustainable land management practices, conservation efforts, and livelihood restoration programs for communities affected by disasters. By integrating these long-term mitigation goals into its planning and implementation efforts, Panchmahal district aims to build resilience, protect infrastructure, and enhance the overall safety and well-being of its residents.

4.3.1. Individual and Community Level:

The district prioritizes vulnerability reduction over risk reduction and employs four mechanisms, individually or in conjunction, to achieve this goal. Firstly, community engagement and empowerment initiatives play a pivotal role in enhancing resilience. By involving local communities in disaster preparedness and response planning, the district fosters a sense of ownership and responsibility, empowering residents to take proactive measures to safeguard themselves and their neighborhoods. Through education, training, and awareness-raising campaigns, communities become better equipped to identify and address vulnerabilities, ultimately reducing their susceptibility to disaster-related impacts.

Secondly, infrastructure resilience is a key focus area for the district. By investing in resilient infrastructure, such as robust buildings, roads, bridges, and utilities, the district aims to minimize the potential damage caused by disasters. This involves incorporating disaster-

resistant design standards, employing innovative engineering techniques, and implementing regular maintenance and inspection programs to ensure infrastructure remains functional and capable of withstanding various hazards. Strengthening critical lifelines such as water supply, power, and transportation systems further enhances the community's ability to withstand and recover from disasters.

Thirdly, the district emphasizes environmental conservation and natural resource management as integral components of vulnerability reduction. By protecting and restoring ecosystems, such as wetlands, forests, the district not only enhances biodiversity but also mitigates the impacts of natural disasters such as floods, landslides. Natural ecosystems act as buffers against hazards, absorbing excess water, stabilizing slopes, and providing natural barriers to protect communities from the destructive forces of nature. Through sustainable land use planning, habitat restoration, and ecosystem-based approaches to disaster risk reduction, the district strengthens its resilience while simultaneously preserving the environment for future generations.

Lastly, the district implements comprehensive risk governance and institutional mechanisms to coordinate and streamline disaster risk reduction efforts. This involves establishing clear policies, regulations, and guidelines for disaster management, as well as enhancing coordination among government agencies, civil society organizations, and other stakeholders. By promoting a culture of risk awareness, collaboration, and accountability, the district ensures that disaster risk reduction becomes an integral part of decision-making processes across all sectors and levels of governance. Through effective risk governance, the district enhances its capacity to anticipate, prevent, and respond to disasters, ultimately reducing vulnerability and building a more resilient community.

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

The leadership of Panchmahal District, led by the Collector and supported by the District Development Officer, is committed to addressing mitigation, preparedness, and prevention efforts based on an interim assessment of risk and vulnerabilities. Priorities include fostering community engagement, strengthening infrastructure resilience, promoting environmental conservation, and enhancing comprehensive risk governance. Through targeted plans and activities in these areas, the district aims to build resilience and reduce vulnerabilities, ensuring the safety and well-being of its residents in the face of potential disasters.

- Resilience of lifeline systems (water, power and communications)
- Reduction in disaster impact on health care facilities, schools and roads
- Vulnerability reduction in flood-prone areas

- Vulnerability reduction to high winds
- Improvement of off-site Preparedness near Industrial sites.

4.2. Special projects proposed for preventing the disasters

In Gujarat, the Disaster Risk Management Programme (DRM) has firmly entrenched itself across different tiers of administration, with the Department of Revenue & Disaster Management serving as the pivotal authority in collaboration with the Gujarat State Disaster Management Authority (GSDMA). This partnership forms the cornerstone of disaster management efforts within the state. Disaster Management Committees have been established at various administrative levels to execute the DRM program effectively. These committees comprise a diverse range of stakeholders, including elected representatives, government officials, Civil Defence personnel, NGO and CBO representatives, as well as local opinion leaders. By incorporating this wide array of perspectives, the committees ensure a comprehensive and inclusive approach to disaster management.

Under the DRM program, a multitude of activities are underway to bolster disaster preparedness and response capabilities in Gujarat. Key initiatives include the development of disaster management plans at various levels, the maintenance of emergency resource databases through platforms like the State Disaster Resource Network (SDRN) and the Indian Disaster Resource Network (IDRN), and the organization of capacity-building training sessions and resource mobilization efforts. The program places a strong emphasis on raising disaster awareness among the public through orientations, campaigns, media management, and the distribution of Information, Education, and Communication (IEC) materials. These activities aim to equip individuals and communities with the knowledge and skills necessary to mitigate the impact of disasters and respond effectively in times of crisis.

In addition to these proactive measures, the DRM program plays a crucial role in coordinating disaster management activities across district administrations in Gujarat. Leveraging expertise, logistical support, and fund allocation mechanisms, the program ensures a cohesive and synchronized approach to disaster response efforts. By facilitating collaboration and information sharing among various stakeholders, the program strengthens the overall resilience of Gujarat's communities and enhances the state's ability to effectively manage and mitigate disaster risks.

Overall, the DRM program in Gujarat stands as a testament to the state's commitment to fostering resilience and safeguarding the well-being of its citizens in the face of potential disasters. Through collaborative efforts and strategic interventions, Gujarat continues to advance its disaster risk management agenda, setting a benchmark for effective disaster preparedness and response practices.

Chapter 5

Preparedness Measures

Preparedness measures are crucial components of any district disaster management plan. They ensure that communities, government agencies, and relevant stakeholders are equipped with the necessary resources, knowledge, and capacity to effectively respond to disasters. Here are some key reasons why preparedness measures are essential in district disaster management plans:

- **Risk Reduction:** Preparedness measures help in reducing the risks associated with disasters by identifying potential hazards, vulnerabilities, and exposure of the community to various threats. By understanding these risks, authorities can implement preventive measures to mitigate their impact.
- **Timely Response:** Being prepared enables a prompt and efficient response to disasters. Through training, drills, and simulations, emergency responders and community members are familiarized with their roles and responsibilities, ensuring a coordinated and swift response when disasters strike.
- **Preparedness measures** involve pre-positioning resources such as emergency supplies Resource Allocation:, medical equipment, and personnel in strategic locations. This ensures that resources are readily available during emergencies, avoiding delays in response due to resource scarcity or logistical challenges.
- **Communication and Coordination:** Establishing communication protocols and coordination mechanisms among relevant agencies, community groups, and stakeholders is vital for effective disaster response. Preparedness measures facilitate the establishment of communication networks and coordination frameworks to ensure seamless collaboration during emergencies.
- **Community Empowerment:** Preparedness measures empower communities to take proactive steps to enhance their resilience to disasters. Through awareness campaigns, training programs, and community engagement initiatives, individuals and communities are equipped with the knowledge and skills necessary to prepare for, respond to, and recover from disasters.
- **Reduction of Losses:** By preparing in advance, the potential losses caused by disasters can be minimized. Preparedness measures focus on strengthening infrastructure, implementing building codes, and promoting insurance coverage to reduce the socio-economic impacts of disasters on communities.
- **Adaptation to Climate Change:** With the increasing frequency and intensity of natural disasters attributed to climate change, preparedness measures become even more critical. District disaster management plans should incorporate measures to adapt to changing climate conditions and build resilience against climate-related risks.
- **Legal and Policy Compliance:** Many jurisdictions mandate the development and implementation of disaster management plans that include preparedness measures. By incorporating preparedness into district-level plans, authorities ensure compliance with relevant laws, regulations, and policies governing disaster risk reduction and emergency management.

Planning is the one of the key elements in the Preparedness cycle. Preparedness cycle illustrates the way the plans are continuously evaluated and improved through a round of planning, organizing, training, equipping, exercising, evaluating and taking corrective actions.

- **IRT:** As per NDMA's IRS guidelines which prescribe Incident Response Team (IRT) at District, Sub-Division, Tehsil and Block level should be constituted under the written directives of District Magistrate (DM). These teams will include experienced officers / employees at all levels and respond to all natural and man-made disasters. The lowest administrative unit (Sub-Division, Tehsil or Block) will be the first responder as the case may be. IRT at all levels will have same structure, i.e. IC supported with Operation, Planning and Logistic sections. The IRTs are to be pre- designated at all levels.
- **District Emergency Operations Centre (DEOC):** District Emergency Operations Centre becomes a nodal point for overall coordination of planning and response. Its main duty is to ensure that the EOC facility has required communication (connecting all stakeholders vertically and horizontally), Decision support system, alert and warning system in working conditions.

EOC SOP

- Emergency numbers existing for Police, Fire and Medical support etc. are linked to the EOC for response, command and control under an SOP. For e.g., if there is any fire incident, the information should not only reach the fire station but also the EOC and the nearest hospital to gear up the emergency medical service.
- NGOs carry out their activities in an equitable and non-discriminatory manner. Set up wherever possible an NGO Coordination Centre.
- Ensure that telephone directory of all ESF is prepared and available with EOC and members of IRTs.
- Ensure that adequate exercises are conducted for testing the plan and gaps analyzed.
- Outline plan to receive support from State and Central Government in a major disaster (e.g. helipads, evacuation, food distribution, medical support).

Overall, preparedness measures play a fundamental role in enhancing the effectiveness of district disaster management plans by ensuring readiness, resilience, and effective response to disasters. By investing in preparedness, communities can reduce the impacts of disasters and save lives and livelihoods.

5.1. Identification of stakeholders involved in disaster response

Preparedness measures are integral to reducing vulnerability and facilitating swift, professional responses to disasters. Experience underscores that the impact of natural hazards can be mitigated significantly through a robust warning system and proactive community preparedness. A community equipped to anticipate and respond to disasters, having heeded warnings and implemented mitigation strategies, stands better poised to weather the crisis and expedite the return to normalcy. The state is committed to establishing comprehensive preparedness mechanisms across all levels to address the spectrum of potential disasters. This proactive approach aims to minimize the loss of life, livelihoods, and property in the face of adversity.

A. *National Level*

At the national level in India, stakeholders involved in disaster response include government bodies such as the National Disaster Management Authority (NDMA), Ministry of Home Affairs (MHA), and various ministries overseeing sectors like health, transportation, and infrastructure. Additionally, the Armed Forces, National Disaster Response Force (NDRF), and other paramilitary forces play critical roles. Non-governmental organizations (NGOs), international agencies, private sector entities, academia, research institutions, and media organizations also contribute significantly to disaster response efforts. Effective coordination and collaboration among these stakeholders are essential for a comprehensive and efficient national-level disaster response in India.

B. *State Level*

The state will establish Search & Rescue teams comprising members of the State Police equipped with cutting-edge gear for rapid deployment. The State Home Department will identify units for specialization as Specialist Response Teams (SRTs). Furthermore, designated training centers will be established to train these SRTs, with key personnel from Police Training Colleges and Fire Training Institutes nominated as trainers. These trainers will undergo national-level training before imparting their expertise to the SRTs.

C. *District Level*

District-level Specialized Response Teams will be established comprising personnel from the local Police and Fire Services, equipped to swiftly respond to disasters within their respective districts. Upon request from neighboring districts, these teams will be authorized to operate under the direction of the Collector of the requesting district.

D. *On-site teams*

At the grass root level, Disaster Management Teams (DMTs) will function as Incident Management Teams, undergoing training to conduct immediate rescue and first-aid

operations during disasters. A structured approach will be developed to facilitate effective coordination between the Specialized Response Teams (SRTs) and DMTs.

5.2. Formation of persons and training

Panchmahal District administration has engaged various stakeholders from line departments, corporate sectors, NGOs, and volunteers in disaster risk management initiatives. Additionally, students, teachers, home guards, police personnel, NCC, and NSS students have received training to actively participate in these efforts. District officers and community members have been briefed on their roles and responsibilities, ensuring their readiness to provide assistance during emergencies.

1. *Early Warning*

Early warning systems are essential for timely initiation of appropriate actions by both administrative bodies and communities to mitigate the impact of disasters on life and property. These systems should provide indications of the magnitude of mobilization required by responders. The primary objective of any warning system is to ensure that as many people as possible take prompt and suitable actions to safeguard lives and assets. Effective warning systems comprise three key components: event detection and warning, dissemination of warnings to the community, and swift response mechanisms.

Recognizing the critical importance of timely warning dissemination, the State is committed to maximizing the lead-time available for preparedness measures. Upon receipt of warning signals, Emergency Operation Centers (EOCs) at State, District, and Taluka levels will be activated and placed on high alert. The Incident Commander will assume control of the EOC and oversee the dissemination of warnings to the community.

District Collectors will promptly inform District Disaster Management Committees, which in turn will notify local-level Disaster Management Committees and Teams to disseminate warnings to the community. In emergency situations, District Collectors will exercise discretion in implementing preparedness measures to address the impending disaster effectively.

2. *Search & rescue:*

District Disaster Management Authority (DDMA) holds the responsibility of providing specialized life-saving assistance to district and local authorities during emergencies. In the event of a major disaster, its operational focus includes locating, extricating, and administering on-site medical treatment to individuals trapped in collapsed structures. Home Guards, supported by the Police department and fire and emergency services, collaborate to locate and rescue injured and deceased individuals. Additionally, entities such as the Public Works Department (PWD) and Health department, along with volunteer teams, contribute to these efforts. Proper training is imperative for efficient search and rescue operations, aiming to minimize response time. Adequate methodology and resources are essential for the successful execution of search and rescue missions.

3. *Evacuation*

Evacuation serves as a vital risk management strategy to mitigate the impact of emergencies or disasters on communities by relocating individuals to safer areas. However, for it to be effective, meticulous planning and execution are imperative. Evacuation typically encompasses both the relocation of people to secure locations and their eventual return once the situation stabilizes.

Following an assessment of the disaster severity, the State Relief Commissioner, acting as the Incident Commander, will issue pertinent instructions regarding evacuation to the District Collector, who will oversee its implementation. At the village level, members of Village Disaster Management Committees (VDMCs) and Disaster Management Teams (DMTs) will coordinate evacuation procedures to predetermined relief centers. Special attention will be given to vulnerable groups such as women, children, and the elderly, as outlined in pre-established plans.

4. *Damage & Loss Assessment*

Following a disaster, there arises an urgent necessity for assessing the extent of damage, encompassing loss of life, injuries, and property damage. The primary goals of damage assessment are to facilitate the allocation of resources for effective rescue and relief operations, to obtain comprehensive data on the magnitude and severity of the disaster's impact, and to formulate strategies for reconstruction and recovery efforts.

The assessment process will occur in two phases: Rapid Damage Assessment (RDA and Detailed Damage Assessment (DDA).

I. Rapid Damage Assessment (RDA)

The Rapid Damage Assessment (RDA) process is geared towards swiftly gauging the situation and the extent of damage to mobilizing resources for effective relief and rescue operations. RDA activities will be carried out at the local level where the disaster occurred, under the leadership of the local Incident Commander. The RDA team will be composed of key personnel including the Talati, Chief Medical Officer (CMO) of the Sub-Division Hospital, Junior Engineer from the Public Works Department (PWD), and may also include prominent local individuals as determined by the local Incident Commander. The findings of the RDA team will be communicated to the District Collector for further action. The RDA will adhere to a standardized proforma/format developed by the State Disaster Management Authority.

II. Detailed Damage Assessment (DDA)

During the recovery phase, Detailed Damage Assessment (DDA) will be conducted at the district level, involving skilled personnel. The primary objective of this assessment is to evaluate the economic and financial implications of the damage, as well as to provide detailed insights into building, agricultural, and property damage, while also recommending retrofitting or strengthening measures. Led by the District Collector, the DDA team will comprise key officials such as the District Relief Officer, Executive Engineer from the Public Works Department (PWD), Chief Medical Officer of the affected district, representatives from

prominent NGOs operating in the district, and any additional experts as deemed necessary by the District Collector. Additionally, the team will include two external observers from the State Disaster Management Authority and the Disaster Management Cell of the State Administrative Training Institute (ATI). Assessment of damage will be conducted using a predetermined format developed by the State Disaster Management Authority in collaboration with the Disaster Management Cell of the State ATI and esteemed experts in the field.

5.3. Training need analysis

Training analysis typically operates in tandem with system development processes, as it is closely linked to the design of the system and the corresponding training requirements. The Gujarat Institute of Disaster Management (GIDM) has conducted a comprehensive analysis of education, training, and information requirements by engaging in interviews and discussions with stakeholders across various regions of Gujarat.

The training needs analysis considers several variable factors such as the intensity of disasters, affected population, and severity of damage. This analysis enables government and non-government agencies to swiftly assess and allocate relief resources. All government line departments involved in different phases of disaster management are required to identify their respective roles and conduct training needs analyses for their personnel.

5.3.1. Arrangements for training and capacity building

Training sessions focusing on search and rescue, drills, assessment, and inventory updates for response activities will be conducted during non-crisis periods. It is the responsibility of the District Collector to ensure that all members of the District Disaster Management Committee (DDMC) acquire the necessary knowledge and skills through regular refresher training sessions. Comprehensive training modules covering both basic and advanced aspects of disaster preparedness have been developed, along with training methodologies for trainers, community preparedness manuals, and training materials for use at various administrative levels including district, taluka, panchayat, and villages.

Furthermore, capacity-building initiatives will include a series of Search & Rescue and First Aid training programs tailored for beneficiaries, disaster management teams, and committee members. These training sessions will be conducted at multiple levels including village, city, taluka, and district.

Sr. No.	Activity	Responsibility
1.	Training civil defense personnel in various aspects of disaster management	✓ Home Dept. ✓ Commandant General Home Guards ✓ Director Civil Defense ✓ GSDMA/GIDM
2.	Training for home Guards personnel in various aspects of disaster management including search and rescue	✓ Home Dept. ✓ Commandant General Home Guards ✓ Director Civil Defense ✓ GSDMA/GIDM
3.	Training for NCC and NSS personnel in various aspects of disaster management	✓ Education Dep. Director NCC ✓ GIDM
4.	Training for educational and training institutions personnel in various aspects of disaster management	✓ NIDM ✓ GSDMA/GIDM
5.	Training for civil society, CBOs and corporate entities in various aspects of disaster management	✓ NIDM ✓ GSDMA/GIDM ✓ NGOs
6.	Training for fire and emergency service personnel in various aspects of disaster management	✓ NIDM ✓ State Fire and Emergency Servis. ✓ GSDMA/GIDM
7.	Training for police and traffic personnel in various aspects of disaster management	✓ NIDM ✓ GSDMA/GIDM ✓ Home Dept. ✓ Police training Institute
8.	Training for State Disaster Response Force (SDRF) Teams in various aspects of disaster management	✓ NIDM/NDRF ✓ Home Dept. ✓ Addl. DGP (Arms) ✓ Addl. DGP (Training) ✓ GSDMA/GIDM
9.	Training for media in various aspects of disaster management	✓ NIDM ✓ Information Dept. ✓ Information Training Centre ✓ GSDMA/GIDM
10.	Training for govt. officials in various aspects of disaster management	✓ NIDM ✓ GSDMA/GIDM ✓ Departmental

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

Activation of Incident Response System in the district

The State has established a structured Incident Response System, as mandated by the GSDMA Act 2003. According to this legislation, the Commissioner of Relief serves as the Incident Commander at the state level, while District Collectors assume this role within their respective districts.

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

A traditional command structure exists in the administrative hierarchy which manages disasters in India. It has been planned to strengthen and professionalize the same by drawing upon the principles of the ICS with suitable modifications. The ICS is essentially a management system to organize various emergency functions in a standardized manner while

responding to any disaster. It will provide specialist incident management teams with an incident commander and officers trained in different aspects of incident management, such as logistics, operations, planning, safety, media management, etc. It also aims to put in place such teams in each district by imparting training in different facets of incident management to district level functionaries. The emphasis will be on the use of technologies and contemporary systems of planning and execution with connectivity to the joint operations room at all levels.

5.4. Protocol for seeking help from other agencies

Coordinated, swift, and effective response systems at both central and state government levels, particularly at the district and community levels, are crucial for managing and mitigating the adverse impacts of any disaster. This involves a network of agencies, organizations, departments, and authorities responsible for implementing various disaster management functions and activities. This network also encompasses academic, scientific, and technical institutions contributing significantly to disaster management efforts. These entities, including the State Government, Government of India, NDRF, SDRF, Army, Navy, and Air Force, are to be mobilized to support civil administration only when the situation surpasses the coping capacity of the State Government.

5.5. Mechanism for Checking and certification of logistics, equipments and stores

The certification of logistics is integral to the response process, encompassing personnel, equipment, vehicles, facilities, and more. This certification relies on the acquisition, transportation, and distribution of resources, ensuring the provision of essential necessities such as food, water, and medical care. The logistics section assumes responsibility for all tasks related to the procurement and management of materials and resources required for operations, as well as the physical and material support for the incident management team. This section also includes a transportation task force dedicated to supporting disaster operations. Logistics tasks are divided among various units, including storage and supply, facilities management, staff support, communications, and transportation (including ground, air, and water).

5.6. Operational check-up of Warning System

The primary objective of any warning system is to ensure the safety of both life and property by encouraging as many individuals as possible to take appropriate and timely action. The foundation of all warning systems lies in promptly detecting the event and facilitating its timely evacuation. These systems should incorporate three essential components: detection and warning, dissemination of warnings to the community level, and swift response following the warning. It has been observed through past experiences that the impact of natural hazards can be significantly reduced with the presence of a well-functioning warning system. Regular operational checks of district warning systems are conducted annually by relevant departments, along with mock drills typically conducted during the monsoon season.

5.7. Operational check-up for Emergency Operation Centre

In addition to advancements in Disaster Management, the District has initiated the functioning of its Emergency Operation Centre (DEOC) within the Collector's Office of Panchmahal. Equipped with state-of-the-art technology and sophisticated equipment, this center serves as a hub for disaster management efforts. The Additional Collector of District Panchmahal holds authority as the Nodal Officer of DEOC and is entrusted with several key responsibilities for its operational check-up, including:

- Ensuring the functionality of all equipment within the EOC.
- Collecting data regularly from relevant line departments pertaining to disaster management.
- Compiling status reports detailing the preparedness and mitigation activities conducted within the district.
- Overseeing the proper implementation of the District Disaster Management Plan.
- Maintaining a comprehensive data bank and ensuring regular updates.
- Activating the trigger mechanism promptly upon receipt of disaster warnings or occurrence of a disaster event.

5.8. Seasonal inspection of facilities and critical infrastructure

The designated departments and personnel are mandated to conduct regular inspections of the facilities using their respective control rooms, adhering to the set frequency, and ensure proper record-keeping of these inspections. As part of the pre-monsoon preparations usually conducted in April-May, directives are issued to all departments to conduct seasonal inspections and furnish reports to the DEOC before the pre-monsoon meeting convened at the collector's office under the leadership of the District Collector. Following the submission of reports from various agencies, a compiled and consolidated report detailing all facility and critical infrastructure inspections is annually submitted to the State EOC.

5.9. Command and coordination – identification of quick response teams

Effective command and coordination of quick response teams provide the structure through which a singular leader or committee can oversee the comprehensive disaster response endeavor. An individual Incident Commander assumes responsibility for efficiently managing the response efforts within a designated area during the operational period. In instances where the incident expands significantly and encompasses multiple jurisdictions, the utilization of multiple incident commanders can be beneficial. In such cases, an area command authority may be established to facilitate coordination among the various incidents.

The Incident Commander relies on a designated Command Staff to provide necessary support, consisting of the following roles:

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

If the local authorities do not have the capacity to play an efficient role at local level to identify quick response teams and the requirements for field information and coordination. The DEOC will therefore need to send its own field teams and through them establish an Incident Command System. The system will comprise:

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

5.10. NGOs and other stakeholders' coordination – Activate NGO coordination cell

Local community groups and voluntary agencies, including NGOs, are encouraged to actively engage in prevention and mitigation activities under the guidance and supervision of the Collector. They should take part in training initiatives and acquaint themselves with their responsibilities in disaster management. It is the obligation of every citizen, NGOs, and stakeholders to provide assistance to the Collector or any designated authority engaged in disaster management when their aid is requested, particularly for disaster management purposes.

NGOs within the district focus their efforts on specific communities or designated areas. They collaborate with the district Emergency Operations Center (EOC) primarily through direct engagement or when assigned specific tasks.

5.11. Seasonal preparedness for seasonal disasters like flood and cyclone

Based on past experiences with natural disasters, communities have developed a seasonal calendar that highlights the occurrence of disaster events and the corresponding months dedicated to preparedness.

- **Main Seasonal Preparedness Strategies**

Essential strategies for seasonal preparedness encompass mapping flood-prone areas, implementing land use controls, constructing resilient infrastructure, and integrating both structural and non-structural flood control measures.

Key Seasonal Preparedness Strategies:

1. Mapping flood-prone areas serves as a foundational step in mitigating regional risks. Historical data aids in identifying flood-prone zones, including the timing and extent of inundation. By referencing past water levels, warnings can be issued preemptively.
2. Cyclones pose extensive and often devastating threats. Hazard maps delineate vulnerable areas susceptible to cyclones in any given year.
3. These maps integrate past climatological data, historical wind speeds, and flooding frequencies to assess risk.
4. Implementing land use control minimizes risks to life and property during floods. Settlements should be relocated from flood-prone areas where possible. Restricting major developments in high-flood zones is imperative. Critical infrastructure should be situated in safer locales.
5. Constructing engineered structures in flood plains and reinforcing existing ones is crucial. Elevated construction, including structures on stilts or platforms, helps mitigate flood risks. Buildings should be designed to withstand water and wind forces. Protection of river embankments and underground installation of communication lines are essential. Community shelters should be established in vulnerable areas.
6. Flood control strategies aim to mitigate damage. Reforestation efforts, vegetation protection, debris clearance, and conservation of ponds and lakes are effective measures.
7. Structural interventions, such as storage reservoirs, flood embankments, drainage channels, and anti-erosion works, play a pivotal role. Non-structural approaches, including flood forecasting, flood-proofing, and disaster preparedness initiatives, are equally important components of flood management.

5.12. Community Preparedness

Community preparedness is a cornerstone of effective disaster management, essential for minimizing loss of life and property during emergencies. It involves proactive measures such as education, training, and planning to equip individuals and neighbors with the knowledge and resources needed to respond swiftly and effectively to disasters. Through

community engagement initiatives, residents are empowered to identify risks, develop emergency plans, and establish communication networks to coordinate response efforts. Additionally, training programs teach vital skills like first aid, search and rescue techniques, and disaster mitigation strategies. By fostering a culture of preparedness, communities can enhance their resilience and ability to withstand and recover from disasters, ultimately saving lives and reducing the overall impact of catastrophes.

Ensuring community resilience against disasters is paramount, considering that they are often the first and last to encounter such crises. Equipping, educating, and preparing communities for recurrent disasters are crucial endeavors. Identifying the most vulnerable areas and conducting periodic awareness programs at various levels, including Ward, Panchayat, Educational Institutions, and Social Organizations, is essential for effective disaster management planning. It is imperative to explore diverse methods through which communities can actively engage in disaster preparedness and response efforts. A well-informed and equipped community is better positioned to bravely confront disasters.

Community awareness initiatives, facilitated by the involvement of Panchayati Raj institutions and Community-Based Organizations (CBOs), play a pivotal role in disseminating knowledge regarding disaster preparedness. The Revenue Department serves as the nodal agency for coordinating these activities. Enhancing community awareness about mitigation measures aimed at safeguarding lives and properties from hazards is critical. These measures encompass constructing earthquake-resistant structures, retrofitting weak buildings, obtaining house insurance, erecting flood embankments, rehabilitating people in safe lands, and devising plans for relocating individuals from vulnerable areas to safer locales.

Various methods can be employed to raise community awareness about different disasters, including advertisements, hoardings, booklets, leaflets, banners, shake-table demonstrations, folk performances, humorous skits, street plays, exhibitions, TV and radio spots, audio-visual documentaries, and school campaigns. By engaging in these multifaceted awareness initiatives, communities can better prepare themselves to face disasters with resilience and resolve.

- **Community warning system**

Reliable and timely warnings of imminent disasters are often inaccessible to communities residing in remote and isolated areas. Therefore, establishing robust and efficient early warning systems is imperative to mitigate risks, save lives, and minimize damage to assets and essential services. The effectiveness and outreach of these warnings are crucial considerations when devising response strategies. Furthermore, post-disaster advisories, including information on rescue operations, relief services, and maintenance of law and order, are essential for ensuring the safety and well-being of citizens. A prepared community equipped with the ability to receive and comprehend disaster warnings can effectively manage crises and expedite the restoration of normalcy in their lives.

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

- **Community awareness, education**

Community awareness and education are critical components of effective disaster management strategies. Through comprehensive educational initiatives, communities can increase their understanding of potential hazards and learn how to prepare for and respond to emergencies. These efforts involve raising awareness about different types of disasters, their potential impacts, and the importance of readiness. Additionally, education programs provide practical guidance on creating emergency plans, assembling disaster kits, and implementing evacuation procedures. By fostering a culture of preparedness through continuous education, communities can empower individuals to take proactive measures to protect themselves, their families, and their neighbors during times of crisis. Furthermore, increased awareness and education can facilitate better coordination among community members and local authorities, leading to a more coordinated and effective response to disasters when they occur.

- **Community's responsibility**

The community plays a pivotal role in disaster management, bearing significant responsibilities before, during, and after emergencies. Firstly, community members must actively engage in disaster preparedness efforts by staying informed about potential risks, participating in educational programs, and developing emergency plans for their households. During disasters, the community's responsibility lies in swiftly implementing these plans, assisting vulnerable individuals, and cooperating with local authorities to ensure a coordinated response. This includes providing aid to those in need, sharing resources, and offering support to emergency responders. After the immediate crisis has passed, communities must come together to assess the damage, initiate recovery efforts, and rebuild infrastructure and livelihoods. Moreover, fostering resilience and solidarity within the community is crucial for long-term recovery and future preparedness. Ultimately, by fulfilling their responsibilities in disaster management, communities can mitigate the impact of disasters and strengthen their ability to withstand future challenges.

5.13. Standard Operating Procedures (SOPs)

Standard Operating Procedures (SOPs) are fundamental guidelines established to ensure effective disaster management at all levels of response. These SOPs outline a systematic approach to various aspects of disaster preparedness, response, and recovery, providing a structured framework for coordination and decision-making among stakeholders. In disaster management, SOPs cover a wide range of activities, including early warning systems, evacuation procedures, search and rescue operations, medical care, and distribution of relief supplies. They are designed to streamline response efforts, reduce confusion, and enhance efficiency during high-stress situations. SOPs also serve as a reference point for training and capacity-building initiatives, ensuring that personnel are adequately prepared to execute their roles in times of crisis. By adhering to established SOPs, organizations and agencies can optimize their response efforts, minimize risks, and ultimately save lives and mitigate the impact of disasters on communities.

- **Protocol and arrangements for VIP visits**

It is crucial to promptly notify VIPs and VVIPs about impending disasters and provide updates on the current situation during and after the event. Appeals made by VIPs can help in dispelling rumors and maintaining order amidst chaos. Visits by VIPs have the potential to boost morale among both disaster-affected individuals and responders. However, it is essential to ensure that such visits do not disrupt ongoing rescue and life-saving efforts. The security of VIPs falls under the additional responsibility of local police and Special Forces. To minimize disruptions, it is advisable to limit media coverage of VIP visits, with the police coordinating closely with government press officers to keep media presence to a minimum.

- **Procurement**

The responsibility for procuring materials, equipment, and services related to disaster management and ensuring their quality falls under the jurisdiction of the State authority. Currently, the District lacks funds and specific directives to procure such items locally. The State authority possesses the authority to authorize relevant departments or agencies to conduct emergency procurement of provisions or materials for rescue and relief during imminent disaster situations. Alternatively, the State authority may opt for centralized procurement of additional relief materials required for relief operations, based on thorough need assessments.

- **Logistics**

Logistics plays a critical role in all phases of disaster management, from preparedness and response to recovery and reconstruction. In the preparedness phase, logistics involve the pre-positioning of supplies, equipment, and personnel, as well as the establishment of supply chains and distribution networks. This ensures that resources are readily available when needed during an emergency.

During the response phase, logistics coordinate the movement of goods and services to affected areas, including the deployment of emergency personnel, medical supplies, food, water, shelter, and other essential items. Efficient logistics are essential for delivering aid quickly and effectively, especially in remote or hard-to-reach areas.

Logistics also encompasses the coordination of transportation, communication, and infrastructure repair efforts to ensure smooth operations and facilitate the delivery of assistance. Additionally, logistics play a crucial role in managing information and data, such as tracking the movement of supplies, assessing needs, and coordinating response efforts among different organizations and agencies.

In the recovery and reconstruction phases, logistics continue to be essential for rebuilding infrastructure, restoring essential services, and providing long-term support to affected communities. Effective logistics management is crucial for optimizing resources, minimizing delays, and maximizing the impact of disaster response and recovery efforts.

5.14. Knowledge Management, networking and sharing

Knowledge management, networking, and sharing are integral aspects of effective disaster management strategies. Knowledge involves systematic gathering, organization, and dissemination of information, lessons learned, and best practices related to disaster preparedness, response, and recovery. This knowledge serves as a valuable resource for decision-makers, emergency responders, and community members, enabling informed decision-making and efficient resource allocation during crises. Networking plays a crucial role in disaster management by facilitating collaboration and cooperation among diverse stakeholders, including government agencies, non-profit organizations, academia, and the private sector. Through networks, stakeholders can share resources, expertise, and information, as well as coordinate efforts to enhance overall disaster resilience and response capacity. Additionally, sharing of information and experiences fosters transparency, builds trust, and promotes learning within the disaster management community. By actively engaging in knowledge management, networking, and sharing, stakeholders can strengthen their collective capacity to prepare for, respond to, and recover from disasters, ultimately saving lives and mitigating the impact of emergencies on communities.

Uploading of information on resources on India Disaster Resource Network (IDRN) / State Disaster Resource Network (SDRN)

The uploading of information on resources onto the India Disaster Resource Network (IDRN) or State Disaster Resource Network (SDRN) is a vital component of disaster preparedness and response efforts in India. These networks serve as centralized platforms for collecting, organizing, and disseminating critical information about resources available for disaster management. This includes details about emergency supplies, equipment, facilities, personnel, and other essential resources that can be mobilized during times of crisis. By uploading this

information onto the IDRN or SDRN, government agencies, non-governmental organizations, and other stakeholders can enhance coordination, improve resource allocation, and streamline response efforts during disasters. Furthermore, these networks facilitate transparency, accountability, and accessibility, ensuring that decision-makers have accurate and up-to-date information to effectively respond to emergencies and support affected communities. Overall, the uploading of resource information onto IDRN or SDRN plays a crucial role in strengthening India's disaster preparedness and response capabilities.

❖ *SDRN Updating*

SDRN (State Disaster Resource Network):

The State Disaster Resource Network (SDRN) operates through three tiers: Village, Municipality, and Taluka. Level-specific data is collected and stored in the standardized disaster management plan format, which is then uploaded into the system either at the Taluka or District level. The centralized database is housed on a server located at GSDMA, Gandhinagar and is accessible via the internet portal (http://117.239.205.164/SDRN_NEW/Login.aspx) and the GSDMA website (www.gsdma.org).

Each user across all Talukas in the State is provided with a unique username and password, granting them access to perform data entry and updates on SDRN for their respective Village, Taluka, or City. Additionally, status reports are generated to track the progress of data entry and records within SDRN. For information regarding the status of shelters, including their capacity and available facilities, it is recommended to contact Village-level officers.

Documentation of lessons learnt and best practices after each event

Documentation of lessons learned and best practices after each event is a critical component of effective disaster management. Following a disaster, conducting a thorough review and documentation process allows responders and organizations to assess their performance, identify areas of improvement, and capture valuable insights for future reference. By documenting lessons learned, such as operational challenges, successful strategies, and unexpected outcomes, stakeholders can enhance their preparedness and response capabilities. Additionally, documenting best practices enables the dissemination of successful approaches and innovative solutions, fostering learning and collaboration within the disaster management community. Overall, the documentation of lessons learned and best practices serves as a foundation for continuous improvement, ensuring that response efforts become increasingly efficient, effective, and resilient with each subsequent event.

It is essential to meticulously document all response, relief, and recovery measures through the following steps:

- Record and document details of disasters in an easily accessible format.
- Conduct research studies and apply their outcomes to enhance disaster management practices.
- Document field data, experiences, and indigenous technological knowledge obtained from the local community.
- Develop plans utilizing available resources such as SDRN, IDRN, etc.
- Consolidate all reports and information transactions during disasters for straightforward documentation.

5.15. Media management / information dissemination

Effective media management is essential for accurately communicating the impact of disasters and the relief measures being undertaken, thereby fostering goodwill among the community and other stakeholders. To ensure transparency and timely updates, organized communication of the progress of rescue and relief efforts should be provided to the media and public at least twice daily. Help lines should be established to facilitate communication between victims and their relatives outside the affected areas. Information centers at strategic locations can offer details about people evacuated to relief centers or hospitals. Additionally, a designated Media/Press Center should be established for managing media relations and disseminating information. It is imperative to release information to the media and general public regarding the State Government's response in a structured manner, including the following points:

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

Training and interaction strategies with Media/pre-event awareness for the Media

Training and interaction strategies with the media are essential for effective communication and public awareness in disaster management. Before an event, it's crucial to conduct pre-event awareness training sessions for the media to ensure they understand their roles, responsibilities, and ethical considerations during emergencies. These training sessions should provide journalists with information about disaster preparedness, response protocols, and key messaging to convey accurate and timely information to the public. Additionally, interactive workshops and simulations can help media professionals familiarize themselves with emergency operations centers, key personnel, and communication channels, enabling smoother collaboration with response agencies during crises.

During disasters, regular briefings and press conferences provide opportunities for the media

to interact with authorities, ask questions, and relay critical information to the public. Establishing designated media centers equipped with necessary resources, such as internet access and briefing materials, can facilitate efficient communication and coordination between response agencies and journalists. Moreover, fostering open and transparent communication channels between the media and response agencies builds trust and credibility, ensuring that accurate information is disseminated promptly to the public.

Post-event debriefings and evaluations allow media professionals to reflect on their coverage, identify areas for improvement, and share lessons learned with their peers. Additionally, ongoing training and professional development opportunities enable journalists to stay updated on evolving best practices and emerging technologies in disaster communication. By investing in training and interaction strategies with the media, disaster management agencies can strengthen their communication capabilities, enhance public awareness, and ultimately improve community resilience in the face of emergencies.

Identification and training to the Official Spokesperson

Identification and training of official spokespersons are crucial aspects of effective disaster management communication. Official spokespersons serve as the primary liaisons between disaster management agencies and the public, conveying accurate information, updates, and instructions during emergencies. To identify suitable spokespersons, agencies should consider individuals with strong communication skills, credibility, and expertise in disaster management protocols.

Once identified, spokespersons should undergo comprehensive training to prepare them for their role. This training should cover various aspects, including:

Media relations: Spokespersons should be trained in interacting with journalists, conducting interviews, and delivering key messages effectively. This includes techniques for staying composed under pressure and handling challenging questions from the media.

Understanding disaster management protocols: Spokespersons should have a thorough understanding of the agency's disaster management plans, procedures, and protocols. This enables them to provide accurate and timely information to the public and coordinate with response teams efficiently.

Message development: Training should include guidance on crafting clear, concise, and consistent messages for different audiences. Spokespersons should understand how to tailor messaging to address public concerns, provide reassurance, and promote safety measures during emergencies.

Crisis communication strategies: Spokespersons should be familiar with crisis communication principles, including transparency, empathy, and accessibility. They should know how to manage rumors, misinformation, and public expectations while maintaining trust and credibility.

Media engagement techniques: Training should cover strategies for engaging with traditional media, social media platforms, and other communication channels effectively. Spokespersons should understand the importance of active listening, timely response, and engagement with

the public.

Mock drills and simulations: Practical exercises, such as mock press conferences and crisis simulations, can help spokespersons hone their skills and build confidence in real-world scenarios.

By providing comprehensive identification and training to official spokespersons, disaster management agencies can ensure that accurate information is disseminated promptly, public trust is maintained, and effective communication contributes to overall emergency response and community resilience.

Chapter 6

Capacity Building and Training Measures

6.1. Approach

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

- i. **Needs assessment:** Conducting thorough needs assessments to identify gaps, vulnerabilities, and areas for improvement in disaster management capacity. This involves analyzing the specific risks and hazards faced by the community, as well as evaluating existing resources, infrastructure, and response mechanisms.
- ii. **Stakeholder engagement:** Engaging a wide range of stakeholders, including government agencies, non-governmental organizations, community groups, academia, and the private sector, in the capacity-building process. Collaborative partnerships enable the sharing of resources, expertise, and best practices, as well as foster coordination and cooperation among different actors.
- iii. **Training and education:** Developing and delivering targeted training programs, workshops, and educational initiatives to build knowledge, skills, and competencies related to disaster preparedness, response, and recovery. Training may cover topics such as emergency planning, risk assessment, first aid, search and rescue techniques, and crisis communication.
- iv. **Simulation exercises:** Conducting realistic simulation exercises, drills, and tabletop exercises to simulate emergency scenarios and test response plans, procedures, and coordination mechanisms. These exercises provide opportunities for practical hands-on learning, as well as identify strengths, weaknesses, and areas for improvement in disaster response capabilities.
- v. **Capacity development initiatives:** Implementing capacity development initiatives aimed at strengthening institutional capacity, improving infrastructure, and enhancing coordination mechanisms for disaster management. This may include investments in technology, equipment, logistics, and communication systems, as well as the establishment of emergency response teams and specialized units.
- vi. **Knowledge sharing and learning:** Promoting a culture of continuous learning and knowledge sharing within the disaster management community. This involves documenting lessons learned, best practices, and case studies from past disasters, as well as disseminating this information through workshops, seminars, conferences, and online platforms.
- vii. **Monitoring and evaluation:** Regularly monitoring and evaluating the effectiveness of capacity-building and training measures in achieving desired outcomes and objectives. This involves collecting feedback, conducting assessments, and adjusting strategies as needed to improve performance and enhance resilience over time.

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

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

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

Capability Building is skill development. Skill development is either in relation to self or other than 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 must 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 must 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 planning 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, and 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 bhavans, 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.

6.2. Capacity Building Plan

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

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

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

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 in 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 for 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 Defense/Volunteers:

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

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

6.3. Disaster Management Education

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

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.

6.4. Skill upgradation and follow up training programmes

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

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

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

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

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

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

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

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

disaster management agencies can ensure that their personnel remain well-equipped, competent, and prepared to effectively respond to disasters and protect their communities.

Training in Disaster Management

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

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

Chapter 7

Response and Relief Measures

7.1. Response planning (multi-hazard), preparedness and assessment

In disaster management planning, response planning involves preparing for a range of hazards and assessing their potential impact. This multi-hazard approach ensures that organizations are ready to respond effectively to various types of disasters, such as natural calamities, industrial accidents, or public health emergencies. Preparedness efforts include developing response protocols, training personnel, stockpiling resources, and establishing communication channels. Regular assessments help identify vulnerabilities, evaluate existing plans, and prioritize improvements to enhance overall readiness and resilience.

Response measures in disaster management encompass actions taken just before and immediately after disaster strikes, with the primary aim of mitigating injuries, loss of life, property damage, and environmental harm. This phase commences at the onset of the recognition that a calamitous event is impending and persists until its conclusion is officially declared. Undoubtedly, response operations unfold amidst heightened stress levels, within tight time constraints, and often with scarce resources, rendering it the most intricate facet of disaster management. The exigency of response is underscored by the imperative to swiftly mobilize resources and personnel to address evolving crises, despite operating under conditions of uncertainty and limited information.

The response phase encompasses a spectrum of activities, ranging from urgent interventions like search and rescue missions and provision of initial medical aid to the establishment of temporary shelters for affected individuals. However, it extends beyond these immediate interventions to encompass the development and coordination of support systems essential for efficient crisis management. Effective response necessitates a shared understanding among all stakeholders regarding the nature of hazards, their potential repercussions, and the requisite actions to be undertaken in the face of an unfolding disaster. This shared comprehension serves as the foundation for coordinated efforts aimed at minimizing the impact of disasters and facilitating timely and effective response operations.

At its core, the response phase operates within a dynamic and rapidly evolving environment, where decisions must be made swiftly and often with incomplete information. Consequently, response efforts rely heavily on the agility and adaptability of emergency responders and the capacity to make rapid, yet well-informed decisions under duress. Moreover, the success of response operations hinges on the seamless collaboration and coordination among various agencies, organizations, and community groups involved in disaster management. This necessitates robust communication channels, clearly delineated roles and responsibilities, and mechanisms for sharing critical information in real-time.

Despite the formidable challenges inherent in the response phase, it represents a crucial window of opportunity to mitigate the impact of disasters and safeguard lives and livelihoods. Therefore, investments in preparedness, capacity-building, and the development of robust response mechanisms are imperative to enhance the resilience of communities and institutions in the face of adversity. Moreover, recognizing the multidimensional nature of

disasters, response efforts must be underpinned by a holistic approach that accounts for the diverse needs and vulnerabilities of affected populations, including marginalized groups and individuals with special needs. Ultimately, effective response measures not only save lives and alleviate suffering in the immediate aftermath of a disaster but also lay the groundwork for recovery and long-term resilience-building efforts.

7.1.1. Quick assessment of damages and need

A plethora of spatial data, encompassing socio-economic indicators, housing statistics, infrastructure characteristics, and other relevant variables, serves as invaluable resources for swiftly assessing disaster risks and vulnerabilities. These datasets, drawn from primary sources, offer a comprehensive understanding of the intricate factors influencing vulnerability to disasters. By analyzing this rich repository of spatial information, stakeholders can gain nuanced insights into the multifaceted nature of disaster risks, laying the groundwork for the formulation of targeted mitigation strategies. Through meticulous examination of socio-economic dynamics, housing conditions, and infrastructure resilience, decision-makers can identify vulnerable areas and populations, pinpointing priority areas for intervention and resource allocation.

This amalgamation of spatial data not only facilitates rapid risk assessment but also empowers the development of contextually appropriate mitigation measures. By leveraging insights gleaned from primary data sources, stakeholders can tailor mitigation strategies to address specific vulnerabilities and bolster resilience effectively. Armed with a nuanced understanding of the socio-economic landscape and infrastructure vulnerabilities, decision-makers are poised to implement proactive measures aimed at mitigating disaster risks and safeguarding communities. This data-driven approach not only enhances the efficacy of mitigation efforts but also fosters a more resilient and adaptive framework for disaster management, ensuring the well-being and security of populations in the face of evolving threats.

1. IC will call and activate the District Quick Response Team. Will done Quick Assessment of the S & R operations through Aerial surveys.
2. The Nodal Officer from Police will activate the Quick Response teams and will done Quick assessment of law-and-order situation in affected areas.
3. GWSSB nodal officer will activate their quick response teams for Quick assessment of water line damage and Quick assessment of water contamination levels and taking steps to restore clean drinking water.
3. Chief Officers, TDOs and Taluka Mamlatdars will do Quick assessment of damaged areas and areas that can be used for relief camps for the displaced population. Coordinate with the Government agencies for quick assessment of evacuation needs such as the number of people to be evacuated and mode of evacuation
4. DDO of district will make a quick assessment of the damage and losses caused by the disaster in the affected area as regards the population, agriculture,

infrastructure, livelihoods and environment.

5. DEOC will Instruct Quick Assessment Task Force to submit preliminary need and loss assessment report of the affected areas.

7.1.2. Response flow chart

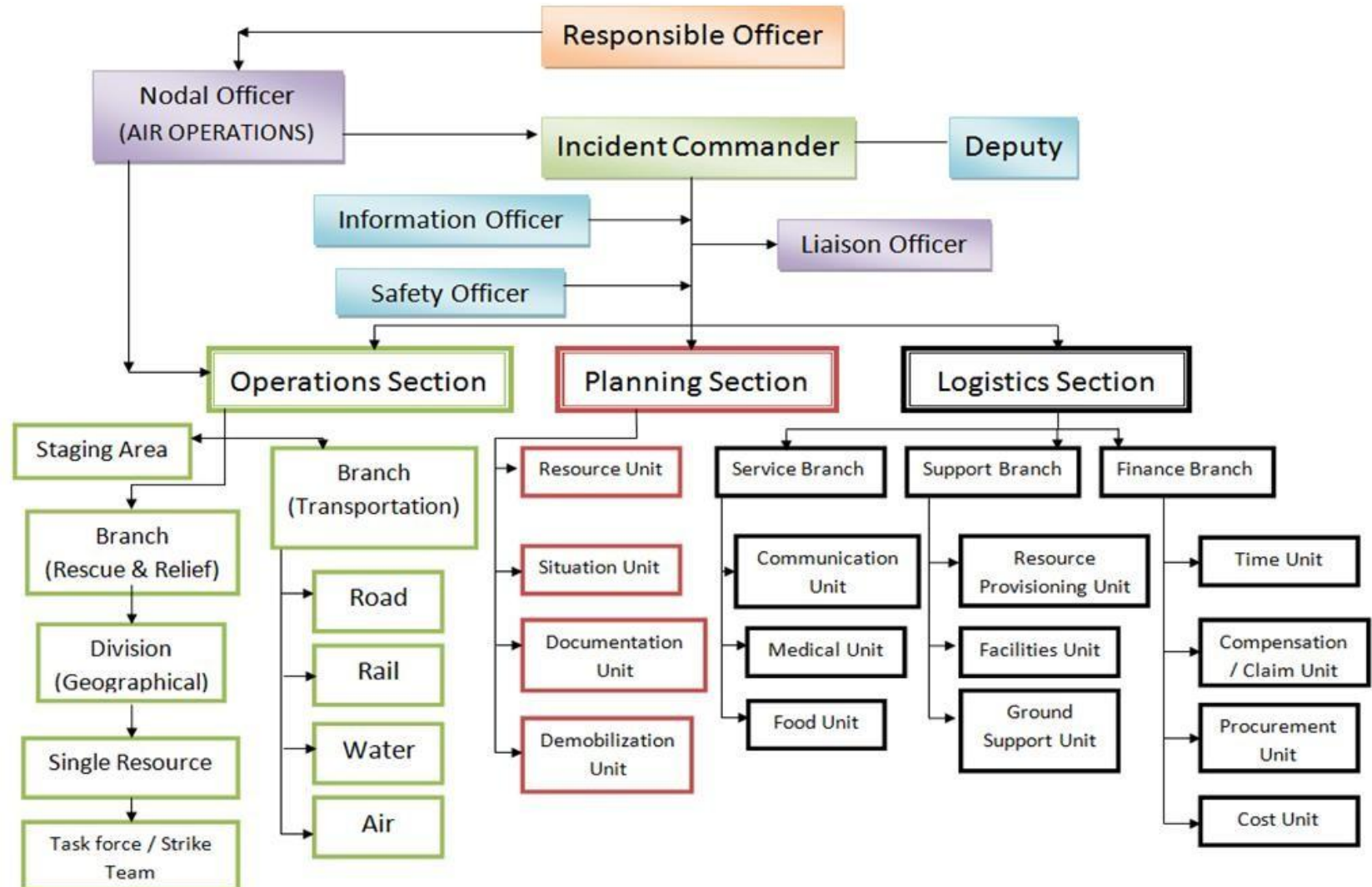
Revenue Department of the State assumes the pivotal role of serving as the Nodal Department responsible for overseeing, supervising, and guiding the implementation of measures aimed at orchestrating rescue, relief, and rehabilitation efforts in the event of a disaster. In this capacity, it holds authority over coordinating the collective response of various concerned line departments, mandating their active participation and cooperation in all facets of disaster response management. This collaborative approach ensures a cohesive and concerted effort across diverse sectors, maximizing the effectiveness of response operations.

To facilitate swift and efficient response, the State Emergency Operations Center (EOC), Emergency Response Centers (ERCs), and other control rooms at both the state and district levels are mandated to be fully activated, mobilizing resources and personnel with urgency and effectiveness. This comprehensive activation ensures that response efforts are well-coordinated, resources are optimally deployed, and information flows seamlessly, enabling timely decision-making and action. Moreover, the State Government possesses the authority to formalize the disaster-affected status of an area through an official notification published in the gazette under the provisions of the Gujarat State Disaster Management Act (Section 32 (2) (a)), thereby triggering the requisite mechanisms for comprehensive disaster response and management.

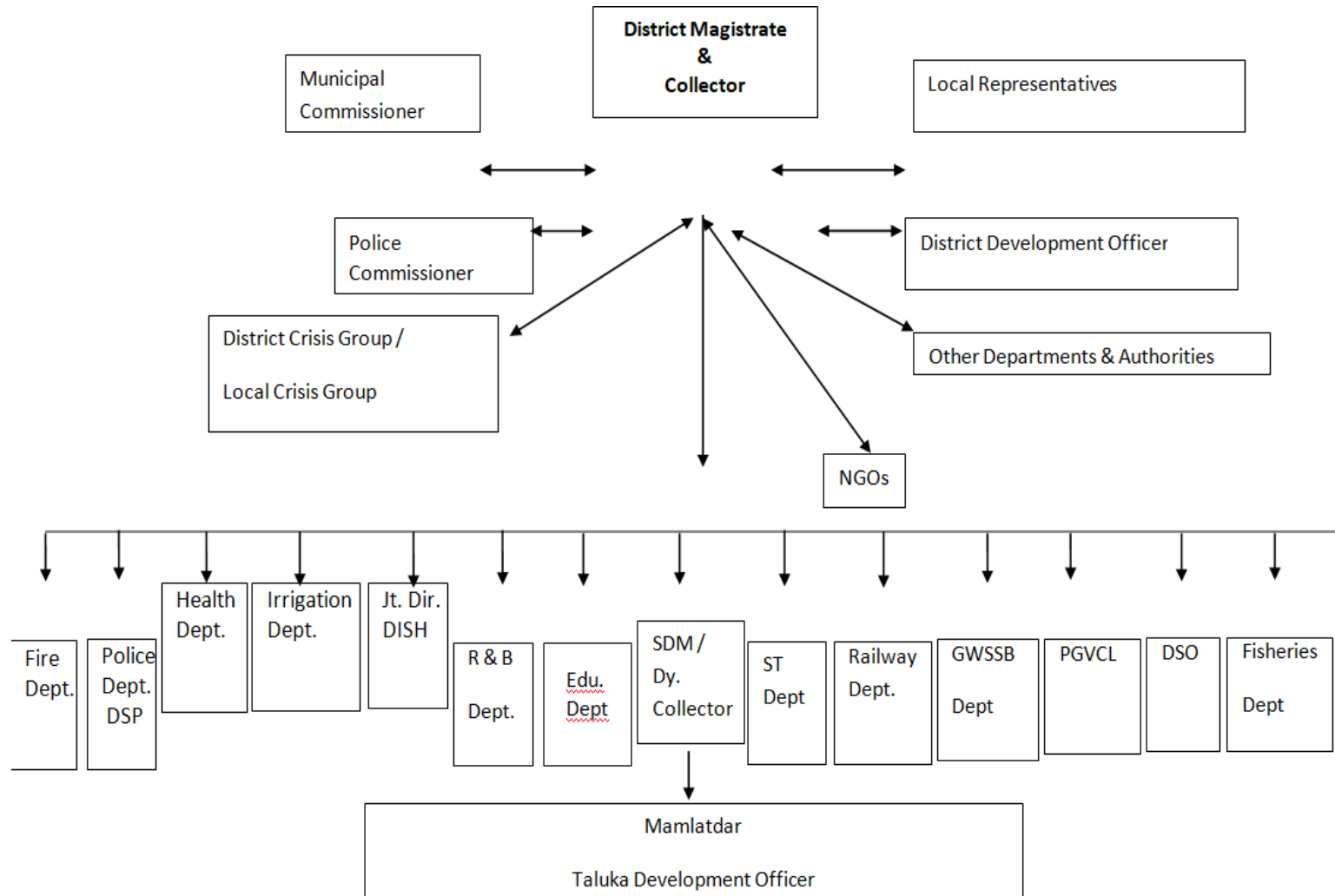
Such measures underscore the commitment of the state apparatus to prioritize the safety, well-being, and recovery of its citizens in times of crisis, leveraging a structured and coordinated approach to mitigate the impact of disasters and expedite the process of rehabilitation and recovery. By institutionalizing roles, responsibilities, and protocols for disaster response and management, the state endeavors to enhance its resilience and capacity to address emergent challenges effectively, safeguarding lives, livelihoods, and critical infrastructure in the face of adversity.

The district level response structure of the Panchmahal district is given in the next page.

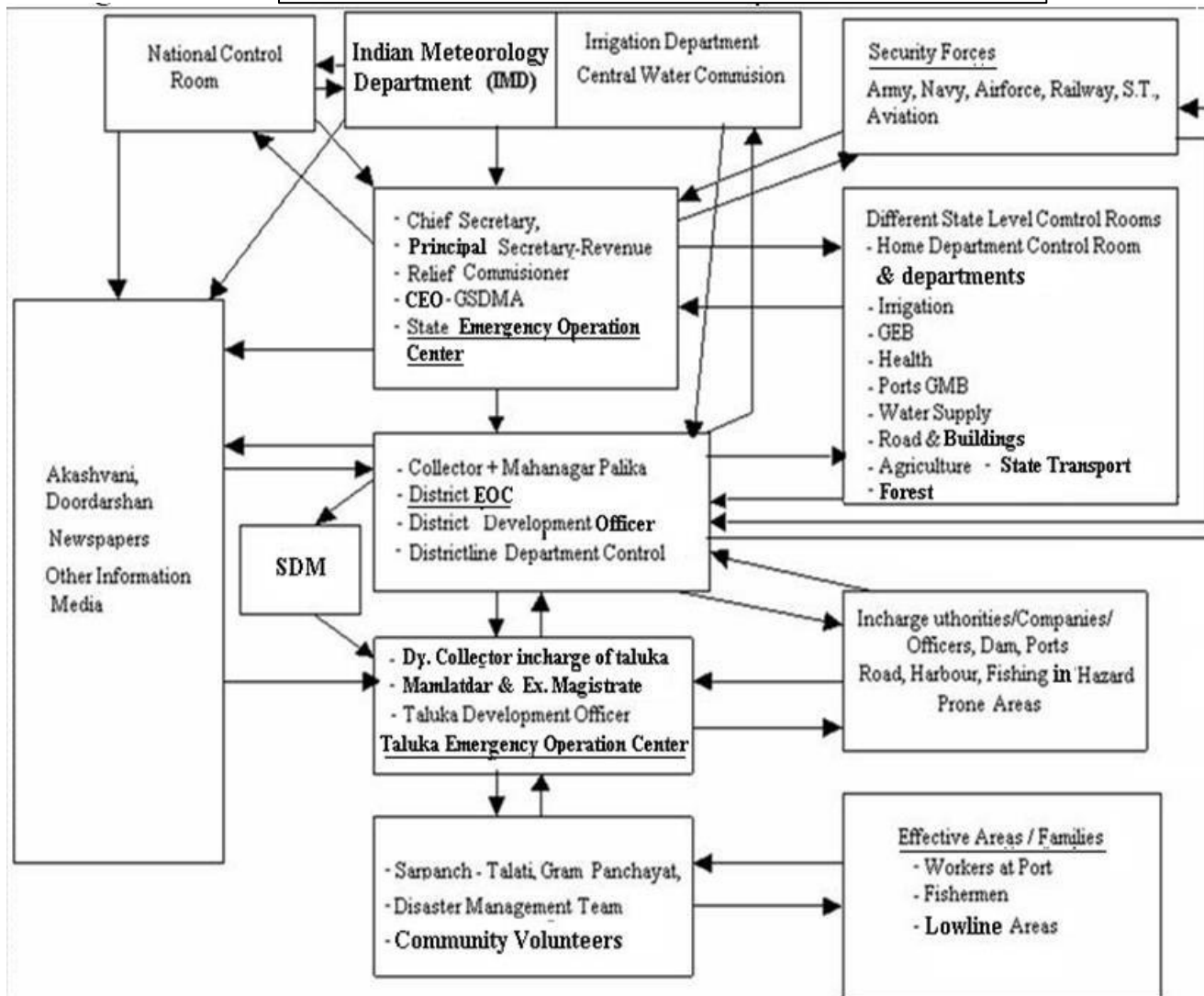
Flow chart of District Administrative Setup



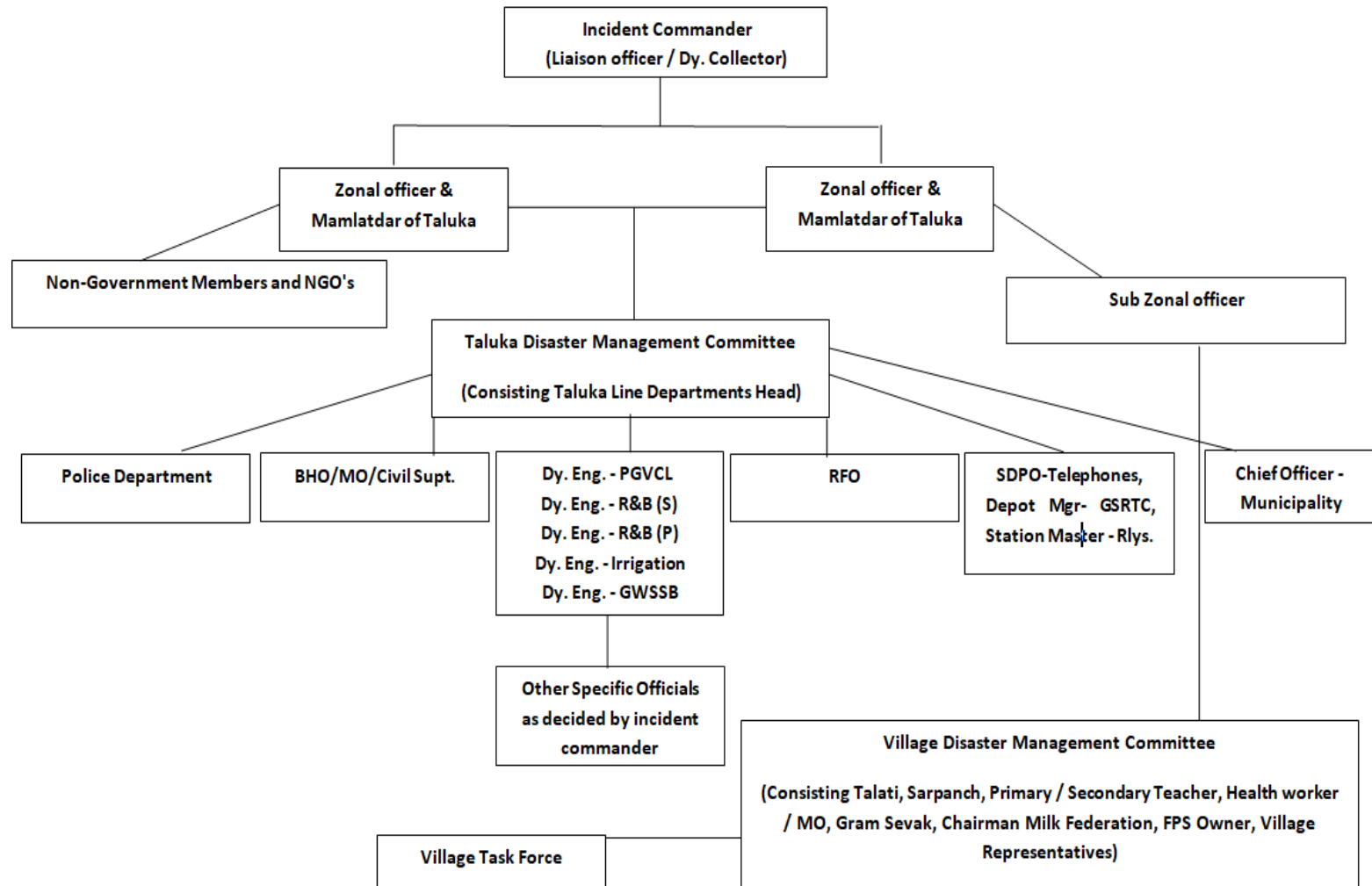
Flow chart District Administrative Setup



Linkages of District with State and National level



Taluka Level Structure

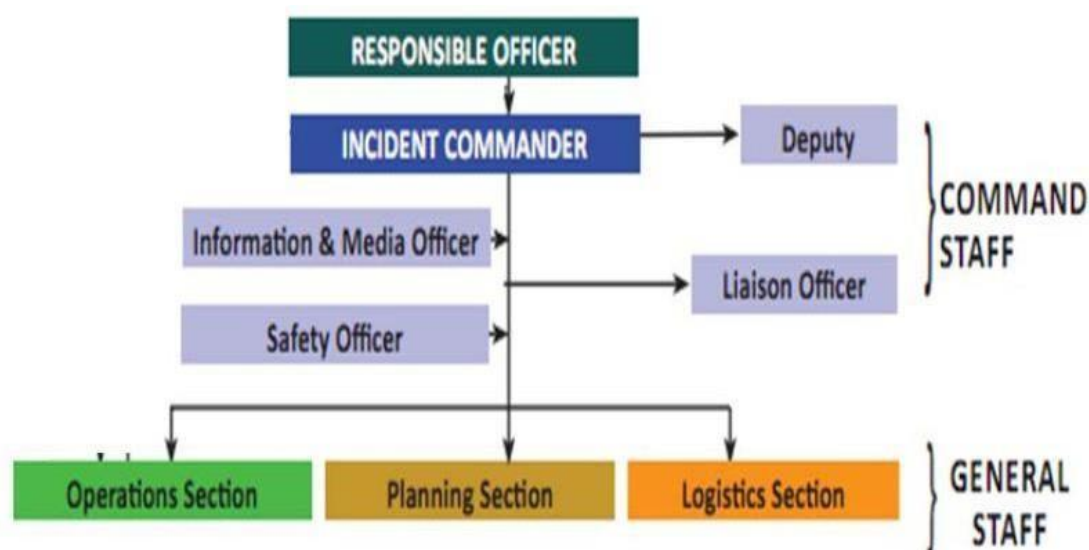


7.1.3. Incident Response System

As per NDMA 's IRS guidelines, IRT at District, Sub-Division, Taluka level should be constituted under the written directives of District Magistrate (DM). These teams will include experienced officers / employees at all levels and respond to all natural and man- made disasters. The lowest administrative unit (Sub-Division, Taluka) will be the first responder. IRT at all levels will have same structure, i.e. IC supported with Operations, Planning and Logistics Sections. The IRTs are to be pre-designated at all levels.

- *IRS Organizational Structure: IRT Framework*

In general, the selection of Section Chiefs is made according to the suitability and capability of the officer. The selection of the Operations Section Chief, however, depends on the nature of the disaster. In case of floods and earthquakes reaching the affected area, rescuing the affected people and providing relief to them is the main task of the responders. People have to leave their home in a hurry, and they cannot take away their valuables. These abandoned houses become vulnerable. The relief materials while being transported also become prone to loot. In such cases, Police and the Armed Forces are the best suited to handle and lead the operations. In case of fire, it will be the District Fire Officer who will be appropriate officer to handle the situation. In case of health-related disaster, it would be the District Chief Medical Officer and so on.



A. Major Responsibilities and Duties INCIDENT

COMMAND

The Incident Command 's responsibility is the overall management of the incident. It is comprised of following positions:

Incident Commander

The Incident Commander has a wide variety of responsibilities.

- Assess the situation and/or obtain a briefing from the prior Incident Commander.
- Determine incident objectives and strategy.
- Establish the immediate priorities.
- Establish an Incident Command Post.
- Establish an appropriate organization.
- Ensure planning meetings are scheduled as required.
- Approve and authorize the implementation of an Incident Action Plan.
- Ensure that adequate safety measures are in place.
- Coordinate activity for all Command and General Staff.
- Coordinate with key people and officials.
- Approve requests for additional resources or for the release of resources.
- Keep agency administrator informed of incident status.
- Approve the use of students, volunteers, and auxiliary personnel.
- Authorize release of information to the news media.
- Order the demobilization of the incident when appropriate.

Information and Media Officer

The Information and Media Officer is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. Reasons for the Incident Commander to designate an Information and Media Officer:

- An obvious high visibility or sensitive incident.
- Reduces the risk of multiple sources releasing information.
- Need to alert, warn or instruct the public.
- Media demands for information may obstruct IC effectiveness.
- Media capabilities to acquire their own information are increasing.

Liaison Officer

The Liaison Officer is the point of contact to assist the first responders, cooperating agencies and line departments. It may be designated depending on the number of agencies involved and the spread of affected areas. Reasons to establish the Liaison Officer position at an incident:

- When several agencies send, or plan to send, Agency Representatives to an incident in support of their resources.
- When the IC can no longer provide the time for individual coordination with each Agency Representative.
- When it appears that two or more jurisdictions may become involved in the incident and the incident will require on-site liaison.

Safety Officer

The Safety Officer's function is to develop and recommend measures for ensuring safety of responders and to assess or anticipate hazardous and unsafe situations and review it regularly. The Safety Officer will correct unsafe situations by working through the chain of command; however, the Safety Officer may exercise emergency authority to directly stop unsafe acts if personnel are in imminent life-threatening danger.

General Staff

Each one has a vital role for efficient response; however, depending upon the nature and requirements of the incident, they may be or not be activated. Each of these functional areas can also be expanded as needed into additional organizational units with further delegation of authority.

Operations Section

The Operations Section deals with all types of field level tactical operations directly applicable to the management of an incident. This section is headed by an Operation Section Chief (OSC). In addition, a deputy may be appointed to assist the OSC for discharging his functions depending on the magnitude of the workload. Operations Section is further sub- divided into Branches, Divisions and Groups which assist the OSC/IC in the execution of the field operations.

Planning Section

The Planning Section deals with all matters relating to the planning of the incident response. Headed by the Planning Section Chief, this section helps the Incident Commander in determining the objectives and strategies for the response. It works out the requirements for resources, maintains up-to-date information about the ongoing response and prepares IAP. For the closing phase of the operations, the Planning Section also prepares the Incident Demobilization Plan.

Logistics Section

The Logistics Section deals with matters relating to procurement of resources and establishment of facilities for the incident response. This section is headed by logistics

Section Chief and is an important component of the IRS organization for providing back-end services and other important logistic support like communications, food, medical supplies, shelter and other facilities to the affected communities and responders as well. There is a Finance Branch attached to this Section to ensure that the procurements, if any, may be made quickly and in accordance with the financial rules.

❖ *Triggering Mechanism for Deployment of IRS*

Some of the natural hazards have a well-established early warning system. On receipt of information regarding the impending disaster, the Emergency Operations Center (EOC) will inform the Responsible Officer (RO), who in turn will activate the required IRT and mobilize resources. At times the information about an incident may be received only on its occurrence without any warning – in such cases the local IRT will respond and inform the higher authority and if required seek reinforcement and guidance.

❖ *Activation of IRS in the District*

Before taking up response activities, the DM (RO/IC as per IRS) will hold a briefing meeting and take stock of the situation, availability and mobilization of resources for listing out the various tasks and providing proper briefing to the responders. The IAP will be drawn and put into action based on the assessment of situations. The DM/RO will nominate Operations Section Chief (OSC) based on —incident type and rest will follow as per IRS/IRT and other procedural guidelines.

On activation of IRS, all line departments/organizations/individuals shall follow the directions of the Incident Commander as condition demands. He can divert all mechanisms and resources in the district to fight against a scenario leading to disaster/calamity in the district. All Section Chiefs (Operations, Planning and Logistics) are vested with commanding authority and logistic assistance to deliver the concerned responsibility.

❖ *Incident Action Plan*

It is important that activities indicated in the IAP relate to the functional responsibility defined in IRT and according to other descriptions as per DDMP. For instance, proper links should be established between IRT and Emergency Support Functions (ESF) for IAP effectiveness. Three basic elements of IAP are: Task /Function /Activity, Department/Officer Responsible, and Time. Besides that, common forms used for performing IRS and IAP as given in IRS National Guidelines may be utilized.

7.2. Standard Operating Procedures

Standard Operating Procedures (SOPs) are a common method of implementing instructions. SOPs provide response protocols for carrying out specific responsibilities. They describe the —who, what, when and how during a disaster, helping responders to perform complex tasks with high level of coordination. SOPs should be prepared and annexed to the DDMP for all relevant hazards of the district, such as earthquake, flood, cyclone, landslide, tsunami,

man-made disasters, etc. It should be based on pre-defined IRTs and ESFs and communicated to every stakeholder in advance.

FUNCTIONAL RESPONSIBILITIES

RESPONSIBLE OFFICER =	PRIMARILY RESPONSIBLE FOR EFFECTIVE RESPONSE
COMMAND =	OVERALL INCHARGE OF THE INCIDENT RESPONSE TEAM AND ITS EFFECTIVE FUNCTIONING
OPERATIONS =	DIRECT AND SUPERVISE ALL TACTICAL ACTIONS
PLANNING =	COLLECT/ANALYZE DATA, WORKOUT NEED OF REQUIRED RESOURCES AND PREPARE ACTION PLAN
LOGISTICS & FINANCE =	PROVIDE LOGISTICS SUPPORT, ROCUREMENT AND COST ACCOUNTING

LIST OF IRS POSITIONS AND SUITABLE OFFICERS IN THE DISTRICT

IRS Position	Suitable officers
INCIDENT COMMANDER	ADM / ADC or any other equivalent officer or as deemed by RO
Deputy IC	SDM or any other equivalent officer or as deemed by IC
Information & Media Officer	Control Room Officer / Emergency Officer or any other suitable position at District level as deemed by IC
Liaison Officer	Dy. Collector (Protocol) / District Public Relations Officer or any other suitable position at District level as deemed by IC
Safety officer	Fire Officer / Dy. SP (Police) / Medical Officer / Factory Inspector or any other suitable position at District level as deemed by IC
OPERATIONS SECTION CHIEF	Dy. Superintendent of Police / ADM / Dy. Collector or any other suitable position at District level as deemed by IC / RO
PLANNING SECTION CHIEF	ADM (Sadar) / Add. SP / Dy. SP / Sr. Deputy Collector / Joint Collector / District Planning Officer / Fire Officer / Medical Officer / NDRF representative (If available) or any other suitable position at District level as deemed by IC / RO
LOGISTICS SECTION CHIEF	Senior Dy. Collector or any other suitable position at District level deemed by IC / RO

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

Sr. No.	Emergency OperationTaskforce	Functions
1.	Coordination and Planning	Coordinate early warning, Response & Recovery Operations
2.	Administration and Protocol	Support Disaster Operations by efficiently completing the paperwork and other administrative tasks needed to ensure effective and timely relief assistance
3.	Warning	Collection and dissemination of warnings of potential disasters
4.	Law and Order	Assure the execution of all laws and maintenance of order in the area affected by the incident.
5.	Search and Rescue (including Evacuation)	Provide human and material resources needed to support local evacuation, search and rescue efforts.
6.	Public Works	Provide the personnel and resources needed to support local efforts to reestablish normally operating infrastructure.
7.	Water	Assure the provision of sufficient potable water for human and animal consumption (priority), and water for industrial and agricultural uses as appropriate.
8.	Food and Relief Supplies	Assure the provision of basic food and other relief needs in the affected communities.
9.	Power	Provide the resources to reestablish normal power supplies and systems in affected communities.
10.	Public Health and sanitation (including First aid and all medical care)	Provide personnel and resources to address pressing public health problems and re-establishment normal health care systems.
11.	Animal Health and Welfare	Provision of health and other care to animals affected by a disaster.
12.	Shelter	Provide materials and supplies to ensure temporary shelter for disaster-affected populations
13.	Logistics	Provide Air, water and Land transport for evacuation and for the storage and delivery of relief supplies in coordination with other task forces and competent authorities.
14.	Survey (Damage Assessment)	Collect and analyses data on the impact of

		disaster, develop estimates of resource needs and relief plans, and compile reports on the disaster as required for District and State authorities and other parties as appropriate.
15.	Telecommunications	Coordinate and ensure operation of all communication systems (e.g., Radio, TV, Telephones, Wireless) required to support early warning or post disaster operations.
16.	Media (Public Information)	Provide liaison with and assistance to print and electronic media on early warning and post-disaster reporting concerning the disaster.

The specific response roles and responsibilities of the taskforces indicated above is that these roles and responsibilities will be executed and coordinated through the IRS/GS system. Task Force, Leader and supporting department details in response (INCIDENT RESPONSE SYSTEM)

The Composition of the Taskforces is given in the table below:

No.	Task Force	Task force Leader	Supporting members / Organizations/ Departments	Section / Unit
1.	Planning and Coordination	Collector	DDO, DSP, RAC, and Mamlatdar - DM	Planning
2.	Administration & Protocol	Resident Additional Collector	DDO, DSP, SDM - City and Mamlatdar - City	Liaison
3	Damage Assessment/ Survey	SDM	DIC, Dy. DDO, Ex. Engr., R&B, DAO, Fisheries	Logistics
4	Warning	Supt.Enr.For Floods & Cyclones Dy.DISH - For Chemical Disaster DSP - For Terrorist Attack	RAC, Factory Inspector , Mamlatdar - DM , Various Departmental Control Room, Member Secretary - OCR control room, District Information Officer (DIO), Police Dept., Irrigation Dept.	Operation
5	Communications	Resident Additional Collector	Factory Inspector ,Mamlatdar - DM ,	Logistics

			Various Departmental Control Room, OCR control room ,Dy. Mamlatdars, Mobile Operators, TV, Radio, Police, Forests	
6	Media	District Information Officer	Information Department, Print, Media, TV, Journalists, NGOs	Public Information
7	Logistics	DDO	RTO, DSO, Private & Public sector, Water supply board, Mamlatdar, Dist. Supply Mamlatdar	Logistics
8	Law & Order	SP	Dy. SP, SRP ,Home Guards Commandant, NGOs, Para-military and Armed Forces	Safety
9	Search & Rescue	Add. Collector & Dy. Controller- Civil Defense -	Dy. SP ,SFO , MAG members from OCR , Mamlatdar, TDO, Police, Executive Engr., RTO, State Transport, Health Dept., SRP, SDRF, NDRF , Army , Air Force.	Operation
10	Public Works	Supt. Engr. R&B (State / City) SE R&B (Panchayat) SE Irrigation	Ex. Engr - R&B (S/C/P) , Ex. Engr Irrigation (Circle/Panchayat), DFO ,NGOs, Water Supply Board, Municipalities, Home Guards, Police	Operation
11	Shelter	Dist. Pri. Edu. Officer Dist.Edu. Officer	Administrative officer- Edu.,Education	Operation

			Department , School Principal, Teachers, Health, PHC, State Transport, Water Supply, RTO, Mamlatdar, TDO , NGO , CBO.	
12	Water Supply	Ex. Engr. GWSSB Ex. Engr. Water Works	Dy. Ex. Engr., Mamlatdar, TDO, Health Dept, Dy. Engr. , Talati	Operation
13	Food & Relief Supplies	Dist. Supply Officer	RTO, GSRTC, Municipality, DRDA, Police, Home guard, FPS, PDS, Mamlatdar, NGO,CBO	Logistics
14	Power	Supt. Engr. GEB	Ex. Engr., Dy. Engr. Technical, GEB, Transport	Operation
15	Public Health & sanitation	RDD / CDHO	CDMO, Medical Supt. Civil Hospital, Medical Officer, PHCs, CHCS, Municipality, Red Cross, Fire Brigade ,Civil Defense, R&B, NGOs, Doctors, TDO, Mamlatdar	Operation
16	Animal Health & Welfare	Dy. Director Animal Husbandry	Veterinary Inspector, NGOs	Operations

7.2.1. Alert Mechanism

Warning, Relief and Recovery

Warning, Relief and Recovery actions are intended to eliminate the loss of life and property and hardship due to disasters. DM Plans and SOPs of different levels, sectors and departments have their own early warning mechanism and imply the same at the time of disaster, further planning for relief and recovery assistance to the affected people have been done during disaster to avoid or reduce losses and hardship.

In Panchmahal district the Collector/ DEOC is the focal point for early warning, relief and recovery aspect, who directs and coordinates these efforts within the district. Collector / DEOC coordinate in early warning, relief and recovery and share / report the steps taken in these regards with similar activities in neighboring districts and with the GSDMA and Revenue Department.

Early Warning Action Plan

The availability of early warning system is a must before early warning message could be disseminated to the people till the last mile. Thus, for every type of disaster there is an agency designated with the responsibility of keeping track of developments in respect of specific hazards and informing the designated authorities/agencies at the district level about the impending disaster. Nodal agencies for early warning of different natural hazards are:

Type of Action	Flood	Cyclone	Chemical and industrial accidents
Existing EWS	Irrigation department/ dam authority/ IMD ↓ Collector ↓ Mamlatdar/TDO ↓ Villages	IMD ↓ Collector ↓ Mamlatdar/ TDO ↓ Villages	Industrial Association/industries ↓ DCG ↓ LCG ↓ Mamlatdar
Responsible Agency For warning dissemination	Mamlatdar office/TDO	Mamlatdar office/TDO	Mamlatdar office/TDO
Trained personnel and operators available (Y/N)	Yes	Yes	Yes
Villages covered	All risk prone villages		
Villages/Habitat is not covered or difficult to access	Community in remote locations (fisher folk, salt pan workers, maldharis etc)		
Measures required to improve timeliness and outreach (For example, voice enabled SMS)	Contact of communities in remote locations (fisherfolk, saltpan workers, Maldharis etc)		

During and Post Disaster Advisory Action Plan:

Type of Hazard	Flood	Cyclone	Earthquake	Drought	Chemical and industrial accidents	Tsunami
Responsible Agency	Revenue & Panchayat offices					
Villages covered	All risk prone villages					
Villages/habitat on covered or difficult to access	communities in remote locations (fisher folk, salt pan workers, Maldharis etc)					
Measures required Outreach	Contact of communities in remote locations (fisher folk, salt pan workers, Maldharis etc)					

Details of Control Room telephone numbers functioning 24*7 365 days and during the monsoon with some key dignitaries' telephone numbers are as under.

The actual plans developed by prime and supporting departments/agencies/organizations for each disaster may result in a variation in the actual composition of each taskforce.

Once this DDMP is activated, these lead and supporting organizations create taskforces to accomplish the task as directed by the incident commander and appropriate section or unit leader. In addition, each taskforce leading organization will provide a report detailing activities undertaken and lessons learned during any disaster response operations. This report will be in addition to any purpose –specific reporting during the operation.

Emergency Communication Systems

Communication systems are very crucial for effective control of any disaster. The communication philosophy adopted by Disaster Management team during the disaster is as under:

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

Radio Communication

All the Control Rooms are equipped with handheld radios and all the task force leaders, and their teams have the handheld radio sets at their respective control rooms. The different user groups are operating at different frequency channels allotted to them for ease in communication in respective groups. At present, —Hand held radio sets are with the District Magistrate, DDO, DSP, fire Brigade and Forest department. If possible, Health Personnel may be given these sets later.

Telephones

Telephone facility is available with all the Control Rooms.

Alternate Communication System

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

Satellite Communication System

Satellite communication should be activated once all the communication systems fail. This facility is with DEOC. The Telecommunication Task Force Leader shall ensure that this facility is resumed on all such occasions.

Messengers

- Use of messengers as a last resort to carry handwritten messages to people concerned in dealing with the disaster.
- A dedicated vehicle shall be made available by the Transport Task Force Leader upon request.

Right use of Communication facility

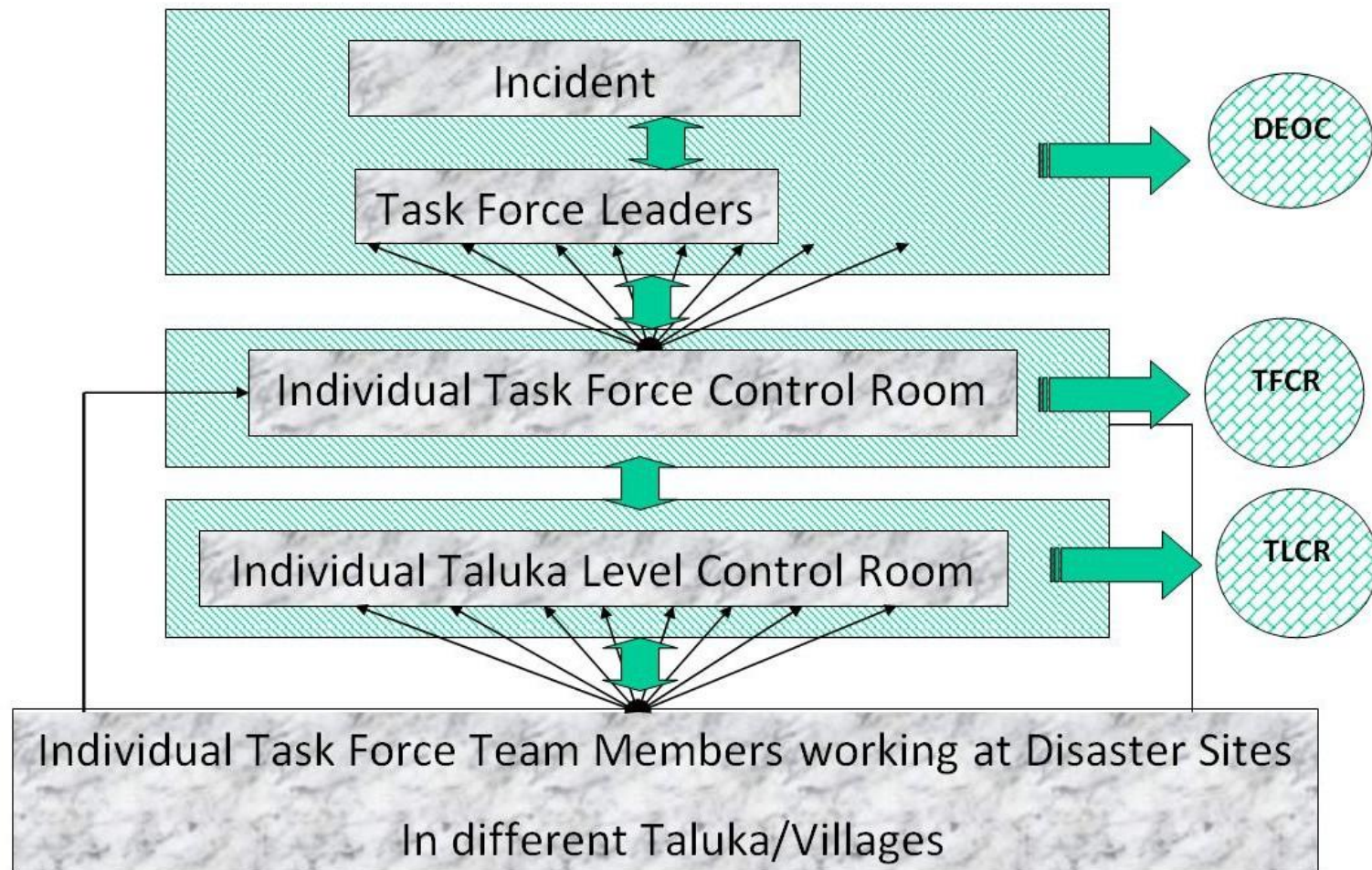
- The sense of urgency that everyone experiences during disaster may lead to a chaotic situation if communication systems are not properly used.
- Communication should be brief and simple.
- Telephones, Cell phones, Hot Lines shall be used whenever required.

The table below describes the taskforce action plans intended to identify key actions:

- Before a disaster
- At the time of warning
- As the disaster occurs and
- In periods from:
 - 12 to 48 hours
 - 48 to 72 hours
 - 72 hours and beyond after a disaster

The action plans serve as quick reference guide to individual task force members, as to what specific taskforces expect to be doing at specific stages before and after a disaster. This information will improve coordination between and between taskforces and with authorities outside Panchmahal district.

Communication Flow Chart during Disaster Management



7.2.2. TASKFORCE RESPONSE PLANNING

Emergency Support Functions

Coordination and Planning:

Coordinate early warning, Response and recovery operations.

Task Force Leader: Collector

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Establish a disaster management structure to the village level. (COLLECTOR, DDMC)	Links to State level and establishment of ICS structure.	On-going
Develop disaster plans at all levels down to the village level. (DDMC)		On-going
Hold regular meetings on disaster management including government, NGOs and private sectors. (DDMC)		Quarterly.
Continual training, including public awareness. (DDMC and Media Task Force).	Involvement of GSDMA	On-going.
Check warning, communications and other systems (DDMC), is including the use of drills.		On-going.
Warning		
Hold Crisis Management Committee (Collector)	Communications between Districts	On receipt of warning.

	and with State Control Room.	
Mobilize task forces at all levels (District, Taluka, village depending on disaster) (CMC, Telecommunications, Media Task Forces)	Communications systems and procedures.	As decided by CMC.
Disseminate Information (CMC, Media Task Force)		As decided.
Mobilize resources to be positioned near vulnerable points depending on type of disasters. (CMC)	Telecommunications systems, plans.	As decided.
Establish alternate communications system (Telecommunications Task Force)		As decided.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Disaster		
Start Search, Rescue and Evacuation activities. (CMC)	SAR Task Force operational.	Immediately
Begin Collecting Information on extent of damage and areas affected. (CMC)	Assessment teams have communications and transport.	Start in 4 hours.
Start plan development and provide instructions on where Task Forces should go and what they should do. (CMC, Collector)	Information on damage and areas affected.	Start in 4 hours.
Mobilize outside resources (CMC)	Information on damage and needs.	Start in 5 hours.
Provide Public Information (CMC, Media Task Force).		As early possible (or should be started in 6 hours).

12 Hours		
Begin regular reporting on actions taken and status by Task Forces. (Task Forces)	Operating communications system.	Start at 12 hours.
Reassess damage information, resources, needs and problems areas/activities. (CMC)		Start at 12 hours.
Begin rotation of staff (CMC)		Start at 12 hours.
Establish regular liaison with State Control Room. (DEOC)	Working communications systems.	Start at 12 hours.
Shift focus of efforts to relief. (CMC)		Open
Restore key infrastructure (CMC through Public Works and other Taskforces)		Before 48 hours.
48 hours		
Continue review and reassessment of operations (CMC)	Information on operations.	
Conduct broad damage assessment (CMC and Damage Assessment Task Force)		
Establish Temporary Rehabilitation Plan (CMC)		
Begin demobilization based on situation. (CMC)		
Focus on creating a sense of normalcy. (CMC)		Before 72 hours.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
72 hours		
Start Rehabilitation activities. (CMC)	Plan	
Conduct detailed survey of damage and needs. (CMC and Damage Assessment Task Force)		
Begin regular reporting on operations.	Information on operations.	As early as possible.

Restore all public and private sector services. (CMC)		As early as possible.
Lessons Learned meeting. (CMC and others)		After 2 weeks.
Final Report/Case Study (CMC)		After activities completed.

Warning:

Collection and dissemination of warnings of potential disasters.

Task Force Leader: Resident Additional Collector

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Verify communication and warning systems are functioning - drills		Every 15 days
Have warning messages prepared in advance.		
Warning		
Receive and dispatch warnings. (Task Force)	Coordinate with Telecommunications Task Force	As received.
Verify warnings received and understood. (Task Force)		Within 1-2 hours of dispatch.
Independently confirm warnings if possible (Task Force)		As time allows.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Evaluate expected disaster needs verses normal resources. (Task Force)		Completed in 8 days.
Estimate personnel and resources needed for disasters. (Task Force)	Based on standard for number of security personnel per population depending on severity of disaster.	Completed in one week.
Planning and coordination with Revenue Dept. (Task Force)		
Conduct drills, including public awareness generation. (Task Force)	Includes participation of Media Task Force	Every 45 days.
Warning		
Verify communications system. (Wireless Inspector)		1-2 hours of warning.
Alert police and other Task Force members. (Superintendent of Police)		1-2 hours of warning.
Implement duty distribution SOP for personnel and other resources. (Superintendent of Police)		1-2 hours of warning.
Develop preliminary estimate of requirements to support another Task Forces. (Superintendent of Police)		1-2 hours of warning.
Disaster		
Get orders on deploying personnel from Control Room. (Superintendent of Police)	Operating communications system.	Immediately
Determine status of staff and facilities. (Superintendent of Police)	Operating communications system.	1-2 hours of disaster.

Deploy additional staff. (Superintendent of Police)	Transport available.	2-3 hours of disaster.
Monitor resources. (Superintendent of Police)		1 hour of disaster

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Establish VVIP unit. (Superintendent of Police)		Immediately.
Request additional resources, if needed. (Superintendent of Police)	Operating communications system.	4 hours of disaster.
12 hours		
Institute regular reporting. (Task Force)	Operating communications systems.	At start of period.
Begin staff rotation. (Task Force)		At start of period.
Address crowd control problems. (Task Force)		As needed.
Implement anti-looting/anti-theft SOP. (Task Force)		As needed.
Establish rumor control. (Task Force)	Involves Collector, Media Task Force, NGOs, and local eminent persons.	As needed.
Provide information to public, e.g., road status. (Task Force)	Involves Control Room, Media Task Force, and Deputy Magistrate.	As needed.
48 hours		
Implement a Force Management Plan (increase, reduction, redeployment, of forces). (Superintendent of Police)		From start of period.
Plan for return to normal ((Superintendent of Police, Task Force, Control Room)		72 hours after the disaster.

Conduct Lessons Learned Session (Task Force with input from other parties.)		1 week after the disaster.
Final Report		2 weeks after the disaster.

Search and Rescue (including evacuation):

Provide human and material resources to support local evacuation, search and rescue efforts

Task Force Leader: Addl. Collector & Dy. Controller Civil Defense for city & Liaison officers - SDM for District Supportive Task

Force Leaders: DCP, Dy. SP, Chief Fire Officer, Member Secretary – OCR

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Risk assessment and vulnerability mapping. (Task Force)		Before warning.
Develop inventory of personnel and material resources. (Task Force)		Before warning.
Training. (Task Force)	Input and support from GSDMA	Before warning.
Establish public education program. (Task Force)	Media Task Force	
Establish adequate communications system. (Task Force)	Additional equipment required.	
Drills. (Task Force).		Before warning.
Establish transport arrangements for likely SAR operations. (Task Force)	With Logistics Task Force.	Before warning.
Develop Rescue SOP. (Task Force)		Before warning.
Warning		
Mobilize Task Force and SAR teams. (Task Force).		On warning.

Verify equipment is ready. (Task Force).		On team activation.
Confirm transport is ready. (Task Force)	Logistics Task Force.	On warning.
Undertake precautionary evacuation. (Task Force)	Logistics and Shelter Task Forces	As directed.
Re-deploy teams and resources, if safe. (Task Force)	Logistics Task Force	Based on conditions.
Start public awareness patrols. (Task Force)	Media, Law and Order and Logistics Task Forces.	As required.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Disaster		
Assure safety of staff.		Immediately.
Restore own communications. (Task Force)		Immediately.
Dispatch rescue/evacuation teams based on assessments. (Task Force)	Input from Control Room.	Immediately.
Call for additional resources if needed. (Task Force)	Communications systems in operation.	3-4 hours of disaster.
Provide reports on operations. (Task Force)		Starting at 3-4 hours.
Begin handling of deceased per SOP. (Task Force)	Various Revenue Officers and Police involved.	Starting at 3-4 hours.
12 Hours		
Begin staff rotation system. (Task Force).		Starter at 12 hours.

Begin specialized rescue (may begin earlier). (Task Force)	May require outside resources, coordination with Logistics Task Force.	Started at 12 hours.
Begin debris removal in cooperation with Public Works Task Force.	Focus on critical infrastructure. Liaison with Control Room.	Start at 12 hours.
Secure additional resources (e.g., fuel, personnel) for continued operations. (Task Force).		Start at 12 hours.
48 hours		
Demolish/Stabilize damaged buildings in cooperation with Public Works Task Force.	Logistics Task Force, workers, equipment.	Starting at 48 hours.
Demobilization, reconditioning, repair and replace equipment and other resources. (Task Force)		Based on nature of disaster.
Remain on stand-by for additional operations, particularly related to safety of recovery work. (Task Force).		As needed.
Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
72 hours		
Lessons Learned meeting. (Task Force and others)		After 2 weeks.
Final Report. (Task Force)		After major Activities completed.

Public Works:

Provide the personnel and resources needed to support local efforts to re-establish normally operating infrastructure.

Task Force Leader: Executive Engineer, Roads and Buildings

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Inventory of personnel, equipment and status of infrastructure. (Task force)	Link to DRM project data based development.	One week before warning.
Identify critical infrastructure. (Task Force)	Need to define what critical infrastructure is.	Before warning.
Identify alternate transport routes and publish map. (Task Force)		Before warning.
Plan for prioritized post-disaster inspection of infrastructure. (Task Force)		
Establish and maintain a resources and staffing plan. (Task Force)		
Plan to provide sanitation and other facilities for shelters. (Task Force)		
Warning		
Establish Control Room. (Task Force)		No later than 6 hours from warning.
Mobilize Task Force and personnel.	Requires communications.	No later than 6 hours from warning.
Liaise with District Control Room. (Task Force)		No later than 6 hours from warning.

Verify status and availability of equipment and re-deploy if appropriate and safe. (Task Force)	Coordination with Logistics Task Force and Control Room.	24 hours from warning.
Review plans. (Task Force)		No later than 6 hours from warning.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Disaster		
Begin damage assessment and inspections. (Task Force)	Coordination with Damage Assessment Task Force.	Within 12 hours of disaster.
Develop operations plan and communicate to Control Room.		Within 12 hours of disaster.
Mobilize and dispatch teams based on priorities. Teams will (1) repair, (2) replace, (3) Build temporary structures (For e.g., rest facilities, shelters).	Coordination with Logistics, Water, Power Task Forces and Control Room.	Within 12 hours of disaster.
Collaborate with other Task Forces.		Continuous.
12 Hours		
Begin staff rotation system and manpower planning. (Task Force).		Start at 12 hours.
Mobilize additional resources based on expected duration of operations. (Task Force).	Coordination with Logistics Task Force, Contractors. May need additional funding.	Start at 12 hours.

Assure safety. (Task Force)		Start at 12 hours.
Establish security arrangements. (Task Force)	Law and Order Task Force.	Start at 12 hours.
Provide public information on roads, access and infrastructure. (Media Task Force)	Coordination with Control Room	Start at 12 hours.
48 hours		
Start detailed survey. (Task Force)	In cooperation with Damage Assessment Task Force.	Starting at 48 hours.
Begin reporting on operations (Task Force)		Starting at 3 days.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Reconditioning, repair and replace equipment and other resources. (Task Force)		Based on nature of disaster.
Plan and start demobilization. (Task Force)		Starting at 3 days.
72 hours		
Develop a long-term restoration plan and start activities. (Task Force)		From 72 hours.
Lessons Learned meeting. (Task Force and others)		After 2 weeks.
Final Report. (Task Force)		After major activities completed.

Water Supply: Assure the provision of sufficient potable water for human and animal consumption (priority), and water for industrial and agricultural uses as appropriate.

Task Force Leader: Executive Engineer, Gujarat Water Supply and Sanitary Board

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Establish water availability, capacities, reliability and portability. (Task Force)	Standard of 20 liters of drinking water per person per day.	3 months before warning.
Plan for alternate water delivery and storage (Task Force)	May need tankers, tanks, generator set.	3 months before warning.
Secure new and additional equipment. (Task Force)	Requires funding.	
Secure extra stocks of chemicals, expendable supplies and equipment. (Task Force)	May require additional funding.	3 months before warning.
Open Water Control Room in Monsoon. (Task Force)		Done.
Warning		
Establish staff rotation and shift system. (Task Force)		No later than 24 hours from warning.
Provide public awareness on use of water. (Task Force)	Media Task Force.	No later than 24 hours from warning.
Provide instructions to government and private sectors on protection of water supplies. (Task Force)		No later than 24 hours from warning.
Mobilize Task Force members.		24 hours from warning.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Disaster		
Receive and respond to instructions from Control Room. (Task Force)		As received.
Monitor conditions of stocks and facilities. (Task Force)	Need for communications.	
Develop distribution plan. (Task Force)	Need information on needs and locations.	As requested by Control Room.
Order food packets and provide supplies as needed. (Task Force)	Coordination with Logistics Task Force.	Per distribution plan.
Establish relief supplies receptions centers. (Task Force)	Coordinate with Control Room and Logistics Task Force.	As required.
12 Hours		
Start distribution operations. (Task Force)	In coordination with Logistics and Shelter Task Forces.	At beginning of period.
Formalize reporting, communications and monitoring. (Task Force)		Completed by 48 hours.
Start staff rotation system. (Task Force)		At beginning of period.
Begin mobilizing and managing additional supplies.	Coordination with Logistics and, Control Room.	Underway in 48 hours.
Establish security for all sites. (Law and Order Task Force)		At beginning of period.
Begin public announcement of distribution plan and standards. (Media Task Force)		Underway in 48 hours.
48 Hours		
Shift to normal operations. (Task Force)		Within 1 week.
Reconcile receipts and distribution records. (Task Force)		Within 30 days.

Continue providing relief to special areas/populations. (Task Force)		For 15 days from the disaster
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Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
72 Hours		
Restore Public Distribution System. (Task Force)		From 1 week after the disaster.
Lessons Learned meeting.		Within 14 days of disaster.

Power:

Provide resources to re-establish normal power supplies and systems in affected communities

Task Force Leader: Superintending Engineer, Paschim Gujarat Vij Company Limited (MGVCL) / GEB

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster and Warning Phases		
Develop inventory of status of power system and resources. (MGVCL)		
Establish minimum stock levels and provide necessary additional stocks. (MGVCL)		

Conduct monthly meetings. (MGVCL)		On-going
Develop contact lists. (MGVCL)		
Conduct informal hazard and risk assessment. (MGVCL)		Completed.
Develop disaster plans. (MGVCL)		
Disaster		
Assess impact according to SOP. (MGVCL)	Coordinate with Control Room and Damage Assessment Task Force.	
Prioritize response actions. (MGVCL)	Need to establish priorities.	
Collect more information. (MGVCL)		
Mobilize additional resources. (MGVCL)	Coordination with Control Room and other Task Forces.	
Check for unforeseen contingencies.		
12 Hours		
Revise plans based on feedback and assessments. (MGVCL)		Continuous
Monitor status of actions. (MGVCL)		Continuous
Begin staff rotation plan. (MGVCL)		At beginning of period.
Disseminate public information. (Media Task Force)		At beginning of period.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Secure support for staff (food, lodging) from NGOs. (MGVCL)		
Assure security as needed. (Law and Order Task Force)	Coordinate with Control Room.	
Establish constant communications on needs, requirements and resources with Control Room and MGVCL/HQ.		

48 Hours		
Looking for improvements in effort. (MGVCL)		
Reinforce central coordination. (MGVCL)		
Conduct regular coordination meetings with other actors. (MGVCL)		
Begin formal documentation of efforts. (MGVCL)		
72 Hours		
Review shift plan for safety. (MGVCL)		
Plan for return to normal, including additional security if needed. (MGVCL)	Involvement of Law and Order Task Force.	

Public Health and Sanitation (including first aid and all medical care):

Provide personnel and resources to address pressing public health problems and re-establish normal health care systems.

Task Force Leader: Chief District Health Officer

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Time frame
Before a Disaster		
Develop inventory of personnel, resources and facilities. (Task Force)		1 week.
Training. (Task Force)	Coordination with GSDMA.	6 months.
Establish Control Room.		Continue.
Prepare for specific diseases by season (e.g., monsoon)		Continue.
Establish Epidemiological Reporting System (ERS). (Task Force)		Continue.
Identify disease vulnerable areas. (CDHO)		Continue.

Improve public awareness. (Media Task Force)		
Warning		
Send out warnings to health facilities. (Task Force)		As received.
Mobilize health teams to possible disaster areas. (Task Force)	In coordination with Control Room.	As needed.
Activate Task Force for whole district. (DHO)		On warning.
Disaster		
Begin first aid efforts. (Task Force)		Within 1 hour of disaster.
Establish status of health care system. (Task Force)	Requires communications.	Within 6 hours of disaster.
Begin referral of injured to upper-level facilities. (Task Force)		Within 1 hour of disaster.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Implement SOP for management of deceased. (Task Force)	Involves cooperation with Law and Order and SAR Task Force.	Within 1 hour of disaster.
Coordinate efforts with Control Room and other Task Forces.		Within 2-3 hours of disaster.
12 Hours		
Begin to call in outside resources. (Task Force)	Involves Telecommunications and Logistics Task Forces and Control Room.	Within 3 hours.

Establish temporary medical facilities where needed. (Task Force)	Coordination with Public Works, Power, Water, and Law and Order Task Forces.	Within 24 hours.
Expand surveillance of health status. (Task Force)		Within 24 hours.
Establish shift system for staff. (Task Force)		At beginning of period.
Visit and review health status in shelters. (Task Force)		Within 24 hours.
Develop health care system recovery plan. (Task Force)	In coordination with Control Room.	2-3 hours.
48 Hours		
Establish formal health care system reporting. (Task Force)		At beginning of period.
Start solid waste and vector control management SOP. (Task Force)		At beginning of period.
Start wastewater management SOP. (Task Force)		At beginning of period.
Focus health status surveillance on children 0 to 5 years.		Implements in one week.
Establish public awareness and IEC efforts. (Task Force and Media Task Force)		At beginning of period.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
72 Hours		
Develop demobilization plan.		By beginning of period.
Lessons Learned meeting.		Within 14 days of disaster.

Final Report		Within 14 days of disaster.
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Animal Health and Welfare

Provision of health and other care to animals affected by a disaster.

Task Force Leader: Deputy Director, Animal Husbandry

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Update animal list. List of staff & training for disposal of carcass. (Task Force)		Done.
Stock medical supplies and vaccines. (Task Force)		Done
Warning		
Alert staff (by phone). (Task Force)		As warnings received.
Distribute supplies to vulnerable areas. (Task Force)		During warning period.
Contact Control Room. (Task Force)		As required.
Disaster		
Remove and destroy carcasses. (Task Force)	Need fuel and logistics.	As soon as possible.
Treat injured animals. (Task Force)		As soon as possible.
Issue certification of death. (Task Force)	For insurance purposes.	Within 48 hours.
Call staff from other districts as needed. (Task Force)		As needed.

Assist local authorities in survey of damage and reconciliation of records.		As required.
48 Hours and Beyond		
Assist local authorities in providing fodder as needed.		As required.
Collect feedback. (Task Force)		
Final Report. (Task Force)		In 15 days.

Shelter

Provide materials and supplies to assure temporary shelter for disaster-affected populations.

Task Force Leader: District Primary Education Officer

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Develop shelter operating procedures. (Task Force)		
Develop inventory of shelters (location, capacity). (Task Force)	UNDP project inventory.	
Provide information to other Task Forces on location of shelters. (Task Force)	Logistics, Water, Power, SAR, Food/Relief Supplies Task Forces and Control Room	
Training for shelter managers. (Task Force)	Need training module.	
Warning		
Mobilize shelter managers. (Task Force)		Within 6 hours of warning.

Review shelter locations for operating status. (Task Force)	Communications needed.	Within 6 hours of warning.
Open shelters as instructed.	Coordination with Control Room.	Within 6 hours of warning.
Mobilize additional resources for shelters and camps. (Task Force)	Cooperation with Logistics, Food and Relief Supplies, Water and Power Task Forces.	Within 6 hours of warning.
Provide public announcements on locations and status of shelters. (Media Task Force)		Within 6 hours of warning.
Disaster		
Beginning logging-in of occupants. (Shelter managers).		Immediately.
Report on status of shelters. (Task Force)	To Control Room.	As needed.
Plan for prioritization of shelter use. (Task Force)	Coordination with evacuation operations and Control Room.	Immediately.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Coordinate with other Task Forces on water, power, food, health, security. (Task Forces)		Immediately.
Provide support and assistance to occupants. (Task Force)	Liaise with Animal Task Force on Management of animals and with Health Task Force on Health care.	
12 Hours		
Continue operations. (Task Force)		Continuously
Monitor shelter status and movement of people. (Task Force)		Continuously

Mobilize additional resources. (Task Force)	Coordinate with Control Room and Logistics Task Force.	Continuous.
48 Hours and Beyond		
Begin Demobilization as appropriate. (Task Force)		
Begin reconditioning/repairs to shelters. (Task Force)	In cooperation with Public Works Task Force.	As needed.
Lessons Learned session. (Task Force)	Involvement of other Task Forces and evacuees.	14 days after completion of operations.
Final Report. (Task Force)		1 month after completion of activities.

Logistics

Provide air, water and land transport for evacuation and for the storage and delivery of relief supplies in coordination with other Task Forces and competent authorities.

Task Force Leader: District Development Officer

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Conduct resource inventory (air/land/water transport and storage; inside and outside district.). (Task Force)		1 month.
Establish deployment requirements, procedures and alternative options.		1 month.

(Task Force)		
Conduct drills. (Task Force)		1 month.
Coordinate with other Task Forces.	Work though Control Room.	As needed.
Warning		
Alert and mobilize Task Force members. (Task Force)		Within 1 hour of receiving warning.
Mobilize transport and other resources for action on short notice depending on disaster expected. (Task Force)	Coordination with Control Room	Within 2-3 hours of warning.
Liaise with Control Room and SAR, Shelter and Food/Relief Supplies Task Forces.		Within 1 hour of receiving warning.
Review plan and determine if outside resources are needed. (Task Force)		Within 6 hours of receiving warning.
Plan for logistics based depending on nature of disaster. (Task Force)	Coordinate with Control Room and Food and Relief Supplies Task Force.	As needed.
Disaster		
Take action based on instruction from Control Room. (Task Force)		Within 2 hours of receiving warning.
Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Conduct resource inventory (air/land/water transport and storage; inside and outside district.). (Task Force)		1 month.

Establish deployment requirements, procedures and alternate options. (Task Force)		1 month.
Conduct drills. (Task Force)		1 month.
Coordinate with other Task Forces.	Work though Control Room.	As needed.
Warning		
Alert and mobilize Task Force members. (Task Force)		Within 1 hour of receiving warning.
Mobilize transport and other resources for action on short notice depending on disaster expected. (Task Force)	Coordination with Control Room	Within 2-3 hours of warning.
Liaise with Control Room and SAR, Shelter and Food/Relief Supplies Task Forces.		Within 1 hour of receiving warning.
Review plan and determine if outside resources are needed. (Task Force)		Within 6 hours of receiving warning.
Plan for logistics based depending on nature of disaster. (Task Force)	Coordinate with Control Room and Food and Relief Supplies Task Force.	As needed.
Disaster		
Take action based on instruction from Control Room. (Task Force)		Within 2 hours of receiving warning.

Telecommunications:

Coordinate and ensure operation of all communications systems (e.g., radio, TV, phones, wireless) required to support early warning or post-disaster operations.

Task Force Leader: Sub Divisional Engineer (MIS) – BSNL

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Develop telecommunications inventory and SOPs. (Task Force)	Telecommunications training.	
Coordinate with other Task Forces. (Task Force)		
Identify sites of vulnerable system components (e.g., switches). (Task Force)		
Ensure redundancy in communications systems. (Task Force)	May require close liaison with private sector providers.	
Training in communication skills and methods. (Task Force)		
Warning		
Verify communication systems are working. (Task Force)		Within 24 hours of warning.
Mobilize Task Force.		Within 24 hours of warning.
Repair down systems and establish alternate communications systems. (Task Force)	Coordinate with Control Room.	Within 24 hours of warning.
Mobilize resources. (Task Force)		Within 24 hours of warning.
Facilitate telecom demands of other Task Force members. (Task Force)		

Disaster		
Check status of communications systems. (Task Force)		In 2-3 hours.
Identify damage to systems. (Task Force)		First information available in 2-3 hours.

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Contact Control Room and other Task Forces on telecom needs. (Task Force)		In 2-3 hours.
Start repairs. (Task Force)		In 2 hours.
12 Hours		
Mobilize outside resources (may start earlier). (Task Force)		Continuous.
Complete plans for repairs and re-establishment of systems. (Task Force)	Coordinate with Control Room.	Continuous.
Liaise with Control Room and other Task Forces.		
Start shift system for staff. (Task Force)		At beginning of period.
48 Hours and Beyond		
Continue to assist other Task Forces. (Task Force)		
Continue repair work. (Task Force)		
Begin demobilization. (Task Force)		
Lessons Learned meeting.	Include Shelter, Food and Relief Supplies for meeting.	Within 14 days of disaster.
Final Report. (Task Force)	Involve other Task Forces.	Within one month of end of operations.

Media & information Management:

Taskforce Leader: Assistant Director - Information

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Coordination with various Print and TV Media	Disseminate the DRM Programme Activities	
Awareness Generation Programmes for Media	May have workshops and seminars	
Mass awareness for community	Large scale publicity for community awareness	
During Disaster		
Media Briefing Meeting	Timely Briefing of the situation	After every 4 hours
Supporting Incident commander and other leaders	Discuss current media briefing status in meetings	Every day
Ensure proper and correct coverage	Steps taken to minimize the rumors	As and when find required

7.2.3. Standard Operating Procedure and Roles and Responsibilities of Different Key Departments and Taskforces

The Present plan document identifies the roles and Responsibilities of the organization, in key identified sector. Taskforces have constituted for taking response measures in sectors. Action plans have been prepared for each taskforce which covers their roles & responsibilities in development of incident / emergency. It is expected that each taskforce shall develop standard operating procedures for specific disaster / emergency. District collector must ensure that all the members acquire knowledge and skills to perform their assigned roles.

A. DISTRICT MAGISTRATE & COLLECTOR

- Being chairperson and Incident commander of the district for Disaster Management, he will be in overall command & emergency action to control a kind of emergency effectively for the district.
- The Chairperson must perform the following role:
- Preparation and updating of District Disaster Management Plan for the District.
- To ensure that everyone can perform the role involved in emergency services effectively.
- To activate and maintain the District Control Room round the clock. To provide essential facilities with the district control room.
- To address emergencies and must declare the emergency, call and direct the emergency services to respond to the emergency by providing reinforcement and support by pooling the resources from the district and if required from the State.
- The arrangement for rescue, evacuation, shelter, food, water, clothing, and transportation to affected area, announcement to the public.
- To keep inform to the higher authority time to time to declare the withdrawal or termination of emergencies.
- Rehabilitation, Restoration, Cleaning, etc. on post emergency actions.
- To submit the reports on emergencies. To conduct the meetings.
- To conduct the mock drill.

B. DISTRICT DEVELOPMENT OFFICER

- Being a responsible person of Taluka / District the following actions are to be given prime importance for emergency purposes.
- To ensure the different authorities, agencies, organization people, as specified their role, should participate immediately during emergency in district pocket area.
- To advice and guide different panchayat department and local representatives for mitigate and preventives aspects of disaster management and coordinative approach at the time of emergency.
- To participate in the meeting, mock drill & training.
- To prepare own detailed action plan to ensure effective control on emergencies.
- To liaison & co-ordination with chairperson, Central Control Room, emergency services, organization, agencies, agencies person etc.
- To support all other duties as specified by District Collector.

C. POLICE DEPARTMENT

- Another authority who gets the first information on incident / accident is police department. The following actions are to be carried out by police department.
- To access the situation and report immediately.
- To maintain the law and order during the emergency to control the traffic and control the affected area.
- To protect the life of people, inside, outside as well as road movers.
- To protect the property & environment & public announcement.
- Evacuation, rehabilitation, shelter & transportation work during the emergency as per prevailing situation.
- To help & assist to make area clean, removing any structure and other similar work as required during actual emergency.
- To participate in the meetings & Mock Drill / Rehearsal & Training.
- To liaison with Central Control Room and other emergency services / organization / agencies.
- To prepare their own detailed action plan & to ensure the provisions to handle the emergency.

D. FIRE AND EMERGENCY SERVICES

- Most probably, the first information regarding any incident / event is received by the fire services. Thus, fire service being first informant must play the major role during the emergency.
- Inspection, survey & assess the situation where incident occur & give the report.
- To decide the proper & effective actions and immediate response actions to control the emergencies, under intimation to Central Control Room or Chairperson.
- Proper training to fight against different hazards
- Rescue, Evacuation, remove of debris, and other emergency work as directed or instructed.
- To maintain the proper and adequate firefighting, equipment, neutralizing media, self-breathing apparatus, emergency equipment, personnel protective equipment with keeping in working order.
- The knowledge & information on different types of alternative resources, various types of extinguishing media, neutralizing media, chemical properties and their hazards with safe handling procedure. To participate in the meetings Mock Drill / Rehearsal & training.
- To liaison with Central Control Room and other emergency services.
- To prepare their own detailed action plan & to ensure the provisions to handle the emergency.
- Other duties as required during actual emergencies.

E. HEALTH DEPARTMENT

- The health and medical services must play vital role following the emergency. One-fold is proper & timely treatment for the victims injured or affected persons. Other fold is to safeguard public health.
- To ensure the arrangement & preparedness for special medical treatment antidotes and trained doctor Para-medical staff as specified in toxicology at the time of industrial emergency in local pocket area.
- On declaration of emergency or on receiving the message or information, prompt medical facilities should be set up e.g. first aid post, casualty receiving center/ camp, as per gravity of situation at site. Similarly, arrangement for emergency operation or special treatment on chemical burn, injury, gas dispersion etc. with adequate arrangement, which will serve the purpose of Base Hospital.
- Identification of dead bodies and postmortem arrangement.
- To maintain up to-date list with telephone nos. of services of doctors, hospitals,
- Ambulance, primary health center, Para-medical staff, vehicle to meet the emergency.
- Arrangement to inform the up-to-date status from time to time to DEOC, Chairperson, and Relatives of injured or admitted patients, emergency services etc.
- Arrangement to safeguard the public health in case of development of epidemic situation & announcement on safety measure to be taken by public at the time of emergency.
- To advice & guide the different stakeholders in respect of medical & health part time to time.
- Provision for proper and adequate medicines, lifesaving drugs, equipment, antidotes etc. related to different hazards.
- To participate in meetings, mock drills / examine and training.
- To prepare own detailed action plan to ensure the effective handling of different kinds of emergencies.
- To liaison with DEOC, Chairperson, emergency services organization, agency and other related person.
- Other duties as required during actual emergencies.

F. RTO

- To respond to collector and police instructions in different kinds of emergencies
- To provide adequate requirements for both persons and material.
- To arrange for deployment of vehicles with full fuel levels.
- To streamline traffic flow and parking yard movement.
- To co-ordinate in deployment of vehicles, if required.
- To participate in meetings, mock drills & training.
- To prepare own detailed action plan to ensure effective handing at the time of actual emergency.

G. Civil Supplies Department

- To arrange to provide cooked food and clothing to evacuees and others involved in emergency controlling operation.
- To ensure availability of sufficient cooked food, water is ready for distributaries at various locations.
- To participate in the meeting, mock drills & training.
- To prepare own detailed action plan to ensure effective handling of emergencies.

H. Joint Director - Information

- The proper and correct news should be reach to the public to avoid rumors and panic. The role of District information officer is to create awareness and preparedness amongst the public for different hazards because of wide & fast spreading news.
- To participate in the meeting, mock drill / exercises and training.
- To assist the public in case of rescue operations and authentic news.
- To liaison & Co-ordination with Chairperson, Central Control Room and emergency services.
- Ensure to safeguard the public at large during actual emergencies by providing correct reliable authentic guidelines and news.

I. ELECTRICITY BOARD (MGVCL)

- To arrange for un-interrupted power supply, if needed.
- To arrange for lighting at temporary medical camps, rallying points and parking yards.
- To take care of electrical equipment within affected zone.
- Arrange for switching off power supply if requested by authority.
- To participate in the meeting, mock drills & training
- To prepare own detailed action plan to ensure effective handling of emergencies

J. Regional Officer (GPCB)

- To participate in the meetings, mock drill / exercises and training.
- To prepare own detailed action plan to ensure effective control of industrial emergencies & subsequent action.
- Liaison with central control Room, chairperson, Emergency Services, Organization agencies & other related persons.
- Advice & Guidance to the District Crisis Group in Respect of environment protection in the industrial pocket.
- To provide technical input regarding environment and evaluate the contamination or adverse effect during industrial emergencies.
- To provide details & information on development of emergency regarding in safe level to the life and suggest areas to be evacuated and other safety measures.
- To suggest a safe level for restoration & restarting of work on termination of emergency services & expert persons etc.
- Other duties or work as directed by District crisis group or chairperson.

K. Representative Form MAH Units

- The management of major accident hazardous unit must maintain updated onsite emergency plan with necessary details with accurate information and a correct assessment of the situation. The site main controller is responsible for providing immediately on occurrence of crisis at his unit with specific details, development and needed help from local crisis group & district crisis group. He will arrange & provide all the resources, equipments, manpower, and communication network from his own unit and co-ordinate with local crisis group & district crisis Group to combat the industrial emergency.

L. Role of other members of District Crisis Group

- The other members like controller of explosives, trade union representative, agriculture department, municipal commissioner and other government agencies, etc. have to perform the various duties. However, the following are the suggested duties as required during the emergency:
 - To participate in the meeting, mock drill / exercise and training.
 - To assist the public in proper way in case of rescue and evacuation during actual emergency.
 - To advice and guidance to the District crisis group & Chairperson.
 - To arrange and help the supporting actions and duties in respect of industrial emergencies
 - To provide more and adequate resources & various requirements to tackle the industrial emergency immediately.
 - Liaison & co-ordination with Central Control Room and emergency services.

M. Volunteer Organizations (N.G.O.)

- The voluntary organization / services can play vital role in relief & rescue operations like arrangement of food packets & packing up of the same, distribution of the food packets and water pouches, arrangements of life saving drugs & distribution of the same, can play a major role in awareness generation, to convince the person / public to evacuate the residence / place and to shift to safe shelter during emergencies. Otherwise, it may result more serious effect. To save the life of public is more important factor, which will be successfully carried out by the voluntary organization. The list of such organizations with address, telephone no. organization etc. will be prepared and up-to-dated time to time.

N. Railway Authority

- On getting information at the time of disaster from Central Control Room, the Divisional Manager, western Railway, will take following actions:
 - To issue the standing instruction to all railway gates to take actions on receiving the message from the Station Master.
 - To decide authority level of railway staff to take actions.
 - To carry out evacuation by railway, if required.
 - To take care of floating population at railway stations and on-board travelers.
 - To issue the standing instruction to station master's on up and down railway stations to stop the train as soon as emergency message is received from DEOC and CCR.

O. Irrigation Department

- Play vital role in pre, during and post form of emergencies particularly in floods.
- Proper management of dams, irrigation canals, ponds and timely maintenance of the same.
- Inform DEOC and respective stakeholders in case of water release from the dams.
- Start their control room at the time of monsoon.
- Follow the instructions mentioned with the Flood memorandum.
- To participate in the meetings, mock drill / exercises and training.
- To prepare own detailed action plan to ensure the effective handling of different kinds of emergencies.
- Liaison with DEOC, Chairperson, emergency services organization, agency and other related person.
- Other duties as required during actual emergency.

P. R&B Department

- To play vital role in pre, during and post form of emergencies.
- Proper management of roads and buildings and timely maintenance of the same.
- Inform DEOC and respective stake holders 'diversion of routes, closing status of the roads etc.
- Ensure safety terms while establishing or developing bridges, dams, roads, buildings etc.
- To participate in the meetings, mock drill / exercises and training.
- To prepare own detailed action plan to ensure the effective handling of different kinds of emergencies.
- Liaison with DEOC, Chairperson, emergency services organization, agency and other related person.
- Other duties as required during actual emergency.

Emergency Response Functions:

In developing an effective response plan, it is imperative to identify key response functions, assign specific tasks to relevant agencies, and determine the necessary equipment, supplies, and personnel. These response functions encompass a range of activities including evacuation, search and rescue operations, cordoning off affected areas, traffic management, maintaining law and order, implementing safety measures, managing the disposal of deceased individuals, and handling carcass disposal. By outlining these functions, the response plan delineates strategies and resource requirements for executing tasks such as evacuation, search and rescue operations, and other critical response activities.

Evacuation:

During emergencies, local authorities frequently establish public shelters in various community facilities such as schools, municipal buildings, and places of worship. These shelters typically offer essential amenities including water, food, medicine, and basic sanitary facilities to those seeking refuge.

Search and Rescue:

At the district level, the District Collector promptly communicates any required assistance during disasters to various departments. Additionally, the District Collector may engage support from local NGOs and other relevant agencies within the district. If the magnitude of the disaster surpasses the district's capacity to manage, the District Collector has the authority to request assistance from defense and paramilitary forces.

Cordoning the area:

The Sub-Divisional Magistrate (SDM) and the Police department are responsible for establishing cordons around affected areas to restrict entry of rail or road traffic. They will direct the setting up of check posts to control entry and exit points. The Deputy Superintendent of Police (DSP) will issue instructions for cordoning off the area, ensuring that people are not permitted access to the vicinity of the disaster site.

Traffic control:

The Superintendent of Police is tasked with coordinating traffic control and arrangements for traffic flow toward areas affected by the disaster. The Traffic Cell is also responsible for facilitating ground transportation of personnel, supplies, and equipment, as well as implementing alternate routes to expedite the reopening of roads to traffic as soon as possible.

Law & order and safety measures:

The Collector's office and the Superintendent of Police (SP) office are jointly responsible for upholding all laws and ensuring orderliness in the area affected by the incident. Within this framework, the law-and-order section includes a dedicated task force equipped to manage disasters with stringent safety protocols in place. This task force is tasked with maintaining law and order, preventing theft in disaster-affected areas, and coordinating search and rescue operations. Additionally, it is responsible for ensuring security at relief camps and storage facilities for relief materials. Furthermore, the task force oversees the maintenance of law and order during the distribution of relief materials.

Dead body disposal:

Health Department will promptly initiate the post-mortem procedure for deceased individuals in accordance with established protocols. Measures for the disposal of bodies will be implemented to mitigate the risk of epidemic outbreaks. Additionally, arrangements will be made to issue death certificates to the relatives of the deceased.

Carcass disposal:

Animal Husbandry Departments are equipped with necessary tools and equipment to handle the disposal of carcasses in areas affected by disasters. This is aimed at facilitating the restoration of normalcy in public life and ensuring effective and efficient outcomes.

Humanitarian Relief and Assistance:

The Indian government employs the terms "humanitarian assistance" or "disaster relief" to address the human suffering caused by natural disasters such as cyclones, droughts, earthquakes, or floods. These initiatives are deeply rooted in Indian spiritual and cultural values, with Hinduism, Buddhism, Islam, and Sikhism all emphasizing solidarity with the suffering and selfless giving. The concept of "daan" in Hinduism underscores the altruistic nature of giving, as reflected in the Bhagavad Gita's teachings advocating charity without any ulterior motives. These spiritual traditions profoundly influence the humanitarian inclinations of Indian policymakers, who view

humanitarian assistance as an expression of sympathy towards the disaster affected. Given India's rich cultural heritage of philanthropy, relief efforts by the government enjoy widespread support among the populace.

During disaster events, UN agencies and international NGOs operating in the country are permitted to provide humanitarian assistance to affected individuals, subject to coordination with relevant Ministries/Departments and the State Government as per existing protocols. Guidelines outlined by the International Federation of Red Cross and Red Crescent Societies (IFRC) on international humanitarian assistance serve as the benchmark for facilitating external aid. External assistance is administered responsibly and in a coordinated manner to minimize strain on local resources and uphold quality and accountability standards.

In the event of a large-scale emergency, the Collector will establish relief coordination centers at strategic locations such as airports and railway stations to facilitate the arrival of Search & Rescue and Medical Teams offering humanitarian aid.

Development of SOPs/Checklists/formats related to ESFs etc.

The development of Standard Operating Procedures (SOPs), checklists, and formats related to Emergency Support Functions (ESFs) is essential for ensuring efficient and coordinated response efforts during emergencies or disasters. These documents outline step-by-step procedures, protocols, and guidelines for various emergency scenarios, covering aspects such as communication, resource management, decision-making, and coordination among response agencies and stakeholders. By standardizing procedures and providing clear instructions, SOPs and checklists help ensure consistency, clarity, and effectiveness in response operations, enabling responders to quickly and effectively address emergent situations and mitigate their impact on communities.

7.3. Warning and alert

Upon receiving a warning or alert from an authorized agency capable of issuing such notifications, or upon confirmation from the District Collector regarding the onset of a disaster, the response mechanism of the State Government is promptly activated. This activation marks the initiation of coordinated efforts to address the emergencies. At the helm of this response structure stands the Chief Secretary or Relief Commissioner, who assumes the pivotal role of Chief of Operations during the emergency period. Entrusted with the responsibility of overseeing and directing response activities, the Chief of Operations plays a central role in orchestrating the state's efforts to mitigate the impact of the disaster and ensure the safety and well-being of its populace.

Under the leadership of the Chief of Operations, the state's response structure swings into action, marshaling resources, personnel, and expertise to effectively address the unfolding crisis. This entails the mobilization of various governmental agencies, departments, and emergency services, each tasked with specific roles and responsibilities tailored to the nature and scale of the disaster at hand. By centralizing command and coordination under the auspices of the Chief of Operations, the state endeavors to streamline decision-making processes, optimize resource allocation, and foster a cohesive and integrated approach to disaster response.

The activation of the state response structure underscores the government's commitment to swift and decisive action in times of crisis, prioritizing the protection of lives, property, and critical infrastructure. By designating a Chief of Operations to spearhead response efforts, the state aims to ensure effective leadership, accountability, and coordination throughout all phases of the

emergency response. This proactive and organized approach not only enhances the state's capacity to manage disasters but also instills confidence among the populace, reassuring them of the government's readiness and capability to confront and overcome adversity.

Below are the specific details of agencies authorized to issue warnings or alerts regarding different types of disasters:

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

7.3.1. Early Warning Systems: Two way communication system between village and district

Early Warning Systems (EWS) are vital in disaster management, ensuring timely communication and response to potential threats. Establishing a two-way communication system between villages and district authorities strengthens the effectiveness of EWS. This system enables both parties to exchange crucial information, such as imminent hazards, evacuation notices, or resource needs. Villages can relay local observations and concerns to district authorities, while districts can disseminate alerts, guidance, and assistance back to the villages. This bidirectional flow of information enhances coordination, improves community resilience, and facilitates swift action to mitigate disaster impacts.

7.3.2. Warning dissemination: Arrangements for dissemination to the last person DDMA to translate the alert warning to simple language and disseminate the same through various media.

In the process of warning dissemination, the District Disaster Management Authority (DDMA) plays a crucial role in ensuring that alerts reach every individual, including those in remote areas. To achieve this, DDMA should have mechanisms in place to translate complex alerts into simple language, making them easily understandable to the general population. Various media channels such as radio, television, SMS alerts, social media, and community loudspeakers can be utilized for dissemination.

Moreover, the DDMA should also have procedures in place for the withdrawal of warnings once the threat has passed or diminished. This ensures that people do not panic unnecessarily and can resume normal activities safely. By centralizing both the dissemination and withdrawal processes under the DDMA's authority, coordination and consistency are maintained, enhancing the effectiveness of the warning system and ultimately improving community resilience to disasters.

7.4. District CMG meeting

The Collector and District Magistrate (DM) are tasked with convening regular Crisis Management Group (CMG) meetings on disaster management, facilitating collaboration among government entities, non-governmental organizations (NGOs), and private sectors. The CMG Committee has conducted numerous meetings, engaging in in-depth discussions and interactions

with crisis management members and stakeholders.

7.5. Activation of EOC

In disaster response operations, the District Emergency Operation Centre (EOC) assumes a pivotal role, operating under the authoritative command and control of the District Collector. Functioning as a central hub, the EOC serves as the primary point for gathering, processing, and decision-making regarding disaster management strategies. Within this control room, a significant portion of strategic decisions is made, leveraging information gathered and processed to effectively combat the unfolding disaster. At the helm of the District Control Room sits the Incident Commander, who oversees emergency operations in accordance with the Incident Command System organizational structure, ensuring a coordinated and efficient response effort.

The operational functionality of the Emergency Operation Centre (EOC) extends throughout the year, with the District EOC headquarters at the collector's office, maintaining round-the-clock operations, 24 hours a day, 7 days a week, 365 days a year. Staffing for the EOC is facilitated through the deployment of personnel from local government offices, ensuring continuous coverage across three shifts of 8 hours each. During the monsoon season, additional focus is placed on preparedness and response efforts, with control rooms of line departments and Taluka EOCs becoming active from June 1st to November 30th. These entities play a crucial role in coordinating resources and disseminating instructions received from the District EOC, thereby enhancing the overall effectiveness of disaster response activities.

Moreover, the Liaison Officers appointed for respective Talukas assume responsibility for overseeing the functioning of Control Rooms at the Taluka level. Charged with coordinating between task group members operating at disaster sites and the Taluka EOC, these officers play a critical role in resource mobilization and the dissemination of vital instructions received from higher-level command centers. Through this decentralized yet interconnected network of control rooms and liaison officers, the disaster response apparatus is equipped to swiftly mobilize resources, coordinate response efforts, and effectively manage crises as they unfold, ensuring the safety and well-being of communities affected by disasters.

7.6. Resource mobilization

Resource mobilization is a critical aspect of response and relief measures during emergencies or disasters. It involves the efficient allocation and utilization of various resources to address the needs of affected individuals and communities.

In the context of response and relief measures, resource mobilization encompasses several key steps:

- ❖ **Assessment and Identification:** The first step is to assess the extent and nature of the disaster to determine the specific needs of the affected population. This includes identifying the types of resources required, such as food, water, shelter, medical supplies, and personnel.
- ❖ **Coordination:** Effective coordination among government agencies, non-governmental organizations (NGOs), international organizations, and other stakeholders is essential for successful resource mobilization. This ensures that resources are allocated efficiently and duplication of efforts is minimized.
- ❖ **Donations and Contributions:** Governments, NGOs, businesses, and individuals may contribute resources, including financial donations, goods, and services, to support relief efforts. Resource mobilization efforts often involve launching fundraising campaigns and appeals to encourage donations from the public and private sectors.

- ❖ **Logistics and Distribution:** Once resources are mobilized, logistics and distribution networks must be established to transport supplies to affected areas and distribute them to those in need. This requires careful planning to ensure that resources reach the right locations in a timely manner.
- ❖ **Volunteer Management:** Volunteers play a crucial role in response and relief efforts, providing support in various areas such as distribution, shelter management, medical assistance, and psychosocial support. Mobilizing and coordinating volunteers effectively is essential for maximizing their impact.
- ❖ **Monitoring and Evaluation:** Throughout the response and relief process, monitoring and evaluation mechanisms should be in place to assess the effectiveness of resource mobilization efforts, identify any gaps or challenges, and make necessary adjustments to improve the overall response.

By following these steps and adopting a coordinated approach to resource mobilization, responders can ensure that adequate support is provided to those affected by disasters, helping to mitigate the impact and facilitate recovery efforts.

In the event of a crisis, Taluka authorities will make every effort to manage the situation using the resources available within their locality. However, if they determine that the situation exceeds their capacity to control and necessitate district-level assistance, they will escalate the matter to their superiors or convene a meeting of the Disaster Management Committee. This proactive approach ensures swift response and coordination, leveraging hierarchical structures to effectively address escalating emergencies.

Utilizing online Spatial Data and Resource Network (SDRN) computerized systems and web-based IT solutions, resource mobilization and deployment of trained personnel can be optimized. This decentralized system offers numerous benefits, including easy access to resources and plans at all administrative levels, minimizing redundancy and saving valuable time. Furthermore, the generation of visual data reports facilitates gap analysis, enabling informed decision-making and efficient resource allocation to address emergent needs promptly.

By harnessing the capabilities of online SDRN technology, authorities can streamline disaster response efforts, maximizing the utilization of available resources and enhancing coordination across administrative levels. This integrated approach not only fosters agility and responsiveness but also enables data-driven decision-making, ensuring a more effective and coordinated response to crises as they unfold.

7.7. Seeking external help for assistance

If external assistance or resources are deemed necessary, the Taluka Emergency Operations Center (TEOC) will communicate with the District Emergency Operations Center (DEOC) to relay this assessment. Subsequently, the District Collector will evaluate the urgency of the situation and determine whether assistance from entities outside the district is warranted, particularly for addressing immediate priorities. Should external aid be deemed essential, the District Collector will initiate coordination efforts with state, national, and international agencies to mobilize additional resources. This entails planning to facilitate the provision of external assistance, ensuring that the necessary support is effectively deployed to manage the disaster situation.

7.8. First assessment report

DEOC instructs Quick Assessment Task Force to submit preliminary need and loss assessment

report on the affected areas. Quick assessment Team will submit First Assessment Report to District Collector duly signed by Taluka Liaison Officer. DEOC will collect preliminary first assessment report from the onsite EOCs and submits district's compiled report to State EOC. To make a first assessment report of damage, the assessment report will contain the following basic elements or activities.

- Human and material damage
- Resource availability and local response capacity
- Options for relief assistance and recovery
- Needs for national / international assistance

7.9. Media management / coordination / information dissemination

Effective media management, coordination, and information dissemination are crucial components of response and relief measures during a disaster. These aspects play a vital role in ensuring that accurate and timely information reaches the affected population, stakeholders, and the broader public. By reframing the issue, we can emphasize its significance and the strategies employed to address it.

During response and relief operations, the management of media engagement, coordination efforts, and the dissemination of information are paramount. This involves orchestrating communication channels to relay critical updates, safety instructions, and relief efforts to impact communities and relevant stakeholders swiftly and accurately. By effectively managing media interactions, coordinating messaging across various platforms, and disseminating information promptly, response and relief agencies can enhance public awareness, facilitate coordinated actions, and foster trust and transparency amidst challenging circumstances.

Media management:

In times of emergencies, the role of both print and electronic media becomes indispensable in disseminating vital information to both the public and authorities. Media serves as a crucial conduit for raising public awareness and preparation by educating individuals about potential disasters, issuing hazard warnings, and transmitting real-time updates about affected areas. Moreover, media plays a pivotal role in alerting government officials and relief organizations to specific needs, facilitating coordination and response efforts.

The Collector's office has established an effective collaboration system with the media to ensure timely and accurate communication during emergencies. Both print and electronic media outlets are regularly briefed at predetermined intervals, providing them with up-to-date information about unfolding events and the current situation on the ground. Similarly, a parallel setup operates at the Taluka Control room in the Mamlatdar office, ensuring seamless coordination and communication with the media at the local level. This proactive approach not only enhances public awareness and preparedness but also fosters transparency, trust, and effective coordination among all stakeholders involved in emergency response and relief efforts.

Information dissemination and Coordination:

During emergencies, the dissemination of information is a primary responsibility entrusted to the Information Department, working in coordination with the District Emergency Operations Center (DEOC), Revenue Office, and District Panchayat offices. The Information Department assumes a pivotal role in ensuring efficient communication and coordination during crisis situations. Its functions during emergencies include:

1. Collect correct information from authorities onsite.
2. Keep the list of persons rescued with full details.
3. Keeps the list of persons missing.
4. Keep the no. of dead bodies and the locations they have been kept.
5. Keep track of which team is positioned with location.
6. Make use of the public address system to call anyone.
7. Schedule working in short duration Evacuation & Shelter.
8. Establish Press Centre for media management and information dissemination
9. Ensure that the information to media/public about the response of the State Government is released in an organized manner.
10. Organize media briefing twice a day at predetermined intervals.

7.10. Reporting

The occurrence of a disaster is promptly communicated to the District Collector by the relevant monitoring authority using the most expedient means available. Upon receiving reports from the District Collector regarding the disaster, the state government activates its response structure without delay.

Information management:

The control room serves as a pivotal hub in disaster management, responsible for gathering and disseminating vital information to relevant stakeholders. Equipped with state-of-the-art telecommunication facilities, the control room ensures efficient communication during emergencies. It houses essential district administration data, facilitating quick access to critical information in times of crisis. Linked with various line departments, the collectorate, NGOs, police control room, and block control room, the control room establishes a comprehensive network connecting village task forces and irrigation control rooms. Under the supervision of the Collector, the control room regulates the flow of information within the district and liaises with state authorities to coordinate response efforts effectively.

Situation reports:

All situation reports received at the Sub-Divisional Magistrate (SDM) or District Emergency Operations Center (DEOC) will be promptly communicated to the designated Nodal Officer. Based on the available information, if deemed necessary, the Nodal Officer will activate the DEOC in emergency mode. The Resident Additional Collector is responsible for reporting

emergencies to the Collector, Relief Commissioner, Gujarat State Disaster Management Authority (GSDMA), and State Emergency Operations Center (SEOC) upon receiving reports through Taluka Control rooms. DEOC will ensure continuous reporting of pre- and post-disaster activities to SEOC and GSDMA.

Village Talatis are tasked with submitting immediate situation/action taken reports to the Mamlatdar and Taluka Development Officer (TDO). Mamlatdars, TDOs, and Chief Officers are responsible for communicating immediate emergencies and updated situations to Liaison Officers, SDMs, and Resident Additional Collector. Detailed reports must be submitted to DEOC promptly.

Reports regarding death, casualties, emergencies, and primary situations are to be submitted immediately with top priority using the Primary Situation Report format developed by SEOC. Additionally, Taluka Mamlatdars and District Panchayats must submit ABCD and MHA reports along with detailed emergency updates daily to DEOC. Compiled reports should be forwarded to SEOC in a timely manner.

Media release:

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

7.11. Demobilization and winding up

A comprehensive emergency plan encompasses specific procedures for demobilization and post-incident review. These guidelines offer structured and agreed-upon protocols to facilitate an organized and expedited return to normal operating conditions. By effectively demobilizing response resources in a timely manner, costs are minimized, and the transition back to standard operations is streamlined.

Issues to consider for demobilization include:

- a) Do not release or demobilize response resources unless approved by the On-Scene Incident Commander,
- b) Assign personnel to identify surplus resources and probable resource release times,
- c) Establish demobilization priorities
- d) If necessary, develop a Disposal Plan for the disposal of hazardous materials or wastes, as necessary and.
- e) Plan for equipment repair and maintenance services, as necessary.

Documentation:

Effective documentation of an emergency incident is a vital component of any emergency plan. While the specifics of documentation will depend on the incident, the following topics

can offer guidance on essential information to be documented:

- Date and location of the incident.
- Evaluation of any evacuation procedures implemented, including the duration required to evacuate all personnel.
- Assessment of the effectiveness of communication methods utilized during the incident.
- Review of on-site equipment to determine if it meets the needs of the situation. If additional equipment is necessary, document what was brought to the site.
- Examination of any assistance provided by local jurisdictions in the emergency response, along with any suggestions offered for improvement.

Success stories:

Developing a success story requires the right questions, through the eyes of an individual or several individuals, of positive impact. The key questions and steps are as follows.

1. Provide Background Information,
2. Describe the activity,
3. Give Details of What Happened in the Activity,
4. Give the Results Achieved because of the Activity,
5. Give a Quote from the Participant,
6. 6. Labeling Pictures and Writing Captions.

Lessons for future:

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

Chapter 8

Reconstruction, Rehabilitation and Recovery Measures

8.1. General Policy Guidelines

Reconstruction, rehabilitation, and recovery measures are integral components of a district disaster management plan due to their crucial role in restoring communities and infrastructure post-disaster. These measures address immediate needs such as shelter, healthcare, and livelihoods, while also focusing on long-term resilience-building efforts. By prioritizing reconstruction and rehabilitation, the plan aims to mitigate the socio-economic impacts of disasters, foster community resilience, and facilitate the recovery process, ultimately ensuring the sustainable development and well-being of affected populations.

Reconstruction, rehabilitation, and recovery measures are crucial components of DDMP, aimed at restoring normalcy and improving resilience in the aftermath of a disaster. Here are some key elements that are typically included in such plans:

- **Damage Assessment:** Conducting comprehensive assessments to evaluate the extent of damage caused by the disaster to infrastructure, homes, livelihoods, and the environment.
- **Priority Setting:** Prioritizing areas and sectors for reconstruction and rehabilitation based on the severity of damage and the needs of the affected population.
- **Infrastructure Restoration:** Repairing or rebuilding critical infrastructure such as roads, bridges, schools, hospitals, water supply systems, and electricity networks to ensure essential services are restored.
- **Housing Reconstruction:** Providing temporary shelter and long-term housing solutions for displaced families, including rebuilding or repairing damaged homes.
- **Livelihood Support:** Implementing programs to support the restoration of livelihoods for affected communities, including agriculture, fisheries, small businesses, and employment generation initiatives.
- **Social Welfare Services:** Ensuring access to healthcare, education, social protection, and psychosocial support services for vulnerable populations, including women, children, elderly, and persons with disabilities.
- **Environmental Restoration:** Undertaking measures to mitigate environmental damage and promote sustainable recovery, including reforestation, watershed management, and waste management initiatives.
- **Community Engagement and Participation:** Involving affected communities in decision-making processes, planning, and implementation of reconstruction and recovery efforts to ensure their needs and priorities are addressed.
- **Capacity Building:** Building the capacity of local authorities, government agencies, and community-based organizations to effectively coordinate and implement reconstruction and recovery programs.
- **Risk Reduction Measures:** Integrating disaster risk reduction measures into reconstruction and recovery activities to enhance resilience and reduce the likelihood of similar disasters in the future.
- **Monitoring and Evaluation:** Establishing mechanisms for monitoring progress, evaluating the effectiveness of interventions, and adapting strategies as needed to achieve sustainable recovery outcomes.

- **Coordination and Collaboration:** Facilitating coordination and collaboration among government agencies, humanitarian organizations, private sector partners, and other stakeholders involved in reconstruction and recovery efforts.

These measures are typically outlined in detail in the district disaster management plan, which serves as a roadmap for guiding post-disaster recovery efforts and building resilience against future disasters.

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 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 neighborhood. Systems for providing psycho-social support and trauma counselling need to be developed for implementation during reconstruction and recovery phase.
- Section 9.2.1 of NPDM states that - Reconstruction plans and designing of houses need to be a participatory process involving the government, affected community, NGOs and the corporate sector. After the planning process is over, while owner driven construction is a preferred option, contribution of the NGOs and corporate sector will be encouraged. Reconstruction programme will be within the confines and qualitative specifications laid down by the Government.
- Section 9.3.1 states - Essential services, social infrastructure and intermediate shelters/camps will be established in the shortest possible time. For permanent reconstruction, ideally, the work including the construction of houses must be completed within two to three years. Concerned Central Ministries/Departments and the State Governments should create dedicated project teams to speed up the reconstruction process.
- Section 9.3.2 of NDMP states - that - Contingency plans for reconstruction in highly disaster prone areas need to be drawn out during the period of normalcy, which may include architectural and structural designs in consultation with the various stakeholders.
- As per the section 9.5.1 of NPDM – the State governments will have to lay emphasis on the restoration of permanent livelihood of those affected by disasters and special attention to the needs of women-headed households, artisans, farmers and people belonging to marginalized and vulnerable sections.

Some perceive disaster recovery as a battle against nature to regain control and restore order in a community. However, this viewpoint overlooks the complex nature of the recovery process. In reality, disaster recovery is not a neatly defined sequence of actions set in motion by the

disaster's impact. Instead, it comprises a series of interconnected activities that unfold before, during, and after the catastrophic event. These activities encompass a wide range of efforts, including preparation, response, rehabilitation, and reconstruction. They involve multiple stakeholders and often unfold in an unpredictable and dynamic manner, shaped by various factors such as resources, infrastructure, and community resilience. Thus, understanding disaster recovery as a multifaceted and evolving process is essential for effective planning and response efforts.

- Warning and Public Information
- Evacuation and Shelter
- Search and Rescue
- Damage Assessment
- Debris Clearance, Removal and Disposal
- Utilities and Communications Restoration
- Re-establishment of major transport linkages
- Temporary housing
- Financial management
- Economic impact analysis
- Detailed building inspections
- Re-development planning
- Environmental Impact Assessment
- Demolition
- Reconstruction
- Hazard mitigation; and
- Preparation for the next disaster.

8.2. Detailed damage and loss assessment

Detailed damage and loss assessment is a critical step in disaster response and recovery efforts, aiming to quantify the extent of destruction caused by the disaster. This assessment involves thorough surveys and data collection to determine the impact on infrastructure, buildings, livelihoods, and the environment. By analyzing the extent of damage and loss, authorities can prioritize resources, allocate funding, and plan appropriate interventions for reconstruction and recovery. Additionally, detailed assessments help in understanding the needs of affected communities and tailoring support mechanisms, accordingly, ensuring a more efficient and targeted response to the disaster's aftermath.

8.3. Restoration of basic infrastructure, essential service as per the relief code of the State /District and livelihoods

The restoration of basic infrastructure and essential services, as outlined in the relief code of the State/District, is crucial for facilitating the recovery process after a disaster. This involves repairing or rebuilding critical infrastructure such as roads, bridges, water supply systems, and electricity networks to ensure the resumption of essential services. Additionally, supporting the restoration of livelihoods, including agriculture, fisheries, and small businesses, is vital for economic recovery and the well-being of affected communities. By prioritizing these efforts in accordance with established guidelines, authorities can effectively address immediate needs and contribute to the long-term resilience of the region.

Restoration of Basic Infrastructure

The restoration of basic infrastructure is to put the most essential infrastructure back in place after the disaster.

I. Roads and Bridges

This covers construction of all critical roads and bridges necessary to provide connectivity with immediate effect. It can be National Highway or village roads to link with main roads and health centers, or construction/restoration of bridges that can be the only point of accessing Talukas & villages. Responsible Department: R & B (State & Panchayat)

II. 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. Responsible Department: Electricity Department & Water supply Department

III. Electricity

Restoration of power supply is also critical to immediate recovery. Responsible Department: Electricity Department

IV. Communication Network:

In times of disasters, communication networks may be disrupted. The networks of mobile services providers must be put back in operation at the earliest to make search and rescue easier, as well as to expedite coordinated response measures. Responsible Department: BSNL & Mobile Service Provider, Electricity Department

V. Reconstruction & Repair of Lifeline Buildings

Lifeline buildings are those necessary to keep the administrative machinery functioning despite the damage caused by disaster. The following buildings have to be repaired as a priority:

- Collectorate
- Line Department Buildings
- Block Offices
- Hospitals

VI. Rehabilitation

In case there is major damage from earthquake or flooding, a large segment of the population may have to be rehabilitated to new locations on a temporary basis. There may be a need of permanent relocation in case of the change of river course. Communities will have to be

supported with relief shelter.

VII. Mass Care/Sheltering and Housing

The management of relief shelters is continued from the response phase to the immediate recovery phase and done through Incident Response System. The Incident Commander oversees the operations while the Relief Camp Manager manages the shelter. During this period, the number of victims must be identified for whom construction of houses under Pradhan Mantri Gramin Awas Yojna, Sardar Awas Yojna shall be sanctioned.

VIII. Flood

Supply of food in relief phase is more important. It becomes important to elicit support from various NGOs, Grain merchants and volunteers.

IX. Debris Removal and Disposal of Dead Bodies

We should remove debris or trees from transportation routes for effective rescue and relief measures. Dead bodies of humans and animals may be found in the debris and hence the Health & Animal Husbandry Department works in tandem with debris removal agencies.

X. 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.

XI. Health Care

First Aid and Emergency Health care has to be provided at the earliest. In case the health care centers are affected by the disaster, temporary medical relief camps need to be installed while the building is retrofitted or reconstructed. Reconstruction of buildings has to begin in this phase. Mobile Medical Units (MMUs) have to be pushed into action for immediately health care close to the community.

XII. Livelihood Recovery

Livelihood interventions will happen over to three different overlapping phases, i.e. Livelihood Provisioning, Livelihood Protection and Livelihood Promotion. The first two phases shall form part of the Immediate & Short-Term recovery, while the third shall form a part of Long-Term Recovery.

1. Livelihood Provisioning: Providing critical food and non-food items in the form of relief is necessary for survival. This will focus on disbursement of food and health services for chronically vulnerable people during the emergency.

2. Livelihood Protection: Protect, replace and rebuild the productive assets needed to sustain a preexisting or new livelihood.

i) Cash doles: Some amount of cash assistance should be given for self-directed delivery by the victims. Individual loans and community block grants shall be extended to build local earning assets.

ii) Material Assistance: In case where replacement of crucial assets or fresh requirement of some resources is crucial and not easily available in local markets, material assistance shall be provided. For instance, distribution of seeds to farmers can be done.

Mitigation Activities

As a part of conducting a detailed damage and loss assessment, an assessment of prospective risks and vulnerabilities will also have to be done. For example, refurbishing of embankments or retrofitting of houses and other buildings.

8.4. Reconstruction/repair of lifeline buildings/social infrastructure, damaged buildings and Promote 'Owner Driven Approach' in recovery

Reconstruction and repair of lifeline buildings and social infrastructure, along with damaged buildings, are critical components of post-disaster recovery efforts. This entails restoring key facilities such as schools, hospitals, and community centers to ensure essential services are available to the affected population. Promoting an "Owner Driven Approach" empowers individuals and communities to actively participate in the reconstruction process, fostering a sense of ownership and resilience. By engaging stakeholders in decision-making and implementation, this approach enhances the effectiveness and sustainability of recovery initiatives, ultimately contributing to the restoration of normalcy and social cohesion in the aftermath of a disaster.

Lifeline buildings/social infrastructure

"Lifeline buildings" such as hospitals and emergency response centers, along with "social infrastructure" like schools and community centers, are vital components of a community's resilience, especially in the wake of a disaster. These structures provide essential services and support networks, serving as focal points for response and recovery efforts. Rebuilding and reinforcing these lifelines swiftly post-disaster is crucial for restoring normalcy and ensuring the well-being of affected populations. By prioritizing the restoration of these key assets, communities can accelerate their recovery and strengthen their capacity to withstand future challenges.

a) *Infrastructure*

Restoration of social infrastructure has to be done to reinstate the normal functioning of district infrastructure. Schools & Hospitals will have to be reconstructed and repaired in this recovery phase.

Re-establishment of disrupted health care services will have to be done at the earliest.

- Responsible Department for Hospitals: Health Department & R & B
- Responsible Department for Schools: Education Department & R & B

b) *Economic Infrastructure*

Restoration of economic infrastructure (Banks) is essential for accessibility of money and the smooth functioning of the economy of the district. Unless addressed, it severely affects the livelihood and employment potential of the district. Thus, bank buildings shall be quickly instated.

Damaged buildings

In the aftermath of a disaster, addressing damaged buildings is paramount to ensure the safety and stability of affected communities. These structures include homes, businesses, and public buildings that have sustained varying degrees of damage due to the disaster's impact. Swift assessment and repair of damaged buildings are essential to provide shelter, restore economic activity, and uphold public safety. By prioritizing the rehabilitation of these structures, communities can expedite their recovery process and create a foundation for long-term resilience against future disasters.

Promote 'Owner Driven Approach' in recovery

Promoting an "Owner Driven Approach" in post-disaster recovery empowers individuals and communities to take an active role in rebuilding their lives and neighborhoods. This approach involves engaging affected residents as decision-makers and participants in the reconstruction process, recognizing their knowledge of local needs and preferences. By providing technical assistance, financial support, and capacity-building initiatives, authorities can enable homeowners and communities to lead the recovery efforts according to their unique priorities and circumstances. Emphasizing this approach fosters a sense of ownership, resilience, and community cohesion, ultimately contributing to more sustainable and inclusive reconstruction outcomes.

8.5. Recovery Program

A recovery program is a multifaceted initiative aimed at assisting communities in recovering from the aftermath of a disaster. It encompasses a range of activities such as infrastructure rehabilitation, housing reconstruction, livelihood support, social welfare services, environmental restoration, community engagement, capacity building, risk reduction measures, coordination, and monitoring. By addressing immediate needs and fostering long-term resilience, recovery programs play a crucial role in restoring normalcy and promoting sustainable development in affected areas.

Short-term recovery program

A short-term recovery program focuses on providing immediate livelihood security measures to individuals and communities impacted by a disaster. This includes offering short-term loans, financial assistance, and grants to help affected individuals restart their businesses, restore their livelihoods, and meet their basic needs. These measures aim to provide immediate relief and stability while communities work towards longer-term recovery and rebuilding efforts. By addressing short-term livelihood challenges, such programs help ensure economic stability and resilience in the aftermath of a disaster.

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

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

- a) **Roads and Bridges:** This covers construction of all critical roads and bridges necessary to provide connectivity with immediate effect.
- b) **Drinking Water Supply:** Restoration of Drinking Water supply has to be done by setting up new hand pumps, tube wells or setting up of piped water supply in areas with no access to potable water. In case of floods, setting up of raised hand pumps is required.
- c) **Electricity:** Restoration of power supply is also critical to immediate recovery.

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

Livelihood Recovery

Final phase for livelihood recovery is a part of long-term recovery initiatives.

Long-term recovery program

A long-term recovery program is geared towards promoting sustainable livelihoods and resilience among communities affected by disasters. This involves implementing measures such as promoting sustainable agriculture practices, providing training and resources for alternative income generation activities, and facilitating access to insurance and risk reduction mechanisms. By focusing on long-term solutions, such as building resilient infrastructure, enhancing disaster preparedness, and integrating risk management into development plans, these programs aim to reduce vulnerability to future disasters and promote sustainable development. Ultimately, such initiatives empower communities to recover from disasters while building stronger, more resilient societies for the future. Final phase for livelihood recovery is a part of long-term recovery initiatives.

- i) **Livelihood Promotion:** To initiate and strengthen livelihoods to be more economically and environmentally sustainable as well as more resilient to future disasters. (In this long-term recovery effort, focus is on livelihoods diversification, creation of alternate income generating activities, providing financial services such as loans and insurance, and strengthening forward linkages with markets for existing and new livelihoods.)

- ii) **Microfinance Services:** Micro-credit (small loans) shall be provided to repair or replace critical livelihood assets, finance existing debts or for developing new livelihoods.
- iii) **Micro-insurance:** Providing small-scale insurance at low premium for providing payouts on the occasions of emergencies. Insurance of livestock shall also be facilitated

The following tables are to be filled after an event of disaster:

To be planned after initial damage assessment by departments.

➤ **Power**

Item/Services	No. of unit damaged	No of villages affected	Population affected	Recovery measures	Implementing agency	Tentative Duration (Months)
Feeder						
Transformers						
HT Lines						
LT Lines						
Electric Poles						

➤ **Health**

Type	PHC (village name)	CHC	Sub Centre	Drug Store	Recovery Measures	Implementing agency	Tentative Duration (Months)
No. of buildings damaged							
No. of health centers inaccessible							
Refrigeration and other vital equipment for storage							
Drugs and medicines perished	(Location and qty)						

No. of Ambulance damaged							
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➤ **Social**

Village	Men	Women	Children	Total	Recovery Measures	Implementing agency	Tentative Duration (Months)

➤ **Water Supply**

Type	Village	No. of unit affected	Population affected	Recovery Measures	Implementing agency	Tentative Duration (Months)
Well						
Borewells						
Pond						
Water Supply Disrupted						
Contamination						
ESR damaged						
GLR Damaged						
Sump damaged						
Pipelines damaged						
Standpost damaged						
Cattle trough damaged						
Handpump						

➤ **Road and Transport**

Road damage	Location	Severity	Km	Recovery Measures	Implementing agency	Tentative Duration (Months)
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Panchayat						
State Roads						
National Highway						
Nagar Palika						

Type	Village/Ward	Population	Alternate road/route	Recovery Measures	Implementing Agency	Tentative Duration (Months)
Road Cut off						
Rail Connectivity						

➤ **Communication**

Type	Office/Tower Damaged	Villages affected	Recovery Measures	Implementing Agency	Tentative Duration (Months)
Landline connectivity	(No. of unit and location)				
Mobile connectivity					
Wireless Tower					
Radio					

➤ **Food Supply**

List of village affected by disruption in food supply

Type	No. of godown damage	Type of grains perished (Ton)	Qty of grain perished (Ton)	Qty of grain at risk (Ton)	Recovery Measures	Implementing Agency	Tentative Duration (Months)
Civil Supply							
APMC							
Other							

➤ **Housing**

Partial Damage		Fully Damaged / Collapsed		Recovery Measures	Prog / Scheme	Implementing Agency	Tentative Duration (Months)
Kucha	Pucca	Kucha	Pucca				

➤ **Public Utilities**

Public Buildings	Partial damage (No. of units)	Fully Damaged/ Collapsed (No. of Unit)	Recovery Measures	Prog/ Scheme	Implementing Agency	Tentative Duration (Months)
Panchayat						
Educational Buildings						
Anganwadi						
Hospitals						
Office Buildings						
Market						
Police station						
Community Halls/ Function plots						

➤ **Restoration of Livelihood Provisioning of Employment**

Occupational category	No. of workers	Implementing Agency	Tentative Duration (Months)
Skilled labours			
Unskilled and, Agricultural labours			
Small and marginal farmers			
Construction workers			
Salt pan workers			
Fisher folk			
Weavers			

Other artisans			
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➤ **Land Improvement**

Land erosion / siltation (Hectare)	HHs affected	Recovery Measures	Implementing Agency	Tentative Duration (Months)

➤ **Agricultural**

Crop failure (Hectare)	HHs affected	Recovery Measures	Implementing Agency	Tentative Duration (Months)

➤ **Non-farm livelihood**

Cottage Industry	Extent of damage/ disruption		Recovery Measures	Implementing Agency	Tentative Duration (Month s)
	Tools and equipment (Specify no. and type)	Goods and materi al (Specify type and qty)			
Handloom					
Pottery					
Food Processing					
Diamond sorting etc					
Printing/ Dying					
Other					

➤ Shops and establishment

Extend of damage/disruption			Recovery Measures	Implementing Agency	Tentative Duration (Months)
Building (No. and location)	Tools and equipment (Specify no. and type)	Goods and materials (Specify type and qty)			



Chapter 9

Financial Resources for implementation of DDMP

9.1. Financial Arrangements:

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

9.2. State Budget

The Authority submits 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.

9.3. District Planning Fund

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

Partnerships

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

9.4. 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 risks 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 areas.

9.5. Other financing options for restoration of infrastructure / livelihoods

Name	Purpose	Financial Arrangements	Activities	Nodal Agency
NDRF (NCCF)	Relief Assistance	100% Central Government	Cash and kind relief	Revenue Department
SDRF (CRF)	Relief Assistance	75% Centre, 25% State	Cash and kind relief	Revenue Department

Planning Commission (13th Finance Commission)	Capacity Building	100% Centre	Training, Awareness Generation, IEC Material, Mock drills.	Revenue Department
State Fund	Capacity Building	100% State	Training, Awareness Generation, IEC Material, Mock drills.	GSDMA
Line Department Funds	Preparedness and Mitigation	Budgetary Allocation	Activities falling in purview of departments for DRR, Preparedness and Mitigation	Line Departments
District Planning Fund	Any Public works	MP and MLA aid and grants	Preparedness, Mitigation capacity building, recovery	Local Bodies, Line Departments
External Institutional Funding	Projects on DRR, Recovery, Mitigation and Preparedness	Total external or bilateral or multilateral arrangements	Infrastructure up-gradation Technological interventions and technical studies DRR projects.	Revenue Department
Donor	Any	Total Donation in cash and kind	Any	DDMA / GSDMA
CSR	Corporate	2% of Profit	Any	Charity Commissioner and Corporate
Appeal	Immediate Relief	Fully or Partially external funds	Immediate relief, reconstruction	DDMA / GSDMA



Chapter 10

Procedure and methodology for monitoring, evaluation, updating and maintenance of DDMP

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

10.1. Authority for maintaining and reviewing the plan:

10.2.

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

- (1) There shall be a plan for disaster management for every district of the State.
- (2) The District Plan shall be prepared by the District Authority, after consultation with the local authorities and having regard to the National Plan and the State Plan, to be approved by the State Authority.
- (3) The District Plan shall include-
 - (a) The areas in the district are vulnerable to different forms of disasters;
 - (b) The measures to be taken, for prevention and mitigation of disasters, by the departments of the government at the district level and local authorities in the district;
 - (c) The capacity-building and preparedness measures required to be taken by the departments of the government at the district level and the local authorities in the district to respond to any threatening disaster situation or disaster.
 - (d) The response plans and procedures, in the event of a disaster, providing for-
 - (i) Allocation of responsibilities to the Departments of the Government at the district level and the local authorities in the district.
 - (ii) Prompt response to disaster and relief thereof.
 - (iii) Procurement of essential resources.
 - (iv) Establishment of communication links; and
 - (v) The dissemination of information to the public.
 - (e) Such other matters as may be required by the State Authority.
- (4) The District Plan shall be reviewed and updated annually.
- (5) The copies of the District Plan referred to in sub-sections (2) and (4) shall be made available to the Departments of the Government in the district.
- (6) The District Authority shall send a copy of the District Plan to the State

Authority which shall forward it to the State Government.

- (7) The District Authority shall review from time to time, the implementation of the Plan and issue such instructions to different departments of the Government in the district as it may deem necessary for the implementation thereof.

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

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

10.2. Proper monitoring and evaluation of the DDMP

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

10.3. Post-disaster evaluation mechanism for DDMP

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

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

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

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

10.5. Uploading of updated plans at DDMA/ SDMA websites

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

10.6. Conducting Mock Drills at district and sub-district levels

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

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

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

10.7. Monitoring and gap evaluation

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



Chapter 11

Coordination Mechanism for implementation of DDMP

11.1.Coordination Mechanism

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

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

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

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

1. **Establishment of Coordination Mechanisms:** District Disaster Management Authorities (DDMAs) establish coordination mechanisms to engage with local self- government bodies effectively. This may include establishing regular coordination meetings, joint planning sessions, and information-sharing platforms.
2. **Clear Communication Channels:** Ensure clear communication channels between the district authority and local self-government bodies to convey directives, share information, and coordinate actions during emergencies. This includes establishing dedicated communication lines, liaison officers, and communication protocols.
3. **Incorporation of Local Plans:** Integrate disaster management plans and guidelines developed by local self-government bodies into the broader district-level plans. This

ensures that local priorities, resources, and capacities are considered and aligned with overall disaster management strategies.

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

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

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

Co-Ordination Matrix							
Hazard	Co-ordination	Subject of Co-ordination	Specification of the entity(Which department/ agency etc)	Nature of Co-ordination during different DM Phase			
				Preparedness Phase	Response Phase	Mitigation Phase	Recover and Reconstruction Phase
Inter Departmental Co-ordination							
Intra Departmental							
Inter Block							

Inter Villages							
Intermediate level(Zila Parishad, ULB's etc.)							
State level agencies							
NGO's/ CBO's/SHG's etc.							
UN agencies							

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

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

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

State-Level Coordination (Linkage with SDMP):

- Alignment with State Priorities: Ensure that the DDMP aligns with the priorities, strategies, and guidelines outlined in the SDMP. This alignment ensures consistency and coherence in disaster management efforts at the district and state levels.
- Coordination Mechanisms: Establish coordination mechanisms between the district authority and the State Disaster Management Authority (SDMA) to facilitate communication, information sharing, and joint decision-making during emergencies.
- Resource Mobilization: Coordinate with the SDMA to access state-level resources, including personnel, equipment, and funds, to support district-level response efforts. This may involve requesting assistance, submitting resource requirements, and coordinating deployments as per the SDMP.

- **Policy and Regulatory Alignment:** Ensure that district-level policies, regulations, and protocols are consistent with state-level directives and guidelines outlined in the SDMP. This alignment facilitates seamless integration and interoperability of disaster management systems across different administrative levels.
- **Regular Reporting and Updates:** Provide regular updates and reports to the SDMA on the implementation of the DDMP, status of preparedness measures, response actions, and lessons learned. This enables the SDMA to monitor progress, identify challenges, and provide necessary support and guidance to districts as required.

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



Chapter 12

Standard Operating Procedures (SOPs) and checklist

12.1. Definition of disaster situations

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

12.2. Action on receipt of warning and warning dissemination

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

12.3. SOP's and Checklist

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

1. Standard Operating Procedures for Response

Primary Department	Support Department	Emergency Function
• National Informatics Centre	• BSNL and other service providers • All India Radio/Television • Mobile Police Wireless	1. To restore communication facilities after disaster. 2. To provide emergency communication linking for EOCs, IMS. 3. To ensure early warning communication to identified stakeholders at community level. 4. To ensure communication facilities to support state and district actions 5. To coordinate the temporary communication requirements

2. Search and Rescue

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

3. Relief and Shelter

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

		relief materials To organize proper supply chain to reach the same to victims.
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4. Health and Sanitation

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

5. Livestock Shelter and Fodder

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

6. Drinking Water and Supplies

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

7. Power

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

8. Transport

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

		onsite To organize transportation of sick and wounded
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9. Public Works

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

10. Information Dissemination and Helpline

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

11. Law and Order

Primary Department	Support Department	Emergency Function
Superintendent of	Home Guards	Posting of Police Home Guard, Civil

Police, Police Dept.	Commandant • Paramilitary (CRPF, SSB) • Armed Forces	Defense forces in strategic places • Preservation of peace and good order (Particularly in case of Riots/Accidents/Fire) • Prevention of crime • Security of any site as a possible crime scene (Particularly in case of Riots/Accidents/Fire) • Investigation of the criminal aspect of any event • Traffic control, including assistance with road closures and maintenance of roadblocks • Crowd management/public safety • Coordination of search and rescue • Security of evacuated areas
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Incident Response System

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

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

12.4. Media Management

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

- Organize media briefing by senior officer in-charge.
- Provide graphic and statistical details to the extent possible.
- Organize visits to shelters, relief and various activity camps.
- Organize briefing on daily basis towards the end of the day.

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

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

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

- **Evacuation:** Evacuation involves safely relocating individuals from areas at risk of disaster to designated safe locations. This process ensures the protection of lives and minimizes casualties.
- **Search and Rescue:** Search and rescue operations aim to locate, extract, and provide medical assistance to individuals who are trapped or injured during a disaster. Trained personnel deploy specialized techniques and equipment to locate and extricate survivors.
- **Cordoning the Area:** Cordoning off affected areas helps restrict access to hazardous zones, ensuring the safety of responders and preventing further harm to individuals. It also facilitates the organization of rescue operations and the management of resources.
- **Traffic Control:** Traffic control measures are implemented to manage vehicular and pedestrian movement around disaster-affected areas. This helps prevent congestion, facilitate emergency response efforts, and ensure the safe passage of vehicles transporting supplies and personnel.
- **Law and Order and Safety Measures:** Maintaining law and order is crucial during emergencies to prevent looting, vandalism, and other criminal activities. Safety measures, including the deployment of security personnel and the establishment of temporary shelters, ensure the security and well-being of affected populations.
- **Dead Body Disposal:** Proper disposal of deceased individuals is essential to prevent the spread of diseases and maintain dignity. Trained personnel handle the identification,

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

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

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

12.6. Humanitarian relief and assistance

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

- **Food:** Provision of food supplies ensures that affected populations have access to nutritionally adequate and safe food during and after a disaster. This includes distribution of ready-to-eat meals, food packets, and food vouchers based on assessed needs.
- **Drinking Water:** Access to clean and safe drinking water is essential for preventing waterborne diseases and ensuring hydration. Emergency water supply systems, distribution of bottled water, and purification methods are employed to meet this need.
- **Medicines:** Availability of essential medicines and medical supplies is critical for treating injuries, illnesses, and medical emergencies resulting from disasters. Medical teams provide first aid, treatment, and preventive care to affected individuals.
- **Trauma Care:** Specialized trauma care services are provided to individuals with serious injuries, including emergency medical treatment, surgical interventions, and rehabilitation support to aid in recovery.
- **Clothing:** Distribution of clothing and personal hygiene items helps address basic needs and promote dignity among affected populations, especially those who have lost their belongings or been displaced from their homes.
- **Shelter Management:** Establishment and management of emergency shelters provide safe and temporary accommodation for displaced individuals and families. Shelter management includes site selection, setup, maintenance, and provision of basic amenities.
- **Providing Helpline:** Helplines are established to facilitate communication between affected individuals and response agencies, enabling them to seek assistance, report emergencies, and access information about available services and resources.
- **Repairs and Restoration of Basic Amenities:** Rapid repairs and restoration of essential infrastructure, such as water supply systems, power grids, transportation networks, and communication channels, are undertaken to ensure the resumption of normalcy and facilitate recovery efforts.

- **Management of VIP Visits:** Coordination and management of visits by dignitaries, government officials, and other VIPs ensure that their presence does not disrupt ongoing relief operations and that they receive accurate briefings on the situation.
- **Maintenance of Emergency Reserves:** Private agencies and government entities maintain emergency reserves of essential supplies, including food, water, medical supplies, and equipment, to ensure readiness for rapid deployment during disasters.

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



ANNEXURE

ANNEXURE – 1

Panchmahals District Profile



History

The history of the Panchmahals district revolves around the city of Champaner and the nearby Pavagadh Hill. Champaner was established in the 7th century (647) in the territory of King Vanraj Chavda of Chavda dynasty. In the 13th century, the Delhi Sultanate under Alauddin Khalji took the city from the Chauhan rulers. Their rule continued until 1484 when Sultan Mahmud Begada of Gujarat captured the city. Thereafter Godhra became the center of the district under the Mughal Empire (1575 to 1727). The author of the Mirat-i Sikandari, writing in 1611, spoke high praise of the mangoes of the region, calling them the best in the kingdom, and said that sandalwood grew abundantly here and was used to build houses. Throughout the 1600s, the forests around Dahod and Champaner were used as hunting grounds for wild elephants

Panchmahal means “five palaces” in which five talukas, which includes the Sub-Divisions (Godhra, Dahod, Halol, Kalol and Jhalod) were submitted to the British by Maharaja Sindhiya of Gwalior. Thus, the name of this district is Panchmahal. Then on 1st May 1960 the state of Mumbai was divided into two parts. This led to two separate states of Gujarat and Maharashtra. At that time, Panchmahal district, with 11 talukas (1) Godhra (2) Kalol (3) Halol (4) Shahera (5) Lunavada (6) Santrampur (7) Jhalod (8) Dahod (9) Limkheda (10) Devagadh Baria became a part of the Gujarat state.

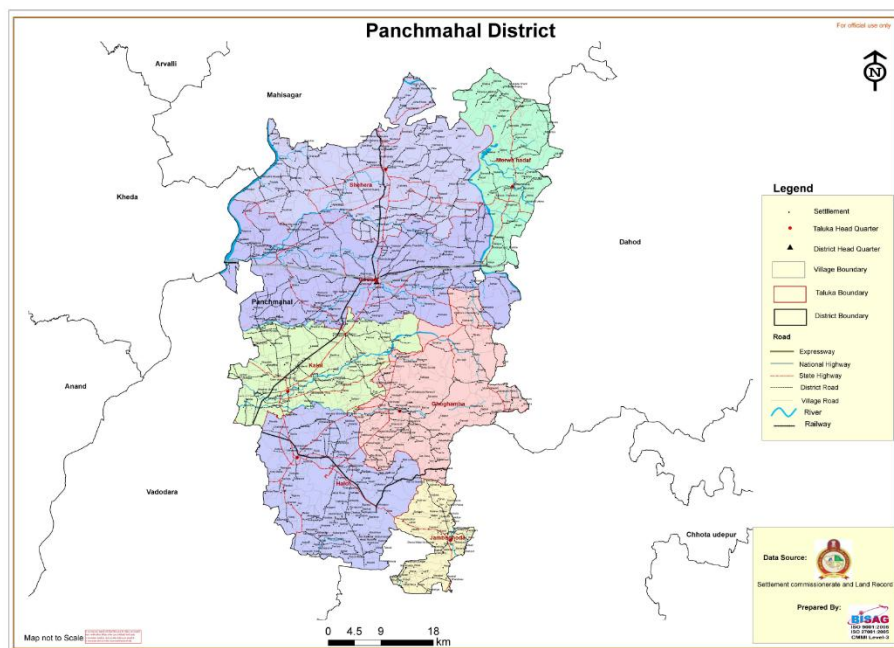
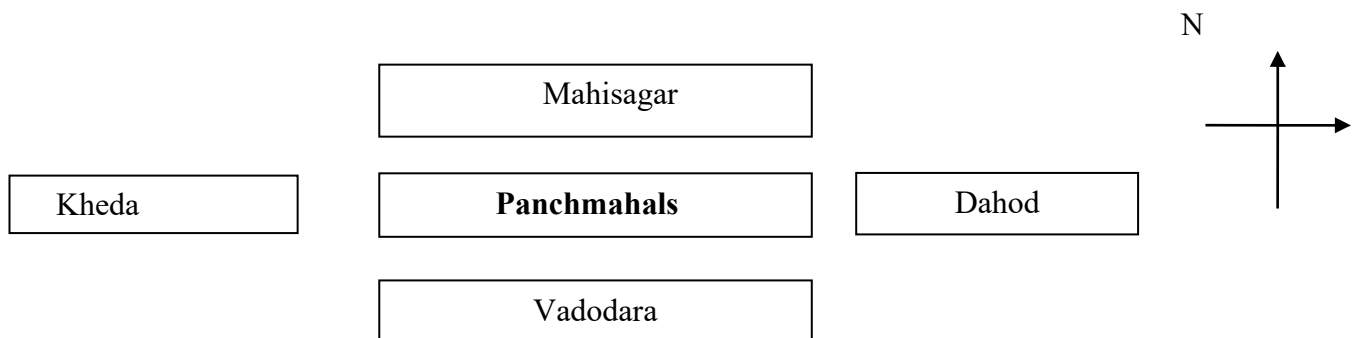
In 1997, The Gujarat Government, through its notification no: GHM-97-85-M-PFR-1097-L dated: 24-04-1997, formed the new Dahod district from Panchmahal district by dividing Panchmahal district. And through notification number: JHM-97-120-M-PFR-2397-2593-L. dated: 15-10-1997, Lunavada taluka belonging to Panchmahal district was divided into Lunavada and Khanpur Talukas and Godhra Taluka was divided into Godhra and Morva (Hada) Talukas. After division, with total 11 new talukas namely, (1) Khanpur (2) Kadana (3) Santrampur (4) Lunawada (5) Shahera (6) Morva (h) (7) Godhra (8) Kalol (9) Halol and (11) Jambughoda, a new boundary of Panchmahal district came into existence on 02-10-1997

After that, in the year 2013, the notification of Govt. Of Gujarat: GHM-2013-73-M-PFR-102013-139-L-1 dated: 13-8-2013 divided the Panchmahal district into new district of Mahisagar. The headquarters of Seven talukas of Panchmahal district, (1) Shahera (2) Morva(h) (3) kalol (4) Godhra (5) Ghoghamba (6) Halol and (7) Jambughoda, was kept as Godhra and Lunavada was kept as headquarters of newly formed Mahisagar district. Thus, again the new boundary of Panchmahal district came into existence on 13-08-2013.

Area & Administration:

The district consists of 7 Talukas and 4 Nagar Seva Sadan (Municipalities) through which the administrative function has been operated. There is a separate department specific administrative structure existed and functioning accordingly.

The district is located on the eastern end of the state. It is bordered by Dahod district to the northeast, and east, Vadodara district to the southwest and Chhota Udaipur district to southeast, Kheda district to the west and Mahisagar district to the north.



Mahi River flows on the western boundary of the district and Panam on the northeast side across the district; are the major rivers. The other major rivers are Deo, Kara which flows in the southern part of the district. The major water bodies are Panam dam (Shahera block), Hadaf dam (Morva(h) block), Deo dam (Halol block), Karad dam (Ghoghamba block).

It is one of the larger districts of Gujarat 5,231 km². It is home for a population of 2,390,776 as per the Census 2011. Out of which 1,226,961 are males while 1,163,815 are females. In 2011 there were a total of 446,611 families residing in Panchmahal district. The Average Sex Ratio of Panchmahal district is 949.

Demography:

According to 2011 census Provisional data, District has a population of 2,390,776 people. The density of population here is noted to be around 119 sq. km. area is under urban region while 5,112 sq. km. is under rural region. The average decadal population growth rate of district for 2001 census was +18.05%.

Total population of the district is 2,390,776 persons as per the 2011 census data of which 12,26,961 are males and 11,63,815 are females. As per census 2011 approximately 361,311 are 0-6 years Children, 100,446 are SC Population and 721,604 are ST Population residing within the district.

Table: 2

No.	Total Population	Male	Female	0-6 Years children	SC Population	ST Population
1	2,390,776	12,26,961	11,63,815	100,446	100,446	721,604

Literacy:

Amongst the total population of the district, a total of 949,971 people are literate. The literacy rate of the district is 70.99%. The male literacy rate is 85.75%% whereas the female literacy rate is 78.03%.

Occupational Structure:

Amongst the total population, 334,827 people are living in urban pockets and 20,55,949 persons belong to rural area. The total number of workers are 1782648 who are involved in different types of laborer works, amongst which 12,34,866 are Male Workers and 5,47,782 are Female Workers. Of total workers 6,85,14 are Main workers, 4,12,366 are Marginal workers, 3,66,140 Cultivators, 1,31,350 Agricultural laborers, 5,873 household Industrial workers and 1,81,778 are other workers.

Climate:

The Climate of District can be regarded as one of the extreme kinds with hot summers & cold winters and witnessing of very good monsoon.

Temperature:

Panchmahal district has a semi-arid climate with annual maximum temperatures ranging from 27.7°C in January to 39.7°C in May, and minimum temperatures ranging from 11.9°C in January to 25.6°C in May.

Rainfall:

The average rainfall in the district is 770–880 mm, but the monsoon is erratic and long dry spells are common, even during the rainy season. The maximum humidity ranges from 98.2%, while the minimum range is from 28–83.5%.

Panchmahal district receives much of its rainfall from the south-west monsoon during the period between June & October; its maximum intensity being in the month of July & August. Total rainy days ranges from 00 to 40 days/year. Long term annual rainfall data of 7 rain-gauge stations of the district

In Last 10 Years,Panchmahal district rain fall data is as under:

No	Taluka	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1	Ghoghamba	780	620	637	1026	921	488	540	554	848	698
2	Godhra	911	997	979	1206	836	806	1000	1287	1448	1308
3	Halol	828	1012	903	861	1456	942	939	937	1183	1407
4	Jambughoda	894	927	775	1800	1246	1038	1833	1387	1405	1776
5	Kalol	828	1012	562	861	717	411	715	714	816	847
6	Morva(h)	976	823	717	1018	806	758	895	1096	1592	1013
7	Shahera	1105	892	847	1192	767	455	894	1070	1252	1273

Soil:

The soil of the district can be divided broadly into three categories depending upon the source rock, namely the phyllite, granites and basalts. The granite normally gives rise to sandy soil but where the weather is intense, sandy loam is produced. The phyllite produced yellowish brown light soil but where weathering is deep, black soil produced. The basaltic rock gives rise to variegated soil depending upon the degree of weather. The first stage of weathering produces light soil with splinters of morum whereas in the second stage medium soil of light brown to brownish black colour is produced. These medium soils are more than a meter depth. The black cotton soil produced by intense weathering of basalts is deep, however it heavy and become sticky when saturated. They have high fertility value.

Crops:

The major crops grown are cotton, paddy, jowar, groundnut. Fisheries and animal husbandry are major allied activities of agricultural communities in the district. Moreover, Panchmahals is the major industrial hub of the country. The major industries found here are Oil and Petrochemicals, Chemical, Medicine, Glass, Engineering, etc. The District is criss crossed by major rail and road links joining Delhi- Ahmedabad-Mumbai corridor. Because of this it is known as the ‘Gate way to the golden corridor’.

Infrastructure details

Education:

The current educational base is based on more than public and private schools in the district. To waering benevolently Shri Govind Guru University was established by the Government of Gujarat vide Gujarat Act No. 24/2015. The Head Quarter of the University is Godhra Panchmahals. The Jurisdiction of the University spread over Five District of Gujarat State i.e. Panchmahals, Dahod, Mahisagar, Chhota Udepur and Vadodara (Rural). All the colleges/institutions situated in the above districts are affiliated with this University. At present 270+ Colleges are affiliated with Shri Govind Guru University.

Shri Govind Guru University is the main university in district. There are different Colleges in different blocks has affiliated with Shri Govind Guru University.

Other Education Institutions:

- ☐ Sheth P.T Arts & Science College, Godhra
- ☐ Government engineering college, Godhra
- ☐ Gov. Polytechnic college, Godhra
- ☐ Prerna Institute of Para Medical science
- ☐ Eklavya College of Nursing, Ghoghamba
- ☐ Shree Shamlaji Homoeopathic Medical College and Research Institute, Vavdi, Godhra
- ☐ GMERS Medical College, Godhra

School :**Total Primary School**

There is total 1383 primary schools runs by District Panchyat and 20 other schools are under Tribble Department

Secondary School

Total 310 Secondary schools are runs in Panchmahal

Health Facilities :

The district has approx more than 41 major private Hospitals, 51 PHCs and 14 CHCs in the District to cater the people. Major hospitals are Civil Hospital, located in area which can be viewed in Annexures.

Details of CHC & PHC:

Sr.No.	Taluka	Name of CHCs	No. of PHCs
1	Ghoghamba	3	10
2	Godhra	3	10
3	Halol	1	6
4	Jambughoda	1	2
5	Kalol	2	7
6	Morva(H)	2	6
7	Shahera	2	10

ANNEXURE – 2

Rivers and Dam of Panchmahal



The District has major rivers like Mahi River flows on western boundary of the district and Panam on the East side accross the district; are the major rivers. The other major rivers is Deo which is flows surthern part of district. The major water bodies are Panam dam (Shahera block), Hadaaf dam (Morvahadaf block), Deo dam (Halol block), Karad dam (Ghoghamba block).

Statement showing villages affected due to floods in PANAM RIVER through release made from PANAM Dam till conflict Point of MAHI RIVER

NOTE :-

- 1 WHITE SIGNALS : ALERT
- 2 BLUE SIGNALS : READY FOR EVACUATION
- 3 RED SIGNALS : IMMEDIATE EVACUATION

Shahera Taluka

- 1 Ramji-ni-nal
- 2 Khotha
- 3 Undara
- 4 Mor
- 5 Baluji-na Muvada

Water release made from PANAM Dam till conflict Point of MAHI RIVER

Sr.No	Discharge Release from Panam Dam in (Cus/Cum)	Name of District Taluka	Signal for Village at Sr. No.		
			White Signal/ALERT	Blue Signal/READY FOR EVACUATION	Red Signal/ IMMEDIATE EVACUATION
1	2	3	4	5	6
1	<u>150000</u> 4227	Panchmahal			
		sahera	Ramji-ni-nal		
2	<u>280000</u> 7929	Panchmahal			
		sahera	Khotha	Ramji-ni-nal	
			Undara		
			Mor		
			Baluji-na Muvada		
3	<u>350000</u> 9911	Panchmahal			
		sahera		Khotha	Ramji-ni-nal
				Undara	
				Mor	
				Baluji-na Muvada	
4	<u>393000</u> 11128	Panchmahal			
		sahera			Khotha
					Undara
					Mor
					Baluji-na Muvada

Statement showing villages affected by floods of Mahi River on the basis of discharge released from Upstream Dams of Wanakbori Weir

NOTE :-

1 WHITE SIGNALS : ALERT

2 BLUE SIGNALS : READY FOR EVACUATION

3 RED SIGNALS : IMMEDIATE EVACUATION

District Panchmahal			
No.	Village of Shahera Taluka		
1	Kharoli	8	Nathuri na
2	Bilitha	9	Muvada
3	Hadkimata na	10	Valavpura
4	Muvada	11	Poyda
5	Ramadi	12	Vadi
6	Bhimthal	13	Bordi
7	Navi Bordi	14	Vahaka

	District Panchmahal
No	Village of Godhra Taluka
1	Nadisar
2	Kabaria
3	Juni Dhari
4	Nani Dhari
5	Nadhara
6	Gothda
7	Timba

Water released from Upstream Dams of Wanakbori Weir

Sr.	Discharge at D/S of Dam in (Cus/Cum)	Name of District Taluka	Signal for Village at Sr. No.		
No.			White Signal	Blue Signal	Red Signal
1	2	3	4	5	6
1	<u>435000</u>	<u>Panchmahal</u>			
	1231.17	shahera	1 to 10	~	-
2	<u>450000</u>	<u>Panchmahal</u>			
	12742.46	shahera	11 to 12	~	~
3	<u>710000</u>	<u>Panchmahal</u>			
	20104.77	shahera	~	1 to 10	~
		Godhra	1 to 5	~	~
4	<u>900000</u>	<u>Panchmahal</u>			
	25484.92	shahera	~	11 to 12	~
		Godhra	6	~	~
5	<u>1142000</u>	<u>Panchmahal</u>			
	32337.53	shahera	~	~	1 to 10
		Godhra	~	1 to 5	~
6	<u>1210000</u>	<u>Panchmahal</u>			
	34263.06	shahera	~	~	11 to 12
		Godhra	~	6	~
7	<u>1227000</u>	<u>Panchmahal</u>			
	34744.44	Godhra	~	~	1 to 5
8	<u>1265000</u>	<u>Panchmahal</u>			
	35820.47	Godhra	~	~	6

Statement showing villages affected by floods of Deo River on the basis of discharge released from Deo Dam

NOTE :-

1 WHITE SIGNALS : ALERT

2 BLUE SIGNALS : READY FOR EVACUATION

3 RED SIGNALS : IMMEDIATE EVACUATION

Panchmahal District

Halol Taluka

1. Sonaviti
2. Rasgagar
3. Gadit
4. Sonipur
5. Kuberpur
6. Indral
7. Badharpuri

Water released from Deo Dam

Sr. No.	Discharge at D/S of Dam in (Cus/Cum)	Name of District Taluka	Signal for Village at Sr. No.		
			White Signal	Blue Signal	Red Signal
1	2	3	4	5	6
1	<u>1559.90</u>	<u>Panchmahal</u>			
	55056.09	Halol	1	~	-
2	<u>1700.00</u>	<u>Panchmahal</u>			
	60035.50	Halol	~	1	~
3	<u>1984.00</u>	<u>Panchmahal</u>			
	80800.72	Halol	2	~	1
4	<u>2288.00</u>	<u>Panchmahal</u>			
	80800.72	Halol	~	2	1
5	<u>2551.00</u>	<u>Panchmahal</u>			
	90088.56	Halol	~	~	1&2
6	<u>2834.00</u>	<u>Panchmahal</u>			
	100082.71	Halol	~	~	1to2
7	<u>3117.00</u>	<u>Panchmahal</u>			
	110076.86	Halol	3	~	1 to 2
8	<u>3401.00</u>	<u>Panchmahal</u>			
	120106.32	Halol	4 to 6	3	1 & 2
9	<u>3685.00</u>	<u>Panchmahal</u>			
	130135.78	Halol	7	4 to 6	1 & 3
10	<u>4535.00</u>	<u>Panchmahal</u>			
	160153.53	Halol	~	7	1 to 6
11	<u>4670.00</u>	<u>Panchmahal</u>			
	164921.05	Halol	~	~	1 to 7

Annexure - 3

List of Codes/Guidelines for Safety of Building/Structures



As these codes and guidelines are being updated from time to time by different Institutions/organizations therefore the latest updated version shall be referred at the time of conceiving a project. List has been attempted which may not be complete.

I. General Structural Safety

1. BIS National Building Code 2005
2. IS: 456:2000 "Code of Practice for Plain and Reinforced Concrete
3. IS: 800-1984 "Code of Practice for General construction in Steel
4. IS: 801-1975 "Code of Practice for Use of Cold Formed Light Gauge Steel Structural Members in General Building Construction
5. IS 875 (Part 2) : 1987 Design Loads (other than earthquake) for buildings and structures part 2 Imposed Loads
6. IS 875 (Part 4) : 1987 Design Loads (other than earthquake) for buildings and structures part 4 Snow Loads
7. IS 875 (Part 5) : 1987 Design Loads (other than earthquake) for buildings and structures part 5 special load and load combination
8. IS: 883:1966 "Code of Practice for Design of Structural Timber in Buildings
9. IS: 1904:1987 "Code of Practice for Structural Safety of Buildings: Foundation's
10. IS:1905:1987 "Code of Practice for Structural Safety of Buildings: Masonry Walls
11. IS 2911 (Part 1): Section 1: 1979 "Code of Practice for Design and Construction of Pile Foundation
Section 1
Part 1: Section 2 Based Cast-in-situ Piles
Part 1: Section 3 Driven Precast Concrete Piles
Part 1: Section 4 Based precast Concrete Piles
Part 2: Timber Piles
Part 3: Under Reamed Piles
Part 4: Load Test on Piles

II. Protection from Cyclones / Windstorms

1. IS 875 (3) -1987 "Code of Practice for Design Loads (Other than Earthquake) for Buildings and Structures, Part 3, Wind Loads"
2. IS: 15498 - 2004 "Guidelines for construction of cyclone shelters."
3. IS: 15498 - 2004 "Guidelines for improving the cyclonic resistance of low-rise houses & other building/structures."
4. Guidelines (Based on IS 875 (3)-1987) for improving the Cyclone Resistance of Low-rise houses and other building.

III. Earthquake Protection

1. IS: 1893-2002 "Criteria for Earthquake Resistant Design of Structures (Fifth Revision)"
2. IS: 13920-1993 "Ductile Detailing of Reinforced Concrete Structures subjected to Seismic Forces - Code Practice"
3. IS:4326-1993 "Earthquake Resistant Design and Construction of Buildings - Code of Practice (Second Revision)"
4. IS:13828-1993 "Improving Earthquake Resistance of Low Strength Masonry Buildings - Guidelines"
5. IS:13827-1993 "Improving Earthquake Resistance of Earthen Buildings -Guidelines"
6. IS:13935-1993 "Repair and Seismic Strengthening of Buildings - Guidelines"

IV. Flood Management / River Valley Projects

1. IS: 4189-1985 "Guide for preparation of project report for river valley projects."
2. IS: 4410 (Part 3): 1988 "Glossary of terms relating to river valley project part 3 River and river training."
3. IS: 4410 (Part 11): Sec 5-1977 "Glossary of terms relation to river valley projects: Part 11 Hydrology Section 5 Floods."
4. IS: 4410 (Part 21): 1987 "Glossary of terms relating to river valley projects: Part 21 Flood control."
5. IS:11532-1995 "Construction and maintenance of river embankments (levees) -Guidelines"
6. IS: 12094 - 2000 "Guidelines for planning and Design of River Embankments (Levees)"
7. IS: 14262 - 1995 "Planning and design of revetments - Guidelines".
8. IS: 5477 (Part 4) : 1971 "Methods for Fixing the capacities or reservoirs: part 4 Flood storage"
9. IS: 7323 - 1994 " Operation of Reservoirs - Guidelines".
10. IS: 8408 - 1994 "Planning and design of groynes in alluvial river - Guidelines".
11. IS: 14815 - 2000 "Design Flood for River Diversion Works - Guidelines".

V. Landslide Hazard

1. IS: 14458 (Part 1): 1998 Guidelines for retaining wall for hill area: Part 1 Selection of type of wall.
2. IS: 14458 (Part 2): 1997 Guidelines for retaining wall for hill area: Part 2 Design of retaining? Breast walls.
3. IS: 14458 (Part 3): 1998 Guidelines for retaining wall for hill area: Part 3 Construction of dry stone walls.
4. IS: 14496 (Part 2): 1998 Guidelines for preparation of landslide - Hazard Zonation maps in mountainous terrains: Part 2 Macro-Zonation.
5. IS: 14680: 1999 Guidelines for land slide control.
6. IS: 14948: Code of practice for Reinforcement of Rock Slopes with plain edge of failure

7. BIS 12023: Code of practice for Field Monitoring and Movement of Structures using Tape Extensometer.
8. BIS: 14804: Guidelines for Sitting, Designing and selection of materials for Residential Building in Hilly Areas.

VI. For Protection of Saline Embankments and Coastal Canals

1. IS: 8835 - 1978 "Feasibility study and preparation of preliminary project report".
2. IS: 10635 - 1993 (reaffirmed 2003) "Freeboard requirements in embankments and dams".
3. IS: 12169 - 1987 - "Criteria for design of small embankment dams."
4. IS: 8835- 1978: Feasibility study, preparation of
5. IS: 12094 - 1978: Preliminary Project Report
6. IS: 10635 - 1993 (reaffirmed 2003): Freeboard requirements in embankments in embankments and dams.

VII. Railway Codes & Manuals - RDSO Publications

1. RBF - 20: "Estimation of design discharge based on regional flood frequency approach for sub-zones 3(a), 3(b), 3(c), 3(e)".
2. RBF - 22: "50 year 24 hour set of is pluvial maps of India maps of short duration ratios".
3. RBF - 23: "Validation of flood estimation report No.UTN-7-1983 for sub-zone-3 (f)".
4. RBF - 24: "Validation of flood estimation report No.3/1980 for sub-zone-3 (f)".
5. RBF - 25: "Estimation of design discharge based on regional flood frequency approach for sub-zone-3 (f)".
6. RBF - 26: "Validation of flood estimation report No.UGP-9-1984 for sub-zone-1 (e)".
7. RBF - 27: "Validation of design discharge based on regional flood frequency approach for sub-zone-3 (e)".
8. RBF - 28: "Estimation of design discharge based on regional flood frequency approach for sub-zone-3 (i)".
9. RBF - 29: "Estimation of design discharge based on regional flood frequency approach of sub-zone-3 (b)".
10. RBF - 32: "Validation of flood estimation report no.c/16/1988 subzone - 1 (b) (chambal basin)".
11. RBF - 33: "Estimation of design discharge based on regional flood frequency approach for sub-zone-1 (d) (sone basin)".
12. RBF - 34: "Validation of flood estimation report no.S/15/1987 sub-zone-1 (d) (sone basin)".
13. GE - 1: "Guidelines - Erosion control on slopes of banks and cuttings".
14. GE - 6: "Guidelines for earthwork in conversion projects".

VIII. Indian Road Congress (IRC) Codes/Manuals

1. IRC: 5 -1998 (Seventh Revision) - "Standard specifications and codes of practice for Road, Bridges Section 1 - General features of Design".
2. IRC: 10-1961 - "Recommended Practice for Borrow pits for Road Embankments constructed by Manual Operation".
3. IRC: 34-1970 - "Recommendations for Road Construction in Waterlogged Area".
4. IRC: 36-1970 - "Recommendations Practice for the construction of Earth Embankments for Road Works".
5. IRC: 45-1972 - "Recommendations for Estimating the Resistance of Soil Below the Maximum Scour Level in the Design of well foundations of Bridges".
6. IRC: 52-2001 (Second Revision) - "Recommendations about the Alignment Survey and Geometric Design of Hill Roads."

7. IRC: 56-1974 - "Recommendations Practice for treatment of Embankment Slopes for Erosion Control."
8. IRC: 75-1979 - "Guidelines for the Design of High Embankments."
9. IRC: 78-2000 (Second Revision) - "Standard specifications and Code of practice for road, bridges, section VII - Foundations and substructure."
10. IRC: 89-1997 (First Revision) - "Guidelines for Design and Construction of River Training and Control Works for Road Bridges".
11. IRC: 104-1988 - "Guidelines for Environmental Impact Assessment of Highway Projects".
12. IRC: SP: 13-2004 (First Revision) - "Guidelines for the Design of Small Bridges and Culverts."
13. IRC: SP: 35-1990 - "Guidelines for Inspection and Maintenance of Bridges".
14. IRC: SP: 42-1994 - "Guidelines on Road Drainage".
15. IRC: SP: 50-1999 - "Guidelines of Urban Drainage".
16. IRC: SP: 54 -2000 - " Project preparation Manual for Bridges".
17. IRC: 6 - 2000 - "Standard specifications and code of practice for road bridges - section II Loads & Stresses".
18. IRC: SP: 57 -2001 - "Guidelines for quality systems for road construction."
19. IRC: 28 - 1967 - "Recommendation of road construction in waterlogged areas".
20. IRC: SP: 26 1984 - "Project preparation manual for bridges".
21. IRC: 87 - 1984 - "Guidelines for design and erection."
22. IRC: 21 - 2000 - "Standard specification and codes for roads and bridges."
23. IRC: SP: 20 - 2002 - "Rural Roads."
24. MORT & H Pocketbook for Highway Engineers, 2002 (Second Revision)
IRC: SP33: 1989 Guidelines on supplemental Measures for Design, Detailing & Durability of Important Bridge Structures.

Annexure - 4

Standards of Emergency Relief Kit

1. Immediate Family Relief Kit (For initial 1-2 days)

- a. Packaged drinking water
- b. Roasted peanuts/ roasted gram (*chana*)
- c. Salt, sugar
- d. Local snacks- *thepla*, *khakhra*, flattened rice, *sukhi puri*, *sev* (*dry snacks*)
- e. Glucose biscuits
- f. Energy drink (Glucon-D/Electrolyte)

2. Family Ration Kit (1 Month)

Items	Description
Non-Perishable Food Items	• Milk (Powdered or canned) • Sugar- 1 kg • Salt- 1 kg • Tea leaves- 500gm • Jaggery (1 kg) • Local snacks- peanuts, <i>chana</i>, <i>khakhra</i>, flattened rice, etc • Dry fruits • Rice- 15 kg • Green Moong Dal- 2 kg • Edible Oil- 2 kg • Spices- Red Chilli Powder (100 gm), Coriander Powder (100 gm), Turmeric Powder (100 gm)
Cooking Set and Associated Items	• Bowl -5 (1 L, stainless steel) • Plates -5(deep, stainless steel, diameter 22 cm, capacity 0.75 L) • Cooking pot- 1 (7 L, stainless steel, diameter 24 cm, with handles) • Cup- 5(stainless steel, with handle, 300 ml) • Knife -1 (stainless steel) • Serving Spoons-2 (stainless steel) • Spoons -5 (stainless steel) • Scrubber pad -1 (for cleaning dishes) • Soap- 2 • Plastic Bucket-1 • Plastic tumbler 1

3. Household Kit

Items	Description
Male Clothes	2
Female Clothes	4
Children Clothes	6
Blanket Cotton	1-2
Blanket Woolen	1
Mosquito Net	1-2
Tarpaulin White (4 x6 m)	1-2
Candle Packet	5
Match Box	5
Torch and Cell	1
Washing Powder	1kg
Bathing Soap	3
Detergent Soap	4
Toothpaste	2 tubes (200gm)
Toothbrush	5
Sleepers	5 pair
Sanitary Napkins	3 packets
Blankets/ Bed sheets	3 (Depending on weather)
Tarpouline Sheets	2 (12'*8')

Annexure – 5
List of Government Ambulance available
with health department

Sr. No.	Block	Address	Name of Officer	Contact Number	Ambulance (in no.)
1	Godhra	Godhra	Dr Mona Pandya	9426566422	3
2	Godhra	CHC KAKANPUR	DR KRUNAL R SHARMA	7567867302	1
3	Godhra	CHC TIMBAROAD	DR. PARTIK R. CHRISTIAN	9512392221	1
4	Kalol	MALAV	DR CHIRAG M GADHAVI	9904513286	1
5	Morwa (Hadaf)	MORA	DR.K.M.VAGHELA (INCHARGE SUPERINTENDENT)	7567567274	1
6	Shahera	AT.BORIA	DR.SONAL H CHAUHAN	9724375882	1
7	Shahera	AT. SHAHERA	DR. ASHVIN B RATHOD	9427492492	1
8	Ghoghamba	Phc Bakrol	Dr. Maitri Gohel	9265483300	1
9	Ghoghamba	phc farod	I/C Dr.Rajnik Devaliya	8238386972	1
10	Ghoghamba	phc gamani	Dr. Harsh Patel	9409901118	1
11	Ghoghamba	phc gundi	dr kailash	9099713590	1
12	Ghoghamba	PHC KANPUR	Dr Kajal J Jadav	8849970820	1
13	Ghoghamba	PHC MALU	DR DIPAL S PATEL	9687563246	1
14	Ghoghamba	Phc Padhora	I/C Dr Varsha N Parmar	9998591506	1
15	Ghoghamba	PHC Ranjitnagar	Dr Bhavik J Dave	9427619298	1

16	Ghoghamba	phc richhavani	dr durgavtiben barjod	7874285167	1
17	Godhra	phc mahelol	Dr krishi charel	8160634931	1
18	Godhra	Phc sampa	Dr Aasif Bhaijamal	7567893113	1
19	Halol	ARAD	dr. Shruti thakur	7567893214	1
20	Halol	KANJARI	Dr Jay patel	7069455824	1
21	Halol	KATHOLA	Dr. jignesh pargi	9925878158	1
22	Halol	RAMESHRA	Dr. Anand Soni	7567893217	1
23	Halol	shivrajpur	dr. mehul c patel	7567893218	1
24	Halol	Vaghbod	Dr.Himani Rathva	7048686983	1
25	Jambughoda	Chalvad	Dr.Ashvin Rathva	8799531953	1
26	Jambughoda	Duma	Dr.Nensi Kasawala	7069162373	1
27	Kalol	DELOL	DR.PALAK PATEL	9033868200	1
28	Kalol	KANOD	DR HARDIK PATEL	9574312479	1
29	Morwa (HadaF)	MOJARI	DR AMEE MAKAVANA	6352143027	1
30	Morwa (HadaF)	RAJAYATA	DR. DEVANSH. SHROFF	9974867462	1
31	Morwa (HadaF)	SANTROAD	DR.TANVI PARIKH	7567893477	1
32	Morwa (HadaF)	Vadodar	Dr. Ranjan Malivad	8980982374	1
33	Morwa (HadaF)	Vandeli	Dr Priya Patel	9265992864	1
Total					35

Source : Health Department

Annexure - 6

List of Ambulance available with Industries

Sr.	Name of Industry	Nos. of Ambulance	Type of Ambulance	Contact No
			ALS/BLS	
1	JCB Industries PVT LTD	1	ALS	9687626840 ;9979370341
2	LM Wind Power Blades India Pvt Ltd	1	BLS	9574766438
3	Raychem RPG	1	ALS	9998775899
				9427353507
4	Styrenix Performance Materials Limited (Formerly known as INEOS Styrolution (India) Ltd.),	1	BLS	9825017396
5	TOTO India Industries Pvt. Ltd	1	BLS	9016535035
6	Gujarat Floro Chemicals (GFL Ltd)	2	01 BLS , 01 ALS	8905320619
				8347001246
7	HERO MOTOCORP LIMITED	2	BLS	9099016509
8	Rubamin Private Limited	1	NA	8347001246
9	Sisecam Flat Glass Ltd	1	BLS	9104630194
10	Hitachi Energy India Limited	1	BLS	8511048192
11	Ceat Limited	1	BLS	9016417931
12	Polycab India Ltd	1	BLS	9724601683
13	Sun Pharmaceuticals Lnd Ltd	2	BLS	9586289606
14	Sun Pharmaceutical Medicare Ltd.	1	BLS	8320809451
15	Alembic Pharmaceutical Ltd.	2	BLS	7568874444
				9725122179
				9925220776
				8141332337
16	JSW MG Motor india Pvt. Ltd	1	ALS	8154021727
				8141289839
				9913301086
17	Valmont Structures Pvt. Ltd.	1	BLS	8320809451
18	Paushak Limited	1	BLS	NA
19	Setco Auto Systems Pvt.Ltd.	1	BLS	8980110275
20	Windar Renewable Energy Pvt. Ltd	1	NA	NA
21	Nobel Hygiene Pvt Ltd	1	BLS	NA
22	A.G. Industries Private Limited, Halol	1	BLS	NA

23	Satyam Auto Components Pvt Ltd	1	NA	NA
24	ENDURANCE TECHNOLOGIES LIMITED, HALOL	1	BLS	NA
25	Merino Industries Ltd	1	BLS	NA
26	Safari Manufacturing Ltd.	1	NA	NA

Source :- DISH

Annexure - 7

List of 108 Ambulance

Panchmahal 108 Ambulance Data		
Sr No	Location	Type of ambulance
1	Ganesh Mandir(Godhra)	ICU on Wheels
2	Godhra 1	ALS
3	Godhra 2	BLS
4	Godhra SRP-5	BLS
5	Godhra Civil	ALS
6	Kakanpur	BLS
7	Shahera	ALS
8	Santrode	BLS
9	Morva Hadaf	BLS
10	Mora	BLS
11	Kalol	ALS
12	Halol1	ALS
13	Vejalpur	BLS
14	Similiya	BLS
15	Goghamba	BLS
16	Halol 2	BLS
17	Jambughoda	BLS
18	Shivrajpur	BLS
19	Ramesra	BLS

Source :- EMRI-108

Annexure - 8

List of Dumper / Truck

Sr	Taluka	Name	Address	Contact	Vehicle Class
1	Godhra	RAI TRADING	VADODRA ROAD GONDRA GODHRA	9825551222	18CUM BOX TIP LPK3118 CRE STDS/G1150 BS4
2	Godhra	AMARSHIV STONE CRUSHER	DANDIYA BAJAR TIMBA ROAD TA GODHRA	7402778692	16CUM BOX TIP LPK2518HD CRE BS4/G1150
3	Godhra	BHAGVANBHAI SODABHAI BHARVAD	AT JAFARABAD TA GODHRA TA GODHRA	9512228182	16 CUM BOX TIP LPTK2518 CR BS4/G950
4	Godhra	ANURAG KALUJI VANZARA	AT PRABHA ROAD GODHRA	9925654888	SIGNA 3523.TK 8X4 BSVI 20BOX
5	Kalol	VANZARA RAMAN	JAY NARAYAN SOCIETY DEROL 2 S ROAD TA KALOL	7874543930	SIGNA 3523.TK 8X4 BSVI 20BOX
6	Kalol	SUBAN HUSEN	GHANCHIVAD KALOL	9825428929	3118 T BSIV
7	Kalol	NATHA RAMZAN	1563-KASBA MASJID KALOL KALOL TA KALOL	9825271487	3118 T BSIV
8	Kalol	MAHENDRABHAI C SOLANKI	MANDIR FALIYU GIRDHARPURI AT KHANDOLI SAMA KALOL	9979072386	SIGNA 2825.TK BSVI HD 16BOX
9	Halol	RAMDEV EARTHMOVERS	PROP NAVDEEP SHANABHAI VANJARA BLO-F/F 208 ASIAN GREEN MAGHASAR VILLAGE MUVALA HALOL	9924459613	SIGNA 3525.TK 8X4 BSVI HD 23BX
10	Halol	DEEPAK RANJITBHAI VANZARA	BLOCK F-208 ASIAN GREEN MAGHASAR VILL MUVALA HALOL	9714911025	PRIMA 3525.TK BSVI 23BOX

11	Halol	PRAVINBHAI L RATHOD	PROP JIGAR TOUR TRAVELS MANDIR FALIYU AT RAHTALAV TA HALOL	9712943244	SIGNA 2823.K BSVI,39W 14BOX
12	Halol	GOPALBHAI MAGANBHAI PATEL	DWARKESH CHEMBER AT HALOL HALOL	9510913050	SIGNA 3525.TK 8X4 EBSVI HD23BX
13	Morva(H)	MAKVANA JALAMSINH	451/3 MAKVANA FALIYU AT RASULPUR TA MORWAHADAF	9924586648	TATA LPK 2518 CRE BS-IV
14	Ghoghamba	GAGJIBHAI RAMABHAI BHARVAD	HOUSE NO 913, BAKROL AT BAKROL BORU BAKROL GHOGHAMBA	9725259257	SIGNA 2830.TK BSVI HD 16BOX
15	Halol	DEV CONCRETE CO	SURVEY NO 219 2 OPP INTEGRA ENG,HALOL CHAMPANER ROAD CHANDRAPURA,TA HALOL,Panchmahal,Gujarat,389350	9714865610	

Source :- RTO

Annexure - 9

List of Crane

Sr	Taluka	Name	Address	Contact	Vehicle Class
1	Godhra	KALANDAR SALIM	AT-ABUBAKKAR MASJID PASE MEDA PLOT GODHRA	8849163337	HYDRA.MOBI LECRANE
2	Godhra	MAKWANA VINOD	VANKAR VAS PADIYA TA GODHRA	7600959533	ASHOK LEYAND CARN
3	Godhra	BHAJJAMAL MOHAMMAD	AT-MUSLIM SOCIETY A SIGNAL FALIYA GODHRA TA-GODHRA ,	9714224200	HYDRAULIC MOBLIE CRANE 14XW
4	Godhra	PIRKHA RAMZANI AHEMAD	495 REHMAT NAGAR CHIKHODRA GODHRA	9714929783	12XW HYDRAULIC MOBILE CRANE
5	Godhra	PARMAR JAYESHKUMAR	1 118 ZEEN 181 JAIN SAMRAT SOCIETY AT GODHRA BHURAVAV	9904304810	CRANE
6	Godhra	SAMOL ISMAIL	AT VALI FALIYA NO 1 POLAN BAZAR GODHRA	9723230185	ACE 12 XW
7	Kalol	GORA IMRAN	AT PO. OPP TALUKA PANCHAYAT KALOL TA KALOL	8469490605	MOBILE CRAIN
8	Kalol	NEW GURUNANAK CRANE SERVICE	BUNGLOW NO 9 OM DUPLEX KALOL KALOL	9815208842	ZOOMLION QY80V
9	Morva(Hadaf)	PATEL VIRSINH	AT NAGDHARI FALIYU RASULPUR TA MORWA HADAF	9909733170	14XW HYDRAULIC MOBILE CRANE
10	Halol	BAGWALA NOMAN	AT-MOGAHAVADA PAVAGADH ROAD TA-HALOL	9909078681	ACE 12 XW
11	Halol	PATEL RAHULKUMAR	5, KALAHARI DUPLEX HALOL	9033424649	HYDRAULIC MOBILE

12	Halol	TULSIPRASAD	16-SHAGUN RESIDANCY NEAR TOLL NAKA HALOL TA HALOL	9724931902	HYDRA.MOBI LECRANE
13		SOLANKI JAYADRATHSIN H	BRAMAN FALIYU BAHI TA SHAHERA	9624394239	JCB 3DX 2WD
14	Shahera	SOLANKI JAYADRATHSIN H	BRAMAN FALIYU BAHI TA SHAHERA	9624394239	Crane Mounted Vehicle
15	Ghoghamba	DEDKI MOHAMMADILY AS	100 AMBALI FALIYA KHANAPATLA TA GHOGHAMBA	9824565743	207/31 MS AW EX BS 2

Source :- RTO

Annexure - 10

List of Loader

Sr	Taluka	Name	Address	Contact	Vehicle Class
1	Halol	AMAR CONSTRUCTION	D-12 UMA SOCIETY KANJARI ROAD HALOL TA HALOL	9909977647	JCB 3DX 2WD
2	Kalol	VANZARA KALUBHAI	TALAV VISTAR KALOL KALOL TA-KALOL	9879722166	JCB 3DX 2WD BS-2
3	Kalol	RATHOD AMARSINH	AT-NR COLD CAF IND MASHWAS TA- KALOL	9825511976	JCB 3DX-2WD
4	Kalol	BHARWAD RAGHUBHAI	AT JAYNARAYAN SOC DEROL STATION ROD KALOL TA	9714437278	JCB 3DX 2WD
5	Morva(H)	PATEL VIKRAMSINH	GHODA FALIYU MATARIA VEJAMA TA- MORWA HADAF	9924585204	JCB 3DX 2WD LOADER
6	Morva(H)	THAKOR DILIPSINH	AT-MAKAN NO 413 DHAMANI FALIYU VANDELI TA- MORVA HADAF	9909548921	Excavator (Commercial)
7	Morva(H)	PATEL DINESHKUMAR	AT HOUSE NUMBER 3-81 MORWA HADAF TA MORWA HADAF	9898984066	JCB 3DX 2WD
8	Godhra	HARSHDIPSINH	CHAMAR FALIYU INDRA AAVAS NAGRI BHAMIYA	9898160281	JCB 3DX 2WD LOADER

9	Godhra	M/S NCC LIMITED	AHMEDABAD HIGHWAY GODHRA	9726425423	JCB 3DX 2WD EXCAVATOR LOADER
10	Godhra	MANSURI SALMANBHAI	DANDIYA BAJAR TIMBA TIMBA ROAD GODHRA	9909563140	BULL SMART BACKHOE AND LODER
11	Shahera	BARIA DALPATSINH	BARIA FALIYU AT SARADIYA PO DHAMNOD TA SHAHERA	8160572996	3DX-2WD
12	Ghoghamba	MAKRANI KALILUNDDIN	AT RAJGHD PALLA TA GHOGHAMBA	9879666569	JCB 3DX 2WD
13	Ghoghamba	SOLANKI JASHVANTSINH	SOLANKI FALIYA GAJAPURA GAJIPURA (K ANPUR) GHOGHAMBA	9909715941	JCB 3DX
14	Ghoghamba	RATHWA RAMESHBHAI	119 GAMTAL AT GALIBILI TA GHOGHAMBA	9879181291	JCB 3DX 2WD
15	Jambughoda	BHARATBHAI	AT. ZOTWAD TA. JAMBUGHODA	9909815179	3DX-2WD
16	Jambughoda	AJABBHAI	HOUSE NUB 49, VACHLU FALIYU NATHPARI JAMBUGHODA	9974483584	3DX

Source :- RTO

Annexure – 11

District General Hospital

Sr. No.	DISTRICT	NAME	Address	Name of Officer	Contact Number	Bed (in no.)	Burn Ward (Yes / No)	Chemical Poisoning Treatment Facility (Yes / No)	Ambulance (in no.)	Nurse (in no.)
1	PANCHMAHAL	CIVIL HOSPITAL GODHRA	Godhra	Dr Mona Pandya	9426566422	330	YES	YES	3	400

List of CHC

Sr. No.	Taluka	CHC / SDH	Address	Name of Officer	Contact Number	Bed (in no.)	Burn Ward (Yes / No)	Chemical Poisoning Treatment Facility (Yes / No)	Ambulance (in no.)	Nurse (in no.)
1	Ghoghamba	Ghoghamba CHC	chc ghoghamba	dr.vijay patel	7567867278	30	no	no	no	9
2	Ghoghamba	Ranjitnagar CHC	RANJITNAGAR	DR KRISHNA PATEL	7043887260	30	NO	NO	no	7

3	Ghoghamba	Simliya CHC	At.simaliya	dr Virbhadrasingh rathod	9712570159	30	no	no	no	7
4	Godhra	KAKANPUR CHC	CHC KAKANPUR	DR KRUNAL R SHARMA	7567867302	30	NO	NO	1	7
5	Godhra	Bhamiya CHC	bhamaiya	dr mital chaudhary	9313537993	5	No	No	no	7
6	Godhra	Timbarod- Gothda CHC	CHC TIMBAROAD	DR. PARTIK R. CHRISTIAN	9512392221	30	NO	NO	1	7
7	Halol	HALOL SDH	At HALOL	Dr. Akshay Upadhyay	9662753033	26	NO	NO	NO	39
8	Jambughoda	Jambughoda CHC	jambughoda	Dr. Renu M P mandal	7567867270	30	NO	NO	no	7
9	Kalol	Malav CHC	MALAV	DR CHIRAG M GADHAVI	9904513286	30	NO	NO	1	7
10	Kalol	Kalol CHC	KALOL	DR BRIJESH PRAJAPATI	9913117817	30	no	no	no	7
11	Morwa (Hada)	Morva Hada SDH	SUB DISTRICT MORVAHADAF NEAR GANESH TALAV	DR. K.M.VAGHELA	7567867274	30	NO	NO	0	33
12	Morwa (Hada)	Mora CHC	MORA	DR.K.M.VAGHELA (INCHARGE SUPERINTENDENT)	7567567274	30	NO	NO	1	7
13	Shahera	Boria CHC	AT.BORIA	DR.SONAL H CHAUHAN	9724375882	30	NO	NO	1	7
14	Shahera	CHC Shahera	AT. SHAHERA	DR. ASHVIN B RATHOD	9427492492	30	NO	NO	1	7
		Total				391			6	158

Source :- Health Department

Annexure - 12

List of PHC

Sr. No.	Block	PHC / UHC	Address	Name of Officer	Contact Number	Bed (in no.)	Burn Ward (Yes / No)	Chemical Poisoning Treatment Facility (Yes / No)	Ambulance (in no.)	Staff Nurse (in no.)
1	Ghoghamba	Bakrol	Phc Bakrol	Dr. Maitri Gohel	9265483300	5	No	No	1	1
2	Ghoghamba	Farod	phc farod	I/C Dr.Rajnik Devaliya	8238386972	5	No	No	1	1
3	Ghoghamba	Gamani	phc gamani	Dr. Harsh Patel	9409901118	5	No	No	1	0
4	Ghoghamba	Gundi	phc gundi	dr kailash	9099713590	6	no	No	1	2
5	Ghoghamba	Kanpur	PHC KANPUR	Dr Kajal J Jadav	8849970820	6	No	No	1	1
6	Ghoghamba	Malu	PHC MALU	DR DIPA S PATEL	9687563246	6	No	No	1	2
7	Ghoghamba	Padhora	Phc Padhora	I/C Dr Varsha N Parmar	9998591506	6	No	No	1	2
8	Ghoghamba	Ranjitnagar	PHC Ranjitnagar	Dr Bhavik J Dave	9427619298	5	No	No	1	1
9	Ghoghamba	Rinchhwani	phc richhavani	dr durgavtiben barjod	7874285167	5	no	no	1	1
10	Ghoghamba	Vav kulli	phc vavkundali	dr.milan pargi	5767893674	6	no	no	0	2
					TOTAL	55	0	0	9	13
11	Godhra	Orvada	PHC ORWADA	Dr Gautam Chaudhary	7567893119	6	No	No	No	2
12	Godhra	Chhariya	PHC CHHARIYA	DR. DHRUVI SHAH	7567893116	5	NO	NO	NO	2

13	Godhra	Kalyana	PHC KALYANA	DR. FALGUNI PALAS	8780635294	4	NO	NO	NO	1
14	Godhra	Kevadiya	phc kevadiya	Dr yagnesh trivedi	6355627267	6	no	no	no	1
15	Godhra	Mahelol	phc mahelol	Dr krishi charel	8160634931	6	no	no	1	3
16	Godhra	Mirap	PHC MERAP	DR ASHUTOSH BANRANDA	6357442410	8	NO	NO	NO	2
17	Godhra	Nadisar	Phc Nadisar	Dr Sourav Selot	9313287212	6	no	no	no	1
18	Godhra	Sampa	Phc sampa	Dr Aasif Bhaijamal	7567893113	6	no	no	1	1
19	Godhra	Timba Gam	PHC timbagam	dr manthan Patel	7567893117	6	no	no	no	0
20	Godhra	karsana	phc karsana	Dr neela gosai	7567893110	6	No	No	No	1
21	Godhra	UHC PATELVADA	PATELWADA	Dr Sheetalben Dalwadi	7567893118	1	No	No	No	0
22	Godhra	UHC KHADIFALIYA	UPHC-2 KHADI FALIYA	Dr.SUSHMA GARIA	8320363696	1	no	no	No	1
23	Godhra	UHC Satpul	UPHC3 Satpul Godhra	Dr. Ruksana Ansari	756783338	1	No	No	No	1
					TOTAL	62	0	0	2	16
24	Halol	Arad	ARAD	dr. Shruti thakur	7567893214	6	NO	NO	1	1
25	Halol	Kanjari	KANJARI	Dr Jay patel	7069455824	0	NO	No	1	1
26	Halol	Kathola	KATHOLA	Dr. jignesh pargi	9925878158	6	NO	NO	1	2
27	Halol	Rameshra	RAMESHRA	Dr. Anand Soni	7567893217	6	No	No	1	2
28	Halol	Shivrajpur	shivrajpur	dr. mehul c patel	7567893218	6	no	no	1	2
29	Halol	Vaghbod	Vaghbod	Dr.Himani Rathva	7048686983	6	NO	NO	1	2
30	Halol	UHC HALOL	Uhc Halol	DR. JAYSHREE J PATEL	7567893221	0	No	No	0	0

					TOTAL	30	0	0	6	10
31	Jambughoda	Chalvad	Chalvad	Dr.Ashvin Rathva	8799531953	6	No	No	1	2
32	Jambughoda	Duma	Duma	Dr.Nensi Kasawala	7069162373	6	no	no	1	1
					TOTAL	12	0	0	2	3
33	Kalol	Karoli	Karoli	Dr Akanshu Kapadiya	7016067008	2	no	no	0	1
34	Kalol	Delol	DELOL	DR.PALAK PATEL	9033868200	6	No	NO	1	3
35	Kalol	Derol	DEROLGAM	DR BHAVIN BHOI	9726363083	6	NO	NO	0	1
36	Kalol	Jantral	JANTRAL	DR DIPAK YADAV	9016407988	6	NO	NO	0	0
37	Kalol	Kanod	KANOD	DR HARDIK PATEL	9574312479	8	NO	NO	1	1
38	Kalol	Sansoli	SANSOLI	DR. MOHSIN SUBAN	9558085545	6	NO	NO	0	1
39	Kalol	Vejalpur	VEJALPUR	DR ASHISH SONI	7574877320	6	NO	NO	0	2
40	Kalol	UHC KALOL	UPHC KALOL	Dr.Bhavin bhoi	9726363083	6	NO	NO	0	0
					TOTAL	46	0	0	2	9
41	Morwa (Hadafe)	Metral	METRAL	DR KHYATI CHAUDHRI	7567893481	6	NO	NO	0	2
42	Morwa (Hadafe)	Mojri	MOJARI	DR AMEE MAKAVANA	6352143027	6	NO	NO	1	1
43	Morwa (Hadafe)	Rajayata	RAJAYATA	DR. DEVANSH. SHROFF	9974867462	6	NO	NO	1	1
44	Morwa (Hadafe)	Sant Road	SANTROAD	DR.TANVI PARIKH	7567893477	6	NO	NO	1	3
45	Morwa (Hadafe)	Vadodar	Vadodar	Dr. Ranjan Malivad	8980982374	6	No	No	1	2

46	Morwa (Hadaaf)	Vandeli	Vandeli	Dr Priya Patel	9265992864	6	No	No	1	1
					TOTAL	36	0	0	5	10
47	Shahera	Aniad	ANIYAD	Dr. Bindiya Dindor	9327047586	2	No	No	0	1
48	Shahera	Bahi	BAHI	Dr.Bhavin Chaudhari	9428409002	4	NO	NO	0	1
49	Shahera	Dharapur	Phc Dharapur	Dr kaushal patel	8469864051	13	No	No	0	1
50	Shahera	Morva Rena	morva -Rena	Ravi Machhi	9328284075	10	no	no	0	1
51	Shahera	Nada	At. Nada Chowkadi At Post Nada Ta. Shahera	Dr Vipulkumar C Kharadi	8153866157	1	no	no	0	1
52	Shahera	Nandarva	Phc Nandarva	Dr Yash Priyadarshi	6356735234	6	NO	No	0	2
53	Shahera	Waghjipur	Phc Waghjipur	Dr Bhavika Damor	9328850547	13	NO	NO	0	1
54	Shahera	PADARDI	PHC PADARDI	DR.MEET MAHLA	6351858766	2	NO	NO	0	2
55	Shahera	GA.BA.MUVADA	At Gaman Baria muvad Ta shahera 389210	Dr Ajaysinh khant	7567893268	12	no	no	0	1
56	Shahera	sureli	sureli	Dr Switi Labana	9510808115	1	No	No	0	1
57	Shahera	UHC SAHERA	URBAN SHAHERA	i/C DR AJAY KHANT	7567893268	1	NO	No	NO	0
					TOTAL	65	0	0	0	12

Source :- Health Department

Annexure - 13

List of Major Private Hospitals

Sr. No.	Taluka Name	Name of Hospital	Address	Doctor Name	Contact Number	Bed (in no.)	Burn Ward (Yes / No)	Chemical Poisoning Treatment Facility (Yes / No)	Ambulance (in no.)	Speciality of Hospital
1	Godhra	Om Orthopedics	Opp.Church,Gandhi Chowk	Dr Mahesh Dama	9727756835	40	NO	NO	1	-
2	Godhra	Sparsh Hospital	B V Gandhi Petrol Pump Ni Same	Dr Ishan Modi	9879153335	25	NO	NO	1	-
3	Godhra	Suryoday Hospital	Charch Ni Same	Dr.Nishat Sheth	9825768237	18	NO	NO	0	-
4	Godhra	Sanjivani Hospital	Near Nagarpalika	Dr.L.J,Shah	2672243206	20	NO	NO	0	-
5	Godhra	Sobhan eye Hospital	Lic Road Godhra	Dr.Harshit Ghandhi	9898670657	0	NO	NO	0	-
6	Godhra	Atul Shah Skin Hospital	Panjarapol	Dr.Atul Shah	2672241378	0	NO	NO	0	-
7	Godhra	Mahendra Desai Psychitry	Prabhakunj socity	Dr.Mahndra Shah	2672241301	0	NO	NO	0	-
8	Godhra	Milwala Childeran Hospital	Vishv Karma Chowk	Dr.Milwala	2672240424	28	NO	NO	0	-
9	Godhra	Sekh Anjuman Trust	Voharwad	DrAbdul Bokda	2672241518	6	NO	NO	0	-

10	Godhra	Rushbh Hospital	B V Gandhi Petrol Pump Ni Same	Dr.Herath Shah	9979861558	5	NO	NO	1	-
11	Godhra	Manha Metarnity Hospital	Civil Same Godhra	Dr.Wasim Mansuri	8511642056	20	NO	NO	0	-
12	Godhra	Burhani Metarnity Hospital	Lic Road Godhra	Dr.Abizarkalowaal	7942682499	15	NO	NO	0	-
13	Godhra	Lara Metarnity Hospital	Sbi Bank Ni Pachal	Dr.Sujat vali	9316272738	33	NO	NO	1	-
14	Godhra	Krishna Metarnity Home	Sbi Bank Ni Same	Dr.Mayur desai	9712163356	15	NO	NO	0	-
15	Godhra	Navjivan Metarnity Home	Kalal Darvaja Godhra	Dr.Alkesh patel	2672249572	20	NO	NO	0	-
16	Godhra	A K Multispeciality	Vishv Karma Chowk	Mohmad Kothi	9081907600	12	NO	NO	1	-
17	Godhra	Sarda Mangalam Metarnity Home	Kalal Darvaja Godhra	Dr.Divyesh Patel	9426642831	15	NO	NO	0	-
18	Godhra	Shree Orthopedic Metarnity Home	Dahod Road Godhra	Dr.Zeel Patel	9964876540	28	NO	NO	1	-
19	Godhra	Ami Metarnity Home	Dahod Road Godhra	Dr.Ashish Jaiswal	9426405822	7	NO	NO	0	-
20	Godhra	Sagar Metarnity Home	Bamroli Road Godhra	Dr.Gitaben Sagar	9429732774	8	NO	NO	0	-

21	Godhra	Sangam Hospital	Chitra Cinema Road	Dr.Neel shah	7990325125	18	NO	NO	0	-
22	Godhra	Jivan Jyot Hospital	Dahod Road Godhra	Dr.Nandan Parikh	8238826910	20	NO	NO	0	-
23	Godhra	Fakhri Hospital	Pajrapol Godhra	Dr.Aliasgar vandeliwala	2672252042	40	NO	NO	0	-
24	Godhra	Shivam Orthopedic Hospital	Pajrapol Godhra	Dr.Jayesh Patel	9998591229	15	NO	NO	1	-
25	Godhra	Gunjan Children Hospital	Pajrapol Godhra	Dr.Prakash Modi	9825022448	20	NO	NO	0	-
26	Godhra	Bhavsar Surgical Hospital	Pajrapol Godhra	Dr.Dhimat Bhavsar	2672240240	15	NO	NO	0	-
27	Godhra	Kamodiya Surgical Hospital	Lic Road Godhra	Dr.Kamodiya	7984686750	8	NO	NO	0	-
28	Godhra	Sanjivani Hospital	Kalal Darvaja Godhra	Dr.L.J,Shah	9429842100	20	NO	NO	0	-
29	Godhra	Yas Orthopedic Hospital	Kalal Darvaja Godhra	Dr.Rakesh Shah	9898840830	10	NO	NO	1	-
30	Godhra	Juva Orthopedic Hospital	Lic Road Godhra	Dr.Juva	9426034674	9	NO	NO	0	-
31	Godhra	Chirag Eye Hospital	Lic Road Godhra	Dr.Samir maheta	8141043777	8	NO	NO	0	-
32	Godhra	Kalp Taru Surgical Hospital	Lic Road Godhra	Dr.PaNKAJ sHAH	7069545064	16	NO	NO	0	-

33	Godhra	Sevalaya Orthopedic Hospital	Lic Road Godhra	Dr.Raju Doshi	7874022979	5	NO	NO	1	-
34	Godhra	Panchal Hospital Godhra	Godhra	Dr.K.K.Panchal	9879318376	20	NO	NO	1	-
35	Godhra	ASTHA HOSPITAL	LUNAWADA HAIWAY BHURAVAV	DR.P.R.BHATIYA	-	5	NO	NO	0	-
36	Godhra	GHANSHYAM HOSPITAL	YOGESHWAR ROAD BHURAVAV	DR.NIRAV.P HAMIRANI	-	18	NO	NO	0	-
37	Godhra	BHAGYODAY SURGICAL HOSPITAL	PRSIDUNT TRAVELS NEAR	DR.J.S PARMAR	-	12	NO	NO	0	-
38	Godhra	padmnabh surgical hospital	JALARAM PLAZA POLICE HEADQUARTER	Dr.Biren.V. Patel	-	16	NO	NO	0	-
39	Godhra	GOPI HOSPITAL	BHURAVAV PAWOR HOUSE	DR.AMIT .N PANCHAL	-	9	NO	NO	0	-
40	GHOGHAMBA	SAHYOG HOSPITAL	GHOGHAMBA	Dr. jayram rathva	6352434701	15	NO	NO	1	-
41	GHOGHAMBA	VINAYAK HOSPITAL	GHOGHAMBA	Dr.venis panchal	9672774390	20	NO	NO	1	-
42	GHOGHAMBA	VATSALYA HOSPITAL	GHOGHAMBA	DR.TEJAS SHAH	9998801387	20	NO	NO	1	-
43	GHOGHAMBA	MADHURAM CLINIC	GHOGHAMBA	DR.MEHUL PATEL	9714233833	15	NO	NO	0	-
44	GHOGHAMBA	RIVA ORTHOPEDIC	GHOGHAMBA	DR.RIDHAM P BARIA	9126238487	5	NO	NO	0	-
45	KALOL	Supeda Hospital	Derol Station Road Kalol	Dr. Dilip Supeda	9825017396	10	NO	NO	0	-

46	KALOL	Vinayak Hospital	Lal Darwaza Kalol	Dr. Sushrut Pandya	8469076797	10	NO	NO	0	-
47	KALOL	Sanjeevani Hospital	Derol Station Road Kalol	Dr. Sanjay Mukherjee	9427688652	12	NO	NO	0	-
48	KALOL	Meenakshi Hospital	College Road Kalol	Dr. Vasudev Joshi	9426340482	10	NO	NO	0	-
49	KALOL	Radha Gopi Hospital	Housing Society Kalol	Dr. Hasmukh Shah	9925050162	10	NO	NO	0	-
50	KALOL	Puja Hospital	Godhra Road Kalol	Dr. Chetan Chavda	9427055942	0	YES	NO	0	-
51	KALOL	Aastha Hospital	Lal Darwaza Kalol	Dr. Harshad Machhi	9825034955	10	NO	NO	0	-
52	KALOL	NMG Hospital	Lal Darwaza Kalol	Dr. Anjali Chavda	8758792989	24	NO	NO	0	-
53	KALOL	NMG Hospital	Lal Darwaza Kalol	Dr. Nirbhay Patel	-	12	NO	NO	0	-
54	KALOL	Lakshmi Maternity Home	Navapura Kalol	Dr. Mahendra Tiwari	9825177029	15	NO	NO	0	-
55	KALOL	Kanak Hospital	Godhra Road Kalol	Dr. Prashant Shah	9316619719	15	NO	NO	0	-
56	KALOL	Kashima Hospital	Derol Station Road Kalol	Dr. Nirav Patel	9662335556	10	NO	NO	0	-
57	KALOL	Ma Hospital	Lal Darwaza Kalol	Dr. Tejash Patel	9913136559	8	NO	NO	0	-
58	HALOL	Anand Hospital	Station Road	Dr. Nimesh Solanki	9825353959	4	YES	YES	0	Children Hospital
59	HALOL	Malay Hospital	Behind Post office, Halol	Dr. Sanjay Shah	9825368084	12	YES	YES	0	Md Fizician, Heart Specialist

60	HALOL	Maa Surgical Hospital	Bus stand Near	Dr. Vijay Patel	9825318196	20	YES	YES	0	General Suren
61	HALOL	Krupalu Clinic	Bus stand Near	Dr. Parth J. Dave	02676-220897	15	YES	YES	0	Uroloist
62	HALOL	Rachana Hospital	Nandanvan Society	Dr. Girish Chaskar	9898686656	8	YES	YES	0	Fizician
63	HALOL	Krishna Children Hospital	opp Bus stand halol	Dr. Shulin P. Trivedi	9426703970	12	YES	YES	0	Children Hospital
64	HALOL	Ashirvad Children Hospital	Near Gaushala Vadodara Road	Dr. Mahendra Patel	9978501551	0	YES	YES	0	Children Hospital
65	HALOL	Halol Hospital & ICU	Near Gaushala Vadodara Road	Dr. Niraj Chawada	9909007791	6	YES	YES	0	Orthopedic
66	HALOL	Anant PrasutiGruh Halol	Pavagadh Road Halol	Dr.Vimesh Nakum	9925954335	12	YES	YES	0	Gynecoloist
67	HALOL	Ankur Hospital	Pavagadh Road Halol	Dr.Dipak Patel	9825331316	15	YES	YES	0	Gynecoloist
68	HALOL	Chhaya Hospital	Geeta NAgar, Halol	Dr.Manan Chhaya	9998216366	14	YES	YES	0	Orthopedic
69	HALOL	Gayatri Hospital Halol	Near Bus Stand- Halol	Dr.Hasmukhkumar Sadhu	9429053153	8	YES	YES	0	Gynecoloist
70	HALOL	Nidhi Maternity Home	Pavagadh Road Halol	Dr.Narendra Sompura	-	5	YES	YES	0	Gynecoloist
71	HALOL	Jahanvi orthopadic Hospital	Meghdut, Godhra Road	Dr.Dilip Solanki	9574436958	20	YES	YES	0	Orthopedic
72	HALOL	Prasuti Gruh Halol	opp.bus stand halol	Dr.shivani Das	-	25	YES	YES	0	Gynecoloist

73	HALOL	POOJAN HOSPITAL	Vadodara Road	DR.JAYESH MARU	8460025005	10	YES	YES	0	Gynecoloist
74	HALOL	Rainbow Children Hospital	opp Bus stand halol	Dr.Dhairya Vaidh	6352880694	20	YES	YES	0	Children Hospital
75	HALOL	Darshan Children Hospital	HALOL	Dr.Darshan Ahir	9737044456	8	YES	YES	0	Children Hospital

Source :- Health Department

Annexure - 14

List of Private Doctors

Sr. No.	Name of Doctor	Contact Number	Degree	Taluka Name	Facility for No. of Beds
1	Dr. jayram rathva	6352434701	BMHS	Ghoghamba	15
2	Dr.venis panchal	9672774390	MBBS ,MS, OBS & GYNAE	Ghoghamba	20
3	Dr.tejas shah	9998801387	MBBS, DGO , CIH	Ghoghamba	20
4	Dr.jignesh panchal	9909016134	BHMS	Ghoghamba	2
5	Dr.mehul p patel	9714233833	BHMS	Ghoghamba	15
6	Dr. ridham p baria	9126238487	MS ઓથો.	Ghoghamba	5
7	Dr. milan p patel	7435096341	BHMS	Ghoghamba	2
8	dr ashish patel	7990470587	B.H.M.S	Ghoghamba	1
9	dr s s pathan	7990329818	D.H.M.S	Ghoghamba	1
10	dr renuka parmar	9316222793	B.H.M.S	Ghoghamba	1
11	dr mehul a patel	9898011129	B.H.M.S	Ghoghamba	1
12	dr vijeta vaidh	9601265196	B.D.S	Ghoghamba	1
13	dr parth v patel	9687289845	B.H.M.S	Ghoghamba	1
14	dr ritesh v patel	9427047085	B.H.M.S	Ghoghamba	1
15	dr p m varali	9909345342	D.H.M.S	Ghoghamba	1
16	dr rajesh vyas	6353943459	B.H.M.S	Ghoghamba	1
17	dr parimal vaidh	9033458407	B.H.M.S	Ghoghamba	1
18	dr visha a vaidh	9033458407	MBBS	Ghoghamba	1
19	dr samir parekh	8200373214	D.H.M.S	Ghoghamba	1
20	dr amit manharlal tailar	8128392839	MBBS, DGO	Ghoghamba	10
21	dr biren h pathak	9825571605	BHMS	Ghoghamba	1
22	dr isha birenkumar	9825571605	MBBS	Ghoghamba	1
23	dr rajendra mahera	9909949824	MBBS	Ghoghamba	15
24	dr yogesh n vanzara	8758200104	BAMS	Ghoghamba	1
25	dr saileshkumar parmat	9909169797	BHMS	Ghoghamba	2

26	DR. NARESH K SHUKLER	9879637977	B.S.A.M.M.C.S	Ghoghamba	0
27	Dr.hardikkumar A.	8141232415	BHMS	Ghoghamba	0
28	DR.MOBINBHAI S.PINGARA	9429789625	BHMS	Ghoghamba	0
29	Dr.RanganN. chauhan	9737736124	BHMS	Ghoghamba	0
30	DR.NILAY V.BARIA	9427407829	BHMS	Ghoghamba	0
31	Dr.Mahendra D. baria	-	BHMS	Ghoghamba	0
32	DR.NILESH V DAVE	9904320669	BHMS	Ghoghamba	0
33	Dr.jitesh b.maheriya	8238169016	BHMS	Ghoghamba	0
34	Dr.Dxesh n.vyash	-	Dhms	Ghoghamba	0
35	Dr.laxmiben pravinkumar pateliya	-	BHMS	Ghoghamba	0
36	Dr.ishvar R.Baria	982593593	BAMS	Ghoghamba	0
37	Dr. parkash ramji bhai	-	Bhms	Ghoghamba	0
38	Dr.morvahi maheriya	-	-	Ghoghamba	0
39	Dr. bhargav raval	-	-	Ghoghamba	0
40	Dr.mehulkumar Natavrbbhai raval	-	DHMS	Ghoghamba	0
41	Shah Naredrkumar kantilal	-	DHMS	Ghoghamba	0
42	Dr.Kapilbariya	-	BHMS	Godhra	0
43	Dr.Dinesh Patel	9427035508	B.A.M.S	Godhra	0
44	Dr.jaimesh parmr	9979690259	B.A.M.S	Godhra	0
45	Dr.Hark Soni	9427828007	BHMS	Godhra	1
46	Dr.Tushar Patel	9824984367	DHMS	Godhra	1
47	Dr.Roshnio Patel	8849973589	BHMS	Godhra	1
48	Dr.Prganesh Machi	9726300250	BHMS	Godhra	0
49	Dr.Prganesh Machi	9726181849	BHMS	Godhra	0
50	Dr.Prvain Patel	9998097939	BHMS	Godhra	0
51	Dr.Jitendra Maheta	9601129756	BHMS	Godhra	0
52	Dr.patel Jaydevkumar S	9979518318	BHMS	Godhra	0
53	DrNarvatsin Bhalabhai	9428131139	BHMS	Godhra	0
54	Dr.Balvantsin pagi	8511514808	BHMS	Godhra	5
55	Dr.Shantilala Patel	9664696659	BHMS	Godhra	0

56	Dr.Krushvanda Chauhan	8140852650	BHMS	Godhra	0
57	Dr.Jigar Patel	7600879541	BHMS	Godhra	0
58	Dr.Jyotindra h dave	9427233081	BHMS	Godhra	0
59	Sanjaybhai kanchlal	9428672028	BHMS	Godhra	2
60	Dr.Safvan Sujela	7862964423	BHMS	Godhra	2
61	Dr.Daxse jadav	8140992829	BAMS	Godhra	0
62	Dr.Jayesh VBariya	9825268066	BHMS	Godhra	1
63	Dr. laxmidamor	8347610338	BHMS	Godhra	0
64	Dr.Bhagirtah Chauhan	7202898185	BHMS	Godhra	0
65	Dr,.Dhiraj R banavati	8000426059	BHMS	Godhra	4
66	Dr.Rajev parikh	9909018650	BHMS	Godhra	4
67	Dr.C.J suthdar	9638651888	BAMS	Godhra	2
68	Dr.kalpesh Suthar	8140166812	DHMS	Godhra	2
69	Dr.Yogini Soni	9979989808	BSAM	Godhra	2
70	Dr.Nikhil haldar	9909223521	DIAM	Godhra	3
71	Dr.Niyati shah	9586144220	BHMS	Godhra	2
72	Dr,Ateka Saiyad	-	BHMS	Godhra	0
73	Dr.Bhavesg k	9106036553	BHMS	Godhra	1
74	Dr.Tushar Patel	9824984367	BHMS	Godhra	2
75	Dr.Sarla Patel	9723262997	BHMS	Godhra	0
76	Dr.Samir shikh	9925462920	BHMS	Godhra	0
77	Dr,Arish Badam	9429559512	BHMS	Godhra	1
78	Dr.Jignesh y Shah	9998040865	BHMS	Godhra	1
79	Dr.Amit M makwana	9428368552	BHMS	Godhra	1
80	dr.Priyans Nagi	9998908275	BHMS	Godhra	0
81	Dr.Ashiok Patel	9714510811	BHMS	Godhra	1
82	Dr.Kartik Kharadi	9998927772	BHMS	Godhra	1
83	Dr.Kaniyalal Joshi	9427807580	BSAM	Godhra	2
84	Dr.Amarnath Chaudahri	9428132175	BAMS	Godhra	0
85	Dr.Gautam Nilesh Patel	9586482391	BAMS	Godhra	0

86	Dr.Nikhil;Vinodchandra soni	9824334132	DHMS	Godhra	1
87	Dr.Arun rajnikant Pandya	8238498096	BHMS	Godhra	1
88	Dr.Silki p shah	8959598192	BHMS	Godhra	2
89	Dr.Bhavik Machi	9714163217	BHMS	Godhra	1
90	Dr.Shailesh S	9974962246	BHMS	Godhra	1
91	Dr.Kalpesh Rameshbhai	9574649027	BAMS	Godhra	3
92	Dr.Amarnath Chaudahri	9428132175	BAMS	Godhra	1
93	Dr/Anilbhai Prajapat	9825526552	BHMS	Godhra	0
94	Dr.Himsu Patel	9979591141	BAMS	Godhra	0
95	Dr.Umang Patel	02676 224997	BAMS	Godhra	0
96	Dr.Asraf Gudiya	9825781960	BHMS	Godhra	0
97	Dr.Bipin Vanjarar	9913671888	BHMS	Godhra	0
98	Dr.Briakesh Travedi	7405552689	BHMS	Godhra	0
99	Dr.Yogesh Soni	8849716173	DHMS	Godhra	0
100	Dr.Mamrkumar Parekh	8200466895	BAMS	Godhra	0
101	Dr.Rakesh Bhmisinh Khant	6352502463	BHMS	Godhra	0
102	Dr.Viralben Patel	9974145481	BHMS	Godhra	0
103	Dr.Gita Pateliya	9712697383	BHMS	Godhra	0
104	dr.Nupur N bariya	6302558540	BHMS	Godhra	0
105	Dr.Muktibariya	6301401849	BHMS	Godhra	0
106	Dr.Nukunvarmar	9427212624	BHMS	Godhra	0
107	Dr.Mosin chota	9662677626	BHMS	Godhra	0
108	Dr.shilesh Patel	9537108057	BHMS	Godhra	0
109	Dr.Priti K parmar	9733440114	BHMS	Godhra	0
110	Dr.Anjali Patel	9429559901	BHMS	Godhra	0
111	Dr.Lavsh Khuslani	8866242423	BHMS	Godhra	0
112	Dr.Kalu Haidarali	7016953377	BHMS	Godhra	1
113	Dr.Nila hada	9664936153	BHMS	Godhra	0
114	Dr.Rakshit Patel	7016270726	BAMS	Godhra	1
115	Dr.Vimal Joshi	7016133263	BAMS	Godhra	1

116	Dr.Dinesh parmar	9979218075	BAMS	Godhra	1
117	Dr.Jaydipsinh Bharatsinh	9904416614	BHMS	Godhra	0
118	Dr.Samor abriay	-	BHMS	Godhra	0
119	Dr.Jatin A patel	9998158622	BHMS	Godhra	0
120	Dr.Shavat B Shukal	-	BHMS	Godhra	0
121	Dr.mahes damd	9727756835	M.S	Godhra	40
122	Dr.Nishant shah	9825768237	M.D	Godhra	18
123	Dr.Yusufi	9724879579	MBBS	Godhra	0
124	Dr.Manzahir	9824091250	MD	Godhra	27
125	Dr.m. m.Wahji	9426327726	DHMS	Godhra	0
126	Dr.Mayur Balwadni	9909528215	BHMS	Godhra	17
127	Dr.Habir	9824091250	MBBS	Godhra	4
128	Dr.abli	9824091250	BDS (BDS)	Godhra	0
129	Dr.Mikir soni	9081907600	MD	Godhra	12
130	Dr.i i Tasiya	9904777466	MD-P.	Godhra	5
131	Dr.Amit m Soni	9825894539	BAMS	Godhra	0
132	dr.Nilang Soni	9898341423	DHMS	Godhra	0
133	Dr.Belwban gajjar	9824835369	BHMS	Godhra	0
134	Dr.Haresh Hemnani	9924878907	BHMS	Godhra	0
135	Dr.Bhavna Sakhimani	9265708767	BHMS	Godhra	0
136	Dr.Mikir D Soni	9081907600	ઓર્થોપેડિક્સ	Godhra	8
137	Dr.Mathur Balvani	9909528215	BHMS	Godhra	17
138	Dr.Mikir Soni	9081907600	ઓર્થોપેડિક્સ	Godhra	8
139	Dr,Mathur Balwadi	9909528215	BHMS	Godhra	17
140	Dr.P.R.Bhatiya	9426340303	MBBS	Godhra	5
141	Dr..Pareh Mulchandaid	9825909860	BAMS	Godhra	1
142	Dr.Mayur P chatabi	9426581762	BHMS	Godhra	3
143	Dr.Rakshit Patel	7016270726	BAMS	Godhra	2
144	Dr.Hiren Prjapar	9428366497	BAMS	Godhra	1

145	Dr.Rajendra Mahera	8511626976	MBBS	Godhra	3
146	Dr.Manojk Rana	9426327497	BHMS	Godhra	1
147	Dr.Shyam Sundar Sharmar	9427489935	BAMS	Godhra	2
148	Dr/Jyoti malwk	9558719678	BAMS	Godhra	1
149	Dr.Yiohesh Tulsyani	7984165174	BHMS	Godhra	2
150	Dr.Amit Panchal	9909835960	MBBS (DGO)	Godhra	9
151	Dr.Lalit VBariyani	9227161174	BHMS	Godhra	1
152	Dr.Ramesh K patel	9727230323	BHMS	Godhra	2
153	Dr.Ashok Mulchandia	9824421741	BAMS	Godhra	4
154	Dr.Nirav Hamirani	9727826200	MBBS(DCH)	Godhra	18
155	Dr.J.,S.pamrar	8140808858	MS GENRAL SURGEON	Godhra	12
156	Dr.Ajya Bhoi	7600023783	MHMS	Godhra	3
157	Dr.Jaymin Joshi	9374277533	BHMS	Godhra	8
158	Dr.Shivang Joshi	7874027588	BHMS/CMS & ED	Godhra	2
159	Dr.Saurbha Shah	9898062735	DHMS/DAC	Godhra	1
160	Dr.Jatin Prajapati	,	BAMS	Godhra	1
161	Dr.Biren Patel	9426044970	MBBS,DNB,FMAS,FIAGES	Godhra	16
162	Dr.kawan lalwani	9426453000	B.H.M.S.,B.E.S	Godhra	0
163	Dr.Krusti Patel	7383068681	DENTAL SURGEON	Godhra	0
164	Dr.Rajvi J Ranan	7984185643	B.H.M.S,AEM	Godhra	0
165	Dr.Pruthvi M Chauhan	6303356096	B.A.M.S	Godhra	0
166	dr.Ikram Patel	9824002572	B.A.M.S	Godhra	0
167	D.shenaj jardaa	9408042848	B.A.M.S	Godhra	0
168	Dr.Imran Bhaijama	9904929636	B.A.M.S	Godhra	0
169	Dr.Hafsa S Kothi	9925324640	B.A.M.S	Godhra	0
170	Dr.Vasim dadi	9712327215	B.A.M.S	Godhra	0
171	Dr.Nisha Ninama	8140066645	MBBS	Godhra	0
172	Dr.Samir Menam	9898476861	B.A.M.S	Godhra	0
173	Dr.Mohmad Ansari	9924829440	B.A.M.S	Godhra	0
174	Dr.Mo.aarif bdama	9429559512	B.A.M.S	Godhra	0

175	Dr.Farnzj Meman	9327116621	B.A.M.S	Godhra	0
176	dr.Mohsin vaska	9925304244	B.A.M.S	Godhra	0
177	Dr.Sohel Dadi	9978720387	B.A.M.S	Godhra	0
178	Dr.t.h.sheriyawala	9106727871	B.A.M.S	Godhra	0
179	Dr.Idrish m Kankadi	9824837272	B.A.M.S	Godhra	0
180	dr.Bangli Aslam Yusfu	9824841384	B.A.M.S	Godhra	0
181	Dr.Ikrawm Saida Patel	9824002572	B.A.M.S	Godhra	0
182	Dr.Ovesh Gesh	9924687786	B.A.M.S	Godhra	0
183	Dr.Suleman Yush Dhanriya	9825499789	B.A.M.S	Godhra	0
184	Dr.hasam IShak Patel	9925324640	B.A.M.S	Godhra	0
185	Dr.Fojiya ISmwilwa	9173313755	B.A.M.S	Godhra	0
186	D.Memuda Foda	8160465840	B.A.M.S	Godhra	0
187	Dr.Sueiya Shikh	9744341987	B.A.M.S	Godhra	0
188	Dr.Sad Ansari	9714661160	B.A.M.S	Godhra	0
189	Dr.Imtyaj Patan	9601819593	B.A.M.S	Godhra	0
190	Dr.Mayur Singav	9909804223	B.A.M.S	Godhra	2
191	Dr.Yugma Purohit	9987592083	B.A.M.S	Godhra	2
192	Dr..Arpit patel	9924915264	B.A.M.S	Godhra	2
193	Dr.Divyaben Parmar	8200633700	B.A.M.S	Godhra	1
194	Dr.Pragnesh Solanki	7359323279	B.A.M.S	Godhra	1
195	dr.Yogesh Soni	8849716173	DHMS	Godhra	2
196	Dr.Apeska Sharmar	7016292914	MBBB	Godhra	0
197	Dr.Kalpesh Dabhi	7984750507	DHMS	Godhra	3
198	Dr.Dhara Patel	8980875496	B.A.M.S	Godhra	2
199	Dr.Prakash Dikisht	9825518934	B.A.M.S	Godhra	20
200	Dr.Khusu jpandor	9909112670	B.A.M.S	Godhra	1
201	DR.DIPALI SOLANKI	9737377858	HOMYEOPATHY	Halol	0
202	DR.CHIRAG PATEL	9654114457	ALLOPATHY	Halol	15
203	DR.DHVANIT CLINIC	8155052750	ALLOPATHY	Halol	7
204	DR. HETVI JOSHI	9427717866	ALLOPATHY	Halol	15

205	DR. JAYRAD TRIVEDI	7990229396	ALLOPATHY	Halol	0
206	DR.ATUL JOSHI	9727954392	ALLOPATHY	Halol	0
207	DR. VANDANA SADHU	9157435973	ALLOPATHY	Halol	0
208	VD. KRIPA SHAH	6362378369	BHMS	Halol	0
209	DR.SEJAL PATEL	9081040315	ALLOPATHY	Halol	0
210	DR.ANKUR MAHETA	7043494114	BHMS	Halol	0
211	DR.JAYVEERKUMAR GOPALDAS DESAI	9879891131	BHMS	Halol	0
212	DR. KHUSHBUBEN RAJENDRAKUMAR JANI	9998015994	BHMS	Halol	0
213	DR.YOGRAJSINH GOHIL	9409396666	BHMS	Halol	0
214	DR.SHAHNAWAZ MAFAT	9925981005	BHMS	Halol	15
215	DR. JAMIL	9820305652	ALLOPATHY	Halol	0
216	DR VISHAL M SHETH	9825589414	BHMS	Halol	8
217	DR.HITUL MAYAVANSI	8511123266	BHMS	Halol	3
218	DR.JAYVARDHAN R PATHAK	9898124985	ALLOPATHY, HOMEOPATHY	Halol	5
219	DR.DHRUV MADHAVANI	7486008923	ALLOPATHY	Halol	15
220	DR.SUNILKUMAR GOKULDAS SHAH	9067058874	DHMS	Halol	15
221	DR.UTSAV PATEL	7016410759	ALLOPATHY	Halol	15
222	DR . DHARMESH VARIA	9723065525	BHMS	Halol	0
223	DR. SUNIL SHAH	6352427622	ALLOPATHY	Halol	0
224	DR.CHMAPAK VAGADIYN	8511503777	BHMS	Halol	0
225	DR. VIJAY PANDYA	9925323299	BHMS	Halol	0
226	DR.MILAN VARMA	6353890141	ALLOPATHY	Halol	15
227	DR. RAJESH SONI	6359224108	ALLOPATHY	Halol	25
228	DR.NIMESH R SOLANKI	9624255840	ALLOPATHY	Halol	9
229	DR.SAMKET SHAH	9033655295	ALLOPATHY	Halol	0
230	DR. SANJAY PETEL	9925123098	BHMS	Halol	2
231	DR.RAHUL VARMA	8980040222	ALLOPATHY	Halol	25
232	DR.MANAN CHHAYA	9409180642	ALLOPATHY	Halol	15
233	DR.JAY SHAH	8733074630	ALLOPATHY	Halol	25

234	Dr. Vasim Abdul Karim Khatri	9909504096	BHMS	Jambughoda	1
235	Dr. Sailesh C Patel	9879063446	BHMS	Jambughoda	1
236	Dr. R M Varma	9974006878	MBBS	Jambughoda	2
237	Dr. Harshad Rohit	9898789978	BHMS	Jambughoda	1
238	Dr. Jayesh Arvind Trivedi	9428367240	BHMS	Jambughoda	0
239	Dr. Patel Mayurkumar	9624707948	BHMS	Jambughoda	1
240	Dr. Natvarbhai Shrimali	9427453654	MBBS	Jambughoda	1
241	Dr.Jayraj Rathava	8511954233	BHMS	Jambughoda	1
242	Dr.B M Patel	9023358473	M.D Physician	Jambughoda	6
243	DR.HARIHAR RATHOD	9725652825	BHMS	Kalol	3
244	DR KRUTIKA PARMAR	8235214255	BHMS	Kalol	3
245	DR.ANJANA PATEL	9712451243	BHMS	Kalol	3
246	DR SURENDRA PANDYA	9785214536	BAMS	Kalol	3
247	DR SANJAY HALDAR	9025853366	DNYS,CMS,ED	Kalol	3
248	DR DEVASHISH BALA	8521142536	CMS,EDT,DIAM	Kalol	3
249	Dr Ilesh. R. Patel	9825915459	D.H.M.S	Kalol	0
250	Dr. Ashokbhai .M. Patel	3379356906	B.S.A.M	Kalol	0
251	Dr Mehulbhai Parmar	8200665275	B.H.M.S.	Kalol	0
252	Dr Sunilbhai .N. Parmar	9638766834	B.H.M.S.	Kalol	0
253	DR KRITIKA PARMAR	8140553439	BHMS	Kalol	0
254	DR PARTH M PARMAR	8200069188	BAMS	Kalol	3
255	DR PARESH PARMAR	6356146774	BHMS	Kalol	4
256	Dr. Dilip K Supeda	9825017396	M.S	Kalol	10
257	Dr. Ankit S Pandya	9737139605	B.H.M.S	Kalol	0
258	Dr. N. J. Mansuri	9879318251	B.H.M.S	Kalol	0
259	Dr. J. M. Sheikh	9898529696	B.H.M.S	Kalol	0
260	Dr. Yogesh Pandya	9825852072	D.H.M.S	Kalol	0
261	Dr. Sushrut Pandya	8469076979	M.D PHY.	Kalol	10
262	Dr. Sneha Parikh	9712336184	B.H.M.S	Kalol	0
263	Dr. Nirav Patel	9662335556	GYNEC,M.B.B.S,DGO	Kalol	10

264	Dr. Sanjay Mukherjee	9427688652	M.B.B.S, M.S	Kalol	12
265	Dr. Vasudev Joshi	9426340482	M.B.B.S	Kalol	10
266	Dr. H. R. Shah	9925050162	M.B.B.S	Kalol	10
267	Dr. Chetan M. Chavda	9427055942	M.B.B.S,D.C.H	Kalol	8
268	Dr. Harshad Machhi	9825034955	M.D.,D.G.O	Kalol	10
269	Dr. Prashant Shah	972407284	M.B.B.S DCH	Kalol	15
270	Dr. Chandrakant Pandya	9825264564	B.A.M.S	Kalol	0
271	Dr. M. R. Tiwari	9825177029	M.D.,D.G.O	Kalol	15
272	Dr. Akash V. Joshi	8866897924	B.H.M.S	Kalol	0
273	Dr. Dinesh Pandya	8469235565	D.H.M.S	Kalol	0
274	Dr. Deepak L. Pandya	9322159857	B.S.A.M	Kalol	0
275	Dr. Kiran R. Parmar	9228135018	B.H.M.S	Kalol	0
276	Dr. Vraj Patel	9913136559	M.B.B.S DCH	Kalol	8
277	Dr. Harshit K. Gadhvi	9898038518	B.A.M.S	Kalol	0
278	DR PINAL PANDYA	9974806336	DHMS	Kalol	0
279	DR DHARMENDRA RATHOD	9979568390	BEMS	Kalol	0
280	DR.THAKORBHAI U PATEL	9898199196	BAMS	Kalol	0
281	DR JITENDRA B PATEL	9974608561	BHMS	Kalol	0
282	DR HARSHIT GADHVI	9898038518	BAMS	Kalol	0
283	DR KHUSHBU GADHVI	9974806336	BAMS	Kalol	0
284	DR VRAJ SHAH	9737364312	BHMS	Kalol	0
285	DR DEVANG K PANDYA	9978428713	BHMS	Kalol	0
286	DR PRAGNESH GADHVI	9974441078	DHMS	Kalol	0
287	DR JYATINDRABHAI DAVE	9427612929	BAMS	Kalol	0
288	DR CHETAN TRIVEDI	9925254562	DHMS	Kalol	0
289	DR SHUBHANGINI H SHAH	9724084361	BHMS	Kalol	0
290	DR NISARG N KACHHIYA	8140653735	BHMS	Kalol	0
291	DR KASHYAP Y CHAMPANERIA	8668453335	BHMS	Kalol	0
292	DR SHAHNAVAJ MAFAT	9978175055	BHMS	Kalol	0
293	DR IRSHAD MAFAT	8668453335	MBBS	Kalol	0

294	DR VISHAL PATEL/DR ISHVAR PARMAR	9664621311	BHMS/ MD MEDICINE	Kalol	15
295	DR UTSAV CHOKSHI	9157739977	MBBS, DTCD-PHYSICIAN	Kalol	15
296	DR BHAVESH H SONI	9924343704	DHMS	Kalol	0
297	DR HARESH M BHATT	8160500704	BHMS	Kalol	0
298	DR ANKITA SONI	9099367887	DHMS	Kalol	0
299	DR FAIZAN MANSURI	8469910110	BHMS	Kalol	0
300	DR ASHISH SHAH	9978173664	BHMS	Kalol	0
301	DR MAYNAK H SONI	9979068058	DHMS	Kalol	0
302	DR RAKESH P SHAH	9712465128	DHMS	Kalol	0
303	DR IRFAN ISMAILVALA	9978582161	DHMS	Kalol	0
304	DR JAFAR N RASUL	9909517222	BHMS	Kalol	0
305	DR NARESH D PATEL	9427319625	BHMS	Kalol	0
306	DR ROHIT H PARMAR	8141995545	BHMS	Kalol	0
307	Dr. Bhargava N Patel	9909732424	DHMS	Morva Hadaf	10
308	Dr. Amit G Baria	9727450987	BHMS	Morva Hadaf	6
309	Dr. Arjun Singh A Pandor	9586881298	BHMS	Morva Hadaf	3
310	Dr. Deven P Soni	9879348013	DHMS	Morva Hadaf	1
311	Dr. Rajendra Singh C Pagi	7778843211	BHMS	Morva Hadaf	7
312	Dr. Nirav Kumar M Patel	9429840085	BHMS	Morva Hadaf	3
313	Dr. Mahendra Singh B Parmar	9638526673	BHMS	Morva Hadaf	0
314	Dr. Varshaben S Rathod	9638526673	BHMS	Morva Hadaf	0
315	Dr. Manish Kumar L Desai	9978581222	BHMS	Morva Hadaf	12
316	Dr. Nirupamaben H Bhagat	9978790483	BHMS	Morva Hadaf	0
317	Dr. Kamil Kumar U Shah	8200538009	BHMS	Morva Hadaf	0
318	Dr. Mitaben V Khant	9727712894	BHMS	Morva Hadaf	2
319	Dr. Tarun Kumar K Purani	7623818839	BAMS	Morva Hadaf	0
320	Dr. Himanshu P Vanzara	8320088928	BHMS	Morva Hadaf	0
321	Dr. Vipul Kumar A Baria	9537890686	BHMS	Morva Hadaf	0
322	Dr. Vinodbhai M Patel	9427484969	BAMS	Morva Hadaf	0
323	Dr. Dakshaben A Patel	9081835068	BHMS	Morva Hadaf	3

324	Dr. Girish Kumar B Patel	9574677665	BHMS	Morva Hadaf	6
325	Dr. Ravindra Singh R Patel	9426931889	BHMS	Morva Hadaf	2
326	Dr. Jigar Kumar K Patel	7567765742	BAMS	Morva Hadaf	2
327	Dr. Keyur N Patel	8238548097	BAMS	Morva Hadaf	3
328	Dr. Gajendra Singh D Chauhan	8200976861	BHMS	Morva Hadaf	1
329	Dr. Kaushik B Ganaswa	9979663734	BHMS	Morva Hadaf	4
330	Dr. Urvashi Ben V Pargi	7016897509	BHMS	Morva Hadaf	2
331	Dr. Ranjitbhai L Damor	9727857667	BHMS	Morva Hadaf	3
332	Dr. Praveensinh R Maliwad	9429292876	BAMS	Morva Hadaf	0
333	Dr Hirenkumar A Ganaswad	7567725408	BHMS	Morva Hadaf	0
334	Dr Keyurbhai K Bhavsar	9979218626	BAMS	Morva Hadaf	2
335	Dr Nilesh C Bamania	7069553597	BHMS	Morva Hadaf	0
336	Dr Harshadkumar M Baria	6355601078	BHMS	Morva Hadaf	4
337	Dr Chiragkumar B Baria	8849386995	BHMS	Morva Hadaf	5
338	Dr Yatin J Patel	9898477388	BHMS	Morva Hadaf	5
339	Dr Divyaben N Patel	7990903794	BHMS	Morva Hadaf	0
340	Dr Tarunkumar M Koshti	9727554646	BHMS	Morva Hadaf	0
341	Dr Girishkumar N Patel	9099437111	BHMS	Morva Hadaf	3
342	Dr Ashokkumar C Shah	-	BAMS	Morva Hadaf	0
343	Dr Jigneshkumar R Damor	7990641259	BHMS	Morva Hadaf	0
344	Dr Matin Mohmandhanif Sheikh	9998737343	BHMS	Morva Hadaf	2
345	Dr Manharsinh K Vasaiya	9537698326	BHMS	Morva Hadaf	3
346	Dr Rakesh D Patel	9879723800	BHMS	Morva Hadaf	3
347	Dr Mohmandhanif Amirali Sheikh	9427385212	BAMS	Morva Hadaf	0
348	Dr Jignesh H Soni	9427036766	DHMS	Morva Hadaf	0
349	Dr Hitendrasinh M Rathod	9099460544	BHMS	Morva Hadaf	4
350	Dr Jined Iqbal Sheikh	9925935413	BAMS	Morva Hadaf	3
351	Dr Niravkumar P Patel	9313412798	BHMS	Morva Hadaf	2
352	Dr Sanjaykumar M Patel	9537158550	BHMS	Morva Hadaf	4
353	Dr Ankitaben R Chandana	9023007885	BHMS	Morva Hadaf	0

354	Dr Jashanwatbhai M Patel	8238530657	BAMS	Morva Hadaf	0
355	Ashish Bhatia	9601645222	MBBS	Morva Hadaf	10
356	Dr. Neelu Patel	9689507130	MBBS	Morva Hadaf	0
357	Dr. Ishwar Makwana	8140418144	MBBS	Morva Hadaf	0
358	DR PRITESH MACHHI	8320762068	MBBS	Shahera	0
359	DR PANKAJBHAI PATEL	8140653735	D.H.M.S	Shahera	2
360	DR RITEKSHA DARJI	8668453335	B.H.M.S	Shahera	1
361	DR SUNIL SHAH	9978175055	B.H.M.S	Shahera	2
362	DR YOGESH DABHI	9327203687	B.H.M.S	Shahera	4
363	DR JAYESH PATEL	9099014369	B.H.M.S	Shahera	2
364	DR RUCHITA PATEL	8200937074	BHMS	Shahera	3
365	DR DIXIT P VANKAR	9825475007	BHMS	Shahera	3
366	DR. NITIN J GADHVI	9664602582	BHMS	Shahera	2
367	DR. DAXESH A SONI	9898915800	BHMS	Shahera	2
368	DR. JIGAR S DALAL	9925589010	DHMS	Shahera	2
369	DR. YOGESH A RAVAL	8980043050	BHMS	Shahera	3
370	DR. PRATIK J JOSHI	7621872484	BHMS	Shahera	3
371	DR. RAVI KHANT	9426808545	BAMS	Shahera	2
372	DR. SURESHBHAI R CHARAN	9586273769	BHMS	Shahera	2
373	DR PANKAJ PATEL	8140653735	DHMS	Shahera	2
374	DR RITEXA DARAJI	8668453335	BAMS	Shahera	1
375	DR SUNIL SHAH	9978175055	BHMS	Shahera	2
376	DR YOGESH DABHI	9327203687	BHMS	Shahera	4
377	DDR JAYESH PATEL	9099014369	BHMS	Shahera	2
378	DR RASHMIKABEN PATEL	7698106172	BHMS	Shahera	2
379	DR JITENDRA PARMAR	6353601550	BHMS	Shahera	2
380	DR MAULIK GOSWAMI	7359262400	BHMS	Shahera	1
381	DR AASIM PATEL	9737706786	BHMS	Shahera	1
382	DR SURESHBHAI PANCHAL	9428363221	BHMS	Shahera	2
383	DR KASHYAP GADHVI	6355570363	BAMS	Shahera	2

384	DR VIJAY PANCHOLI	9979724992	DHMS	Shahera	1
385	DR SANJAY PATEL	9427224557	BHMS	Shahera	1
386	DR NIRAJKUMAR PATEL	9825439919	BHMS	Shahera	0
387	DR PARTH PATEL	9825828309	BAMS	Shahera	0
388	DR RAJESHKUMAR PATEL	7698375885	DHMS	Shahera	0
389	DR MANAHAR GADHVI	9925039521	MBBS	Shahera	0
390	DR RAJESH BIHARI	9825768252	MBBS	Shahera	0
391	DR SARJUBHAI PATEL	9979518323	BHMS	Shahera	0
392	DR VIJAY PATEL	9974575745	MD (Homiopehik)	Shahera	50
393	DR HITEN PRAJAPATI	9909098889	BHMS	Shahera	2
394	DR VIJAY PATEL	9909166581	BAMS	Shahera	3
395	DR DIPAK KHUSHLANI	8490011264	BAMS	Shahera	2
396	DR KAMLESH PATEL	9913118499	BAMS	Shahera	3
397	DR SHAILESH VAJZARA	8490011264	BHMS	Shahera	1
398	DR DIRENDRA VANZARA	9512665274	BHMS	Shahera	2
399	DR SHIVANI BARIA	6352421894	BHMS	Shahera	1
400	DR DHARMESH UPADHYAY	9979751214	DHMS	Shahera	2
401	DR VIJAY PATEL	9909166581	BAMS	Shahera	2
402	DR JITENDRA BARIA	8141463071	BHMS	Shahera	2
403	DR SAHDEV J CHAUHAN	9016037090	BHMS	Shahera	1
404	DR DIVYESH PATEL	9427655276	BHMS	Shahera	2
405	DR DHANJAYKUMAR RAY	7861912122	BDS	Shahera	4
406	DR CHANDRSHEKHAR	7861912122	BHMS	Shahera	0
407	DR RAHULGIRI GOSAI	9909893794	BHMS	Shahera	0
408	DR BIPINBHAI VANJARA	9913671885	BHMS	Shahera	0
409	DR ANSAR VHORA	9829666678	BHMS	Shahera	6
410	DR VIPUL VASANI	9427081506	BHMS	Shahera	1
411	DR MOHSIN F VASKA	9925304244	BHMS	Shahera	4
412	DR PRAKASH PATEL	9427397088	BHMS	Shahera	1
413	DR BHUPENDRA THAKOR	9428543037	BHMS	Shahera	1

414	DR KAMLESH CHAUHAN	9723215381	BHMS	Shahera	1
415	DR ASHRAF SHEKH	9898548473	BHMS	Shahera	1
416	DR AJAY BHAVSAR	9426390838	BHMS	Shahera	5
417	DR ALTAF	9316659101	BHMS	Shahera	0
418	DR CHANDRSHEKHAR B ROY	8141998998	BHMS	Shahera	0
419	DR SURESHCHANDRA PATHAK	9427361646	BHMS	Shahera	1
420	DR DIVYANI PATEL	9408433538	BHMS	Shahera	2
421	DR ARVIND PAGI	7878457816	BHMS	Shahera	3
422	DR DHIRENDRA THAKOR	9426566876	BHMS	Shahera	1
423	DR TARUN SHAH	9426327772	BHMS	Shahera	2
424	DR S K MANDOL	9909076124	BHMS	Shahera	0
425	DR AANAND K CHAUHAN	9714281018	BHMS	Shahera	2
426	DR JAYDIP SOLANKI	7777972820	BHMS	Shahera	2
427	DR JYOTIMAY PATHAK	-	BHMS	Shahera	0
428	DR SAJJAD SAMBHALIVALA	8469920220	BHMS	Shahera	1
429	DR DHRUV PATEL	9574622305	BHMS	Shahera	3
430	DR AYAJHULKHAL	7016740478	BHMS	Shahera	0
431	DR SHIVANG SHARMA	9512059443	MBBS	Shahera	5
432	DR CHINTAN JOSHI	9909853831	MBBS	Shahera	5
433	DR DHARMENDRA BARIA	9313127153	BHMS	Shahera	0
434	DR SEJAL BARIYA	9510513047	BHMS	Shahera	0
435	DR DIYA ASWANI	8320781056	BHMS	Shahera	0
436	DR ABHI SHAH	8320350684	BHMS	Shahera	0
437	DR TRUSHALI PATEL	9340603031	BHMS	Shahera	0
438	DR ANNANT D PARTHAK	9998767278	BAMS	Shahera	2
439	DR RAMESH CHAUHAN	8154899055	BHMS	Shahera	2
440	DR MEHUL BARIA	7573842221	BHMS	Shahera	3
441	DR ABHISHEK THAKKAR	9428781226	BHMS	Shahera	2
442	DR RAVINDRKUMAR BARIA	9428028072	BHMS	Shahera	2
443	BARIA MAHESHKUMAR	9924299800	BAMS	Shahera	2

444	DR SANJAY PAREKH	9428672028	BHMS	Shahera	0
445	DR SABBIR A VAGHJIPURVALA	6352666257	MBBS	Shahera	1
446	BARIA VANDANABEN POPATSINH	8200461774	BAMS/MS	Shahera	0
447	DR. NITIN J GADHVI	9664602582	BHMS	Shahera	2
448	DR. DAXESH A SONI	9898915800	BHMS	Shahera	2
449	DR. JIGAR S DALAL	9925589010	DHMS	Shahera	2
450	DR. JIGAR S DALAL	9925589010	DHMS	Shahera	2
451	DR. YOGESH A RAVAL	8980043050	BHMS	Shahera	3
452	DR. PRATIK J JOSHI	7621872484	BHMS	Shahera	3
453	DR. RAVI KHANT	9426808545	BAMS	Shahera	2
454	DR. SURESHBHAI R CHARAN	9586273769	BHMS	Shahera	2

Source:Health Department

Annexure - 15

List of Equipment with Mamlatdar office

Sr.No	Name of Taluka	Life Jacket	Lifebuoy ring	Rope-100Ft.	Generator Set	Rain Gauge
1	Godhra	11	14	5	1	1
2	Kalol	10	12	2	1	1
3	Halol	10	14	4	1	1
4	Ghoghamba	10	15	2	1	1
5	Jambughoda	18	18	4	1	1
6	Shahera	14	14	2	1	1
7	Morva(h)	10	15	4	1	1

Annexure - 16

List of Equipment with Fire Department Nagarpalika

Sr. No	Name of Nagarpalika	Name of Equipment	Number of Vehicle	Working Condition Yes/No	Details of custodian			
					Name	Designation	Mobile Number	Telephone number
1	Godhra	Mini fire Tender	2	Yes(1 Fitness overdue)	Shri Sagar Patel	Chief officer	90996 30494	
		Water Bowser	3	Yes(2 Fitness overdue)	Shri.Dinesh Dindor	i/c Fire Officer	7657124114	02672-240043
		Fire Bullet	3	Yes				
		Boat	3	1 Working				
		Water Mist	2	Yes				
		Inflatable Emergency Portable Light	1	Yes				
		Life Jacket	15	Yes				
		Lifebuoy ring	18	Yes				
		Rope-100Ft.	4	Yes				
		Rescue Tender	1	Yes				
		Tree Cutter	2	Yes				
		Warning Siren	1	Yes				
		Megaphone	1	Yes				
		Walkie-Talkie	4	Yes				
2	Kalol	Mini fire Tender	1	Yes(Fitness overdur)	Shri.Sanjay Patel	Chief Officer	9909218198	02672-235101
		Foam Tender	1	Yes	Shri Natubhai	Fireman	7984006353	
		Water Bowser	1	Yes				
		Fire Bullet	0	-				
		Boat	1	Yes				
		Emergency Portable Light	1	Yes				
		Life Jacket	7	Yes				
		Lifebuoy ring	5	Yes				
		Rope-100Ft.	7	Yes				
		Tree Cutter	2	Yes				

		Warning Siren	1	Yes				
		Megaphone	1	Yes				
		Walkie-Talkie	4	Yes				
3	Halol	Mini fire Tender	1	Yes	Shri Gaurang Patel	Chief Officer	7575801616	
		Fire Tender	1	Yes				
		Water Bowser	1	Yes				
		Fire Bullet	1	Yes				
		Boat	1	No	Shri.Devang Christian	i/c Fire Officer	9998872161	02676-221972 02676-298101
		Emergency Portable Light	1	Yes				
		Life Jacket	6	Yes				
		Lifebuoy ring	8	Yes				
		Rope-100Ft.	3	Yes				
		Rope-200Ft.	0	-				
		Tree Cutter	3	Yes				
		Warning Siren	1	Yes				
		Megaphone	1	Yes				
		Walkie-Talkie	4	Yes				
4	Shahera	Mini fire Tender	1	Yes	Su.Shri.Tejalben	Chief officer	7623927883	
		Water Bowser	0	-				
		Fire Bullet	0	-	Shri.Jitendra Rathod	i/c Fire Officer	8200729961	02670-226856
		Boat	0	-				
		Inflatable Emergency Portable Light		-				
		Life Jacket	10	Yes				
		Lifebuoy ring	14	Yes				
		Rope-100Ft.	1	Yes				
		Rope-200Ft.	0	-				
		Generator Set	0	-				
		Tree Cutter	2	Yes				
		Warning Siren	1	Yes				
		Megaphone	1	Yes				

Annexure – 17

List of MAH Unit in Panchmahal District

Panchamahals MAH List						
No	Factory Name & Add	Contact Person	Mobile Number	Chemical Used	Storage	Hazards
1	Hero Motocorp Ltd	Arajan Chabhad - EHS	99090 09078	Propane (48 MT)	Bullet	Fire & Explosive
		Vikas Gandhi - HR	8733045108			
	102, GIDC, At-Navariya, Halol	Rajesh Kumar - Head	85869 66593			
	Ta-Halol					
2	Paushak Ltd	Dr Mayank Joshi- EHS Head	6356205131	Chlorine (133 MT)	Tonner	Toxic
				Toluene, Methanol, Ethanol (69 KL)		
	At-Panelav, Tajpura	Jayanti Virani- Factory Manager	6357428894		Tank Each	Fire
	Ta-Halol			Phosgene (100 Kg)	Holding in pipeline	Highly Toxic
3	Gujarat Floro Chemicals (GFL Ltd)	Kaushik Patel - EHS	99980 02268	AHF (30 MT)	Tank	Corrosive
	S.No.-16/3, At-Ranjitnagar	Kinjal Panchal	8905741190	Oleum 23% (100 MT)	Tank	Corrosive
	Ta-Ghoghamba	Anil Killarika - Factory Manager	7624093971	Solvent	Tank	Fire
4	Styrenix Performance Materials Limited (Formerly known as INEOS Styrolution (India) Ltd.),	Manish Shukla- EHS Manager / Harsh Makwana - EHS	63581 79280 8103898248	Styrene (1360 M3)	Tank	Highly Toxic
	At-Katol, Halol-Godhra Road	Shweta Vakil - HR	95120 12136	Acrelonitrile (536 KL)	Tank	Toxic
	Dist.:Panchmahal, Gujarat, 389330	Gajraj Singh - Head	9909029146	Solvant	Tank	Fire
5	Panchamahahal Steel Ltd	Ravirajsinh Parmar - EHS	6356494267	LPG (40 MT)	Bullet	Fire & Explosive

	1, GIDC, Kalol	Akshay Sehgal - HR	98988 32535			
	Ta-Kalol	Rajan Kalani - Head	79902 87639			
6	Kusa Chemicals Pvt Ltd	Malhar Baria - EHS	93167 04442	Ethylene Oxide	Bullet	Fire & Explosive
				(15 MT)		
	At-Popatpura, Halol-Godhra Road	Tejas Desai- Factory Manager	9574721212	Solvents	Barrels	Fire
	Ta-Godhra	Vikesh Patel - Director	9820373260			

Source :- DISH

Annexure - 18

Antidotes Details available with MAH Factory

<u>Antidotes Details Of MAH Factory</u>							
Antidotes Details Of MAH Factory (Panchmahal)							
No.	Name of Company	Plot No.	Phone No.	Name of Chemicals	Name of Antidotes	Medical Treatment	Quantity
1	Paushak Ltd	135-36, 145-46-47, 79, 228-29-30 Panelav, Tajpura	(1)Dr. Milan Thakkar = 9558804701 (2)Dr Mayank Joshi- 6356205131	Phosgene	NA	Medical Oxygene and Inj. Methyle Predisolone	10
				Chlorine	NA	Medical Oxygene and Inj. Dexona + Inj Avil - Cough ing	20
				Nitro, Amine & Aniline base compound raw material	Methylene Blue	-	5
				Chemical Burn Injury	NA	Diphoterine skin Spray & Eye wash	20
2	Kusa Chemicals Pvt Ltd	At-Popatpura, Halol-Godhra Road,Ta-Godhra	1)Dr. Milan Thakkar = 9558804701 (2)Vikesh Patel - Director = 9820373260	Ethylene Oxide	Atropine	-	5
				PropyleneOxide	Palm	-	2
3	Styrenix Performance Materials Limited (Formerly known as INEOS Styrolution (India) Ltd.),	At-Katol, Halol-Godhra Road,Ta-Kalol	(1) Dr. D.K Supeda= 9825017396 (2)Parvez Bata - Head = 9909029148	Acrelonitrile	Amvl Nitril	-	2
4	Gujarat Floro Chemicals (GFL Ltd)	S.No.-16/3, At-Ranjitnagar,Ta-Ghoghamba	(1)Dr.Kalpesh Changlani=8905320619 ; (2)Dr.Amar Rathi=8347001246 (3)Sanjay Gandhi - 9662527632	Snake bite	Anti Snake Venom	-	6
				Aniline	Methylene Blue injection	-	10
					Injection Calsium	-	42

				Anhydrous Hydrofluric Acid	HF Eye Wash	-	9
					HF Face Was	-	15
					Safety Gel - HF	-	40
				Bromine	Safety Gel - B	-	3
				Sulphuric Acid	Safety Gel -S	-	40
				Caustic	Safety Gel - C	-	20
5	Panchmahal steel limited	Plot No. 99, 100, 101, 102, 103, 104, 105, 106, 108, 109, 117, 121, 212, 213 (1&2), GIDC Industrial Estate Kalol, Dist. Panchmahal - 389330	(1)Dr. Milan Thakar = 9558804701	LPG	NA	-	-
6	Hero MotoCorp Ltd	102, GIDC, At-Navariya, Halol	Dr. Sandeep Thakkar - 9099016509	Propane	NA	-	-

Annexure - 19

Details of Industry with fire tender facility

Sr	Name of Industrty	Address	Responsible Officer Name	Contact No.	No of fire Tender	Details of Fire Tender
1	JSW MG Motor India Pvt. Ltd	Chandrapura Industrial estate, Halol, Godhra Pin : 389351	Randhirsinh Railji -H.R.	7227931083	1	One Fire Multipurpose Tender having water capacity of 5000 Ltr & Foam 1000 Ltr
			Rakesh Patel(EHS)	6358760153		
2	Polycab India Limited	Noorpura, Halol	Narayan Shah Shah-H.R	9426026710	1	Mini Multipurpose 2000 Ltrs water
3	Gujarat Floro Chemicals (GFL Ltd)	S.No.-16/3, At- Ranjitnagar,Ta-Ghoghamba	Kaushik Patel - EHS	99980 02268	2	02 Nos. Multi Purpose water capacity-4500 Ltr Foam Capacity =1000Ltr DCP=500 Kgs-01 NOs
			Jayesh Solanki -EHS	9725022830		
			Jay Shah - Head	#ERROR!		
4	Gopaldas Visram and Company Ltd.	Maswad Industrial estate, Halol	Prakash Kushwah-Hr	8200681599	1	Mini Multipurpose 1000 Ltrs water
			Dhruv Dave-MNT	8792453294		

Source :- DISH

Annexure - 20

Details of Industries with medical facility

Sr.	Name of Industry	Nos. of Ambulance	Type of Ambulance	Availability of Doctor	Contact No	Availability of paraMedical staff
			ALS/BLS	(Number of doctor)		Numbers of Pera medical staff
1	JCB Industries PVT LTD	1	ALS	Dr. Satish Patel & Dr Sejal Patel	9687626840 ;9979370341	07 Nursing staff + 03 Drivers
2	LM Wind Power Blades India Pvt Ltd	1	BLS	Dr.Jitesh Hadiya	9574766438	05 Nursing staff
3	Raychem RPG	1	ALS	Dr.Bharat Chaudhary	9998775899	06 Nursing staff
				Dr. Vimlesh Baria	9427353507	
4	Styrenix Performance Materials Limited (Formerly known as INEOS Styrolution (India) Ltd.),	1	BLS	Dr. D.K Supeda	9825017396	03 Nursing staff
5	TOTO India Industries Pvt. Ltd	1	BLS	Dr. Prakash Shah	9016535035	Ambulance
6	Gujarat Floro Chemicals (GFL Ltd)	2	01 BLS , 01 ALS	Dr.Kalpesh Changlani	8905320619	06 Nos paramedical staff(05Male Nurse, 01 Female Nurse)
				Dr.Amar Rathi	8347001246	
7	HERO MOTOCORP LIMITED	2	BLS	Dr. Sandeep Thakkar	9099016509	05 Nursing staff
8	Rubamin Private Limited	1	NA	Dr. Amar rathi	8347001246	0
9	Sisecam Flat Glass Ltd	1	BLS	Dr. Kaushal Prajapati	9104630194	3 medical staff and 2 driver for
						ambulance

10	Hitachi Energy India Limited	1	BLS	DR. Mitesh Patel	8511048192	4 Paramedical staff (03 Male & 01 Female) & 3 Ambulance Driver
11	Ceat Limited	1	BLS	Dr.Rikul Shah	9016417931	4 Nos Male Nurse
						4 Nos Female Nurse
						3 Nos Ambulance Driver
12	Polycab India Ltd	1	BLS	Dr. Bharat R.Gorfad	9724601683	06 Nursing staff
13	Sun Pharmaceuticals Lnd Ltd	2	BLS	Dr. Kamlesh	9586289606	4 Nursing staff
14	Sun Pharmaceutical Medicare Ltd.	1	BLS	Dr. Vinay Patel	8320809451	03 Nursing staff
15	Alembic Pharmaceutical Ltd.	2	BLS	Dr. Manish Gehani	7568874444	10 Nursing staff
				Dr. Kinjal Prajapati	9725122179	
				Dr. Vinay Barot	9925220776	
				Dr. Arpit Raval	9.19826E+11	
16	JSW MG Motor india Pvt. Ltd	1	ALS	Dr. Sunil Nagori	8154021727	6 Para medical staffs
				Dr. Mansi Shah	7383401087	(3 Male & 3 Female and 4 Ambulance drivers)
				Dr. Kamal Mistry	9913301086	Availaile in all shift
17	Valmont Structures Pvt. Ltd.	1	BLS	Dr. Vinay Patel	8320809451	2 first Aider in each shift.
18	Paushak Limited	1	BLS	Dr.Milan Thakker	9558804701	01 Nursing staff
19	Setco Auto Systems Pvt.Ltd.	1	BLS	Dr.Avinash Darji	8980110275	04 Nursing staff
20	Windar Renewable Energy Pvt. Ltd	1	NA	NA	NA	3 Medical staff in each shift.
21	Nobel Hygiene Pvt Ltd	1	BLS	NA	NA	1 Female Nurce + 6 First Aider

22	A.G. Industries Private Limited, Halol	1	BLS	NA	NA	0
23	Satyam Auto Components Pvt Ltd	1	NA	NA	NA	03 Nursing staff
24	ENDURANCE TECHNOLOGIES LIMITED, HALOL	1	BLS	NA	NA	One Nursing staff
25	Merino Industries Ltd	1	BLS	NA	NA	0
26	Safari Manufacturing Ltd.	1	NA	Dr.Kalrav Thakkar. Dr. Ankur Patel	NA	1 Female Nurse (PeraMedical staff)
27	INOX INDIA LTD.,KALOL	1	BLS	Dr. Kamlesh Kateria	9586289606	02 Nursing Staff
28	Merino Industries Ltd	1	BSL	Dr. Kalrav Thakkar Dr. Ankur Patel	9825771334 8849976364	03 Nursing Staff + 03 Driver
29	Rubamin Private Limited	1	ALS	Dr. Amar Rathi	9426022913	03 Nursing Staff
30	Safari Industries India limited	1	NA	Dr.Kalrav Thakkar. Dr.Ankur Patel		1 Female Nurse (PeraMedical staff)
31	Panchmahal Steel Limited	1	BLS	Dr.Milan Thakar	9558804701	03 Nursing Staff
32	Windar Renewable Energy Pvt. Ltd	1	BLS	Dr. Milan Thakar	9099935238	03 Nursing Staff

Source :- DISH

Annexure - 21

Details Industry MoU List of Hospital Tie up

No	Name of Industry	Hospital Name	Speciality	Doctor Name	Contact Number	Address
1	Gujarat florochemicals, Ghoghamba	Jigar Eye Hospital	Ophthalmologist	Dr.Gaurang Patel	9879917297	Dwarkesh Chambers,near Bus stand, Halol.
2		Maa Surgical	Surgeon	Dr.Vijay Patel	9825318196	opp.S T Bus stand, Halol
3		Jahnvi Orthopaedic Hospital	Orthopaedic	Dr.Dilip Solanki	9574436958	Meghdoot Society Godhra Road, Halol
4		Dwarkesh Hospital	Surgeon	Dr.Divyesh Shah	0265-2485376 9824087100	Near Lion Circle, Opp.Ratri Bazar, VIP Road Karelibaug, Vadodara
5		Navrang Hospital	Orthopaedic	Dr.Mahesh Patel	0265-249223/ 2493344	VIP Road, Beside Balaji Areade, Nr.Amit Nagar, Balaji Nagar, Karelibaug, Vadodara
6	Paushak, Ptv.Ltd	Jay Orthopedic Hospital	Orthopedic	Dr Jay Shah	8733074630	8, Mangalam Park, 7,8 MANGALAM PARK, 42, Kanjari Road, near nilkanth mahadev temple, Halol, Gujarat 389350
7		The Care Hospital Trauma & IC	Super Speciality	Dr Vasavda	94288 78909	Adarsh Society, Halol, Gujarat 389350
8		Shukan Multi-Speciality Hospital & Trauma Center	Multi-Speciality	Dr Vishal Zinzuwadia	9909117117	Vip Road, near Amit Nagar Circle, Saikrupa society, Karelibaugh, Vadodara, Gujarat 390022
9		Bhailal Amin General Hospita	MD physician	Dr Nirav Shah	9723463637	Bhailal Amin Marg, Gorwa, Vadodara, Gujarat 390003
10	Styrenix	Supeda Surgical & Meternity Hospital	Surgeon	Sr.Dilip Supeda	8866663536	Derol Station Road, Kalol
16	Kusha Chemical	Panchal Hospital	General Hospital	Dr.Kahnaiyalal V Panchal	8326484666	Dahod Road, Opp Sales India, Godhra.

17	Panchmahal Steel	Supeda Surgical & Meternity Hospital	Surgeon	Sr.Dilip Supeda	8866663536 9825017396	Derol Station Road,Kalol
18		Vinayak Multi Speciality Hospital	General	Dr.Sushrut andya Dr.Vasu Pandya	8469076079 8141859548	Near Vallabh dwar,kalol
19	Hero moto corp	Sterling Hospital	Multispeciality		0265-6144111 & 0265-2354455	Opp. Inox, Race Course Circle (West) Vadodara - 390007
20		Bhailal Amin General Hospital	MD physician		02652556000 & 9898852528	Bhailal Amin Marg, Gorwa, Vadodra
21		Tricolour Hospitals	Multispeciality		265 2477777	Dr.Vikram Sarabhai Road, Near Genda Circle, Vadi Wadi, Vadodara
22		Shukan Multispeciality Hospital	Multispeciality		0265-2490590 & 9510706706	Nr Amit Nagar Circle, Karelibaugh, Vadodara
23		Baps Shastriji Maharaj Hospital			9998992395	Opp. Baps Shree Swaminarayan Mandir, Atladara, Vadodara
24		Aadicura Superspeciality Hospital	Superspeciality		8980553311	Windward Business Park, Jetalpur Road, Vadodara 390020
25		Gujarat Kidney & Superspeciality Hospital	Superspeciality		0265-2984800 & 9687079991	New Indiamill Compund,Near Jetalpur Overbridge,Jetalpur Road,Vadodara-390020
26		Centre For Sight (Eye Hospital)	Ophthalmologist		18001200477	Atlantis K10, Tower-A, 101, Opp Honest Restaurant, Sarabhai Compound, Genda Circle, Vadodara
27		Chhaya Orthopedic Hospital	Orthopedic		9409280632	Geeta Nagar Society, Vadodara-Halol Main Road, Halol
28	Shanmukha Agritec Limited	Parul Sevashram Hospital	Speciality	Dr. Druv	7984132099 & 7486008923	In the Lane of Dwarkesh Temple, Bus stand, Near, in front of Bank of Baroda, Halol, Gujarat 389350
29	Rubamin Private Limited	MALAY HOSPITAL	MEDICAL & HEART	DR. SANJAY SHAH	02676 222850 MO NO.- 8735022850	GF4F + M98 VARIA COLONY HALOL GUJARAT

		KRUPALU NURSING HOME	SURGICAL	DR. PARTH DAVE	9979529747	1 ST FLOOR,DHARKESH CHAMABER,BARODA ROAD,NEAR BUS STAND HALOL
		JAHNAVI ORTHOPADIC HOSPITAL	ORTHOPADIC	DR. DILIP SOLANKI DR. VIRENDRA PATIDAR	M-9574436958	GF6C+W8W,MEGHDOOT SOC,GOGHRA ROAD HALOL
		JIGAR EYE HOSPITAL	Eye Hospital	DR. GAURANG PATEL	9879017297	Dwarkesh Chamber, GJ SH 175, Vitthalpura, Gokul Nagar, Halol, Gujarat 389350
		OM NARAYAN EYE & DENTAL CARE	Eye Hospital	OM NARAYAN EYE & DENTAL CARE	M 78742 29425 / 9726592991	KANHA CENTRE, Halol - Vadodara Rd, near MANSAROVAR COMPLEX, Vitthalpura, Adarsh Society, Halol, Gujarat 389350
30	Merino Idustries Lid. Halol	JIGAR EYE HOSPITAL	Eye Hospital	DR. GAURANG PATEL	9879017297	Dwarkesh Chamber, GJ SH 175, Vitthalpura, Gokul Nagar, Halol, Gujarat 389350
		LIFE CARE HOSPITAL AND ICU	Multispeciality	Dr. Milan	063538 90141	Mansarovar Apartment, opp. Garden, Vitthalpura, Adarsh Society, Halol, Gujarat 389350
31	Alembic Pharmaceuticals Limited	KRUPALU NURSING HOME	SURGICAL	DR. PARTH DAVE	9979529747	1 ST FLOOR,DHARKESH CHAMABER,BARODA ROAD,NEAR BUS STAND HALOL
		Jay Orthopedic Hospital	Orthopedic	Dr Jay Shah	8733074630	8, Mangalam Park, 7,8 MANGALAM PARK, 42, Kanjari Road, near nilkanth mahadev temple, Halol, Gujarat 389350
		OM NARAYAN EYE & DENTAL CARE	Eye Hospital	OM NARAYAN EYE & DENTAL CARE	M 78742 29425 / 9726592991	KANHA CENTRE, Halol - Vadodara Rd, near MANSAROVAR COMPLEX, Vitthalpura, Adarsh Society, Halol, Gujarat 389350
		Shashwat Hospital and ICU	ICU	Dr. Utsav Patel		30, Anupam Hospital, halol.
32	Arysta Lifescience india Ltd. (UPL Unit 51)	Supeda Surgical & Meternity Hospital	Surgeon	Sr.Dilip Supeda	8866663536	Derol Station Road,Kalol

33	Setco Auto Systems Pvt. Ltd.	Referral Hospital Kalol (Government Hospital)	All Speciality	Dr. Milan Doshi	02676 - 235937	Panchmahal SH-175, Panchmahal Road, Kalol
		Life Care Hospital Halol	M.D (Physician) (S.S.M.A)	Dr. Milan Varma	6353890141	Mansarovar Apartment, Opp. Garden, Vitthalpura, Adarsh Society, Halol, Gujarat - 389350
		Jigar Eye Hospital Halol	Ophthalmologist	Dr. Gaurang Patel	9879017297	Dwarkesh Chambers, Halol, Panchmahal - 389350, Near Bus Stand, Halol

Annexure - 22

List of Industry Safety officer

No	Name of Industry	Name of Officer	Contact Numebr
1	JCB Industries PVT LTD	Mr. Dharmendra Patel	6353544130
		(AGM EHS)	
		Mr. Hiren Rathod	8238106344
		(DM EHS)	
		Ms. Priti Purohit	831-8159273
		(SE EHS)	
		Mr. Dhiren Katariya	8141421125
		(SE EHS)	
2	LM Wind power Blades India Ltd	Viral Patel	9909962135
		Mehul Patel	9727670084
		Hitesh Rathod	9714714999
3	Raychem RPG	Mitesh Patel	9924984411
		Hemant Bhatt	9825814602
		Viraj Patel	9687122350
4	Styrenix Performance Materials Limited (Formerly known as INEOS Styrolution (India) Ltd.),	Manish Shukla	6358179280
		Harsh Makwana	8103898248
5	TOTO India Industries Pvt. Ltd	Ashish Panchal	9898079064
		Mayank Vasava	7227906781
		Roshan Shihora	9998672785
6	Gandhi Specials Tubes Limited	Harkisansinh Solanki	9909733326
7	AVGOL Nonwovens India Private Limited	Parthik R. Vaghela	8401820003
8	Windar Renewable Energy Pvt. LTD	Vaibhav Soni	9099935238
9	Nobel Hygiene Pvt Ltd	Mr. Anuvenda Mori	8460236335
		Mr. Jaimin Mahida	7874793749
10	A.G. Industries Private Limited, Halol	Jaydip Jayswal	7227989756
11	HERO MOTOCORP LIMITED	Arjan Chabhad	9909009078
		Chirag Barad	8200312893
12	SHANMUKHA AGRITEC LIMITED	Jayminkumar Talpada	9737460480
		Parth Jani	8019522119

13	BSTO Automotive Parts	Ashish Soni	9898337166
		Vishal Mochi	7359829004
14	Rubamin Private Limited	Monish Dhital	8758473819
15	Windar Renewable Energy Pvt. LTD	Vaibhav Soni	9099935238
16	Sisecam Flat Glass Halol	Jatin Patel	9904304254
17	Hitachi Energy	Mr. Naveen Kumar Singh (EHS Manager)	9978650901
18	PMT Machines Ltd.	Mr. Visvas Rajyaguru	7069091306
1	Kusa Chemical Pvt. Ltd.	Malhar Baria	9316704442
19	Endurance Technologis Ltd	Mr. JIGAR PATEL	8460291220
20	Ceat Ltd	Biswamber Sahu	6357680682
		Jignesh Parmar	9819556115
21	Suyog Electricals Ltd	Bidyut Mtra	8160906488
22	Merino Industries Ltd	Mr. Bhavesh Suryawanshi - Manager EHS	9209374077
		Mr. Sandesh Singh - EHS Executive	8200898465
23	Polycab India Ltd (Unit-4)	Dhiraj Gohil	9727949596
24	Polycab India Limited (Unit 3)	Amit Modi	7600008574
25	Polycab India Limited(Unit 5)	Vandeep Parmar	6357173870
26	Polycab India Limited (Unit 2)	Lawrence Gonsalves	8866844672
27	Polycab India Limited(Unit 6)	Mehul Giri	9898535157
28	Polycab India Limited (Unit 7)	Vishal Shah	7041584807
29	Indutch Composites Technology pvt.ltd	Mr.Yogesh Patel	7486000691
30	Sun Pharmaceutical ind ltd	Hetalkumar Pathak	9099959899
		Pankaj Ahirekar	8469365249
		Tushar Joshi	9974609776
		Ankit Mehwala	8200981338
31	Inox India Ltd.	Pratik Patel-HSE	7211172013
		Mitesh Savaliya-HSE	8154976988
		Rutvik Patel-HSE	7490059020
32	Safari Manufacturing Ltd.	Ronak Patel	8347641047
33	Sun Pharmaceutical Medicare Ltd.	Tushar Korat	8866170144
		Kaushal Panchal	9898684240
34	Lucy Electric Manufacturing and Technologies India Pvt. Ltd.	Vinod Sharma	7227908942
35	Alembic Pharmaceutical Ltd.(API-I)	Mr. Lav Varia	9909411813
36	Alembic Pharmaceutical Ltd. (API-II)	Mr. Kashyap Raval	9173573203
37	Alembic Pharmaceutical Ltd. (Formulation-I)	Mr. Gunvant Zala	6353986648

38	Alembic Pharmaceutical Ltd. (Formulation-II)	Mr. Karan Bhavsar	9724784757
39	JSW MG Motor india Pvt. Ltd	Nidhi Nayyar	7486043098
		(Deputy General Manager-EHS)	
		Rakesh Patel	6358760153
		(Sr. Manager-EHS)	
		Minol Modi	7227037186
		(Manager-EHS)	
		Jay Vithalani	9712676628
		(Deputy Manger - EHS)	
		Manikandan	6358193508
		(Dy. Manager – EHS)	
		Gaurang Patel	7486045140
		Kamlesh Parmar	6358870825
40	Valmont Structures Pvt. Ltd.	Mr. Rajendra Chandrawat	8855014416
41	Natroyal Industries Pvt.Ltd.	Mr. Ganpat Parmar	9227451586
42	Paushak Limited	Dr Mayank Joshi	6356205131
		Head - EHS	
		Mr. Urvish Trivedi	6357428892
		Mr. Nehal Mothgare	6356620887
		Mr.Prashant Vansadia	6357689573
		Mr. Jigar Rathod	6357558842
		Mr. Anil APatanvadia	6356620887
		Mr. Umesh Prajapati	6357689574
43	Gujarat Floro Chemicals (GFL Ltd)	Mr. Digvijaysinh Chavda	9510974108
		Sr.Magager-Safety	
		Mr. kaushik Patel	9898002268
		Head - EHS	
		Mr.Jignesh Patel	9327945698
		Fire Officer	
		Mr. Abhijitsinh Jadeja	9316754267
		Sr.Manager - Process Safety	
44	Panchmahal Steel Ltd	Mr. Ravirajsinh Parmar	6356494267
45	Safari Industries India Limited	Mr. Viranchi Pandya	9537878507
46	Kusa Chemicals Pvt Ltd	Mr.Malhar Baria	9316704442
47	Arysta Lifescience india Ltd. (UPL Unit 51)		
		Mr. Pruthvirajsinh Parmar	9601654042
48	Setco Auto Systems Pvt. Ltd.	Ms. Hetavi Vyas	6357341543

49	Grindwell Norton Ltd	Nirav Gohil	94298 27395
50	Gunnebo India Pvt ltd.	Mr.Pratik Ranade	9724321597
51	Paracoat products limited	Mr. Shashi kant	9723128426
52	SHAILY Engineering Plastics Ltd.	Mr. Shramik Mehta	9727755197
		Mr. Akash Jaga	7574889075
53	Rubamin Private Limited	Mr. Mukesh Chaudhary	6357008928
53	The Panchmahal Dist. Milk Prod. Union Ltd., Godhra	Mr. Hemal Bhatt	9687000223
54	Windar Renewable Energy Private Limited	Mr. Vaibhav Soni	9099935238

Annexure - 23

MGVCL Communication Plan and Other Details

MGVCL Central Control room-18002332670 / 19124						
DIVISION-WISE NODAL OFFICERS FOR EOCS UNDER MGVCL						
NAME OF NODAL OFFICER	DESI	PLACE OF WORKING	Phone No.		MOBILE	E-MAIL ID
			STD CODE	PHONE NO		
GODHRA CIRCLE						
SHRI H F Bhabhrawala	D E	GODHRA DIVISION	2672	242557	9978552119	godharaomdn.de1@gebmil.com
Halol Division						
Shri J.B. Pateliya	E.E	Halol Division			9925208169	

Customer Care / Fault Centers

Sr No	Name Of Division	Name Of Sub-Division	Phone No.		Mobile No.
			Std Code	Phone No	
GODHRA CIRCLE					
27	GODHRA	GODHRA EAST	2672	260114	7863813424
28	GODHRA	GODHRA WEST	2672	262908	7863813447
29	GODHRA	Godhra Rural	2672	262420	7663813462
30	GODHRA	KAKANPUR	—	—	8980040577
31	GODHRA	SHAHERA-I	02670	226324	7863813511
32	GODHRA	SHAHERA-II	02670	226324	6357341193
33	GODHRA	SANTROAD	02672	282521	7863813565
34	GODHRA	MORVA H	02672	299288	7863813473
27	HALOL DIVISION	HALOL TOWN S/DN.	2676	220691	9727786845

28	HALOL DIVISION	HALOL RURAL S/DN.	2676	222647	9727786846
29	HALOL DIVISION	KALOL S/DN.	–	–	9727786847 & 9727786848
30	HALOL DIVISION	VEJALPUR S/DN.	8980019716	–	8980019716
31	HALOL DIVISION	JAMBUGHODA S/DN.	2676	241224	–
32	HALOL DIVISION	GHOUGHMBA S/DN.	–	–	8758339967
33	HALOL DIVISION	HALOL GIDC S.O.	9727786851	–	9727786851
34	HALOL DIVISION	HALOL DIVISION OFFICE	2676	224062	9727786842

DETAILS OF WATER LOGGING AREA OF FEEDER -MGVCL						
SR NO	DIVISION	SDN NAME	FEEDERNAME	AREA	VILLAGE	TALUKA
1	GODHRA	SHAHERA-2	PANAM-2	BHUNIDRA	BHUNIDRA	SHAHERA
2	GODHRA	SHAHERA-2	PANAM-2	KOTHA	KOTHA	SHAHERA
3	GODHRA	SHAHERA-2	PANAM-2	UNDARA	UNDARA	SHAHERA
4	GODHRA	SHAHERA-2	PANAM-2	RAMJI NI NAL	RAMJI NI NAL	SHAHERA
5	GODHRA	SHAHERA-2	KOJALWASA	NADA	NADA	SHAHERA
6	GODHRA	SHAHERA-2	KOJALWASA	BORIYAVUI	BORIYAVUI	SHAHERA
7	GODHRA	SHAHERA-2	MAHELAN	SAJIVAV	SAJIVAV	SHAHERA
8	GODHRA	SHAHERA-2	MAHELAN	MAHELAN	MAHELAN	SHAHERA
9	GODHRA	SHAHERA-2	MAHELAN	NANDARVA	NANDARVA	SHAHERA
10	GODHRA	SHAHERA-2	MAHELAN	JUNA MIRAPUR	JUNA MIRAPUR	SHAHERA
11	GODHRA	SHAHERA-2	KHATAKPUR	KHATAKPUR	KHATAKPUR	SHAHERA
12	GODHRA	SHAHERA-2	KHATAKPUR	CHHOGALA	CHHOGALA	SHAHERA
13	GODHRA	SHAHERA	ANIAYD AG FEEDER	BILITHA	BILITHA	SHAHERA
14	GODHRA	KAKANPUR	NMC I, NADISAR	CHAHPARIYA,AJAY MATA NA MUVADA,MATA NA MUVADA,	NADISAR	GODHRA

15	GODHRA	KAKANPUR	NMC I, NADISAR	JUNI DHARI,KABARIYA	JUNI DHARI	GODHRA
16	GODHRA	KAKANPUR	NMC II,NADISAR	CHARARI	TIMBA GAM	GODHRA
17	GODHRA	KAKANPUR	TIMBA IND	NADI VALU GOTHDA	GOTHDA	GODHRA
18	GODHRA	KAKANPUR	TIMBA IND,AMAR IND	TIMBA ROAD	TIMBA ROAD	GODHRA
19	HALOL	KALOL	11 KV MGS URBAN FDR	TALAV AREA KALOL	KALOL	KALOL
20	HALOL	GHOGHAMBA	11 KV VAV JGY	NR KARAD DAM CATCHMEN AREA	ZOZ	GHOGHAMBA
21	HALOL	GHOGHAMBA	11 KV GAMANI JGY	NR KARAD DAM CATCHMEN AREA	GAMANI	GHOGHAMBA

Source :- MGVCCL Godhra and Halol

Annexure - 24

Forest Department Communication Plan and Other Details

Forest Deaprtment					
Social Forestry Department Godhra					
Disaster Team Informaion					
Sr. No	Range/Taluko	Number of Team	Dedignation	Name	Number
1	Godhra	3 Team	Forester - 1	Shri.U.F.Patel	9726874557
			Bitguard-2		
			Daily wegies-2		
			Forester - 1	Miss.D.M.Vankar	7990645578
			Bitguard-1		
			Labour-2		
			Forester - 1	Shri K G Baria	6354076968
			Bitguard-1		
			Labour-2		
2	Halol	2 Team	Forester - 1	Shri.S.N.Zalaiya	6354191613
			Bitguard-1		
			Labour-2		
			Forester - 1	Shri.M.B.Selot	9687250073
			Bitguard-1		
			Labour-2		
			Forester - 1	Smt.C.H.Rathva	7069267916
			Bitguard-1		
			Labour-3		
3	Ghoghamba	3 Team	Forester - 1	Shri D.L.Rathva	9328691225
			Bitguard-1		
			Labour-2		
			Forester - 1	Shri M.L.Taviyad	6355525078
			Bitguard-1		
			Labour-2		
			Forester - 1	Shri M F Rathva	8200585232
			Bitguard-1		
			Labour-2		
4	Morva(H)	3 Team	Forester - 1	Smt.M.M.Mal	7567835491
			Bitguard-1		
			Labour-2		
			Forester - 1	Shri A.H.Solanki	6352084012

			Bitguard-1		
			Labour-2		
5	Jambughoda	1 Team	Forester - 1	Su Shri Vaishaliben M Solanki	8469252608
			Bitguard-2		
			Labour- 4		
6	Shahera	2 Team	Forester - 1	Shri. M.D.Parmar	7016062246
			Bitguard-1		
			Labour- 2		
			Forester - 1	Smt.I.D.Parmar	9510713952
			Labour- 3		
7	Kalol	2 Team	Forester - 1	Shri V.R.Chauhan	9726477718
			Bitguard - 1		
			Labour - 3		
			Forester - 2	Shri A.A.Bariya	6353032634
			Labour - 3		

Sr.No	Taluka	Location and address of the control room	STD code of the control room - telephone number	Name and Designation of the Officer in Charge of the Control Room	Contact number of the officer in charge of the control room	Facilities available near the control room	No.
						Equipment	
1	Godhra	DCF Officer ,Vanchetana Kendra,Dhanol Godhra	8160251372 02672-261850	Shri M. M. Parmar Range Forest Officer, Goghra	9664705630	Power chain saw	1
				Shri U.F.Patel (Forester)	9726874557	Hand Cutting Tool	5
						Digging Tool	3
						Axe	1
2	Shaheara	Seva Sadan- Office No, 75-76 Opposite Shehra Bus Stand.	02670-226582	Shri J.U. Baria Range Forest Officer, Shahera	90995 39460	Axe	2
				Shri M.D. Parmar(Forester)	7016062246	Digging Tool	2
						Shovel	2
3	Morwa(h)	Khanpur Nursery, Date Morwa(H)	9726446850	Shri D. B. Baria Range Forest Officer Morwa(H)	9913365269	Axe	2

				Shri.M.L. Baria (Forester)	7567835491	Digging Tool	1
						Shovel	2
4	Kalol	Alindra Nursery, Nr.Madhuvan Hotel, Alindra, Kalol	02676235499	Mrs. S.I.Rathwa Range Forest Officer Kalol	9978401828	Axe	2
				Mr. V.R.Chauhan (Forester)	9726477718	Hand Cutting Tool	1
						Power chain saw	1
5	Halol	Forest Compound, Opposite Bus Stand, Halol	02676222687	Shri M.N.Rathwa Range Forest Officer, Halol	9909769067	Axe	2
				Shri M.B.Selot (Forester)	9687250073	Shovel	2
						Hand Cutting Tool	2
						Ropes	1
6	Jambughoda	Wild Office, Jambughoda	9512856727	Shri K.R.Vagadia, I.C Range Forest Officer, Jambughoda	9512856727	Axe	2
				Shri V.H.Solanki (Forester)	8469225608	Shovel	2
						Hand Cutting Tool	2
7	Ghoghamba	Forest Compound, Opposite Rajgarh Police Station, Ghoghamba	97124 55277	Mr. M. L. Baria, Range Forest Officer, Ghoghamba	97124 55277	Axe	1
				Mr. M. L. Taviad (Forester)	6355525078	Shovel	2
						Hand Cutting Tool	2
						Digging Tool	1

Forest Deaprtment			
Normal Forest Department Godhra			
Disaster Team Informaion			
Sr.No	Name of Officer	Designation	Mobile No.
1	Shri S B Bharvad	RFO,Godhra (E)	9099894436
2	Shri D S Rathva	RFO,Godhra (W)	94295 19492
3	Shri R N Puvar	RFO,/Morva Hadaf	9979417072
4	Shri V G Gadhavi	RFO, Shahera	9909492421
5	SMT C G Chaudhari	RFO,Halol	9408356441
6	Shri D H Bhabhor	RFO,Vejalpur	8200703053
7	Shri A M Chaudhari	RFO,Rajgadh	9727792962
8	Shri T M Patel	RFO,S.F.Godhra	9737505908
9	Shri H A Parmar	RFO,M.S.Halol	9737505908

Forest Deaprtment			
Normal Forest Department Godhra			
Sr.No	Taluka/Range	Control room Place and address	Control Number
1	Godhra(East)	Office of the DCF-Normal	02672-242210
2	Godhra(West)	Office of the DCF-Normal	02672-242210
3	Shahera	RFO Office,Shahera	02670-226358
4	Morva(H)	RFO Office,Morva	02672-284207
5	Kalol/Vejalpur Range	RFO Office,Vejalpur	02676-234650
6	Ghoghamba	RFO Officer,Rajgadh Range	02678-244635
7	Halol	RFO Office,Halol	02676-220546
Range Forest Officer Striking Force,Godhra			
Sr.No	Name	Designation	Mobile No.
1	Shri Anilkumar C Parmar	Vanpal-S.F.Godhra	9726693492
3	Smt.Rekhaben R. Katara	Forest Guard-Sajivav	8320222284
Range forest Officer,Mobile scord , Halol			
Sr.No	Name	Designation	Mobile No.
1	Shri Bakabhai Bariya	Vanpal-M.S , Halol	9265078020
Assistant Conservator of Forest , Godhra - 1			
1	Shri Gunvantsinh M.Parmar	Vanpal,ACF Godhra-1	9265168614

2	Su.shri Nikitaben Kotadiya	Vanraksha -ACF Guard	9265255924
Assistant Conservator of Forest , Godhra - 2			
1	shri Yogeshkumar Rathod	Vanpal,ACF Godhra-2	9427224484

Forest Deaprtment

Normal Forest Department Godhra

Sr.No	Name of Equipmen t	Total Equi pme nt	Name Of Forest Raange									
			Godhra (E)	Godhra (W)	Shahera	Morva(H)	Vejalpur	Halol	Rajgadh	S.F. Godhra	M.S. Halol	ACF Godhra-1
1	Battery	66	10	13	9	8	8	8	7	2	0	1
2	Body Protactio n Suit and Fire Uniform	68	10	10	10	8	10	10	10	0	0	0
3	Mist Blowers Fire	25	4	4	3	3	3	4	4	0	0	0
4	Pruning saw	20	3	3	3	2	1	4	4	0	0	0
5	Fire Axe	42	8	6	5	5	1	8	8	1	0	0
6	Helmet with touch,LE D and Helmet	43	6	6	6	6	6	6	7	0	0	
7	Boot	45	7	6	6	6	6	6	6	1	1	0
8	Fire Beater	28	4	4	4	4	4	4	4	0	0	0
9	Spade	5	1	1	1	1	1	0	0	0	0	0
10	Timer Chain Saw	14	2	1	1	2	2	2	4	0	0	0
11	Fire Extinguish er	5	1	1	1	1	1	0	0	0	0	0
12	Gloves	28	5	3	3	3	4	5	5	0	0	0

Source :- Forest Department(Normal and Social forestry)

Annexure - 25

LIST OF SWIMMERS (Home Guards)

ક્રમ	હોમગાર્ડઝ સભ્યોનું નામ	સનદનં	સરનામું	મોબાઈલ નંબર
1	ચાવડા ગોપાલસીંહ પ્રભાતસીંહ	87	અણીયાદ	8141521324
2	ચાવડા મહેશકુમાર અર્જુનભાઈ	89	અણીયાદ	7874115029
3	સોલંકી ભલસિંહસોમસિંહ	90	અણીયાદ	7567496817
4	બારીયારી તેશકુમાર અર્જુનસિંહ	94	અણીયાદ	9909341006
5	બારીયા હસમુખભાઈ વટેસીંગભાઈ	828	ઉચેટ	9023324369
6	ગરાસિંયા નટવરસિંહ ભવાનભાઈ	34	કવાલી	7575881906
7	પટેલીયા નટવરભાઈ મથુરભાઈ	35	કવાલી	9687130132
8	રાઠવા જિતેન્દ્રભાઈ ચીમનભાઈ	827	કાટકોઈ	6353776014
9	બારીઆવિજયભાઈબલુભાઈ	816	કાણજીપાણી	9510347517
10	બારીઆ વિજયભાઈશ નાભાઈ	810	કાણજીપાણી	9712482461
11	બારીઆ કમલેશભાઈ વરશનભાઈ	804	કાણજીપાણી	8780520394
12	બારીઆ શૈલેષભાઈ સોનિયાભાઈ	801	કાણજીપાણી	8141709195
13	બારીઆ સુરેશભાઈ શંકરભાઈ	849	કાણજીપાણી	9316897847
14	પરમાર રાજેન્દ્રકુમાર મંગલસિંહ	108	ખંડિયા	9825477152
15	પ્રકાશ ભાઈભગુભાઈ રાવલ	1091	ગોધરા	9979690286
16	હિતેશકુમાર લક્ષ્મણભાઈ મકવાણા	1234	ગોધરા	9106966106
17	કનુભાઈ હેમાભાઈ હજારીયા	1180	ગોધરા	6351634265
18	વિનોદકુમાર બીજલભાઈ પટેલ	1429	ગોધરા	6352030069
19	રાકેશભાઈ અમરસિંહ બારિયા	1354	ગોધરા	9586630567
20	નરેન્દ્રકુમાર બળવંતસિંહ તડવી	1474	ગોધરા	9638781648
21	ભારત ભાઈસોમાભાઈ પટેલ	1193	ગોધરા	8141230931
22	પર્વતભાઈ સીતાભાઈ રાઠવા	1177	ગોધરા	8141849852
23	રમેશભાઈ ધીરાભાઈ પટેલ	1182	ગોધરા	8238797828
24	અશોકભાઈ ભગુભાઈ રાવલ	1212	ગોધરા	9825814259
25	અશોકકુમાર પોપટભાઈ બારિયા	1173	ગોધરા	9913719360
26	શૈલેષભાઈ ભગુભાઈ રાવલ	1237	ગોધરા	9979690286

27	મંગલસિંહ રામસિંહ પટેલ	1199	ગોધરા	6351585207
28	રાજેન્દ્રકુમાર પોપટસિંહ બારિયા	1174	ગોધરા	9925988631
29	નીલેશકુમાર અરવિંદભાઈ પરમાર	1365	ગોધરા	9712676045
30	વિશાલભાઈ સ્વરૂપભાઈ પગી	1413	ગોધરા	8980095293
31	વિજયસિંહ મદનસિંહ સિસોદિયા	1134	ગોધરા	8160482580
32	અર્જુનસિંહ નટવરભાઈ સિસોદિયા	1145	ગોધરા	9924433584
33	નરેન્દ્રકુમાર બક્ષુભાઈ વણઝારા	1506	ગોધરા	9638244216
34	પ્રવીણકુમાર કાંતિભાઈ વણઝારા	1378	ગોધરા	9016078064
35	સંદીપકુમાર બક્ષુભાઈ વણઝારા	1404	ગોધરા	9726586736
36	રોહિતકુમાર પ્રતાપસિંહ વણઝારા	1504	ગોધરા	9724815774
37	રાજેન્દ્રસિંહ રૂપસિંહ બારિયા	1340	ગોધરા	7990622267
38	હાથીભાઈ રઘુભાઈ વણઝારા	1279	ગોધરા	9712122538
39	હસમુખકુમાર ચંદ્રસિંહ પટેલ	1330	ગોધરા	6352875518
40	નાગરસિંહ રણજીતસિંહ બારિયા	1324	ગોધરા	8141684393
41	ધર્મેશભાઈ ફિમતસિંહ વણઝારા	1409	ગોધરા	6352650587
42	વિનોદકુમાર હીરાભાઈ ભરવાડ	1398	ગોધરા	8141209359
43	હિતેશકુમાર રંગીતસિંહ પટેલ	1576	ગોધરા	9016567255
44	કૃષ્ણકુમાર અંબાલાલ પટેલ	1426	ગોધરા	6355725799
45	અલ્કેશકુમાર ભારતસિંહ ડામોર	1516	ગોધરા	9328562121
46	સંજયકુમાર પ્રવીણસિંહ પટેલ	1427	ગોધરા	7567492322
47	પ્રમોદભાઈ રાયસિંહ બારિયા	1448	ગોધરા	8980687451
48	પ્રકાશભાઈ ભારતભાઈ ડામોર	1513	ગોધરા	9099199357
49	ભલાભાઈ ભારતસિંહ ડામોર	1259	ગોધરા	8758680132
50	જસવંતસિંહ ગુલાબસિંહ પટેલ	1198	ગોધરા	9510563621
51	ખાતુભાઈ સોમાભાઈ નાયક	1201	ગોધરા	6351425584
52	પંકજકુમાર વાઘાભાઈ તલાર	1463	ગોધરા	9586353508
53	ગણપતભાઈ જીતુભાઈ રાઠવા	1094	ગોધરા	9712329012
54	મહેશભાઈ પુનાભાઈ રાઠવા	1190	ગોધરા	9638663843
55	ભુરાભાઈ ગોપાલભાઈ ચારણ	1315	ગોધરા	7567541802
56	સુનીલકુમાર નટવરસિંહ ચાવડા	1503	ગોધરા	8347008520
57	રમેશકુમાર દિનેશકુમાર પરમાર	1552	ગોધરા	9316969274

58	રણવીર સિંહવિક્રમસિંહ સોલંકી	1553	ગોધરા	8980202112
59	મહેશકુમાર સુરેશભાઈ પરમાર	1581	ગોધરા	9313011430
60	ગોવિંદસિંહ અરવિંદસિંહ પરમાર	1555	ગોધરા	6354187022
61	વિરલકુમાર વિક્રમસિંહ ગોહિલ	1549	ગોધરા	6352673279
62	સુભાષભાઈ પ્રભાતભાઈ સોલંકી	1240	ગોધરા	9327183250
63	વિનોદકુમાર શાંતિલાલ પરમાર	1345	ગોધરા	7990552566
64	અતુલકુમારદિનેશભાઈપટેલીયા	1351	ગોધરા	9979060807
65	જયેશકુમાર રમેશભાઈ ચૌહાણ	1444	ગોધરા	7284843118
66	રવીન્દ્રકુમાર બાબુભાઈ માછી	1462	ગોધરા	9904827709
67	મુકેશકુમાર રવજીભાઈ માછી	1466	ગોધરા	8140133680
68	નરેન્દ્રકુમાર રયજીભાઈ બારિયા	1323	ગોધરા	9327642762
69	સુરેશભાઈ ડાહ્યાભાઈ વણકર	1144	ગોધરા	7880259649
70	ગોવિંદભાઈ પુનમભાઈ માછી	1302	ગોધરા	9714695265
71	વિજયભાઈ ચીમનભાઈ માછી	1300	ગોધરા	6353079085
72	નરવતભાઈ ડાહ્યાભાઈ માછી	1301	ગોધરા	8347801294
73	હર્ષદભાઈ મુળજીભાઈ રબારી	1235	ગોધરા	9924187344
74	મનહરસિંહ દસરતસિંહ ચૌહાણ	1420	ગોધરા	6355799460
75	યોગેશકુમાર જીતેન્દ્રભાઈ બામણીયા	1509	ગોધરા	7359331146
76	મુકેશભાઈ ભીમસિંહ ચૌહાણ	1488	ગોધરા	7201068409
77	વિજયકુમાર દશરથસિંહ ચાવડા	1228	ગોધરા	6355912702
78	મહેન્દ્રકુમાર શાંતિલાલ વરિયા	1395	ગોધરા	7567479785
79	આશિષકુમાર રમેશચંદ્ર પરમાર	1347	ગોધરા	9727481634
80	યતીનકુમાર મોતીભાઈ વણઝારા	1557	ગોધરા	9924790803
81	દેવેન્દ્રકુમાર રમેશભાઈ ચૌહાણ	1479	ગોધરા	9904318244
82	એઝાજખાણ રેહમાનખાન પઠાણ	1236	ગોધરા	8141589210
83	અરવિંદભાઈ મોહનભાઈ બારિયા	1186	ગોધરા	9979692365
84	તખતસિંહજી સવંતસિંહ બારિયા	1196	ગોધરા	8469241743
85	કનૈયાલાલ ચંદ્રસિંહ સોલંકી	1221	ગોધરા	7359821370
86	દીપકભાઈ શંકરભાઈ સોલંકી	1225	ગોધરા	6351384848
87	જીજ્ઞેશભાઈ રયજીભાઈ પરમાર	1169	ગોધરા	6352777754
88	વાલાભાઈ કાનાભાઈ ગઢવી	1305	ગોધરા	7016942319

89	જસવંતભાઈ સામંતભાઈ ખાંટ	1278	ગોધરા	9998688038
90	રોહિતકુમાર શનાભાઈ રાવલ	1285	ગોધરા	9998115277
91	રાજેશભાઈ ડાહ્યાભાઈ પરમાર	1357	ગોધરા	9712616531
92	રાજેશભાઈ પર્વતભાઈ રાઠવા	1183	ગોધરા	9712494691
93	સુરજીત સિંહઉદેસિંહ ચૌહાણ	1251	ગોધરા	9712877805
94	રમેશભાઈ ગણપતસિંહ વણઝારા	1366	ગોધરા	9712554320
95	હિંમતસિંહ પર્વતભાઈ પટેલ	1095	ગોધરા	9712049325
96	શંકરભાઈ વજેસિંહ રાઠવા	1096	ગોધરા	9712670933
97	રામસિંહ પ્રતાપસિંહ બારિયા	1181	ગોધરા	9726239610
98	શૈલેશકુમાર અભેસિંહ બારિયા	1415	ગોધરા	9099223285
99	વિક્રમસિંહ બળવંતસિંહ પટેલ	1437	ગોધરા	8758571199
100	હિતેશકુમાર ઉદેસિંહ ચૌહાણ	1440	ગોધરા	9712747013
101	સંજયકુમાર મગનભાઈ ચૌહાણ	1451	ગોધરા	8488930608
102	કિરણભાઈ પર્વતભાઈ બારિયા	1461	ગોધરા	9904315736
103	નરવતભાઈ ભાનુભાઈ બારિયા	1472	ગોધરા	9978859329
104	સંદીપકુમાર કનુભાઈ મકવાણા	1485	ગોધરા	7567491139
105	અનિલકુમાર લાલજીભાઈ મકવાણા	1499	ગોધરા	9510269225
106	મુકેશકુમાર સરદારભાઈ પટેલીયા	1512	ગોધરા	9979756450
107	શાહિદમિયા સિકંદરમિયા શૈખ	1540	ગોધરા	9173104279
108	હિંમતસિંહ ભાવસિંહ પટેલ	1179	ગોધરા	7874260436
109	સુરેશભાઈ સનતભાઈ ડામોર	1567	ગોધરા	8238345558
110	તુષારભાઈ મહેશભાઈ દેસાઈ	1568	ગોધરા	9724205420
111	ઇન્દ્રજીતસિંહ ઉદેસિંહ ચૌહાણ	1188	ગોધરા	8200199108
112	રમેશભાઈ માનાભાઈ બારિયા	1495	ગોધરા	9712187135
113	રાજેશકુમાર કાંતિલાલ જાદવ	1284	ગોધરા	9726479707
114	સંજયકુમાર આરાતસિંહ બારિયા	1334	ગોધરા	9016997956
115	ભુપતભાઈ જીતુભાઈ પટેલ	1089	ગોધરા	9537099932
116	અર્જુનસિંહ અમરસિંહ પરમાર	1115	ગોધરા	7359301771
117	વસીમખાન અબ્દુલરજાક પઠાણ	1160	ગોધરા	9925502311
118	હરીશકુમાર કાળુભાઈ ચાવડા	1203	ગોધરા	7069614271
119	પગી પૃથ્વીસિંહ દલપતસિંહ	74	ગોપી	8141626272

120	પગી વિનોદભાઈ બાબુભાઈ	75	ગોપી	7567437313
121	પગીસુભાષકુમારછત્રસિંહ	106	ગોપી	9328598529
122	પગીદશરથસિંહઅનોપસિંહ	107	ગોપી	8141440713
123	જાદવધર્મેન્દ્રસિંહઉદેસિંહ	930	ઘોઘંબા	6353414877
124	બામણીયાવિક્રમસિંહફતેસિંહ	932	ઘોઘંબા	8141181557
125	ચાવડાદિલીપસિંહબળવંતસિંહ	933	ઘોઘંબા	9586014971
126	ચાવડાજયેન્દ્રસિંહઉદેસિંહ	936	ઘોઘંબા	7862977130
127	બામણીયાકનુભાઈચીમનભાઈ	948	ઘોઘંબા	6353329523
128	ચૌહાણકલ્પેશકુમારવિક્રમસિંહ	956	ઘોઘંબા	8141203164
129	સોલંકીદીનેશકુમારભગવાનસિંહ	958	ઘોઘંબા	9537855510
130	ચૌહાણપ્રતાપસિંહઉદેસિંહ	959	ઘોઘંબા	6353133996
131	ચાવડારમેશકુમારસુરેશભાઈ	960	ઘોઘંબા	7990923249
132	ચૌહાણકંચનસિંહજીવતસિંહ	965	ઘોઘંબા	8238251106
133	પરમારમહેન્દ્રસિંહભલસિંહ	966	ઘોઘંબા	9727016735
134	જાદવમિતેશકુમારવિક્રમસિંહ	971	ઘોઘંબા	6351642895
135	જાદવપ્રવિણસિંહગણપતસિંહ	980	ઘોઘંબા	9726634491
136	કોઠીયાપ્રદીપકુમારરાજેન્દ્રસિંહ	986	ઘોઘંબા	9712003053
137	ઠાકોરઅજયસિંહગુલાબસિંહ	987	ઘોઘંબા	9726089768
138	ચૌહાણમહેશભાઈસાલમભાઈ	991	ઘોઘંબા	9537129997
139	ચૌહાણભરતકુમારરામસિંહ	992	ઘોઘંબા	8980134455
140	પરમારધર્મેન્દ્રસિંહકેશરીસિંહ	994	ઘોઘંબા	9726208065
141	સોલંકીલાલાભાઈરામાભાઈ	996	ઘોઘંબા	8980998436
142	સોલંકીઈશ્વરસિંહરણજીતસિંહ	1007	ઘોઘંબા	9925982636
143	બારીઆઅરવિંદકુમારકાંતીલાલ	1009	ઘોઘંબા	9909320096
144	પરમારવિજયકુમારનટવરસિંહ	1012	ઘોઘંબા	8980942060
145	સોલંકીશિવરાજસિંહવખતસિંહ	1014	ઘોઘંબા	9978575353
146	ઠાકોરમહેશકુમારઅર્જુનસિંહ	1015	ઘોઘંબા	9909244515
147	દરજીજીએશકુમારદિલીપકુમાર	1024	ઘોઘંબા	9944037713
148	પરમારવિક્રમસિંહરૂપસિંહ	1026	ઘોઘંબા	9537002095
149	ચૌહાણપ્રવિણકુમારનટવરસિંહ	1027	ઘોઘંબા	9726782611
150	હરીજનમેહુલકુમારશાંતિલાલ	1029	ઘોઘંબા	6351889571

151	સોલંકીજીઞ્જેશકુમારઘનશ્યામસિંહ	1038	ઘોઘંબા	9714597026
152	સોલંકીકનુભાઈમોહનભાઈ	1040	ઘોઘંબા	9624968674
153	સોલંકીસુરેન્દ્રકુમારછત્રસિંહ	1044	ઘોઘંબા	9586566412
154	રાઠવાઅનોપસિંહઅમરસિંહ	1051	ઘોઘંબા	9512083202
155	બારીઆફતેસિંહદિપસિંહ	1064	ઘોઘંબા	8320015107
156	બારીઆનિતેશભાઈટેટાભાઈ	1066	ઘોઘંબા	8141503919
157	રાઠવાગોવિંદભાઈકમતીયાભાઈ	1069	ઘોઘંબા	9099405186
158	રાઠવામહેશભાઈચંદ્રાભાઈ	1071	ઘોઘંબા	9726683593
159	બારીઆનારાયણકુમારબળવંતભાઈ	1074	ઘોઘંબા	9512349754
160	પરમારરંગીતસિંહભલસિંહ	1711	ઘોઘંબા	9979684794
161	બારીઆદશરથભાઈકંચનભાઈ	846	જોટવડ	9726755906
162	અનોપસિંહઅજબસીંહરાઠોડ	629	ઝેરનામુવાડા	9712332296
163	સંદીપભાઈઅરવિંદસીંહરાઠોડ	737	ઝેરનામુવાડા	8141896264
164	પ્રવીણસિંહચંદ્રસીંહયાવડા	731	ઝેરનામુવાડા	8758430095
165	જગદીશભાઈતખતસીંહરાઠોડ	658	ઝેરનામુવાડા	8141995022
166	ગોવીંદસીંહસામંતસીંહરાઠોડ	647	ઝેરનામુવાડા	7359298627
167	સંજયસીંહઅમરસીંહરાઠોડ	706	ઝેરનામુવાડા	9712374344
168	વિજયસીંહવિક્રમસીંહરાઠોડ	721	ઝેરનામુવાડા	9825456266
169	પરમારનટવરસિંહફતાભાઈ	8	નાકુડી	8758389472
170	પગીરમેશભાઈછગનભાઈ	22	નાકુડી	6353297271
171	પગીલક્ષ્મણસિંહઉદેસિંહ	26	નાકુડી	9537223688
172	બારીઆફતેસિંહપ્રભાતસિંહ	47	નાકુડી	9638715909
173	પગીમહેશકુમારસ્વરૂપભાઈ	48	નાકુડી	7572820852
174	ચૌહાણજશવંતસિંહજુવાનસિંહ	91	નાકુડી	9586852192
175	બારીઆમહેન્દ્રકુમારઅર્જુનસિંહ	92	નાકુડી	9638495545
176	ચૌહાણઅરવિંદકુમારસોમસિંહ	93	નાકુડી	9687391175
177	ખાંટસંજયકુમારસર્જનભાઈ	97	નાકુડી	9913896336
178	ચૌહાણજુવાનસિંહછગનભાઈ	115	નાકુડી	9913820524
179	ખાંટમહેન્દ્રસિંહકાંતિભાઈ	116	નાકુડી	9099620897
180	બારીઆમાનસીંગભાઈધૂળાભાઈ	839	નાથપુરી	9537237793

181	બારીઆમહેશભાઈદેશાઈભાઈ	818	નાથપુરી	9726949569
182	બારીઆપ્રદીપભાઈસાલમભાઈ	873	નાથપુરી	7265069036
183	બારીઆનરવતભાઈલાલુભાઈ	819	નાથપુરી	9687957462
184	તલારઉદેસિંહગુલાબસિંહ	105	નાદરવા	8758319427
185	પગીરાજેશભાઈઅમરસિંહ	80	પટિયા	9016702364
186	પગીભારતભાઈકનુભાઈ	81	પટિયા	9979138949
187	પગીરૂપાભાઈસાલમભાઈ	102	પટિયા	9687983072
188	બારીઆઅરવિંદભાઈચુનાભાઈ	825	પનીયારા	7990247587
189	બારીઆદિલીપભાઈગોવિંદભાઈ	817	પનીયારા	6351644472
190	બારીયાસુખાભાઈમોતીભાઈ	50	પાદરડી	9687924045
191	પરમારસંજયકુમારજશવંતસિંહ	874	પાવાગઢ	9913120289
192	પરમારજશવંતભાઈસામતભાઈ	877	પાવાગઢ	7096101680
193	પરમારવિજયભાઈજશવંતસિંહ	881	પાવાગઢ	6352291521
194	નાયકકરનભાઈરમેશભાઈ	886	પાવાગઢ	8238814140
195	તડવીજૈમિનભાઈરાજુભાઈ	887	પાવાગઢ	9265101207
196	રાઠવારમેશભાઈશેવજીભાઈ	889	પાવાગઢ	9727891572
197	રાઠવાવિપુલભાઈગોવિંદભાઈ	890	પાવાગઢ	7567289263
198	રાઠવાજગદિશભાઈકાંતિભાઈ	891	પાવાગઢ	9512823116
199	બારિઆસંજયભાઈબડવંતભાઈ	895	પાવાગઢ	8980857380
200	બારિઆજિવનભાઈચેહરભાઈ	896	પાવાગઢ	8238749698
201	બારિઆજોતેન્દ્રભાઈવસંતભાઈ	897	પાવાગઢ	8980857380
202	તડવીસંકેતભાઈઅનિલભાઈ	905	પાવાગઢ	9099225371
203	પટેલબિહારસિંહલક્ષ્મણસિંહ	908	પાવાગઢ	9537908695
204	બારિઆજિઞ્નેશભાઈશાંતિલાલ	911	પાવાગઢ	9979218865
205	રાઠવાખિમજીભાઈવાલજીભાઈ	918	પાવાગઢ	9712492115
206	પરમારજશવંતસિંહદિપસિંહ	920	પાવાગઢ	6353472420
207	ચોહાનવિક્રમભાઈમોહનભાઈ	924	પાવાગઢ	9727475217
208	ગણપતભાઈરામસીંગરાઠવા	642	ફણસી	7265997844
209	રણજીતસીંહલક્ષ્મણસીંહપરમાર	700	ફણસી	8980244190
210	ગિરવતસીંહદિલીપસીંહપરમાર	644	ફણસી	9687415134
211	ગુલાબભાઈકોયાભાઈચૌહાણ	648	ફણસી	9879651241

212	નરેશભાઈકાભયભાઈચૌહાણ	680	ફણસી	8320504580
213	રાજેન્દ્રસિંહનરવતસિંહચૌહાણ	687	ફણસી	9998432017
214	રોહીતભાઈઅર્જુનસિંહચાવડા	703	ફણસી	6354229119
215	બળવંતસિંહબલુભાઈચૌહાણ	630	બેઢીયા	9510112455
216	સંજયસિંહઅમરસિંહચૌહાણ	708	બેઢીયા	8980290064
217	પટેલપર્વતભાઈલખમણભાઈ	15	ભદ્રાલા	9313908851
218	ચૌહાણબાબુભાઈકોયાભાઈ	41	ભદ્રાલા	8469733977
219	પટેલસુરેશકુમારભારતસિંહ	44	ભદ્રાલા	8238359554
220	પગીરાજેશકુમારરયજીભાઈ	57	ભદ્રાલા	9016570820
221	પરમારચંદુભાઈનાનાભાઈ	58	ભદ્રાલા	8980703776
222	પટેલકનુભાઈલખમણભાઈ	61	ભદ્રાલા	9724138632
223	પરમારવિક્રમભાઈભલાભાઈ	62	ભદ્રાલા	9879211050
224	પટેલગણપતસિંહરંગીતસિંહ	85	ભદ્રાલા	9687848515
225	ચૌહાણહિંમતસિંહપ્રભાતસિંહ	99	ભદ્રાલા	6354632462
226	પગીકનુભાઈરયજીભાઈ	100	ભદ્રાલા	9328813527
227	પરમારઅરવિંદકુમારપર્વતભાઈ	101	ભદ્રાલા	9924389600
228	બારીઆમહેશભાઈજનાભાઈ	824	ભાનપુરી	8347521203
229	પગીરંગિતસિંહફૂલસિંહ	42	ભેસાલ	9586175179
230	પગીમહેન્દ્રસિંહફૂલાભાઈ	76	ભેસાલ	9567333764
231	પટેલકિરીટકુમારરણછોડભાઈ	83	ભેસાલ	7874370573
232	બારીઆનરેન્દ્રસિંહભારતસિંહ	104	ભેસાલ	9099593047
233	પગીદલપતસિંહવજેસિંહ	112	મંગલયાના	8469270210
234	પટેલપ્રવિણસિંહભૂરાભાઈ	14	મીઠાલી	6353275647
235	પટેલીયાચંદુભાઈસાયબાભાઈ	602	રીંછવાણી	9586561978
236	પટેલીયાદશરથસિંહભગવાનસિંહ	588	રીંછવાણી	8849610335
237	પટેલીયાધર્મેન્દ્રભાઈપ્રાતાપભાઈ	600	રીંછવાણી	8799086131
238	પટેલીયાજસવંતભાઈપ્રતાપભાઈ	578	રીંછવાણી	9099302818
239	પટેલીયાસરદારસિંહલક્ષ્મણભાઈ	599	રીંછવાણી	9638129783
240	પરમારજયદિપસિંહરણજીતસિંહ	610	રીંછવાણી	8338624233
241	પરમારકમલેશસિંહકિરવતસિંહ	615	રીંછવાણી	9313501269
242	પગીરમેશભાઈઅર્જનભાઈ	51	લાભી	7285073460

243	બારીઆસુરેશભાઈમાંનસીંગભાઈ	830	વડેખ	9909121022
244	બારીઆસુભાસભાઈવદેસીંગભાઈ	832	વડેખ	7285868549
245	બારીઆરશીકભાઈવેચાતભાઈ	835	વાજપુર	8153038674
246	બારીઆગમીરભાઈવખતભાઈ	798	વાજપુર	9978158176
247	બારીઆજશવંતભાઈપ્રતાપભાઈ	857	વાજપુર	7096256914
248	સોલંકીરયજીભાઈશંકરભાઈ	4	વાટાવાછોડા	9726874635
249	પટેલીયાગણપતભાઈકોયાભાઈ	10	વાટાવાછોડા	9537995774
250	પટેલીયાપ્રેમાંભાઈછગનભાઈ	13	વાટાવાછોડા	9712550519
251	પટેલીયાવિક્રમભાઈબલુભાઈ	38	વાટાવાછોડા	9727995969
252	પટેલિયાઅર્જુનભાઈખાતુભાઈ	40	વાટાવાછોડા	8980416939
253	પટેલિયાનરવતભાઈરાંમાભાઈ	53	વાટાવાછોડા	9913672085
254	પટેલિયાગોપાલભાઈગલાભાઈ	63	વાટાવાછોડા	9512475705
255	પટેલિયાજસવંતભાઈશંકરભાઈ	65	વાટાવાછોડા	9979403082
256	ભોથરનિલેશભાઈબાબુભાઈ	66	વાટાવાછોડા	9687908624
257	પટેલીયાલાલાભાઈઝાલાભાઈ	67	વાટાવાછોડા	9909765435
258	પટેલિયાનરેન્દ્રકુમારરયજીભાઈ	68	વાટાવાછોડા	9586597088
259	મકવાણામગનભાઈઉદેસિંહ	72	વાટાવાછોડા	9825751475
260	પટેલિયારાજેશભાઈભારતભાઈ	82	વાટાવાછોડા	7572966289
261	નાયકભીખાભાઈમોતીભાઈ	109	વાટાવાછોડા	9737573214
262	પટેલીયાવિક્રમભાઈકાંનાભાઈ	110	વાટાવાછોડા	6355307139
263	ચારણકાનાભાઈખોડાભાઈ	111	વાટાવાછોડા	6353880915
264	પટેલીયાગોપાલસિંહઝાલાભાઈ	114	વાટાવાછોડા	7069989618
265	બારીઆકિરણસિંહખુમાનસિંહ	799	વાડીયા	6355334363
266	બારીઆમુકેશભાઈચીમનભાઈ	833	વાડીયા	9202943259
267	પગીકમળસિંહઅખમસિંહ	23	સંભાલી	9099522378
268	પગીઅમરસિંહહાથીસિંહ	25	સંભાલી	9978434654
269	ચૌહાણસુરેન્દ્રસિંહસોમાભાઈ	78	સુરેલી	9099623868
270	પગીદશરથભાઈગોબરભાઈ	21	હંસેલાવ	9313205425
271	દિલીપભાઈગજાભાઈપરમાર	768	હાલોલ	8980593428
272	નવનીતભાઈગજાભાઈપરમાર	767	હાલોલ	8320064468
273	મુકેશભાઈમગનભાઈપરમાર	769	હાલોલ	9099255548

274	રતનસિંહપ્રતાપસિંહપરમાર	772	હાલોલ	9265660263
275	જગતભાઈબાબરસિંહપરમાર	773	હાલોલ	9737872018
276	બારીઆઅર્જુનભાઈજેસીંગભાઈ	803	હીરાપુર	6355212724

Source :- District home guards office

Annexure – 26

List Of NGOs

No.	Name of NGO	Address	Mobile no
1	Voice of Nature Foundation Trust, Godhra	Chitra Khadi, Khadi Faliya ,Godhra	9714365050
2	Shree Zhulelal Sindhi Trust, Godhra	Jhulelal Temple, Godhra	9824422334
3	Varundev Sindhi Samaj Dharamshala Trust	Baharpura Godhra	9824426984
4	Shri Shantiprakash Satsang Bhavan	Dali ni chal Godhra	9426003110
5	Shri Prem Prakash Ashram	Bhurawav Godhra	261017- 02672
6	Shri Krupalu Seva Samaj Trust	Bamaroli Road Godhra	241552 - 02672
7	Sadvichar Parivar Trust	PT Mirani Eye Hospital	265498- 02672, 242653, 241429
8	Sri Annapurna Trust	Bamaroli Road Godhra	8866053602 241522, 244849, 249935
9	Lion's Club	Godhra	9724700007 9825043152
10	Rotary Club	Godhra	9825045599 9825518934
11	Methodist Church	Near Arnold School, Godhra	9824434404
12	Shri GayatriParivar	Godhra	9904121503
13	Vishwakarma Temple	Godhra	9825030811
14	Sant Nirankari Charitable Foundation	Bhurawav, Godhra	9033650283
15	Methodist Church	Near Civil Hospital, Godhra	9428138035
16	Mukt Jeevan Disaster Management and Rescue Training Academy	Shahera	8780782775
17	Panam Mahila Sangathan(Aandi Sanstha)	At Sajivav Ta.Shahera	Champabn- 9316749449
18	Lion's Club Halol	Near MS High school, Halol	Rizwan Multani- 8128117393
19	Mahila Vikas Mandal, Halol	Halol	Yasmin Mahbob shaikh- 9925254560

Annexure - 27

List of Equipments available with NDRF

Total Team in Gujarat:15 (Vadodara:12 Teams and Gandhinagar: 03Teams)

LIST OF MAJOR EQUIPMENTS FOR DEAL WITH FLOOD

SL. NO.	NAME OF EQUIPMENT	QTY Available with unit in Gujarat
1	IRB Boats	81
2	FRB Boats	3
3	OBM (25 HP)	85
4	OBM (40 HP)	3
5	Life buoy	980
6	Life Jackets	312
7	Deep Diving Sets	29
8	Fogging Machine	10
9	Hand Pump Complete Set	100
10	Plastic Sheet(Size:50*4mtr)	75
11	CGI tin sheet	1000
12	Blanket	NIL
13	Life Buoys	1000
14	Synthetic Life Jacket	1700
15	Family Ridge Single Fly Tent	1000
16	Family Ridge Double Fly Tent	100
17	Tent Extendable 4M	91

18	Sanjeevani body cover bag child	25
19	Sanjeevani body cover bag infant	25
20	Sanjeevani body cover bag adult	50
21	Synthetic Sleeping Mat	7500

22	Trolly Mounted Generator St (30KVA)	4
23	Dignity kit for women	NIL
24	Dignity kit for Men	NIL
25	Tent Big Size	NIL
26	Water Storage Tank (500Ltr)	41

In addition to above equipments, National disaster Respose Reserve Stores are also available in the unit as per following details.

Communication Equipments available with the unit are as follows:

SL. NO.	NAME OF EQUIPMENT	QTY Available with unit in Gujarat
1	VHF Walkie Talkie	154
2	VHF Base Station	22
3	HF	22
4	V-Sat(QDA)	6
5	Sat Phone	4

Source :- 06 BN NDRF

Annexure – 28

Details of Water Logging Areas

(1.) WATER LOGGING ON NATIONAL/STATE HIGHWAYS & LOCAL ROADS						
No	Taluka	Village/City	Area/Landmark (In detail)	Lat. & Long.	Approx Area/km	Other Remarks
1	Halol	Pavagadh/ Dhobikuva	Near Pavagadh Village, City Gate	22-28'-58.63"N 73-31'-20.77"E	Bodeli-Halol-Godhra Road, Km 331/00 to 331/200	Lake overflow
2		Chanchadiya	Varsada chowldi to chanchadiya	22-30'-16.22"N 73-28'-45.01"E	Halol-Arad-Paroli Road km 9/4 to 9/6	Due to heavy rain over tapping.
3		Abhetwa	Near Abhetwa	22-31'-19.84"N 73-29'-59.61"E	Halol-Arad-Paroli Road km 3/2 to 3/4	Lake overflow
4		Halol	Near Arad Crossing	22-33'-31.41"N 73-32'-43.83"E	Halol-Arad-Paroli Road km 0/2 to 0/4	Lake overflow
5		Halol	Navakuva to Bhanpur road	22-33'-31.40"N 73-37'-55.14"E	Baria-Rajgadh- Ranjitnagar road, Km 46/8 to 47/0	Due to heavy rain over tapping.
6	Godhra	Godhra	Simla	22.780500- 73.588148	2.0 km	
7		Nani Katadi	333+950		900M2	Delhi-mumbai National
8		Daruniya	Near Causeways	22.801687	0.25	Near Delhi-Mumbai road.
9		Mahelol	337+700		1200M	Delhi-mumbai National
10		Godhra	Ahmedabad-Godhra-Dahod- Indore road km 116/800 to 129/400 ST work shop to Bhamaiya Chokadi Km 119/00to122/00	22.78531,73.61354 22.77987,75.9362	2.50 Km	Approximatly 2.50 Km Length affected by heavy rain

11			Ahmedabad-Godhra-Dahod-Indore road km 116/800 to 129/400 Bansal Mall Km 116/800 to 126/200	22.77538,73.64235 73.64235	0.08 Km	
12			Ahmedabad-Godhra-Dahod-Indore road km 116/800 to 129/400 Shell Petrol pump km 127/00 to 127/400	22.77887,73.65364	0.60 Km	
13			Godhra Bamroli Richiya Achhala Road km 0/00 to 13/00 Vavdi Chokdi km 2/400 to 2/600	22.76681, 73.64181	0.80 km	
14		Godhra	Paravadi	22.7879392-73.673477	100M	Encroached by local hotel
15	Kalol	Kanod			600M	Delhi-mumbai National
16	Shahera	Shahera	Near Dosti Gaurage, Aniyad Chokadi Shahera	22.955767,73.628861	0.5 Km	
17			Near MGVCCL Office Shahera	22.936653,73.637023	0.2 Km	
18			Near Referral Hospital	22.944009, 73.633816	0.2 Km	

19		Sadara	From Sadra Sagar Faliya towards the Mahi coast	Lat.22.96062 Long. 73.465129	2 km	Due to heavy rains, the release of water from Kadana Dam into the Mahisagar River causes it to overflow.
20		Poyada	Due to heavy rain, the road from Poyda village to Kotar was blocked.	Lat.22.96062 Long. 73.465129	2 km	Due to heavy rains, a ravine passes through Poyda village. Due to this, Atisay water is being filled and Nayaka Phaliya is being filled with water.
21		Bilitha	On the road leading to Juna Bilitha and towards the Mahisagar coast	Lat.22.980927 Long. 73.463983	2 km	Due to heavy rains, the release of water from Kadana Dam into the Mahisagar River causes it to overflow.
22		Boradi	On the road leading from Bakaria Phaliya to the old Whaka ma Mahisagar shore	Lat.22.990976 Long. 73.465471	2 km	Due to heavy rains, the release of water from Kadana Dam into the Mahisagar River causes it to overflow.

23		Vallavpur	On the main road from Vallavpur village	Lat.22.961074 Long. 73.475461	1 Km	Due to heavy rains, the release of water from Kadana Dam into the Mahisagar River causes it to overflow.
24		Bhimthal	On the road from Bhimthal to Dashma Gorge	Lat.22.98117 Long. 73.483452	2 km	Due to heavy rains, the release of water from Kadana Dam into the Mahisagar River causes it to overflow.
25		Gokalpura	On the main road from Gokalpura village	Lat.22.981017 Long. 73.483453	1 Km	Due to heavy rains, the release of water from Kadana Dam into the Mahisagar River causes it to overflow.

(2.) WATER LOGGING IN LOW LYING RESIDENTIAL & INDUSTRIAL AREAS						
No	Taluka	Village/City	Area/Landmark (In detail)	Lat. & Long.	Approx Area/km	Other Remarks
1	Halol	Halol	Sheron Park,Lakulish Nagar Near BAPS Swaminarayan Temple,Dhara nagar	23.00'N 72.00'E	Approx.300 Sq mtr	Box Drainage System Installed
2		Halol	Uma Society	22.50'N 73.46'E	Approx.100 Sq mtr	Storm Drainage Cleaning is done
3		Halol	Dhaval Park Society	22.50'N 73.46'E	Approx.200 Sq mtr	Storm Drainage Cleaning is done
4	Godhra	Godhra	Khadi Faliya	22.77999, 73.61092	0.3	
5		Godhra	Ali park Socity	22.774839 73.595765	0.5	
6		Godhra	Railway Station Area		1 km	Bridge over Guhaya Nala to be widened, and encroachment near Ravi Corporation to be removed
7		kalol	Indiranagar Talav	22.608462, 73.463115	32554.78M	
8			Behaind college area	22.364210, 73.2739	1,08,036.71M	
9	Ghoghamba	Gamani	Sat Aamba faliya gamani	22.55&73.75	100 Sq.M	
10		Savapura	Grampanchayat office,Bakrol rajgadhd road	22.54&73.66	100 Sq.M	
11		Kharod	Moriya Faliya	22.56 & 73.66	100 Sq.M	

12		Vav	Bakrol-Shivrajpur State Highway	22.48&73.69	200 Sq.M	
13		Vankod	Khutdiya faliya-bakrol rajgadh road	22.51&73.69	100Sq.M	
14		Matha	Vaijanath Mahdev Temple,Karad river	22.57&73.65	100Sq.M	
15		Simliya	Otala faliya-simaliya malu road	22.67 & 73.72	100 Sq.M	
16		Sajora	Ved Faliya-Near Main Primary School	22.67&73.75	100 Sq.M	
17		Palla	Karad Dam-Dharamkhet faliya road	22.55&73.68	200 Sq.M	
18	Shaehra	Shaehra	Shantikunj Socirty, Near aniyad Chokadi	22.955175,73.628284	0.5 Km	
19			Timali Faliya,B/H Taluka Seva sadan	22.946110,73.630541	0.3 Km	
20		Poyada	Due to heavy rains, a ravine passes through Poyda village. Due to this, Atisay water is being filled and Nayaka Phaliya is being filled with water.	Lat.22.981017 Long. 73.483453	2 km	Due to heavy rains, a ravine passes through Poyda village. Due to this, Atisay water is being filled and Nayaka Phaliya is being filled with water.
21		Boradi	Bakaria Phalia in the low-lying area	Lat.22.990976 Long. 73.465471	2 km	Due to heavy rains, the release of water from Kadana Dam into the Mahisagar River causes it to overflow.
22		Kharoli	In the fields of Kharoli village	Lat.22.980775 Long. 73.452481	2 km	Due to heavy rains, water is released from Kadana Dam into Mahisagar River, flooding the fields.

23		Bhimathal	In the low-lying area of Bhimthal Bariya Phalia	Lat.22.982535 Long. 73.485084	2 km	Due to heavy rains, water is released from Kadana Dam into Mahisagar River, flooding the fields.
24	Morva(H)	Morva(H)	Near C.H.C around peripheri of Morva Talav	22.907418,73.832652	5 hact	Last year 2024 due to heavy rain in morva(H) taluka morva talav was overflowed and due to excess inflow of water near by CHC and farmers land observed water logged.
25		Dangariya	Around peripheri of Talav	22.881170,73.834783		Dangariya Talav tail channel also needs to be clean for avoiding submergence

(3.) OVERTOPPING BRIDGES/CAUSEWAYS/ROADS

No	Taluka	Village/City	Area/Landmark (In detail)	Lat. & Long.	Approx Area/km	Other Remarks
1	Godhra	Mirap	Sahera Faliya	22'43'42"N, 73'48'.26"E	60m deep Couse way	Road close for half hour(Max) in heavy rainflow and other route also available
2		Godhra	Vorvad to Gondra Causeway	22.77112 73.61376	0.12	

3		Godhra	Amlifaliya to Idgah Causeway	22.76713 73.61023	0.1	
4		Bakhkar	Sukva Faliya near Smashan	22.84622, 73.761886	0.25	Orwada-Waghjipur road
5		Hamirpur	Near lake	22.7711071, 73.58745	0.25	In Hamirpur Village lake
6		Sarsav	Sarsav Approach road km 0/00 to 12/200, Low hight long pipe darinage km. 1/600 to 1/80 near Gamdi School	22.78317, 73.77724	0.1 km	this deep get overtaped when heavy rain occur on baria side catchment area
7		Godhra	Godhra Bamroli Richiya Achhala road Km 0/00 to 13/00 Vavdi chokdi km 2/600 to 2/800	22.76591, 73.64980	0.5 km	
8		Mordungra	Godhra Sampa Waghjipur Nada Km 0/00 to 13/00(Km 7/200 to 7/400)	22.845063,73.678404	0.1 Km	
9		Sampa	Godhra Sampa Waghjipur Nada Km0/00 to 13/00(Km9/00 to 9/200)	22.849749/73.6840550	0.1 Km	
10		Bakhar	Orwada Bakhar Chalali Km 17/00 to 26/600(Km 19/80 to 20/000)	22.80910, 73.77652	0.1 km	
11		Orwada	Orwada Bakhar Chalali Km 17/00 to 26/600(Km 24/00 to 24/600)	22.80910,73.77652	0.1 Km	Orwada Talav

12		Ratanpur	Bhima Dhanol Vatlav km 0/00 to 5/730(km 4/400 to 4/600) slab drain		0.5 Km	
13	Kalol	Derol Village	Derol-Sansoli road	1/4 to 1/6	200M	Temporary overtapping due to heavy rainfall
14		Katol	Boru Railway Underground way			
15		Medapur	Nagarpalika to Jetpur Bet Faliya			
16		Vejalpur	Vejalpur to Bhoiwada			
17			Vejalpur to Valmikivas			
18			Vejalpur to Patelwada			
19			Vejalpur to Mahadev Mandir			
20			Vejalpur to Chalali road			
21		Kalol	Dolatpura road causeway	22.600107, 73.458103	100M	
22			Gopibar road causeway	22.601269, 73.458103	150M	
23			Boru Railway Underground way			
24		Bakrol	Bharwad nes faliya road	2/40 to 2/60	120M	Overtopping during Monsoon (Major Bridge is Sanctioned at this Place)

25		Ghusar	Ghusar approach road	3/80 to 4/0	150M	Overtopping during Monsoon (Major Bridge is Sanctioned at this Place)
26	Shahera	Mor, Undara, Ramji ni Nad	Mor Undara Ramji ni Nad Chansar Road	1/800 To 2/200	384 m	Overtopping during Monsoon & Due to back water of panam dam (Major Bridge is Sanctioned at this Place)

Annexure – 29
Road and Building Department(State)
Departmental Disaster management Plan Details

		Contact Details of R&B			
Sr.NO	Name of Office	Officer Name	Designation	Contact No.	Contact No Office
1	R&B Department Godhra	Shri. T. P. Goswami	Exen	9408138743	(02672) 243421 (02672) 242873
2	R&B sub division Godhra	Shri.K.K.Patel	Dy.exen	9601094195	(02672) 243423
3	R&B sub division Halol	Shri.J. B Patel	Dy.Exen	9825198066	(02676) 220353

Taluka wise resource with R&B(State)

No	Name of the office	Taluka	Tractor	Tanker	Dumper	Nisarani	Dorda	Pavda	Empty bags of Cement	Kodali	Hathoda	JCB
1	R & B Sub Division Godhra	Godhra	1	1	1	0	4	12	800	6	4	2
2		Shahera	2	1	1	2	3	12	600	10	6	2
3		Morva (H)	2	2	1	0	4	12	1000	8	6	2
4	R & B Sub Division Halol	Halol	1	2	1	1	3	15	500	5	5	2
5		Kalol	1	1	1	0	0	100	100	0	0	2
6		Ghoghamba	1	1	1	0	2	10	500	3	3	2
7		Jambughoda	1	1	1	0	1	10	500	3	2	1

Details of Circuit/Rest house with R&B State

No	Name of the Circuit House/ Rest House	AC/Non A.C. (Room)		Total Room	Phone Number
1	Circuit House at Godhra (Six Additional Suit, Old inspection Bungalow, Anexy Building)	AC	25	25	02672-240427, 243425
		Non Ac	0		
2	Rest House Morva (H)	AC	3	7	02672- 284851
		Non Ac	4		
3	Rest House Halol	AC	6	6	02676- 226154
		Non Ac	0		
4	Rest House Kalol	AC	1	2	02676- 237111
		Non Ac	1		
5	Rest House Ghoghamba	AC	3	7	02676- 24466
		Non Ac	4		
6	Rest House Jambughoda	AC	2	3	02676- 241256
		Non Ac	1		

Details of safe Shelter identify by R&B state

Sr.No.	Name of sub division	taluka	safe house
1	R & B Sub Division, Godhra	Shahera	Taluka Seva Sadan Building
			Arts college
			Model School
			I.T.I. Buiding
2	R & B Sub Division, Godhra	Morva Hadaf	Arts & Science Clg Morva HAdaf
			I.T.I. Buiding
3	R & B Sub Division, Godhra	Godhra	Government Eng College Godhra
			Multi Storey I.T.I Building, Godhra
4	R & B Sub Division, Godhra	Godhra	Jilla Seva sadan Building Godhra
5	R & B Sub Division, Godhra	Godhra	Government polytechnic College Godhra
6	R & B Sub Division, Godhra	Halol	Polytechnic Halol
			Adarsh Nivasi School Halol
			I.T.I Pavagadh
7	R & B Sub Division, Godhra	Kalol	I.T.I Kalol
8	R & B Sub Division, Godhra	Ghoghamba	I.T.I Ghoghamba
9	R & B Sub Division, Godhra	Jambughoda	Arts and Science College Jambughoda

Road and Building (State)

Details of Dangerous Causeway

No	Name of sub division	Taluka	village	Name of road	Category of road	length of road	location - chainage km	lat - long	Approx. area/km	remarks
1	R & B Sub Division Godhra	Godhra		Godhra - Rinchhiya - Achhala - Damavav Road up to Godhra Taluka Limit Km. 0/0 to 13/0	SH	13	Vavdi Chokdi Km. 2/6 to 2/800	22.76591 73.64980	0.5 Km	-
2	R & B Sub Division Godhra	Godhra	Gamdi	Sarsav Approach Road Km. 0/0 to 12/200 Ta.Godhra	M.D.R.	12.3	(Low Height Pipe Draining Km. 1/600 to 1/80) Near Gamdi School	22.78317 73.77724	0.1 Km	When there is heavy rainfall in the catchment area of Baria side, At the time this Deep is overtopped.
3	R & B Sub Division Godhra	Godhra	Bakhkhar	Orvada Bakhkhar Chalali Road Km. 17/4 to 26/6	M.D.R.	9.2	Km. 19/80 to 20/00		0.1 Km	-
4	R & B Sub Division Godhra		Orvada				Km. 24/0 to 24/600	22.80910 73.77652	0.1 Km	-
5	R & B Sub Division Godhra	Godhra	Mor Dungara	Godhra Sampa Waghjipur Nada	O.D.R.	13	Km. 7/200 to 7/400	22.845063 73.678404	0.1 Km	-

6	R & B Sub Division Godhra	Godhra	Sampa	Road Km. 0/0 to 13/0			Km. 9/0 to 9/200	22.849749 73.6840550	0.1 Km	-
7	R & B Sub Division Godhra	Godhra	Ratanpu r	Bhima Dhanol Vatlav Road Km. 0/0 to 5/74	O.D.R	5.74	Slab Drain Km. 4/400 to 4/600		0.5 Km	-
8	R & B Sub Division Godhra	Shahera	NIL							
9	R & B Sub Division Godhra	Morva (H)	Limdi	Metral - Mora - Suliyat - Sanjeli up to Taluka Border Road Km. 0/0 to 15/70	M.D.R.	15.7	(Low Height Pipe Pipe Culvert on Km. 2/0 to 2/200	23.05142, 73.88879	0.1 Km	When there is heavy rain, This Deep overflows.
10	R & B Sub Division Halol	Halol	NIL							
11	R & B Sub Division Halol	Kalol								
12	R & B Sub Division Halol	Ghoghamb a								
13	R & B Sub Division Halol	Jambughod a								

Road and Building (State)

Details of Bridges

No	Taluka	Major bridge / Minor bridge	Name of road	length	Chainage	
					FROM	TO
1	2	3	4	5	6	7
1	Godhra	Major Bridge	Bodeli - Halol - Godhra Road 369/80 to 375/60(Meshri Bridge)	125.5	374/8	375/0
2	Godhra	Major Bridge	Bodeli - Halol - Godhra Road 369/80 to 375/60 (Meshri Bridge)	115.7	374/8	375/0
3	Godhra	Major Bridge	Godhra - Ricchiyaa - achhala - Damavav road up to Ghoghamba taluka limit Km.0/00 to 13/00 (Meshri Bridge)	83.2	4/2	4-4
4	Shahera	Major Bridge	Dalwada - Mangaliyana Paderdi - Dhamnod Road. Km. 0 /0 to 16 / 20	250	16/00	16/200
5	Godhra	Major Bridge	Timba - Dalwada Road. Km. 0 / 0 to 12 / 0 Km. 18 / 0 to 24 / 2 (Kun Bridge)	120.68	7/600	7/800

6	Godhra	Major Bridge	Tuwa - Mehlol - Vejalpur Road. 0/00 to 18/17 (Mesari Bridge)	100.5	11/4	11-6
7	Morva(H)	Major Bridge	Santrampur - Doly - Morva Santroad - Asayadi - Hindolia - D' 0 / 0 33 / 700	69	9/800	10/00
8	Morva(H)	Major Bridge	Santrampur - Doly - Morva Santroad - Asayadi - Hindolia - D' 0 / 0 33 / 700	145	15/60	15/80
9	Morva(H)	Major Bridge	Santrampur - Doly - Morva Santroad - Asayadi - Hindolia - D' 0 / 0 33 / 700	76	18/20	18/40
10	Shahera	Major Bridge	Haripura - Samli - Karsana - Rena Road. Dhanitra to Rena Crossing Km.0 / 0 to 3 / 80	140	0/00	0/200
11	Halol	Major Bridge	Halol Arad Paroli Road Km.0/0 to 18/2	92	11-8	12/0
12	Ghoghamba	Major Bridge	Baria -Rajagadh - Ranjitnagar Road Km. 14/6 to 52/8	74.1	25/2	25/4
13		Major Bridge		75.2	33/4	33/6
14		Major Bridge		60	43/0	43/2
15	Kalol	Major Bridge	Delol - Kandach - Rabod Road Km. 0/0 to 5/80	216	0/8	1/0

16	Shahera	Major Bridge	Bamroli khurd - Aniyad - Bodidra khurd - Vejma - Kakachia up to taluka limit Road Km. 0 / 0 to 12 / 8	72	6/00	6/200
17	Kalol	Major Bridge	Vejalpur Sureli Rajagadh Road Km. 0/0 to 15/60	72	5/0	5/2
18	Ghoghamba	Major Bridge	Unchabeda - Ghoghamba Road Km .0/0 to 12/20	90	0/8	1/0
19	Ghoghamba	Major Bridge	Godhra - Rinchhiya - Achhala - Damavav up to Juna Malu Road Km.0/0 to 11/80	100	5-3	5-5
20	Kalol	Major Bridge	Derol - Sansoli - Kalyana Up to Taluka Border Road Km . 0/0 to 16/40	120	10-2	10-4
21	Kalol	Major Bridge	Tuva- Vejalpur - Malu -Vechat - Sagtada - Sevaniya Joining To S.H. Road Km. 0/0 to 15/8	80	9/1	9-3
22	Godhra	Major Bridge	Tuva - Ratanpur - Kabirpur - Road Km. 0/00 to 11/37(Kun Bridge)	131.2	1/300	1/500
23	Godhra	Major Bridge	Tuva - Ratanpur - Kabirpur - Road Km. 0/00 to 11/37(Kun Bridge)	178.4	4/200	4/400
24	Godhra	Major Bridge	Dhari Approach Road Km. 0/00 to 6/900 (Kun Bridge)	126.08	0/00	0/400

25	Shahera	Major Bridge	Kun. App. Joining. Bhatna Muvada - Odidra App. Km. 0 / 0 to 1 / 32	140	0/60	0/800
26	Godhra	Minor Bridge	Ahemadabad - Godhra - Dahod - Indore Road. Km. 96/00 to 102/2	19.5	101/600	101/800
27	Godhra	Minor Bridge	Ahemadabad - Godhra - Dahod - Indore Road. Km. 96/00 to 102/2	32	99/400	99/600
28	Godhra	Minor Bridge	Bodeli - Halol - Godhra Road 377/00 to 380/800 (Koliyari kotar)	15.5	378/60	378/80
29	Godhra	Minor Bridge	Bodeli - Halol - Godhra Road 377/00 to 380/800 (kotar)	20.6	379/80	380/80
30	Morva (H)	Minor Bridge	Santrampur - Doly - Morva Santroad - Asayadi - Hindolia - D' 0 / 0 33 / 700 (Agarvada Bridge)	56	22/60	22/80
31	Morva (H)	Minor Bridge	Santrampur - Doly - Morva Santroad - Asayadi - Hindolia - D' 0 / 0 33 / 700 (Bhandarpar Bridge)	47	29/80	30/00
32	Shahera	Minor Bridge	Dalwada - Mangaliyana Paderdi Dhamnod 0/00 to 16/200	36	12/500	12/700
33	Shahera	Minor Bridge	Shahera - Chhanip - Morva Road. Km. 0 / 0 to 10 / 00	30	2/400	2/600
34		Minor Bridge		30	4/200	4/400

35	Halol	Minor Bridge	Halol Arad Paroli Road Km.0/0 to 18/2	22	6-6	6-8
36		Minor Bridge		27	9-4	9-6
37	Ghoghamba	Minor Bridge	Baria -Rajagadh - Ranjitnagar Road Km. 14/6 to 52/8	32.5	17/2	17/4
38		Minor Bridge		25	48/0	48/2
39	Shahera	Minor Bridge	Shahera Nandarva Nada Road Km.0/00 to 19/00	36	11/200	11/400
40	Ghoghamba	Minor Bridge	Palla - Padhora - Bakrol Road Km. 0/0 to 13/30	30	02-Jan	1-4
41	Godhra	Minor Bridge	Godhra - Mehlo - Kanod Road Km. 0 / 0 to 17 / 2	33.8	06-Jun	6-8
42	Godhra	Minor Bridge	Dhanitra - Karsana - Samli App. Road Km.0/0 to 8/97(samli kotar)	27.7	4/800	5/00
43	Godhra	Minor Bridge	Tuva - Ratanpur - Kabirpur - Road Km. 0/00 to 11/37(Kotar)	24	10/600	10/800
44	Godhra	Minor Bridge	Dhari Approach Road Km. 0/00 to 6/900 (Kun Bridge)	18	3/400	3/600
45	Godhra	Minor Bridge	Dhanitra - Karsana - Samli App. Road Km.0/0 to 8/97(Kotar)	30	3/600	3/800

Road and Building (Panchayat)

Overtopping Structure

SR.	DIVISON	TALUKA	NAME	CHAINAGE	TYPE OF STRUCTURE	BRIEF
1	Panchmahal	Godhra	Mirap Sahed Faliya	3/700 to 3/800	Existing Deep	Overtopping
2	Panchmahal	Halol	Varsada to Govindpuri road	0/600 to 0/800	Existing Deep	Overtopping
3	Panchmahal	Halol	Kadachala Vintoj road	3/400 to 3/600	Existing Deep	Overtopping
4	Panchmahal	Jambughoda	Havali Gundiveri Keva road	1/000 to 1/200	Existing Deep	Overtopping
5	Panchmahal	Jambughoda	Gandra Ambapani Ranjitpura road	0/200 to 0/400	Existing Deep	Overtopping
6	Panchmahal	Shahera	Morundara Ranji ni nal thi Chansar road	1/800 to 2/400	Existing Deep	Temporary Diversion
7	Panchmahal	Shahera	Demali Bahi road	2/400 to 2/500	Existing Deep	Overtopping
8	Panchmahal	Shahera	Aniyad Laxmanpura road	4/900 to 5/100	Existing Deep	Damaged Deep
9	Panchmahal	Shahera	Gunali Bavdi stand to Adatadi road	2/000 to 2/200 end 4/000 to 4/200	Existing Deep	Overtopping
10	Panchmahal	Shahera	Bodidra Vaghbodya road	1/400 to 1/500	Existing Deep	Overtopping
11	Panchmahal	Shahera	Bhimthal kotaria road	2/200 to 2/500	Existing Deep	Overtopping
12	Panchmahal	Shahera	Kharedia Mithapur road	0/200 to 0/400 1/400 to 1/600	Existing Deep	Overtopping
13	Panchmahal	Shahera	Padaradi to Juni Padaradi road	1/000 to 1/200	Existing Deep	Overtopping

14	Panchmahal	Shahera	MDR to Labada F. Road	2/00	Existing Deep	Overtopping
15	Panchmahal	Shahera	Odidra App. Road	1/400 to 1/500	Existing Deep	Overtopping
16	Panchmahal	Godhra	Veganpur Kankanpur road	1/000 to 1/300	Existing Deep	Overtopping
17	Panchmahal	Ghoghamba	Bakrol Katariya Faliya Road	1/580 to 1/630	Existing Deep	Structure Damaged
18	Panchmahal	Ghoghamba	Palla Ghar Makhter Road to Adepur Uttar Faliya to Kharod Kuveshiya Road	0/600 to 0/690	Panama River Bridge	Structure Damaged
19	Panchmahal	Ghoghamba	Chandranagar Ghaneshwar Road	1/140 to 1/200	Existing Deep	Structure Damaged
20	Panchmahal	Ghoghamba	Kharkhari A. Road	0/520 to 0/545	Existing Deep	Structure Damaged
21	Panchmahal	Ghoghamba	Wankod Ladhod F. Road	1/200 to 1/240	Existing Deep	Structure Damaged
22	Panchmahal	Ghoghamba	Zizari Udwa Road	1/030 to 1/040	Existing Deep	Structure Damaged
23	Panchmahal	Ghoghamba	Bakrol Ghariaghata Road	0/400 to 0/430	Existing Deep	Over topping
24	Panchmahal	Ghoghamba	Palla Ghar Makhter Road	0/400 to 0/480	Existing Deep	Over topping
25	Panchmahal	Ghoghamba	Kanabipalli Math Phaliya Road	0/820 to 0/910	Existing Deep	Over topping
26	Panchmahal	Ghoghamba	Zizari Wankod Liladhal Road	6/360 to 6/420	Existing Deep	Structure Damaged
27	Panchmahal	Ghoghamba	Road connecting Joz Bus Stand to Joz Primary School and bridge work over Karad River	0/500 to 0/670	Existing Deep	Over topping
28	Panchmahal	Ghoghamba	Mall A. Road	2/500 to 2/800	Karad River Bridge	Structure Damaged
29	Panchmahal	Ghoghamba	Bakrol Saraswa Carpenter F. Road	0/100 to 0/130	Existing Deep	Over topping
30	Panchmahal	Ghoghamba	Bhanpura A. Road	1/200	Existing Deep	Over topping
31	Panchmahal	Ghoghamba	Kharkhari Rathwa F. Road	0/120 to 0/160	Existing Deep	Structure Damaged
32	Panchmahal	Kalol	Ratanpura Newriya Road	1/500	Existing Deep	Structure Damaged
33	Panchmahal	Kalol	Kharsaliya to Joining SH Road	1/200	Existing Deep	Structure Damaged
34	Panchmahal	Kalol	Saliyav to Paghardevi Road	0/300	Existing Deep	Structure Damaged
35	Panchmahal	Ghoghamba	Kharod Morya F. Road	1/800	Existing Deep	Structure Damaged

36	Panchmahal	Ghoghamba	Kantaweda Faliya Road	0/510 to 0/530	Existing Deep	Structure Damaged
37	Panchmahal	Ghoghamba	Kharod Moriya Faliya Road	0/900	Existing Deep	Structure Damaged
38	Panchmahal	Ghoghamba	Sajora Wade F. Road	0/950	Goma River Bridge	Over topping
39	Panchmahal	Ghoghamba	Shaniyada Samighas Road	0/250 to 0/400	Chudvel River Bridge	Over topping
40	Panchmahal	Ghoghamba	Simaliya Ojala Road	0/610	Goma River Bridge	Over topping
41	Panchmahal	Kalol	Ghusar A. Road	4/0	Goma River Bridge	Over topping
42	Panchmahal	Kalol	Bharwad Ness F. Road	04-Jan	Existing Deep	Over topping

Road and Building - Panchayat

Details of Bridge

Sr No	TALUKA	TYPE OF BRIDGE (MAJOR/ MINOR/ CULVERT)	Name of ROAD	CATEGORY OF ROAD (NH/SH/ MDR/ODR/ VR)	CHAINAGE		LENGTH
					FROM	TO	
1	2	4	5	6	11	12	13
1	Kalol	Major Bridge	Kalol Boru Bakrol Road	MDR	4/2	4/4	0.12
2	Shahera	Major Bridge	Shahera Aniyad Bilitha Road	MDR	9/0	9/2	0.10
3	Shahera	Major Bridge	Narsana Limbodra Road	MDR	2/8	3/0	0.10
4	Kalol	Major Bridge	Kanod mokal sansoli road	MDR	0/500	0/700	0.18
5	Ghoghamba	Minor Bridge	Lavaria Gundi Gajapura Road	MDR	3/000	3/030	0.03

6	Ghoghamba	Minor Bridge	Farod Valinath Road	MDR	3/300	3/330	0.048
7	Kalol	Minor Bridge	Madhvas Shaktipura Road	MDR	2/300	2/330	0.024
8	HALOL	Minor Bridge	Rayanwadia Dhinkva Road	MDR	9/0	9/200	0.05
9	HALOL	Major Bridge	Dhankuva Bhamaria Parkhanda Morkhalla up to Border	ODR	3/85	4/0	0.100
10	HALOL	Major Bridge	Rameshra Targol Jambughoda Road	ODR	3/28	3/4	0.080
11	J.GHODA	Major Bridge	Jambughoda App. Road	ODR	0/3	0/4	0.100
12	Shahera	Major Bridge	Chhanip Limbodra road	VR	1/62	1/7200	0.100
13	Halol	Major Bridge	Bhanpura Khakhariya Road	VR	0/0	0/4	0.100
14	Godhra	Major Bridge	Timba SH to Bhamrana Muwada Road	VR	0/345	0/465	0.120
15	Ghoghamba	Major Bridge	Kharod Malmahudi road	VR	0/300	0/400	0.100
16	Kalol	Major Bridge	Ratanpur Nevaria Road	VR	0/900	1/020	0.160
17	Godhra	Minor Bridge	Vinzol Via Vaganpur Road	VR	2/0	2/200	0.053
18	Ghoghamba	Minor Bridge	Kantu Ambakhunt Gamani road	VR	1/300	1/400	0.040
19	Ghoghamba	Minor Bridge	Kanbipalli App. Road	VR	0/350	0/390	0.048
20	Ghoghamba	Minor Bridge	Kanbipalli App. Road	VR	1/500	1/580	0.048

Details of Resources with Contractor, Road and Building – Panchayat

No.	Taluka	Agency name	Mobile Number	Number of manpower	Machinery details					
					JCB	Dumper	Tractor	Roller	Paver	Tanker
Sub-Division, Halol										
1	Halol	Ketan N. Patel	9898416432	12	1	1	3	1	0	2
2	Halol	Amar Construction	9909977647	22	1	6	3	2	2	4
3	Halol	Jalaram Construction	7359697555	18	1	4	2	0	0	2
		3		52	3	11	8	3	2	8
Sub-Division, Kalol										
1	Kalol	Mr. Sunil M. Patel	9825025523	14	2	2	2	0	0	1
2	Ghoghamba	Mr. Jayesh R. Joshi	8153944195	15	1	2	2	0	0	2
3	Godhra	Intigrity Infra Build	9727222544	18	1	4	2	2	1	2
		3		47	4	8	6	2	1	5
Sub-Division, Godhra										
1	Godhra	Yagnesh Patel	9825063462	13	2	2	4	0	0	3
2	Godhra	Sultan Wala	9724834100	8	2	2	3	0	0	2
		2		21	4	4	7	0	0	5
Sub-Division, Shahra										
1	Shahera	V H Patel4 Lunawada	9825234232	22	2	5	4	3	2	4
2	Shahera	J B Construction 4 Harkundi	9428446297	11	2	2	1	0	0	2
3	Shahera	Visakh P Vyash	9429293555	8	2	2	3	2	2	2
		3		41	6	9	8	5	4	8
Department total		11		161	17	32	29	10	7	26

Annexure – 30

Irrigation Department Contact Details

Panam Irrigation Godhra

Sr.	Name	Designation	Office Name	Mobile
1	Shri S.T.Gamit	Sup.Engr	Panam Project Circle,Godhra	9313162115
2	Shri R B Mal	Exe. Engr.	Panam Irrigation,Godhra	94282 16924
3	Shri Bhautik Patel	DE	Shahera Panam Irrigation,Sub Division - 1	87583 75401
4	Shri H A Bhatuk	Assi. Engr.		99093 71616
5	Shri Darshan Mali	(i/c) Assi. Engr.		79904 26899
6	Shri Hitesh Gangaramani	Assi. Engr.		84010 08402
7	Shri K.M.Raulji	i/c.DE	Morva(Rena) Panam Irrigation,Sub Division - 2	97232 38421
8	Shri Mitesh Barjod	Assi. Engr.		97236 00265
9	shri Dhaval Patel	Assi.Enhr.		95868 18189
10	Shri K M Raulji	DE	Veganpur Panam Irrigation,Sub Division - 3	97232 38421
11	Shri A A Rathva	Assi. Engr.		70166 97632
12	Shri M.S.Jujara	Assi. Engr.		93281 33622
13	Shri Dilipsinh Bhabhor	Assi. Engr.		
14	shri Manthan Parmar	DE	Godhra Panam Irrigation,Sub Division - 4	99090 10863
15	Shri P B Dangi	Assi. Engr.		75739 52452
16	Shri Yatin Jadav	Assi. Engr.		81400 74145

Vadodara Irrigation Circle

Contact Details Of Dev Dam(Halol) Flood cell Vadodara Irrigation - 97129 73339			
No	Name	Designation	Contact No.
1	Shri Rahul Chauhan	EE	82005 26860
2	Shri Sunil Pawar	DE	97274 55995
3	Shri Jigar Damor	AE	74340 49408

Annexure – 31

Resources available with Fisheries Department

જિલ્લા કક્ષાના અધિકારીશ્રી					
અ.નં	અધિકારીશ્રીનું નામ	કચેરીનું નામ	કચેરીનો ટેલિફોન નંબર	અધિકારીશ્રીનો મોબાઈલ નંબર	ઈ-મેઈલ એડ્રેસ
૧	૨	૩	૪	૫	૬
૧	શ્રી એમ.આઈ. થલોટીયા	મત્સ્યોદ્યોગ અધિક્ષકની કચેરી, ગોધરા	૦૨૬૭૨-૨૬૫૭૦૫	૯૮૨૪૩૪૬૦૨૩	sf-godhara@gujarat.gov.in

જીલ્લાના મત્સ્યોદ્યોગ બોટ માલિકના નામ સરનામા કોન્ટેક્ટ નંબર તથા બચાવ કામગીરી માટે ઉપયોગમાં લઈ શકાય તેવી બોટોની યાદી						
ક્રમ	જિલ્લાનું નામ	તાલુકાનું નામ	ગામનું નામ	ફાઈબર બોટ / ટીનબોટ	બોટ માલિકનું નામ(મંડળીના કિસ્સામાં પ્રમુખ/ મંત્રી)	મોબાઈલ નં.
૧	પંચમહાલ	ગોધરા	કરસાણા	ફાઈબર બોટ	રમેશભાઈ જીવાભાઈ પરમાર	9978173347
૨	“	ગોધરા	ટુવા	ફાઈબર બોટ	સુરેશભાઈ રામાભાઈ પરમાર	9979095567
૩	“	ગોધરા	રળિયાતા	ટીન બોટ	દિલીપસિંહ નરવતસિંહ પટેલ	8469889494
૪	“	હાલોલ	ભમરિયા	ટીન બોટ	શનસિંહ ચતુરાજી રાજપૂત	6353510532
૫	“	હાલોલ	વિટોજ	ટીન બોટ	જગદિશસિંહ ફતેસિંહ પરમાર	9725596002
૬	“	હાલોલ	રાયણવાડીયા	ટીન બોટ	ગુલાબભાઈ રાવાભાઈ નાયક	9726218806
૭	“	ઘોઘંબા	ગોયાસૂંડલ	ટીન બોટ	ઠાકોરભાઈ ચૌહાણ	9510061578

૮	“	ઘોઘંબા	ઝીઝરી	ટીન બોટ	કેશરસિંહ પ્રતાપસિંહ બારિયા	8200915159
૯	“	ઘોઘંબા	પાલ્લા	ટીન બોટ	મગનભાઈ ગમજીભાઈ નાયક	9909014672
૧૦	“	મોરવા(હ)	હારેડા	ટીન બોટ	રમણભાઈ ધૂડાભાઈ ભગોરા	6353950666
૧૧	“	જાંબુઘોડા	જાંબુઘોડા	ટીન બોટ	દિનેશભાઈ હિમ્મતભાઈ રોહિત	7575074805
૧૨	“	જાંબુઘોડા	જાંબુઘોડા	ટીન બોટ	મનહરભાઈ હિમ્મતભાઈ રોહિત	7575074805

જીલ્લાના ફિશરમેન એસોસિએશનની માહિતી દર્શાવતું પત્રક					
ક્રમ	માછીમાર એસોસિએશન/મંડળીનું નામ	હોદ્દાદારનું નામ	હોદ્દો	કોન્ટેક્ટ નંબર	
1	ધી ધનપુરી કડાડેમ આદીવાસી મત્સ્ય ઉછેર સ.મં. લી.	દિનેશભાઈ હિમ્મતભાઈ રોહિત	મંત્રીશ્રી	7575074805	
2	ધી પાલ્લા વિભાગ આદીવાસી મત્સ્ય ઉછેર સ.મં. લી.	મગનભાઈ ગમજીભાઈ નાયક	મંત્રીશ્રી	9909014672	
3	ધી ઝીઝરી મત્સ્ય ઉછેર સ.મં. લી.	કેશરસિંહ પ્રતાપસિંહ બારિયા	મંત્રીશ્રી	8200915159	
4	ધી ગોયાસુંડલ મત્સ્ય ઉદ્યોગ સ.મં. લી.	ઠાકોરભાઈ ચૌહાણ	પ્રમુખશ્રી	9510061578	
5	ધી દેવડેમ અછતગ્રસ્ત વિકાસ મત્સ્ય ઉછેર સ.મં. લી.	શનસિંહ ચતુરાજી રાજપૂત	મંત્રીશ્રી	6353510532	
6	ધી રાયણવાડીયા મત્સ્ય ઉદ્યોગ સ.મં. લી.	અંકિતભાઈ ગુલાબભાઈ નાયક	પ્રમુખશ્રી	9327391662	
7	ધી ધનસરવાવ તથા વિટોજ મત્સ્ય ઉછેર સ.મં. લી.	જગદિશસિંહ ફતેસિંહ પરમાર	મંત્રીશ્રી	9725596002	
8	ધી પાનમ જળાશય હારેડા મત્સ્ય ઉદ્યોગ સ.મં. લી.	રમણભાઈ ધૂડાભાઈ ભગોરા	મંત્રીશ્રી	6353950666	

બચાવ કામગીરી માટે ઉપયોગમાં લઈ શકાય તેવા તરવૈયાઓની યાદી				
ક્રમ	તાલુકાનું નામ	તરવૈયાનું નામ	તરવૈયાનું સરનામું	મોબાઈલ નંબર
૧	ગોધરા	રમેશ ભાઈ કાળુ ભાઈ	મુ. જૂની ધરી	9723160250
૨	“	મથુરભાઈ સોમાભાઈ	મુ. જૂની ધરી	9624530256
૩	ઘોઘંબા	ઠાકોરભાઈ ચૌહાણ	મુ. ગોયાસૂંડલ	9510061578
૪	“	વિપિનભાઈ ઠાકોરભાઈ ચૌહાણ	મુ. ગોયાસૂંડલ	8980309989
૫	“	રમેશભાઈ કેહરાભાઈ ચૌહાણ	મુ. ગોયાસૂંડલ	8980309989
૬	“	ભીખાભાઈ સકારાભાઈ નાયક	મુ. ગોયાસૂંડલ	8980309989
૭	“	ગલાભાઈ સબુરભાઈ નાયક	મુ. ગોયાસૂંડલ	8980309989
૮	“	સુરતાનભાઈ ખુમાનભાઈ નાયક	મુ. ગોયાસૂંડલ	8980309989
૯	“	મહિપતસિંહ કેશરસિંહ ચૌહાણ	મુ. ઝીઝરી	8200915159
૧૦	“	હમીરભાઈ લલ્લુભાઈ રાઠવા	મુ. ઝીઝરી	9586314764
૧૧	“	કેશરભાઈ ગલુભાઈ રાઠવા	મુ. ઝીઝરી	8758893465
૧૨	“	મસરૂભાઈ મંગાભાઈ રાઠવા	મુ. ઝીઝરી	8469987590
૧૩	“	કેશરાભાઈ લલ્લુભાઈ રાઠવા	મુ. ઝીઝરી	9727844403
૧૪	“	અરવિંદભાઈ કુલાભાઈ નાયક	મુ. પાધોરા	9099255323
૧૫	“	ગોરધનભાઈ ફૂલાભાઈ નાયક	મુ. પાધોરા	9727552098
૧૬	“	મગનભાઈ ગમજીભાઈ નાયક	મુ. ઉડવા	9909014672
૧૭	“	અરવીન્દભાઈ અંદુભાઈ નાયક	મુ. શામળફૂવા	9687951503
૧૮	“	ભારતભાઈ અંદુભાઈ નાયક	મુ. શામળફૂવા	7874056238
૧૯	“	ભારતભાઈ માંદાભાઈ નાયક	મુ. મોલ	6353912238
૨૦	“	નજરૂભાઈ શંકરભાઈ નાયક	મુ. મોલ	9726734306
૨૧	“	અરવિન્દભાઈ રડચિયાભાઈ રાઠવા	મુ. અદેપુર	9328686174

૨૨	“	દિનેશભાઈ વલિયાભાઈ નાયક	મુ. પાલ્લા	8758903712
૨૩	“	રમણભાઈ કાળુભાઈ નાયક	મુ. પાલ્લા	9512424389
૨૪	હાલોલ	જગદિશસિંહ હતેસિંહ પરમાર	મુ. વિટોજ	9725596002
૨૫	“	વિજયભાઈ વિક્રલભાઈ નાયક	મુ. વિટોજ	9909073951
૨૬	“	નરેશભાઈ નારણભાઈ નાયક	મુ. વિટોજ	8141184514
૨૭	“	અર્જુનભાઈ વિક્રલભાઈ નાયક	મુ. વિટોજ	9725596002
૨૮	“	મિનેશભાઈ છગનભાઈ નાયક	મુ. વિટોજ	9638293614
૨૯	“	સનસિંહ ચતુરાજી રાજપૂત	મુ. ભમરિયા	6353510532
૩૦	હાલોલ	અજીતસિંહ વજેસિંહ નાયક	મુ. ભમરિયા	7434908438
૩૧	“	કિરીટભાઈ ભૂપતભાઈ બારિયા	મુ. ભમરિયા	8780044848
૩૨	“	શૈલેશભાઈ સામતભાઈ પરમાર	મુ. ભમરિયા	9016371438
૩૩	“	અશોકભાઈ નવલસિંહ પરમાર	મુ. ભમરિયા	6351293280
૩૪	“	ફતેસિંહ અમરસિંહ તડવી	મુ. ગરિયાલ	6353510532
૩૫	“	ગુલાબભઈ રાવાભાઈ નાયક	મુ. રાયણવાડીયા	97262188066
૩૬	“	મહેશભાઈ દોલતભાઈ નાયક	મુ. રાયણવાડીયા	7435062979
૩૭	“	અંકિતભાઈ રતિલાલભાઈ નાયક	મુ. રાયણવાડીયા	9327391662
૩૮	“	ગોવિંદભાઈ પરવતભાઈ નાયક	મુ. રાયણવાડીયા	9327391662
૩૯	“	રમેશભાઈ નકુભાઈ નાયક	મુ. વડા તળાવ	9327391662
૪૦	મોરવા હડફ	મહેશભાઈ રમણભાઈ ભગોરા	મુ. હારેડા (પાનમ ડેમ)	7859992632
૪૧	“	ભરતભાઈ નાથાભાઈ ભાગોરા	મુ. હારેડા	8155840936
૪૨	“	પ્રવીણભાઈ મનસુખભાઈ પગી	મુ. હારેડા	7862826851
૪૩	“	રાકેશભાઈ રમણભાઈ ભાગોરા	મુ. હારેડા	9099864018
૪૪	“	જિઞ્ઞેશભાઈ રૂપાભાઈ કિશોરી	મુ. સાગવાડા	9879932485
૪૫	“	જસવંતભાઈ રૂપાભાઈ કિશોરી	મુ. સાગવાડા	9586253408
૪૬	“	ભારતભાઈ દેવાભાઈ કિશોરી	મુ. સાગવાડા	9099273723

૪૭	“	રૂપાભાઈ કાળુભાઈ નાયક	મુ. ડેસર	7069615574
૪૮	“	રમેશભાઈ કાળુભાઈ નાયક	મુ. ડેસર	7434832141
૪૯	જાંબુઘોડા	દિનેશભાઈ હીંમતભાઈ રોહિત	મુ. જાંબુઘોડા	7575074805
૫૦	“	તુલશીભાઈ ભીખાભાઈ નાયક	મુ. કાટકોઈ	7575074805
૫૧	“	મહેન્દ્રભાઈ નાયક	મુ. કાટકોઈ	7575074805
૫૨	“	ધર્મદાસ ભીખાભાઈ નાયક	મુ. કાટકોઈ	7575074805
૫૩	“	સુરેશભાઈ ભીખાભાઈ નાયક	મુ. કાટકોઈ	7575074805

Annexure – 32

Contact details of District officials

અ.નં.	નામ	હોદ્દો	મોબાઈલ નંબર	ફોન નંબર ઓફીસ	ઇ-મેઈલ
1	શ્રી અજય દહીયા (IAS)	કલેક્ટરશ્રી, પંચમહાલ ગોધરા	9978406217	242800	collectoer-pan@guajarat.gov.in
2	શ્રી ડી.એમ.દેસાઈ	ઇન્ચા જિલ્લા વિકાસ અધિકારીશ્રી, પંચમહાલ ગોધરા	9978406242	253377- 51	ddo-pan@guajarat.gov.in
3	ડૉ.હરેશ દુધાત	પોલીસ અધિક્ષકશ્રી, પંચમહાલ ગોધરા	9978405077	242200	sp-pan@guajarat.gov.in
4	શ્રી વી.આર.ડામોર	નાયબ વન સંરક્ષકશ્રી, સામાજિક વનીકરણ વિભાગ, ધનોલ, ગોધરા	૯૮૯૮૩૭૫૦૦૦	261850- 51	dcfgodhra@gmail.com
5	શ્રી જે.જે.પટેલ	નિવાસી અધિક કલેક્ટર, પંચમહાલ ગોધરા	9978405189	242450	rdc-pan@guajarat.gov.in
6	શ્રી ડી. આર.પટેલ	પ્રાયોજના વહીવટદારશ્રી, પંચમહાલ ગોધરા	9925234176	252545	taspgodhra@gmail.com
7	શ્રી ડી.એમ.દેસાઈ	નિયામકશ્રી, જિલ્લા ગ્રામ વિકાસ એજન્સી, પંચમહાલ	9427619801 9726945849	253391/9 2	dr-pan@guajarat.gov.in
8	શ્રી આર.આર.ભાભોર	જિલ્લા આયોજન અધિકારીશ્રી, પંચમહાલ ગોધરા	૯૪૨૭૬૧૯૮૦૪	242429	dpo-pan@guajarat.gov.in
9	શ્રી નિરીવ મોદી	નાયબ કલેક્ટરશ્રી, પ્રાંત ગોધરા	8780713510 9978405217	242939	po-pan@guajarat.gov.in
10	શ્રી ફાલ્ગુન પંચાલ	નાયબ કલેક્ટરશ્રી, પ્રાંત શહેરા	7874371239	226028	shahera.sdm@gmail.com
11	શ્રી જે ડી પટેલ	નાયબ કલેક્ટરશ્રી, પ્રાંત હાલોલ	7567010884	220277	go-hal-pan@guajarat.gov.in
12	શ્રી પૂર્વેશ ડામોર	નાયબ જિલ્લા ચૂંટણી અધિકારીશ્રી, પંચમહાલ ગોધરા	9978405287	242491	eo-pan@guajarat.gov.in

13	ડો.ભાર્ગવ ડાંગર	જિલ્લા પુરવઠા અધિકારીશ્રી, પંચમહાલ ગોધરા	7567022323	242936	dso-pan@guajarat.gov.in
14	ડો.ભાર્ગવ ડાંગર	નાયબ કલેક્ટરશ્રી, મધ્યાહન ભોજન યોજના, પંચમહાલ ગોધરા	7567022323	242490	midday-pan@guajarat.gov.in
15	શ્રી મીતાબેન ડોડીયા	ના. કલે.શ્રી, સ્ટેમ્પ ડ્યુટી મૂલ્યાંકન, પંચમહાલ ગોધરા	9909864155	252898	stampd-pan@guajarat.gov.in
16	શ્રી મીતાબેન ડોડીયા	નાયબ કલેક્ટરશ્રી, પુનઃ વસવાટ – કડાણા અને અન્ય ડેમ	9909864155	242437	_
17	શ્રી.ફાલ્ગુન.પંચાલ	અધિક ખાસ જમીન સંપાદન અધિશ્રી, પંચમહાલ ગોધરા	9798391236	240961	_
18	શ્રી કૃષ્ણાલ ડામોર	નાયબ જિલ્લા વિકાસ અધિકારીશ્રી (વિકાસ)	9700558888	253360/61	dy.ddo_panchmahal@gmail.com
19	શ્રી ધવલ સંગાડા	નાયબ જિલ્લા વિકાસ અધિકારીશ્રી(મહેસુલ)	9790559656	253352	
20	શ્રી તપનગીરી ગોસ્વામી	કાર્યપાલક ઈજનેરશ્રી, મા×મ (સ્ટેટ)	8320866239	243421	rnb-pan@gujarat.gov.in
21	શ્રી આર.બી.ચૌધરી	કાર્યપાલક ઈજનેરશ્રી, મા×મ (પંચાયત)	8141883887	253381/82/83	panchmahal-pan-exe@yahoo.com
22	શ્રી સી.પી.બારીયા	અધિક્ષક ઈજનેરશ્રી, ગોધરા (MGVCL)	9795209152	262205	godhraom@gebmail.com
23	શ્રી ભાભરાવાલા	કાર્યપાલક ઈજનેરશ્રી (સં.નિ.)MGVCL લીલેસરા,પંચમહાલ ગોધરા	9798559829	242557-242686	b.mavi@mgvcl.com
24	શ્રી જે.બી.પટેલીયા	કાર્યપાલક ઈજનેરશ્રી, (MGVCL) હાલોલ	9795209156	02676224062	_
25	શ્રી હિરલ બેન દેવાણી	કાર્યપાલક ઈજનેરશ્રી(બાંધકામ) પા.પુ., ગ.વ્ય.બોર્ડ. ધાનકાવાડ, પંચમહાલ ગોધરા	9978406696	02672-241941	eegodhra@gmail.com

26	શ્રી આર.બી.માલ	કાર્યપાલક ઈજનેરશ્રી, પાનમ સિંચાઈ વિભાગ, પંચમહાલ ગોધરા	૯૪૨૮૨૧૬૯૨૪	241963 241968	ndsolanki.ee@gmail.com
28	શ્રી તન્મલ પટેલ	કાર્યપાલક ઈજનેરશ્રી(યાંત્રીક) પા.પુ., ગ.વ્ય.બોર્ડ.પંચમહાલ ગોધરા	૯૦૯૯૧૫૫૬૬૬		-
29	શ્રી રાહુલ રાહોડ	કાર્યપાલક ઈજનેરશ્રી, પાનમ યોજના વિભાગ	૮૩૨૦૦૦૫૬૫૩	241812 274763	-
30	શ્રી અક્ષય વઘાસીયા	કાર્યપાલક ઈજનેરશ્રી, નાની સંચાઈ, પંચમહાલ ગોધરા	૯૮૨૫૯૮૩૩૫૬	253388	exeirri-ddogms@yahoo.com
31	શ્રી માર્ગી રીટા	ભૌતિક શાસ્ત્રી, ભૂગર્ભ જળ પેટા વિભાગ- ૪/૧, પંચમહાલ	9723935890	240856	-
32	ગાયત્રી બેન પટેલ	જિલ્લા પ્રાથમિક શિક્ષણાધિકારીશ્રી પંચમહાલ ગોધરા ઈ.યા જિલ્લા પ્રોજેક્ટ સર્વશિક્ષા અભિયાન	9909971689	253376	
33	શ્રી કિરીટકુમાર મણીલાલ પટેલ	જિલ્લા શિક્ષણાધિકારીશ્રી, પંચમહાલ ગોધરા	9909970209	242240	panchmahaldeo@gmail.com
34	શ્રી ડી કે ખેર	જિલ્લા રજીસ્ટ્રારશ્રી, સહકારી મંડળીઓ, પંચમહાલ, ગોધરા	૯૧૦૬૬૨૭૫૮૭	242245	dr-pan@gujarat.gov.in
35	શ્રી આર એસ પટેલ	નાયબ ઉધોગ કમિશનર અને જનરલ મેનેજરશ્રી, જિલ્લા ઉધોગ કેન્દ્ર, પંચમહાલ, ગોધરા	7567020896	247216/ 240871	gm-dic-pan@gujarat.gov.in
36	ડૉ. મોનાબેન પંડ્યા	સિવિલ સર્જનશ્રી, પંચમહાલ ગોધરા	8980045312	251989 242559	cdmo.godhra@gmail.com
37	શ્રી વિપુલ ગામીત	મુખ્ય જિલ્લા આરોગ્ય અધિકારીશ્રી(CDHO) જિ.પં, પંચમહાલ ગોધરા	7567893300	253367	dpc-panchmahal@yahoo.com
38	શ્રી પ્રદીપસિંહ	જિલ્લા આંકડા અધિકારીશ્રી, પંચમહાલ ગોધરા	9376337373	253354	dso-ddopan@gujarat.gov.in

39	શ્રીમતી રમીલાબેન	ઇ.યા.જિલ્લા પ્રોગ્રામ અધિકારીશ્રી, આઈ.સી.ડી.એસ, પંચમહાલ ગોધરા	9428446244	253372	po.icds.panchmahas@gmail.com
40	શ્રી એન એ પટેલ	નાયબ નિયામકશ્રી, પશુપાલન, પંચમહાલ ગોધરા	9426362862	253389	drdvchaubal@yahoo.co.in
41	શ્રી હરીશભાઈ પરમાર	નાયબ માહિતિ નિયામકશ્રી, પંચમહાલ ગોધરા	7575857845	249111	
42	શ્રી વાય કે પટેલ	વિભાગીય નિયામકશ્રી, (ST) પંચમહાલ ગોધરા	93૫૯૯૧૯૦૩૨	260946	dcgodhara@gmail.com
43	શ્રી કૃષ્ણાલ પંચાલ	પ્રાદેશિક વાહન વ્યવહાર અધિકારીશ્રી, પંચમહાલ ગોધરા(RTO)	૯૯૦૪૪૨૨૮૭૬	242724-	rto-trans-gdr@gujarat.gov.in
44	શ્રી એમ.જે.સોની	મદદનીશ શ્રમ આયુક્તશ્રી, પંચમહાલ ગોધરા	9879244404	240003	-
45	શ્રી રવીરાજ રાણા	પ્રાદેશીક અધિકારીશ્રી, ગુ. પો. કં. બોર્ડ, પંચમહાલ ગોધરા(GPCB)	7600026793	245869	gbc-b-pan@gujarat.gov.in
46	શ્રી એન.આઇ.પટેલ	નાયબ બાગાયત નિયામકશ્રી, પંચમહાલ ગોધરા	9099016469	240039	dudir-bagpan@gujarat.gov.in
47	શ્રી એમ.આઈ.થલેટીયા	મત્સ્યોદ્યોગ અધિક્ષકશ્રી, પંચમહાલ ગોધરા	9913324700	265705	fisheriesgodhra@gmail.com
48	શ્રી મુકેશભાઈ પટેલ	જિલ્લા ખેતીવાડી અધિકારીશ્રી, પંચમહાલ ગોધરા	9106101267	253371	-
49	શ્રી નિરજ ગામીત	ભુસ્તરશાસ્ત્રી, ખાણ અને ખનીજ, ગોધરા	9898465245	241897	gnm-an@gujarat.gov.in
50	શ્રી પ્રજાપતી સાહેબ	નાયબ નિયામકશ્રી, ઈન્ડ. સેફ્ટી એન્ડ હેલ્થ, પંચમહાલ ગોધરા	966221546	241870	-
51	રેલ્વે સ્ટેશન માસ્ટર	રેલ્વે સ્ટેશન માસ્ટર , ગોધરા	9724098430		

52	સેનાપતિશ્રી એસ.આર.પી	કમાન્ડન્ટશ્રી, એસ.આર.પી. ગૃપ-પ,પંચ. ગોધરા	9978405328	262859	cdt-au-godhra@gujarat.gov.in
53	શ્રી સંજય દ્વીવેદી	AGM-1 BSNL ગોધરા	9425800780		-
54	શ્રી આર એસ પટેલ	જનરલ મેનેજરશ્રી, જિલ્લા ઉદ્યોગ કેન્દ્ર, પંચમહાલ, ગોધરા	7567528160		
55	શ્રી જતિન પટેલ	નાયબ ખેતી નિયામકશ્રી, વિસ્તરણ બહુમાળી ગોધરા	9586443926		

Annexure – 33

Contact Details of Mamlatdars & Executive Magistrate

Sr.	Officer Name	Designation	Mobile	(O)	E-Mail
1	Shri Mahendrsinh Jadeja	Mamlatdar(city)	8866201294	02672 242942	mam-godhara@gujarat.gov.in
2	Shri Tarun Patel	Mamlatdar(rural)	7990681852	02672 242942	mam-rev-gdrct@gujarat.gov.in
3	Shri Vikas Patel	Mamlatdar Kalol	9998059901	02676 235339	mam-kalol@gujarat.gov.in
4	Shri Sandipbhai Raiyani	Mamlatdar Halol	9978413536	02676 221066	mam-halol@gujarat.gov.in
5	Shri Sejalben	Mamlatdar Ghoghamba	8780584140	2678244617	mam-ghoghamba@gujarat.gov.in
6	Shri Kalpitkumar J.Sevak	Mamlatdar Jambhghoda	7359933995	02676 241231	mam-jambughoda@gujarat.gov.in
7	Shri D.P.Patel	Mamlatdar Shahera	7069068500	02670 226228	mam-shahera@gujarat.gov.in
8	Shri H.S.Joshi	Mamlatdar Morva(h)	9924505857	02672 284250	mam-morva@gujarat.gov.in

Annexure – 34

Contact Details of Taluka Development Officer

Sr.	Officer Name	Designation	Mobile	(O)	E-Mail
1	Shri N.A.Chavda	TDO Godhra	9624494231	02672	tdo-godhra@gujarat.gov.in
				241582	
				240170	
2	Shri R.P.Prajapati	TDO Kalol	9824936147	02676	tdo-kalol@gujarat.gov.in
				235913	
3	Shri D.K.Garasiya	TDO Halol	7359608676	02676	tdo-halol@gujarat.gov.in
				221160	
4	Shri B.G.Patel	TDO Ghoghamba	8780954686	02678	tdo-ghoghamba@gujarat.gov.in
				244748	
5	Shri D.P.Patel	TDO Jambughoda	9879353775	02676	tdo-jambughoda@gujarat.gov.in
				241232	
6	Shri P.K.Patel	TDO Shahera	7016534198	02670	tdo-shahera@gujarat.gov.in
				226224	
7	Shri T.A.Patel	TDO Morva(h)	9726507787	02672-284390	tdo-morva@gujarat.gov.in

Annexure – 35

Contact Details of Chief Officer Nagarpalika

Sr.	Name	Designaton	Contact No.	(O)	<u>E-mail</u>
1	Shri Sagar Patel	Chief Officer Godhra	9099630494	243184	np_godhra@yahoo.co.in
2	Shri Sanjay Patel	Chief Officer Kalol	9913872161	235605	np_kalol@yahoo.co.in
3	Shri Gaurang Patel	Chief Officer Halol	7575801616	221972- 226068	np_halol@yahoo.co.in
4	Smt.Tejalben Mundhva	Chief Officer Shahera	7623927883	226856	npshahera@yahoo.co.in

Annexure – 36

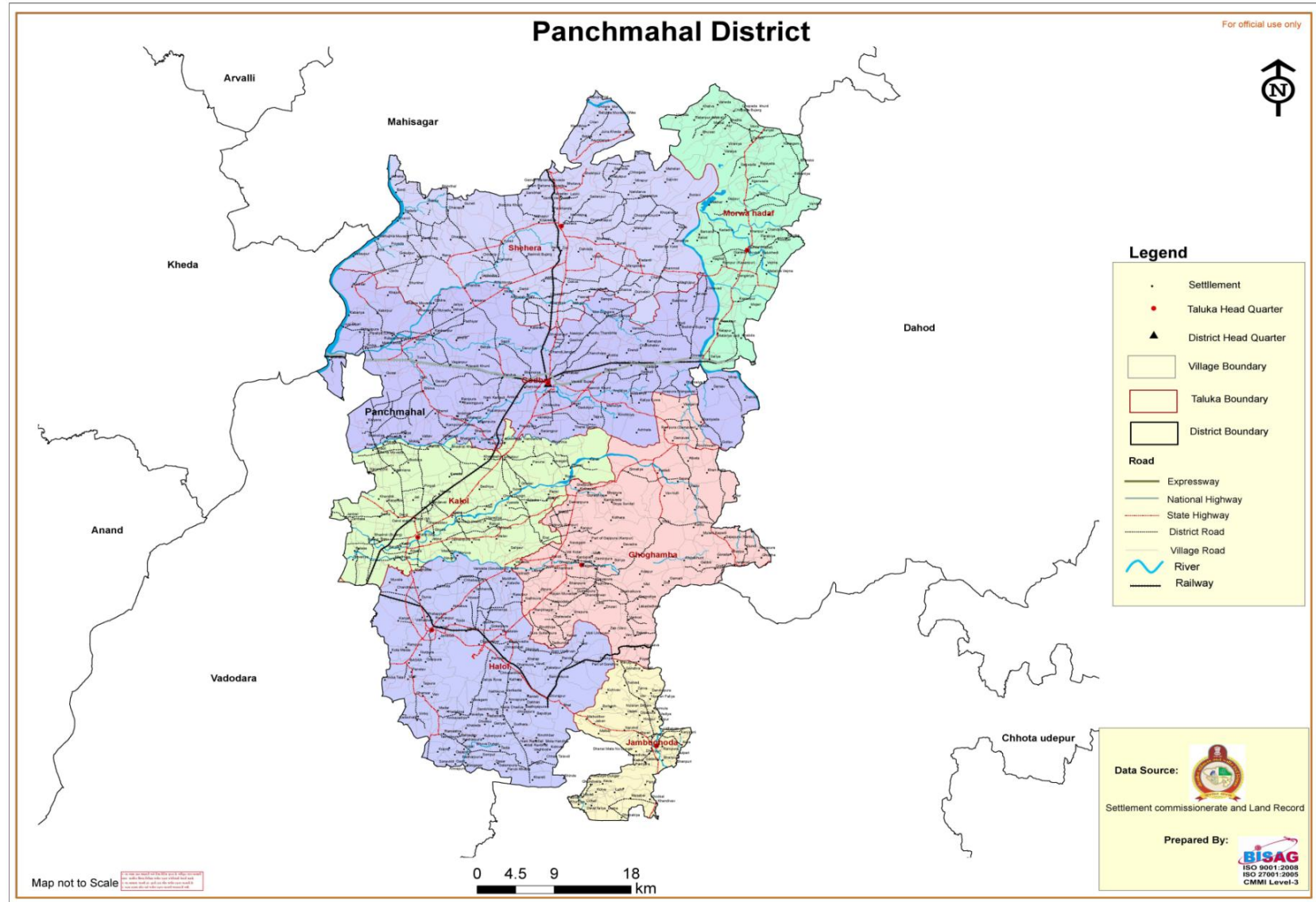
Contact details of Neighboring District

Sr.No	Name of District	Designation of Officer	Name of Officer	Contact Number Mobile	Contact Number Office	E-Mail
1	Dahod	Collector	Shri Yogesh B. Nirgude(IAS)	9978406207	02673-239001	collector-dah@gujarat.gov.in
		Resident Add.Collector	Shri J.M. Raval (GAS)	9978405179	02673-239111	racdahod@gmail.com
		Mamlatdar Disaser	Su.Shri Rukshanaben	9913170185	239277	dismgmt-dah@gujarat.gov.in
2	Mahisagar	Collector	Ms.Arpit Sagar (IAS)	9978405936	02674-250664	collector-mah@gujarat.gov.in
		Resident Add.Collector	Shri.C.V.Lata	9727763950	02674-250165	addl-collector-mah@gujarat.gov.in
		Mamlatdar Disaser	Shri P S Parmar	9429153821	02674-252301	disaster-mahi@gujarat.gov.in
3	Chhotaudepur	Collector	Ms.Gargi Jain	9978405937	02669-233003	collector-cho@gujrat.gov.in
		Resident Add.Collector	Shri S.D Gokalani (GAS)	7574953262	02669-233004	collector-cho@gujrat.gov.in
		Mamlatdar Disaser	Shri P. V. Shah	7984760307	233021-233022	disasterchhotaudepur@gmail.com
4	Vadodara	Collector	Shri Anil Dhameliya(IAS)	9978406224	0265-2433000	collector-vad@gujarat.gov.in
		Resident Add.Collector	Shri B.S.Patel	9978405196	0265-2419700	rdc-vad@gujarat.gov.in
		Mamlatdar Disaser	Shri Ashok Gohil	9879214870	0265-2436662	disast-vad@gujarat.gov.in
5	Kheda	Collector	Shri Amit Prakash Yadav IAS	9978406212	0268-2553334	collector-khe@gujarat.gov.in
		Resident Add.Collector	Shri J. B.Desai	9978405597	0268-2553336	add-collector-khe@gujarat.gov.in
		Mamlatdar Disaser	Shri S.S.Ninama	9879650648		eoc.kheda@gmail.com

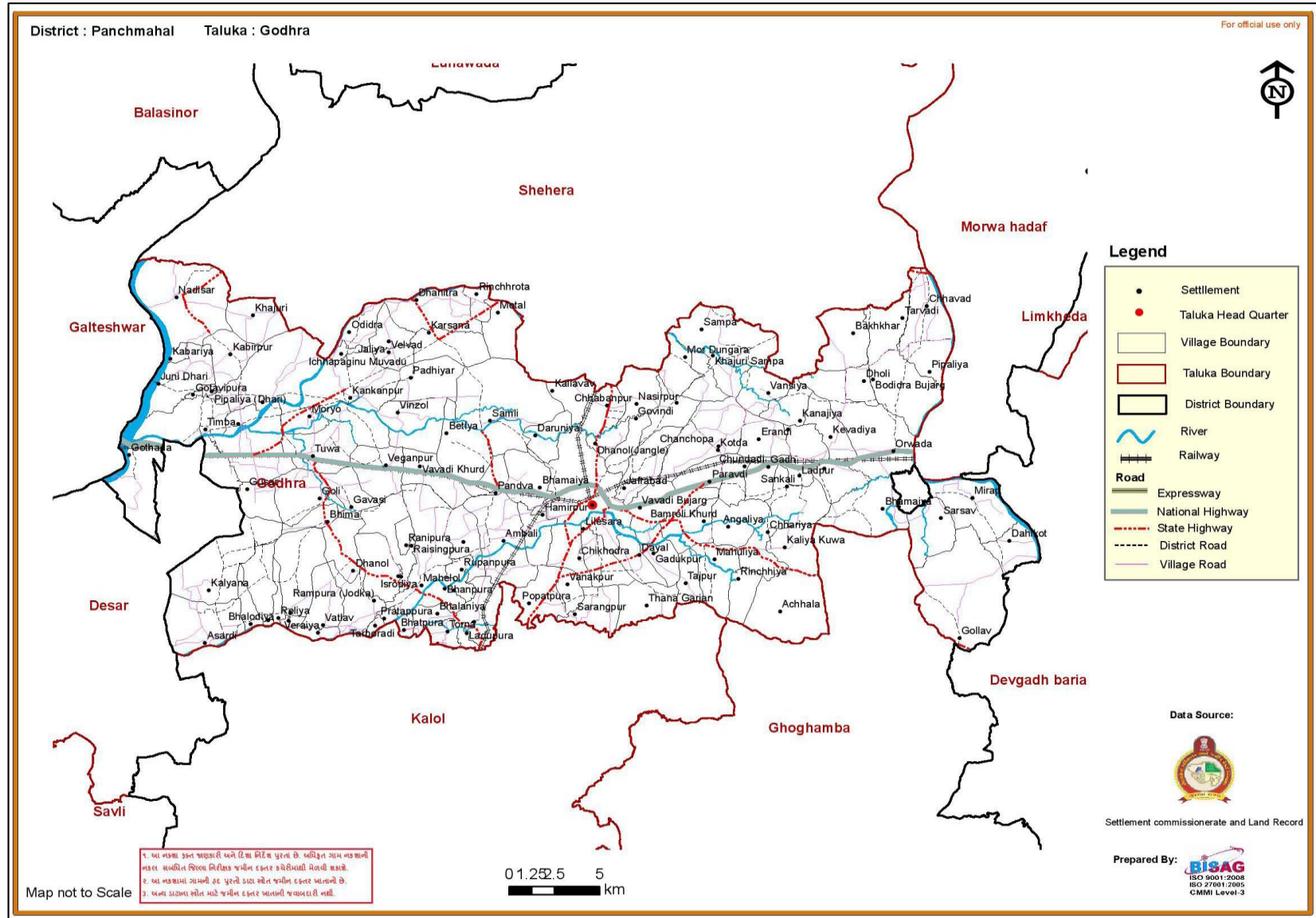
Annexure – 37

MAPs

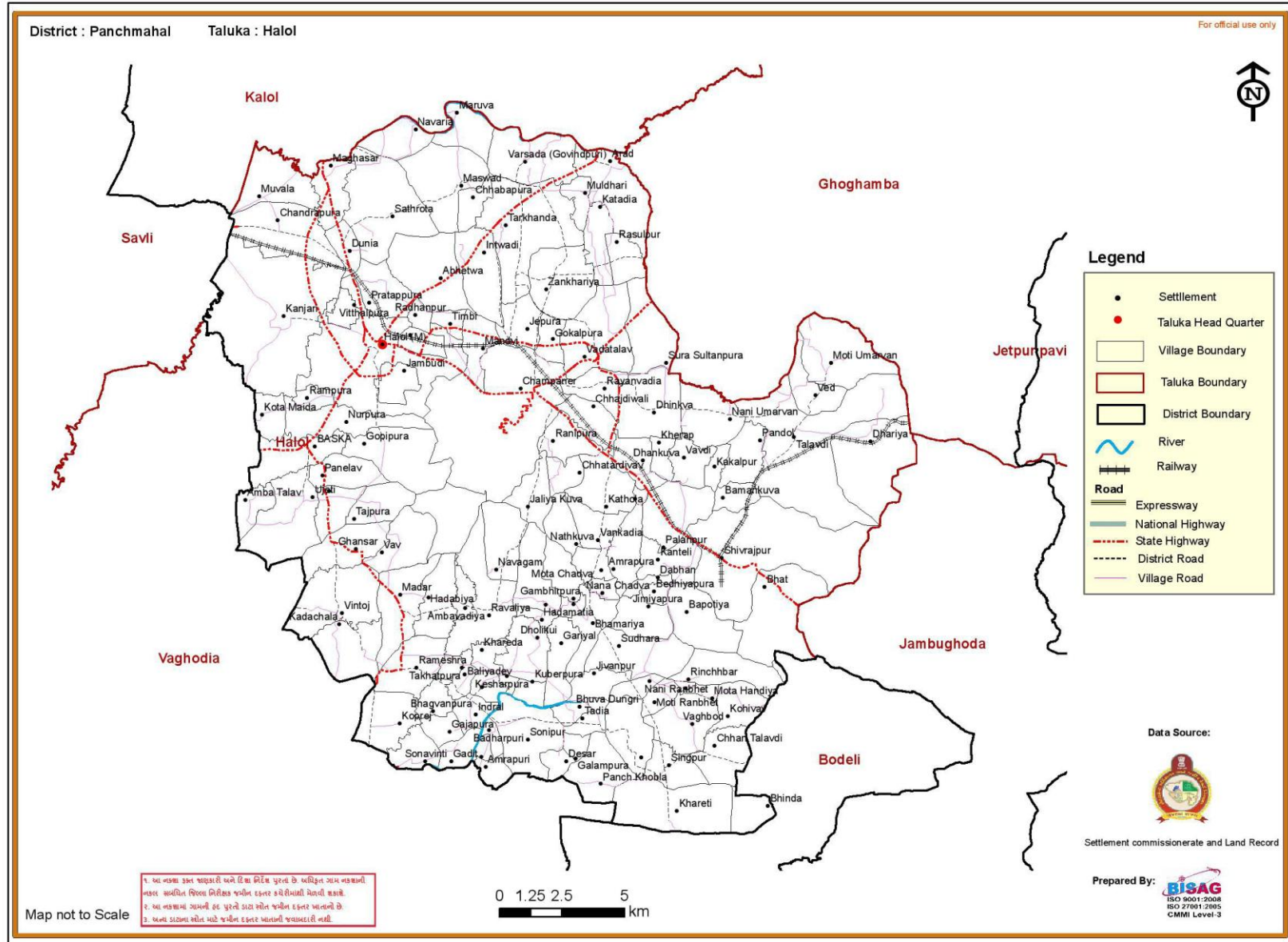
Panchmahal District



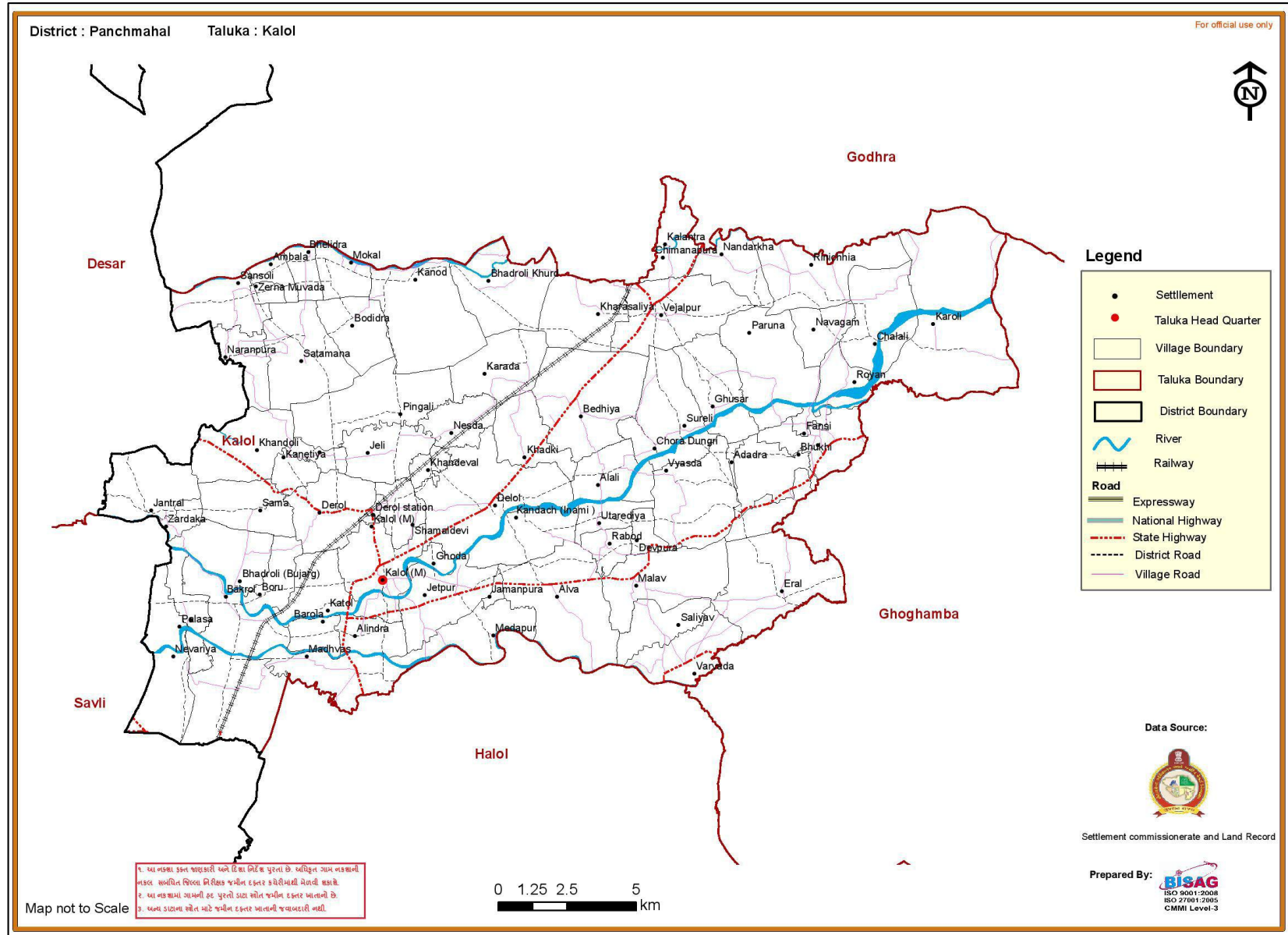
Godhra Taluka Map



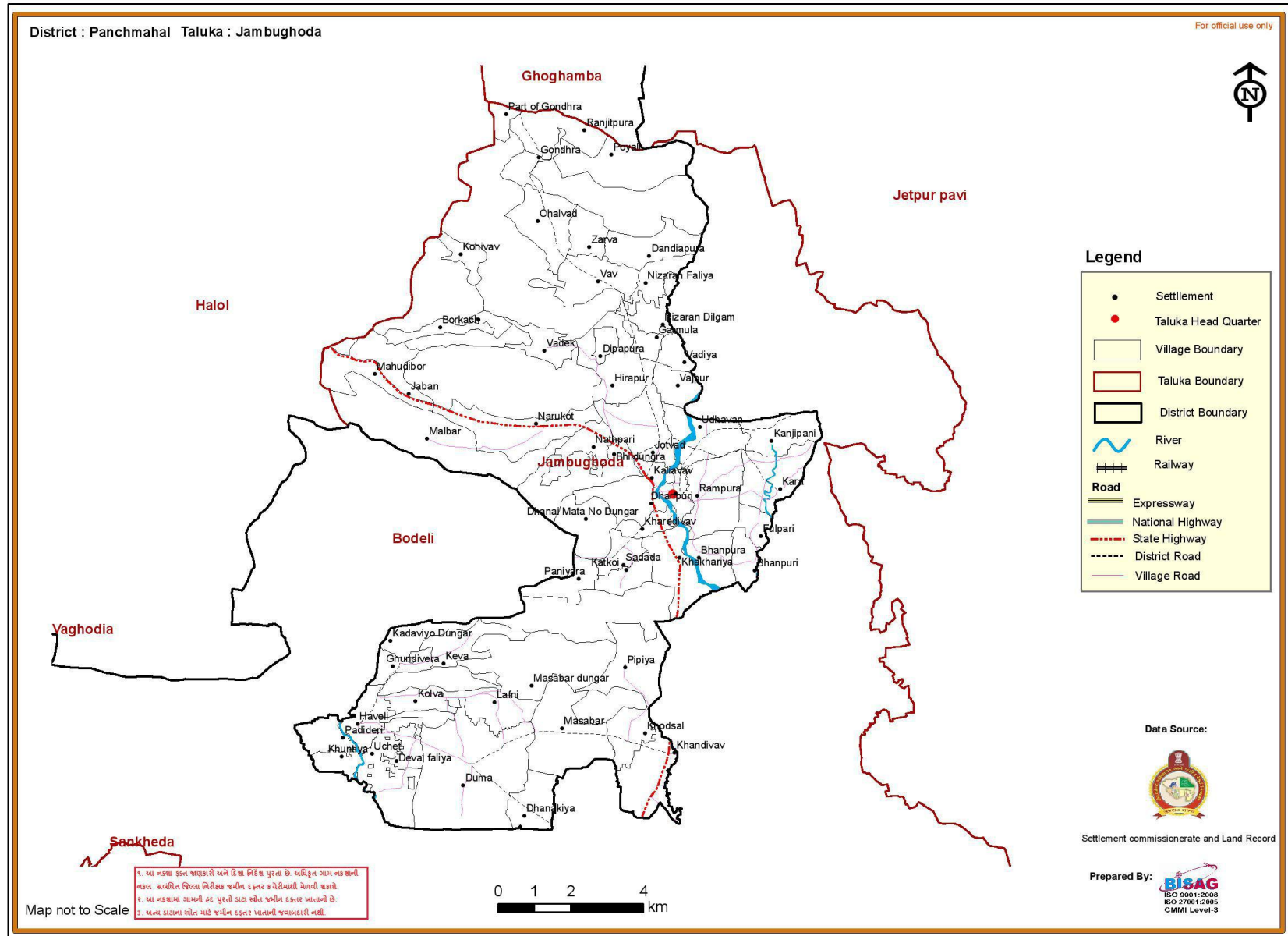
Halol Taluka Map



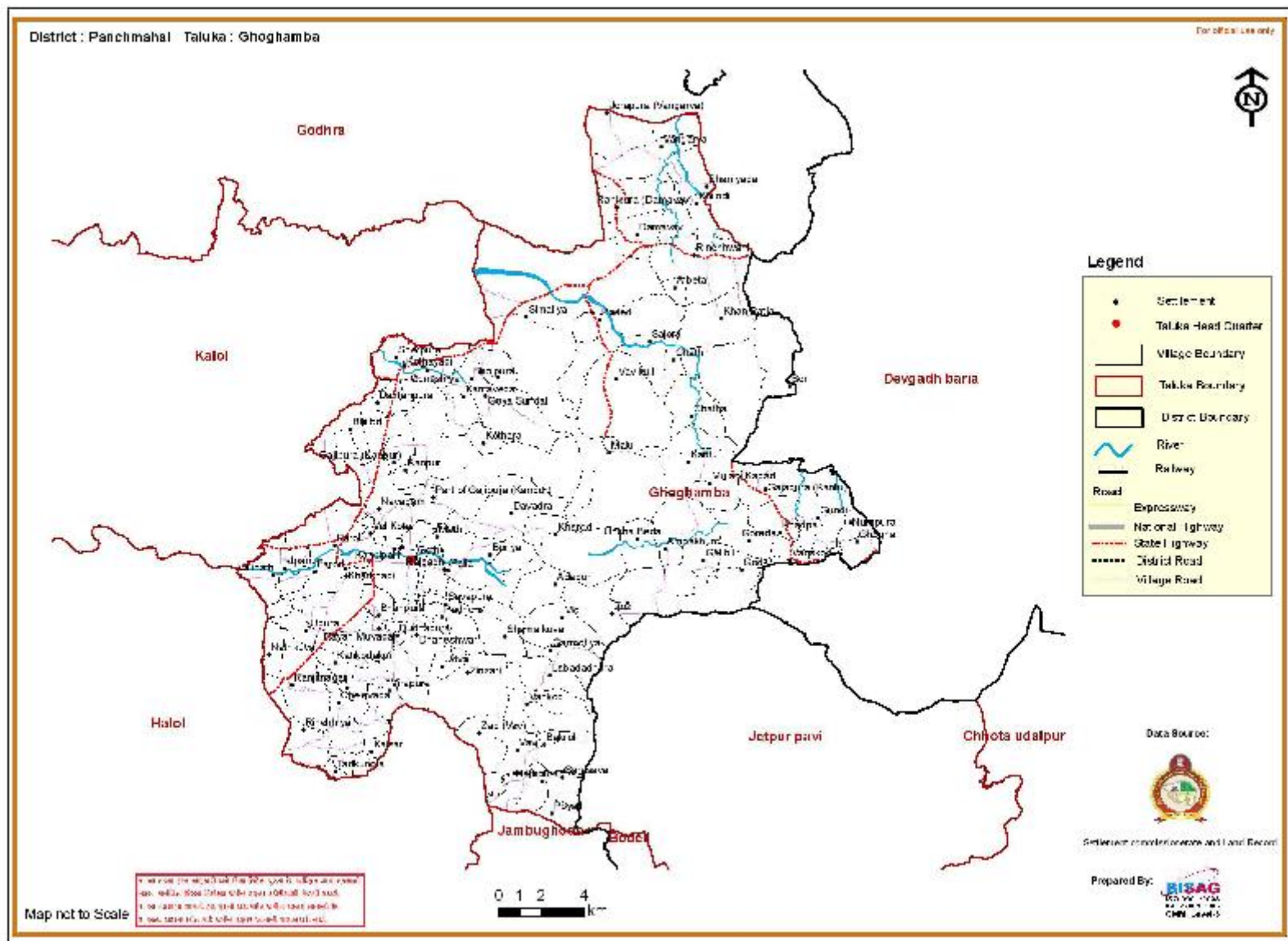
Kalol Taluka Map



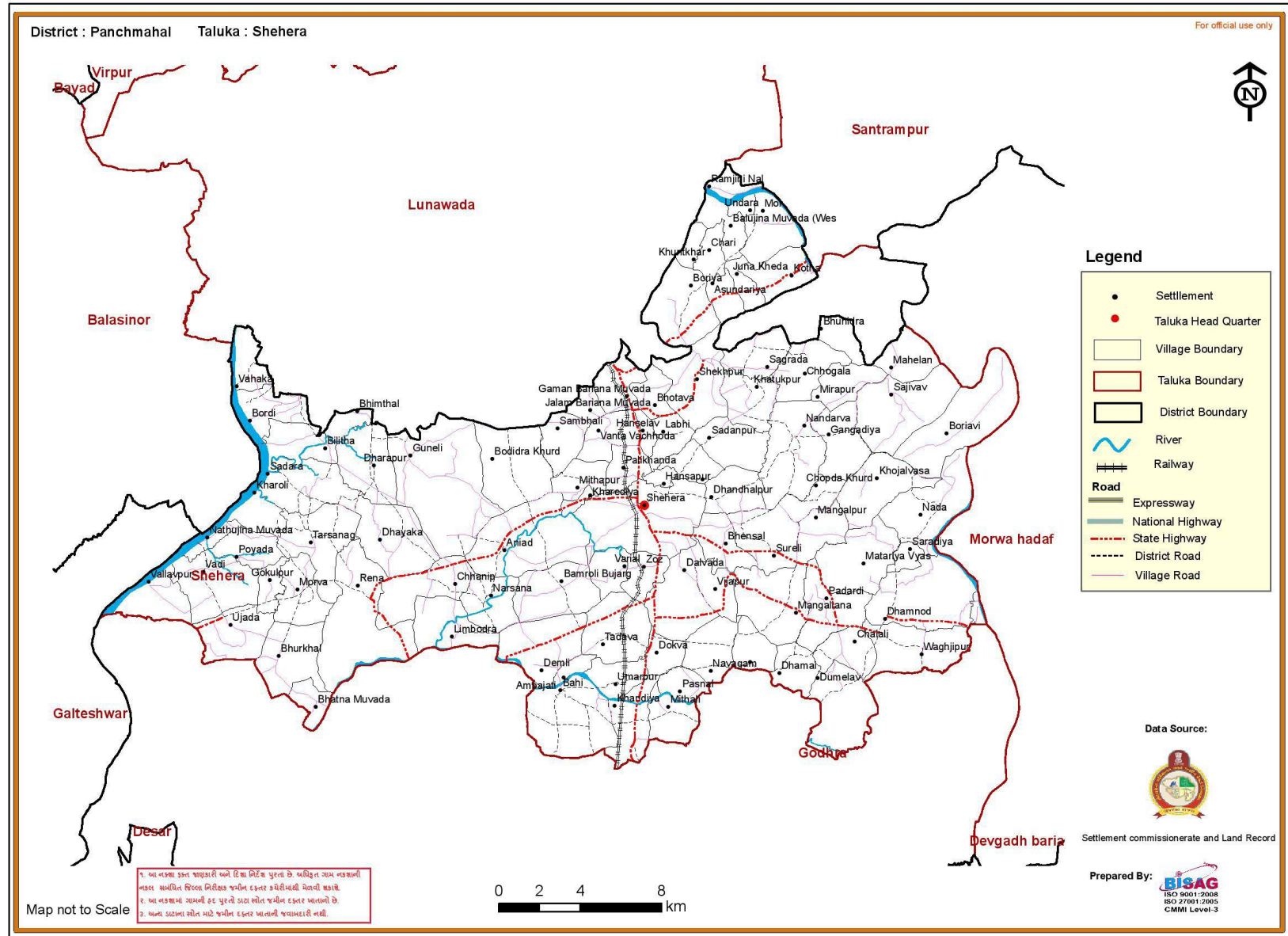
Jambughoda Taluka Map



Ghoghamba Taluka Map



Shahera Taluka Map



Morva(h) Taluka Map

