



Government of Gujarat

GUJARAT STATE DISASTER MANAGEMENT PLAN 2023-24 VOLUME II



GSDMA

GUJARAT STATE DISASTER MANAGEMENT AUTHORITY

Block No.11, 5th Floor, Udyog Bhavan, Gandhinagar

GUJARAT STATE DISASTER MANAGEMENT PLAN

VOLUME 2



2023-24

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ABBREVIATIONS

AAI	Airport Authority of India
ACWC	Area Cyclone Warning Centre
Addl. DGP	Addl. Director General of Police
AERB	Atomic Energy Regulatory Board
AIR	All India Radio.
AMCDRR	Asian Ministerial Conference on Disaster Risk Reduction
ANSS	Advanced National Seismic System
ASC	Amateur Seismic Center
AWS	Automatic Weather Stations
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Sidha, Homeopathy
BARC	Bhabha Atomic Research Centre
BASE	Building Assessment And Structural Surveillance
BIS	Bureau of Indian Standard
BISAG	Bhaskaracharya Institute for Space Applications and Geo-Informatics
BMTPC	Building Materials and Technology Promotion Council
BPL	Below Poverty Line
BPR	Bottom Pressure Recorder
BRO	Border Road organization
CAPF	Central Armed Police Forces
CBO	Community Based Organizations
CBRI	Central Building Research Institute
CBRN	Chemical, Biological, Radiological and Nuclear
CCA	Climate Change Adaptation
CCD	Climate Change Department
CCG	Central Crisis Management Group
CDEF	Civil Defense Emergency Force
CDHO	Chief District Health Officer

CDMA	Code Division Multiple Access
CDO	Central Design Organization
CEO	Chief Executive Officer
CFO	Chief Fire Officer
CHC	Community Health Center
CMG	Crisis Management Group
CoH	Commissioner of Health
COR	Commissioner of Relief
CP	Commissioner of Police
CRZ	Coastal Regulation Zone
CSO	Civil Society Organisation
CSR	Corporate Social Responsibility
CWC	Central Water Commission
CWCs	Cyclone Warning Centres
CWDS	Cyclone Warning Dissemination System
DAE	Department of Atomic Energy
DC	District Collector
DCF	Deputy Conservator of Forest
DCG	District Crisis Management Group
DCR	District Control Room
DDO	District Development Officer
DEOC	District Emergency Operation Centre
DEOC	District Emergency Operation Centre
DFO	District Forest Officer
DG	Director General
DGHS	Directorate General of the Health Services
DGP	Director General of Police
DIG	Deputy Inspector General

DISH	Director Industrial Safety & Health
DM	District Magistrate
DM	Disaster Management
DMP	Disaster Management Plan
DoR	Director of Relief
DP&S	Directorate of Purchase and Stores
DPIIT	Department of Promotion of Industry and Internal Trade
DPO	District Project Officer
DPR	Detailed Project Report
DRM	Disaster Risk Management
DRMP	Disaster Risk Management Programme
DRR	Disaster Risk Reduction
DST	Department of Science & Technology
EFC	Expenditure Finance Committee
EHRA	Earthquake Hazard and Risk Assessment
EMS	Emergency Medical Services
EMSA	Emergency Medical Services Authority
EOC	Emergency Operation Centre
ERC	Emergency Response Center
ERTs	Emergency Response Teams
ESF	Emergency Support Function
F&E Dept.	Forest and Environment Department
F&ES	Fire and Emergency Services
GACC	Global Anthropogenic Climate Change
GACC	Global Adaptation Climate Change
GAD	General Administration Department
GDCR	General Development Control Regulations
GDP	Gross Domestic Product
GEB	Gujarat Electricity Board

GERI	Gujarat Engineering Research Institute
GIDC	Gujarat Industrial Development Corporation
GIDM	Gujarat Institute of Disaster Management
GIS	Geographic Information System
GMB	Gujarat Maritime Board
GMCSL	Gujarat Medical Corporation Services Limited
GoG	Government of Gujarat
GoI	Government of India
GPCB	Gujarat Pollution Control Board
GSDMA	Gujarat State Disaster Management Authority
GSI	Geological Survey of India
GSM	Global System for Mobile Communications
GSRTC	Gujarat State Roads Transport Corporation
GSWAN	Gujarat state Wide Area Network
GUVNL	Gujarat Urja Vikas Nigam Limited
GWSSB	Gujarat Water Supply & Sewerage board
HAZCHEM	Hazardous Chemicals
HBJ	Hazira-Bijapur-Jagdishpur
HF/VHF	High Frequency/Very High Frequency
HoD	Head of Department
HQ	Headquarter
HRVA	Hazard Risk and Vulnerability Assessment
HRVCA	Hazard Risk Vulnerability and Capacity Assessment
HWB	Heavy Water Board
ICG	Indian Coast Guard
ICMR	Indian Council of Medical Research
IDRN	India Disaster Resource Network
IEC	Information, Education and Communication

IIPH	Indian Institute of Public Health
IMD	India Meteorological Department
INCOIS	Indian National Centre for Ocean Information Services
IND	Improvised Nuclear Device
INSAT	Indian National Satellite System
IOC	Indian Oil Corporation
IRCS	Indian Red Cross Society
IRIS	Incorporated Research Institute for Seismology
IRS	Incident Response System
IRT	Incident Response Team
ISR	Institute of Seismological Research
ISRO	Indian Space Research Organization
ICT	Information and Communication Technology
ITCS	Information Communications Technology System
JSSK	Janani Shishu Suraksha Karyakram
KAPS	Kakrapar Atomic Power Station
LCG	Local Crisis Management Group
LPA	Long Period Averages
MAFW	Ministry of Agriculture and Farmers Welfare
MAH	Major Accident Hazard
MCA	Ministry of Corporate Affairs
MoEF&CC	Ministry of Environment, Forests and Climate Change
MFIN	Microfinance Institutions Network
MFRs	Medical First Responders
MHA	Ministry of Home Affairs
MHFW	Ministry of Health and Family Welfare
MHIPE	Ministry of heavy Industries and Public Enterprises
MHUA	Ministry of Housing and Urban Affairs

MLA	Member of Legislative Assembly
MoA	Ministry of Agriculture
MoC & F	Ministry of Chemicals and Fertilizers
MoC & I	Ministry of Commerce and Industry
MOCA	Ministry of Civil Aviation
MoD	Ministry of Defence
MOES	Ministry of Earth Sciences
MoF	Ministry of Finance
MoLE	Ministry of Labour and Employment
MOM	Ministry of Mines
MoP & NG	Ministry of Petroleum and Natural Gas
MOR	Ministry of Railways
MOSPI	Ministry of Statistics and Program Implementation
MoSRT & H	Ministry of Shipping, Road Transport and Highways
MP	Member of Parliament
MRTH	Ministry of Road Transport & Highways
MSDS	Material Safety Data Sheet
MSK	Medvedev–Sponheuer–Karnik scale
MSZ	Makran Subduction Zone
NBC	National Building Codes
NCC	National Cadet Corps.
NCCR	National Centre for Coastal Research
NCMC	National Crisis Management Committee
NDMA	National Disaster Management Authority
NDMF	National Disaster Mitigation Fund
NDRF	National Disaster Response Force
NDRF	National Disaster Response Fund
NDRMF	National Disaster Risk Mitigation Fund

NEC	National Executive Committee
NEIC	National Earthquake Information Center
NFHS	National Family Health Survey
NGO	Non Government Organization
NGRI	National Geophysical Research Institute
NHAI	National Highway Authority of India
NIC	National Information Center
NIDM	National institute of Disaster Management
NIO	North Indian Ocean
NIOT	National Institute of Ocean Technology
NPCIL	Nuclear Power Corporation of India Ltd
NSRA	Nevada Seismic Research Affiliates
NSS	National Service Scheme
NSSP	National School Safety Programme
NWRWS	Narmada Water Resources Water Supply
NYK	Nehru Yuva Kendra
ONS	Observational Network Stations
PCR	Police Control Room
PESO	Petroleum and Explosive Safety Organization
PFZ	Potential Fishing Zones
PGA	Peak Ground Acceleration
PHC	Primary Health Center
PMNRF	Prime Minister's National Relief Fund
PMO	Prime Minister's Office
PMS	Probable Maximum Surge
PPP	Public private Partnership
PRI	Panchayati Raj Institutions
PS	Principal Secretary

QCI	Quality Council of India
QRMT	Quick Reaction Medical Team
R & B Dept.	Roads & buildings Department
R & R	Rehabilitation & Reconstruction
RD	Revenue Department
RDD	Radiological Dispersal Device
RED	Radiation Exposure Device
RGN	Rain-Gauge Network
RMSA	Rastriya Madhyamik Shiksha Abhiyan
RMSC	Regional Specialised Meteorological Centre
RSBY	Rashtriya Swasthya Bima Yojana
RSO	Radiological Safety Officer
RTA	Road Transport Authority
RTSMN	Real Time Seismic Monitoring Network
RWA	Resident Welfare Associations
SAR	Search and Rescue
SCG	State Crisis Management Group
SCMC	State Crisis Management Committee
SDG	Sustainable Development Goals
SDMA	State Disaster Management Authority
SDMF	State Disaster Mitigation Fund
SDMP	State Disaster Management Plan
SDRF	State Disaster Response Force
SDRF	State Disaster Response Fund
SDRMF	State Disaster Risk Mitigation Fund
SDRN	State Disaster Response Network
SED	Site Emergency Director
SEOC	State Emergency Operation Centre

SFAC	Standing Fire Advisory Committee
SIRD	State Institute of Rural Development
SJ&ED	Social Justice and Empowerment Department
SMS	Short Messaging Service
SOG	Standard Operations Guide
SOP	Standard Operating Procedure
SPIPA	Sardar Patel Institute of Public Administration
SRPF	State Reserve Police Force
SSNNL	Sardar Sarovar Narmada Nigam Limited
SST	Sea Surface Temperature
SWP	Single Wire Protocol
TEOC	Taluka Emergency Operation Centre
UD & UHD	Urban Development & Urban Housing Department
UDA	Urban Development Authority
UDD	Urban Development Department
UFDM	Urban Flood Disaster Management
UHC	Urban Heath Centers
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Emergency Fund
UNDRR	United Nations Office for Disaster Risk Reduction
UNOEIWG	UN General Assembly Open-Ended Intergovernmental Working Group
UTs	Union Territories
VSAT	Very Small Aperture Terminal
WALMI	Water and Land Management Institute
WAN	Wide Area Network
WASMO	Water and Sanitation Management Organization
WE&CDD	Women and Child Department
WHO	World Health Organization
WRD	Water Resource Department

Chapter 1 : Action Plan for Earthquake

1.1 Introduction

This Actions plan addresses the measures to be taken directly during or immediately after an earthquake in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the affected people.

Indian subcontinent is among the world's most disaster prone areas due to its unique geo-physical and socio economic conditions. In total 59% of the land is prone to the earthquake in which 10.9% is liable to severe earthquakes Medvedev–Sponheuer–Karnik scale (MSK)IX, 17.3% is liable to MSK VIII, 30.4% land is liable to MSK VII.

The Earthquake Vulnerability Atlas of India reveals that 19% of the total area in Gujarat is at a very high risk for earthquake, i.e. seismic zone V. Another 13% area of the State is at a high risk for earthquake, i.e. seismic zone IV. As such, Gujarat State has a long history of earthquakes and in the recent past, it witnessed a major earthquake (6.9 on Richter scale) which had caused widespread loss of human lives and property.

The Chapter 8 in Volume 1 of this SDMP mentioned the roles, functions and responsibilities of Emergency Support Functions (ESFs) that have a key role to play during the Response.

Further, SDMP gives emphasis on well-being of the economically weaker and socially marginalized sections, persons with disability, women, Children, Scheduled Castes, Scheduled Tribes and minorities as they tend to suffer more during disasters. The SDMP forbids all forms of discrimination – be it based on sex, caste, community, descent or religion – in any aspect of disaster risk management.

1.2 Declaration of Earthquake Disaster

The Clause 32 of Gujarat State Disaster Management Act, 2003 provides for the State Government to declare any area where earthquake has occurred as disaster affected area on the recommendations of the State Relief Commissioner or the District Collector. The purpose of declaration of disaster is to organize effective response and mitigating the earthquake effects. Such a declaration provides wide powers and responsibilities to the State Relief Commissioner and the District Collectors in order to handle the incident effectively.

1.3 Institutional Mechanism of the State Government for Response

Gujarat has developed a well-organized administrative structure for earthquake response in the State. Particularly, in the aftermath of 2001 earthquake in the State, the management of earthquake has undergone a quantum change. The Gujarat State Disaster Management Authority has also formulated a well defined policy for the Reconstruction and Rehabilitation of earthquake in the state. The State government has undertaken long term capacity building initiatives to deal with future earthquakes. the focus of the government has now broadened to include earthquake risk reduction, mitigation and preparedness also, along with response & relief.

The Revenue department is primarily responsible for emergency response and relief in the State, while the Gujarat State Disaster Management Authority (GSDMA) is designated as the nodal agency for formulation of policies, long term planning, coordination and monitoring body for Prevention and mitigation, reduction and preparedness for disasters in the State.

The Institute of Seismological Research (ISR), under the Department of Science and Technology, is established to carry out seismological research and monitoring activities. In addition, a network of

Seismological Observatories and Strong Motion Accelerographs has been established under the operational control of ISR for constant seismological monitoring and prediction. As a result of this network, it has been possible to locate even micro earthquakes of magnitude < 3 on Richter scale. These are useful to scientists for statistical analysis and knowing the sites of ongoing seismicity.

The institutional mechanism established in the State for management of disasters is given in Chapter 3 of Vol. 1. The composition of the State Emergency Operation Centre (SEOC) along with its staff structure has also been laid down¹.

1.4 Trigger Mechanism

An earthquake of magnitude 5 or more is likely to cause deaths and injuries to human beings and damage to all kinds of property, both private and public. Unfortunately there is very little warning available before the earthquake. Therefore, planning should cater for a quick response at all levels to reduce the effects of the earthquake to the minimum.

The Revenue Department of the State will be the nodal department for formulating, controlling, monitoring and directing measures for earthquake preparedness, organizing rescue, relief and rehabilitation. All other concerned departments should extend full cooperation in all matters pertaining to the management of the earthquake whenever it occurs.

The occurrence of an earthquake may be reported by the Indian Meteorological Department (IMD) / National Geophysical Research Institute (NGRI) / Institute of Seismological Research (ISR) to the Commissioner of Relief by the fastest means. The State Crisis Management Committee (SCMC) under the chairmanship of the Chief Secretary should be activated immediately on the occurrence of any major earthquake.

Besides these, the SEOC also receives reports on the earthquake from ISR, district and taluka levels. On receipt of the information, the SEOC verifies the authenticity of the reports and will inform the real situation to concerned authorities. The State Government may, by notification published in the official gazette and in any one or more newspapers having widest circulation in the area, declare such area to be disaster affected area under Gujarat State Disaster Management Act, 2003, Section 32 (2) (a)).

1.5 Response Mechanism

1.5.1 Information and Reporting

The agencies which provide information to the SEOC about the occurrence of an earthquake in the State are:

- a. Indian Meteorological Department (IMD), Ahmedabad / New Delhi
- b. Institute of Seismological Research (ISR)
- c. SardarSarovar Narmada Nigam Ltd (SSNNL)
- d. National Geophysical Research Institute (NGRI)
- e. District Emergency Operation Centre (DEOC)
- f. Taluka Emergency Operation Centre (TEOC)
- g. Police Control Rooms

- h. Fire Brigade Control Rooms
- i. Any other agency/ individual

The SEOC should be activated for emergency response on the occurrence of any major earthquake. The SEOC should initiate following activities:

- a. State EOC should report the occurrence of a major earthquake to the following:
 - i. Commissioner of Relief
 - ii. ACS (Revenue)
 - iii. Chief Executive Officer, Gujarat State Disaster Management Authority
 - iv. Chief Secretary of the State
 - v. Members of Crisis Management Committee
 - vi. Chief Minister
 - vii. Ministers, Revenue & Disaster Management
 - viii. National Disaster Management Authority EOC at MHA, GoI
 - ix. Vice Chairman, National Disaster Management Authority (NDMA)
 - x. Member Secretary, MHA
- b. State EOC to verify the authenticity of the information from authorized scientific agencies as well as district and Taluka control rooms.
- c. State EOC to alert state first responders/search and rescue machinery for emergency response.
- d. State EOC to contact its regular and emergency staff to report immediately.
- e. All Secretaries of the State Departments to be contacted to remain available in the EOC immediately.
- f. State EOC to remain in constant touch with control rooms at national, district and taluka level.
- g. Overall management of state EOC shall be taken over by the Commissioner of Relief.
- h. Management of media (Press/TV Channels/Government Press Notes) to be carried out by the Secretary (Information & Broadcasting) with special emphasis on rumour control. He shall maintain constant liaison with Commissioner of Relief.

On receipt of information, COR to:

- i. Contact all member of Crisis Management Group to inform them about the venue and time of first meeting (chaired by Chief Secretary) to assess the situation and decide the course of action to be adopted by the State Government
- ii. Issue instructions to all departments to ensure that all state government employees to report for duty immediately in order to execute their responsibilities as mentioned in their departmental Earthquake Management Plan.

- iii. Instruct all line departments to ensure their duty officers to remain available round the clock in state EOC with full updated information of the activities of their departments.
- iv. Prepare and submit daily situation report to Government of India, Chief Secretary, Principal Secretary (Revenue), Chief Executive Officer, Gujarat State Disaster Management Authority etc.
- v. If necessary depute senior state level officers to worst affected talukas for effective implementation and supervision of Relief Operation.
- vi. Mobilize additional manpower from the departments to the affected district / talukas for supporting the Relief Operation. They should be provided Task Force Action Plans of the concerned talukas / district prepared earlier.

1.5.2 Restoration of Critical Services

- a. Establishment of Emergency Communication
- b. Restoration of Transportation (Rail, Road & Air)
- c. Restoration of power and electricity
- d. Supply of safe drinking water
- e. Restoration of essential lifeline infrastructure

1.5.3 Search, Rescue and Medical Assistance

- a. Identification of areas where SAR Teams, SDRF and Aapda Mitra to be deployed
- b. Coordination of SAR teams for their quick deployment in allotted areas
- c. Provision of quick transport of SAR teams to affected areas
- d. The department of Roads and Buildings to evolve a mechanism for clearing access routes and debris in order to facilitate search and rescue operations
- e. Mobilization of specialized equipment and machinery to affected areas
- f. Cordoning of affected areas with control of entry and exit
- g. Traffic Management by establishment of traffic points and check-posts
- h. The Home Department to evolve a mechanism for providing security of properties of government and public in the affected areas.
- i. Setting up of field hospitals in the affected areas and deployment of mobile hospitals
- j. Arrangements to be made for quick transportation of injured victims to the hospitals
- k. Secretary (Health) to evolve a mechanism for speedy treatment of casualties

1.5.4 Emergency Relief

- a. Establishment of Temporary shelters for evacuees

- b. Ensuring provision of essential services
- c. Arrangement for food, clothing, blanket/bedding, drinking water, sanitation and hygiene, lighting arrangements and essential medicines
- d. Establish a mobilisation centre at the airport/railway station for the movement of relief supplies within the state.
- e. Deploy special transportation for the movement of relief supplies within the state
- f. Make arrangements to receive and distribute relief and emergency supplies received from different parts of the state and country
- g. Coordinate transportation (air, rail, road, water) with state and Central ministries/ departments/ agencies
- h. Arrange alternative means of transportation to reach relief supplies to the affected locations if normal transport cannot reach
- i. Deployment of mobile hospitals in affected areas for treatment of victims
- j. Providing counselling services to the earthquake victims and their relatives
- k. Arrangement for providing transport facility to send dead bodies of non-locals to their natives. The administration should also ensure Law and Order during shifting of the dead bodies
- l. Ensure establishment of communication link between the affected people and their relatives outside

1.5.5 Task & Responsibility Matrix for Emergency Response Phase : Standard Operating Procedures (SOP)

A Task and Responsibility Matrix for Emergency Response Phase (first 72 Hours of the incident) is given below:

Standard Operating Procedures (SOP)

Time Frame	Task	Responsibility
0 + 15 Minutes	1. Report the occurrence of earthquake to COR, ACS (RD), CEO - GSDMA, Heads of all line departments, Chief Secretary, Minister (DM) and Chief Minister's Office and National Disaster Management EOC at MHA, GoI	In-charge SEOC
0 + 30 Minutes	2. Verify the authenticity of the incident from agencies like IMD, ISR, DEOCs, TEOCs, Police and Fire Brigade control rooms and find magnitude of disaster and immediate impacts	In-charge SEOC
	3. In case of L-2 level event, take overall management of SEOC	COR/ DOR
	4. Deploy Emergency Rescue Vehicles to affected areas for establishing communication link	

Time Frame	Task	Responsibility
	5. Activate ERCs for prompt mobilisation teams and resources to affected areas	
	6. Hold planning meeting of HODs (all line depts.) in SEOC	
	7. Instruct duty officers of line departments to report in SEOC and hold meeting for further plan of action/ instruction	
	8. Request for the services of NDRF and Armed forces, if required	
	9. If required, inform GAD to ensure that all State Govt. employees report for emergency duties within half an hour	
	10. Establish alternate communication link through Satellite Phones, HF/ VHF set, HAM Radio, VSAT, etc. in SEOC, DEOCs, TEOCs	
0 + 1 Hour.	11. Mobilise Search & Rescue teams and equipment of Fire Emergency Services, Home Dept., R&B, etc. to affected areas	COR
	12. Deploy medical teams and paramedics to the affected areas	
	13. Deploy rapid assessment team to affected areas	
	14. Make arrangements for aerial survey of the affected areas	
	15. Contact BISAG, NRSC, ISRO and Ministry of Defence for aerial / satellite imageries of the affected areas	
	16. Instruct local administration to evacuate population at risk to safer sites	
	17. Instruct concerned authorities or agencies to shut down critical operations	
	18. Contact Chief Secretary for deciding on time and venue for holding Crisis Management Group (CMG) meeting at the earliest	
	19. Inform all CMG members to attend CMG meeting in designated venue to assess situation and review emergency measures	
	20. Enforce evacuation from unsafe structures to pre-decided safe evacuation sites	Home Dept., District Collector, Municipal

Time Frame	Task	Responsibility
	21. With help of local authorities, local agencies, volunteers, RWAs, ensure that people do not go back to unsafe structures unless instructed as safe	Commissioners
	22. Provide security in affected areas and maintain law and order situation to prevent incidents of thefts and stampede	
	23. Establish alternate communication links through HF, VHF, HAM, Satellite Phones, etc.	Dept. of Science & Technology
	24. Issue alert for secondary shocks/ disseminate critical information by SMS through service providers	
	25. Restore essential services like power, water supply, telecommunication of critical infrastructure like hospitals, SEOC, Sachivalya, Raj Bhawan, Control Rooms, AIR, Doordarshan, relief camps and temporary shelters, etc. on priority basis	COR, GUVNL, GWSSB, DOT, Energy & Petrochemicals
	26. Restore essential services or arrange for alternative facilities like power, water supply and telecommunication to the affected area	
	27. Assess the conditions of road, rail and air communication link for quick mobilization of emergency responders and teams and resources to affected areas and take follow up actions	Port & Transport, R&B Dept., COR
	28. Establish media management / information cell for public information, guidance and rumour control	Information Dept.
	29. Instruct district information officers to establish information centre near affected areas to provide guidance to volunteers and aid agencies	
0 + 2 Hours	30. Delegate responsibilities for organizing rescue and relief operations as per outcomes of CMG and planning meet	Chief Secretary/ COR
	31. Depute senior State Level officers to the affected areas	
	32. Inform Secretaries of all depts. to provide necessary logistics support to emergency operation task forces	
	33. Activate Operations Section of IRS for Emergency Response Operation	COR
	34. If required, seek assistance from neighbouring states, Central Govt. or external agencies	

Time Frame	Task	Responsibility
	35. Set up separate desks for each operation task force and NGO coordination desk in the SEOC for coordinating emergency operations	
	36. Contact private / public sector agencies in the State to assist in emergency rescue and relief operations	
0 + 3 Hours	37. Make suitable transport arrangement for mobilization of quick response teams to the affected areas	Port & Transport Dept., Civil Aviation Dept.
	38. Maintain constant touch with the control room of MHA, NDMA, ERCs, DEOCs and TEOCs	COR, SEOC
	39. Arrange for press / media release for rumour control and public information and guidance	COR, Information Dept.
	40. Make necessary arrangement for treatment of injured and mass casualty management	Health Dept.
	41. Restore & ensure serviceability of communication towers in affected area through respective service providers	Dept. of Science & Technology, DOT
0 + 6 Hours	42. Establish relief coordination centre at airport, railway station, etc. for arrival of Search & Rescue and Medical Teams coming for humanitarian aid	COR
	43. Arrange for a logistic plan and warehouse for receipt & management of relief material	
	44. Instruct to cordon affected areas and setting up of check posts to control entry and exit	Home Dept.
	45. Ensure mechanism to prevent human trafficking	
	46. Open access routes and manage traffic for mobilization of equipment, machinery and volunteers to the affected areas	Home Dept., Port & Transport Dept., R&B Dept.
	47. If required, establish temporary access routes & disseminate route maps to all EOCs, control rooms and information cells	
	48. Conduct aerial survey to understand scale of damage and impacts	COR/ Head, Quick Assessment Task Force
	49. Establish information centres at the arrival and departure points especially at the airports, railway stations and interstate bus terminus	Information Dept.
0 + 12 Hours	50. Hold review meetings with duty officers in every 12 hours	DOR

Time Frame	Task	Responsibility
	51. Prepare rapid need assessment report for planning of relief operation and mobilization of resources to the affected areas	
	52. Mobilize relief materials i.e. tents, food materials, water, essential medicines, blankets, etc. to the affected districts and talukas	DOR, District Collectors, Municipal Commissioners, Line Deptts
	53. Establish relief centres, temporary shelters and godowns near affected areas & ensure provision of basic facilities like food, water, medical aid, toilets, etc.	
	54. Provide food and other relief material to relief camps, community kitchens, etc.	Food & Civil Supply
	55. Provide water tankers to affected areas, relief camps, temporary shelters, community kitchens, etc.	Water Supply Dept
	56. Arrange to shift people from evacuated sites to temporary shelters	Port & Transport Dept.,
	57. Arrange road, rail and air transport at State / District headquarters for dispatch of relief materials to the affected areas	
	58. Set up field hospitals near the affected areas	Health Dept.
	59. Arrange to shift injured persons to field hospitals	
	60. Ensure medical aid to injured cattle	Animal Husbandry Dept.
	61. Provide security to relief camps, godowns, evacuated structures, medical camps, etc.	Home Dept.
0 + 24 Hours	62. Instruct to set up coordination centres at the Resident Commissioner's Office in New Delhi and other Metro Cities as well	COR
	63. Prepare and circulate the situation report	DOR, Dy. Collector (DM) at SEOC
	64. Coordinate with Operation Task Forces mobilized to the affected areas	
	65. Organise media briefing twice a day at pre-determined intervals	COR, Information Dept.
	66. Depute additional officers and supporting staff to affected areas from non-affected areas	COR, Revenue Dept.
	67. Identify and declare unsafe structures in earthquake affected areas	R & B Dept.
0 + 48 Hours	68. Ensure safety and security of personnel deputed in affected areas for emergency response operation	Home Dept.

Time Frame	Task	Responsibility
	69. Arrange for identification, photograph, post mortem and maintenance of records for disposal of dead bodies	
	70. Earmark storage points for medical supplies at affected sites	Health Dept.
	71. Arrange information centre at shelter site for maintaining records of victims and to provide guidance to relatives, NGOs, etc.	COR, DOR
	72. Ensure following procedures before disposal/ handing over of dead bodies: <ul style="list-style-type: none"> • Photographs of dead bodies are taken • Identification of dead bodies is done • Post mortem wherever necessary and possible is carried out • Handing over dead bodies of persons known/ identified to their relatives • Disposal of unclaimed and unidentified dead bodies 	Revenue Dept., District Collector, Municipal Commissioners, Health Dept & Local Authorities
	73. Ensure mechanism for complaints regarding missing persons and initiate search in shelters, hospitals and police records	Home Dept., COR
	74. Arrange for transportation of dead bodies to their native places if so required	Port & Transport Dept., Health Dept., Animal Husbandry Dept.
	75. Arrange for transportation of injured animal	
0 + 72 Hours	76. Arrange for dignified disposal of unidentified and unclaimed dead bodies	Home Dept.
	77. Arrange for disposal of unidentified and unclaimed animal carcasses	
	78. Arrange for transportation of injured from field hospitals to base hospitals	Health Dept. , Transport Dept.
	79. Activate short and interim relief measures	COR, Line Depts.
	80. Arrange for distribution of cash doles to the victims	COR

1.6 Immediate relief

1.6.1 Short-Term Relief Measures

- Provide temporary shelter to affected people
- Evacuation site should be safe and easily accessible
- Continue to provide essential services to the affected people i.e. food, water, clothing, sanitation and medical assistance

- d. The COR to ensure relief measures are provided in the relief camp are as per the Minimum standard of relief defined by the state government which includes –
 - i. Special emphasis on Hygiene and sanitation aspects should be given in relief camp sites.
 - ii. Separate area should be earmarked within the relief camp for storage of relief materials
 - iii. Adequate manpower and transport facilities for the camp site
 - iv. Arrangements to be made for trauma management
 - v. Mobile medical units to be sent to remote areas with a view to provide medical assistance to the victims/injured
 - vi. Information centre should be established by the administration

1.6.2 Interim Relief Measures

- a. Arrangements to be made for identification and maintenance of the records of dignified disposal of dead bodies in the affected areas.
- b. Arrangements to be made to record the complaints of all persons reported missing. Follow up action in terms of verification of the report also needs to be made.
- c. Sub-divisional magistrates to be empowered to exempt the requirement of post-mortem in case of mass casualties. Revenue Dept. may depute additional SDMs to expedite disposal of the dead bodies in dignified manner.
- d. Unclaimed/unidentified dead bodies to be disposed of at the earliest after keeping their records.
- e. Additional manpower to be deployed in the affected areas for supplementing the efforts of the local administration.
- f. Separate Cell to be established at state/district/talukas level to coordinate with the NGOs and outside donor/aid agencies.
- g. Regular meetings of the different stakeholders/departments should be organized at state level for sharing of information, developing strategies for relief operations.
- h. Information & Broadcasting Dept. to coordinate with the media to play a positive role in disseminating appropriate information to public and the government in order to facilitate the speedy recovery.

1.6.3 Assessment of Damage / Loss and Relief Needs

- a. The COR to issue instructions to the district collectors for the damage and loss assessment
- b. Adequate manpower, vehicles, stationery etc should be provided to supplement the efforts for need/ damage and loss assessment

- c. Identification and demolition of dangerous structures in the affected areas to minimize further loss of life and injuries
- d. Arrangements for debris removal and its appropriate disposal
- e. Arrangements for distribution of gratuitous relief and cash doles
- f. Arrangements to be made for survey of human loss and distribution of ex-gratia relief to the families of deceased persons
- g. Teams to be formed and dispatched to the affected areas for detailed assessment of houses and property assessment
- h. As reconstruction of houses will take a long period, arrangements to be made to provide interim shelters to the affected
- i. Identification of the site for interim shelter
- j. Allocation of areas to the affected families
- k. Providing essential services at the interim shelter sites such as water, power, drainage / sanitation, PDS shops, etc.
- l. Distribution of shelter materials to individual families

Chapter 2 : Action Plan for Cyclone

2.1 Introduction

Tropical cyclone, generally known as ‘cyclone’, is the term used globally to cover tropical weather systems in which winds equal or exceed ‘gale force’ (minimum of 34 knot, i.e., 62 kmph). These are intense low-pressure areas of the earth-atmosphere coupled system and are extreme weather events of the tropics. Although the North Indian Ocean (NIO) Basin (including the Indian coast) generates only about seven per cent of the World’s cyclones, their impact is comparatively high and devastating, especially when they strike the coasts bordering the North Bay of Bengal. As per broad scale assessment of the population at risk, nearly one third of India’s population is vulnerable to cyclone related hazards. Climate change with the resultant sea-level rise and expected increase in severity of cyclones can significantly increase the vulnerability of the coastal population.

The coastal states and union territories (UTs) in the country, encompassing 84 coastal districts which are affected by tropical cyclones. Four states (Tamil Nadu, Andhra Pradesh, Odisha and West Bengal) and one UT (Puducherry) on the east coast and one state (Gujarat) on the west coast are highly vulnerable to cyclone disasters². The tropical cyclones are classified according to their wind speed which is as per table as shown below.

Gujarat comes in the region of tropical cyclone with the longest coast line of 1600 km in the country which makes it highly vulnerable to Cyclone and associated hazards. The accompanying hazards consist of high speed winds, storm surges, and torrential rainfall. Most of the cyclones that have affected the State are generated in the Arabian Sea. They hit the coastal part of Saurashtra and the southern part of Gujarat. Thus, fourteen coastal districts of Gujarat are at a very high risk of Cyclone. The purpose of this action plan is to develop a quick response at all levels to reduce the effects of cyclone with an effective coordinated disaster risk reduction approach.

Table: Classification used in India for tropical cyclones

S. No.	Type	Wind Speed	
		km per hour (kmph)	Knots
1.	Low Pressure area	Less than 31	Less than 17
2.	Depression	31 to 49	17 to 27
3.	Deep Depression	50 to 61	28 to 33
4.	Cyclonic Storm	62 to 88	34 to 47
5.	Severe Cyclonic Storm	89 to 118	48 to 63
6.	Very Severe Cyclonic Storm	119 to 221	64 to 119
7.	Super Cyclone	More than 221	More than 119

Note: One kmph = 0.54 knot; one knot = 1.852 kmph

2.2 Associated Authority

The nodal department for controlling, monitoring and directing measures for organizing rescue, relief and rehabilitation is the Revenue Department of the State. All other line Departments should extend full cooperation in all matters pertaining to the management of the Cyclone disaster whenever it occurs.

² NDMP 2019.

2.3 Disaster Declaration

The Gujarat State Disaster Management Act, 2003 (section 32) provides for the State Government to declare any area where Cyclone has hit as disaster affected area on the recommendations of the State Relief Commissioner or the District Collector. The purpose of declaration of disaster is to organize effective response and mitigating the Cyclone effects. Such a declaration provides wide powers and responsibilities to the State Relief Commissioner and the District Collectors in order to handle the incident effectively.

2.4 Four Stage Warning System for Tropical Cyclones

a. Pre-Cyclone Watch (Before 72 hours)

It is issued when a depression forms over the Arabian Sea / Bay of Bengal irrespective of its distance from the coast and is likely to affect Indian coast in future. The pre-cyclone watch is issued by the IMD and is issued at least 72 hours in advance of the commencement of adverse weather. It is issued at least once a day.

b. Cyclone Alert (Before 48 hours)

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

c. Cyclone Warning (Before 24 hours)

It is issued at least 24 hours before the commencement of the bad weather when the cyclone is located within 500 km from the coast. Information about time /place of landfall is indicated in the bulletin. The probable estimation of its landfall and severity increases as the cyclone approaches closer to the coast.

d. Post Landfall Outlook (Before 12 hours)

It is issued 12 hours before the cyclone landfall, when the cyclone is located within 200 Km from the coast. More accurate and specific information about time /place of landfall and associated bad weather is indicated in the bulletin. In addition, the information regarding expected damage due to cyclone is also included as a warning in this bulletin.

2.5 Warning Dissemination Process

1. Cyclone/flood forecasting is generally the responsibility of the India Meteorological Department (IMD). IMD is the nodal agency for providing cyclone warning services. IMD's INSAT satellite based Cyclone Warning Dissemination System (CWDS) is one of the best in India to communicate cyclone warnings to community and important officials in areas likely to be affected directly. There are 19 Cyclone Warning Dissemination System (CWDS) stations in Gujarat.
2. After getting information from IMD, warning dissemination is responsibility of the State Government (COR). The COR under the Revenue Department is responsible for disseminating cyclone warnings to the public and Line Departments.
3. On receiving an initial warning, the office of the COR disseminates the warning to all Line Departments, District administration and DG Police. Warning messages are transmitted to all districts and talukas. District Collectors are provided with satellite phones and Ham radios to maintain effective communication, even if terrestrial and cell-phone communication fails.

4. The state EOC and control rooms of the other line departments at the State level as well as district level also get the warnings. The control rooms are activated on receiving the warnings.

2.6 Plan Activation

The cyclone response structure will be activated on the receipt of cyclone warning by the Indian Meteorological Department (IMD). The occurrence of a cyclone may be reported by the IMD to the Commissioner of Relief/GSDMA by the fastest means. The Commissioner of Relief (COR) will activate all the Departments for emergency response including the State EOC, District EOC and ERCs. He will issue instructions to include the following details:

- Specify exact resources (in terms of manpower, equipments and essential items from key dept. /stakeholders) required
- The type of assistance to be provided
- The time limit within which assistance is needed
- Details of other Task/Response Forces through which coordination should take place

The State EOC, ERCs and other control rooms at the state level as well as district control rooms should be activated with full strength. The state Government may publish a notification in the official gazette, declaring such area to be disaster-affected area under GSDMA Act (Section 32 (2) (a)).

Once the situation is totally controlled and normalcy is restored, the COR declares End of Emergency Response and issues instructions to withdraw the staff deployed in emergency duties.

2.7 Roles and Responsibility :

Standard Operating Procedure (SOP)

Time Frame	Task	Activity	Responsibility
Time = 0 – 72 Hrs.	Warning Receipt and Dissemination	<ol style="list-style-type: none"> 1. Inform ACS / PS (Revenue), CEO (GSDMA), Crisis Management Group, Hon. CM, Hon. Minister (DM), NDMA, Ministers and Secretaries of all line depts. as per the warning of IMD 2. Inform & instruct relevant District Collectors to activate District Control Room at full strength 3. Alert state response teams for deployment 4. Remain in constant touch with control rooms at National & State Level. 5. Instruct and alert heads of departments of the key line departments to activate their departmental plan and SOPs for Cyclone response 	CoR

Time Frame	Task	Activity	Responsibility
	Interdepartmental Coordination	<p>6. Instruct all State Government officers and employees in the State to report to their respective Head for emergency duties (Only if the warning is of a level 2 disaster or as per the decision taken in the meeting of the Crisis Management Group headed by Chief Secretary)</p> <p>7. Alert the District Collectors of districts not likely to be affected to be prepared for providing the following to the districts likely to be affected:</p> <ul style="list-style-type: none"> ○ Additional manpower ○ Additional resources <ul style="list-style-type: none"> - Vehicles, Machinery & Equipment - Relief material 	COR/ DOR
	Establishment of Lines of Communication	<p>8. Activate alternative communication equipments i.e. satellite phones, HF/VHF sets, Ham radio, VSAT in SEOC, DEOCs, TEOCs and ERCs</p> <p>9. Establish communication links with ERCs and Search & Rescue Teams in all Municipal Corporations and alert them to be in stage of readiness</p> <p>10. Establish communication links with villages likely to be affected as per the contact details available in SDRN</p>	COR/ DOR
Time = 0 – 48 Hrs	Review of situation and reporting	<p>11. Establish contact with IMD, CWC, ACWC, ISRO and the defense ministry of GoI for aerial / satellites imageries of the latest Cyclone threat</p> <p>12. Get the latest weather report from IMD/other international websites to know the exact location of Cyclone and the likely site where the landfall will take place</p> <p>13. After reviewing the weather report and satellite images issue instructions and orders for emergency response to areas likely to be affected</p>	Revenue Dept./ COR
	Management of EOC, ERCs and	14. Take over full command of SEOC and ERCs	COR

Time Frame	Task	Activity	Responsibility
	Cyclone Response	15. Instruct line departments to depute representatives at the State and District EOCs 16. Hold a meeting with leaders of task forces and entrust them their tasks 17. Arrange emergency meeting with State Crisis Management Group to devise a plan of action 18. Arrange dissemination of information through various means of communication such as Radio, TV, Cable Network, SMS about Cyclone Warning to districts/areas which are likely to be hit by Cyclone. 19. Alert teams to remain in readiness- Evacuation, Emergency Medical Services, Search & Rescue, Fire & Emergency Services, NDRF, Police, Home Guards, SRPF, Army, Air Force	
		20. Impose restriction on all transport activities heading towards coastal areas that are likely to be affected by Cyclone	Port & Transport Dept.
		21. Impose restriction to or alert all vessels in high sea through display of signals on respective ports, AIR broadcasts, coastal weather bulletins, etc.	Gujarat Maritime Board/ Coastal Radio Station/ Port Authorities
	Cyclone Response to Coastal Areas (Likely to be Affected)	22. Based on the warning issued by IMD, pin point the districts and villages likely to be affected by cyclone and start the procedure for identifying safe places/shelters for evacuation in those villages	Revenue Dept., Transport Dept. and Dist. Collectors, Municipal Commissioner
		23. Prepare route maps for safe place and evacuation shelters 24. Village wise data of safe shelters for evacuation available on SDRN should be referred and the District Collectors/Village level officers should be contacted to know the status of the shelters with the capacity of the shelter and other available facilities at the site	

Time Frame	Task	Activity	Responsibility
		25. Make transport arrangement for mobilization of all emergency response teams 26. Make logistic arrangements for response teams	
		27. Ensure arrangements are in place to evacuate fishermen and salt workers if needed	Commissioner of Fisheries, Industries Dept.
		28. Ensure safety of tourists visiting beaches along the coastline	Tourism Dept.
		29. Cordoning off coastal areas for restricting entries of rail or road traffic 30. Ensure law and order is maintained in areas likely to be affected	Home Dept., Dist. Collectors,
		31. Ensure that all critical activities (mainly industrial production) in areas likely to be affected are shutdown	Line Depts., Industries and Mines Dept.
		32. Ensure that the schools and colleges are closed in areas likely to be affected by Cyclone and associated hazards 33. Ensure availability & serviceability of cyclone shelters issued in schools	Education Dept.
		34. Ensure dissemination of information to remote areas by local means 35. Ensure that local helplines are opened and effectively managed for public information, guidance and rumor control 36. Ensure that the information to public and media (AIR/ Doordarshan/ print/ FM) about the progress of Cyclone at periodic intervals is released	Dist. Collector, Information Dept.
		37. Activate Departmental Disaster Management Plan and Departmental SOPs for Management of casualties 38. Ensure availability of QRT & essential medicines	Health Dept.
		39. Issue alert/ warning through mass SMS by establishing liaison with telecom service providers	Dept. of Science & Technology

Time Frame	Task	Activity	Responsibility
		40. Ensure safety & serviceability of critical communication towers through respective service providers	
		41. Ensure establishment of alternate communication links like HF, VHF, HAM, Satellite Phones, etc.	
		42. Ensure availability of safe drinking water	Dept. of Water Supply
		43. Ensure safety of dams & dewatering in case of heavy rains	Irrigation Dept.
Time = 0 - 24 Hrs	Review of Situation and Reporting	44. Establish contact with IMD, CWC, ISRO and the defense ministry of GoI for aerial / satellites imageries of the latest Cyclone threat 45. After reviewing the weather report and satellite images, issue instructions and orders for emergency response to areas likely to be affected areas 46. Review and monitor – evacuation from to be affected areas; positioning of search & rescue teams, mobile communication units, quick medical response teams; dissemination of information to vulnerable areas; preparedness measures to be taken by various authorities 47. Keep in touch with National, District and Taluka Control Rooms 48. Release information at appropriate time to media and public regarding response measures organized by the Government	Revenue Dept./ COR Information Dept.
	Emergency Response Management	49. If reports regarding striking of cyclone are confirmed by IMD and other sources, start the emergency response and relief operations 50. Divert the emergency services to areas likely to be affected as per the warning issued by IMD 51. Inform the public residing in areas likely to be affected to evacuate through various means such as SMS, AIR, FM Radio, Doordarshan, etc.	Revenue Dept., COR, Dist. Collector, Home Dept.

Time Frame	Task	Activity	Responsibility
		52. Start evacuation from the likely affected areas through Police support, if necessary	
		53. Disconnect power supply at the time of striking of cyclone.	Energy and Petrochemical
		54. To confirm & account for the exact number of fishermen in the sea and fishermen that have already reached the shore	GMB/Coast Guard, Commissioner of Fisheries
	Emergency Relief Management	55. Ensure that the Relief Management work planned in the areas likely to be affected by the Cyclone is well organized	COR/ Revenue Dept.
		56. Inform the following agencies to be in a state of readiness for assisting the Cyclone response measures (if required): <ul style="list-style-type: none"> ○ Public sector agencies ○ Private sector agencies ○ NGOs, CBOs ○ Volunteer Organizations 	
		57. Request for help (if needed) to MHA/ National Disaster Management Authority	
		58. Ensure that the arrangement for basic amenities(shown below) at evacuation/ relief centres are made by the respective departments: <ul style="list-style-type: none"> ○ Drinking water ○ Food ○ Clothing ○ Sanitation and hygiene, ○ Lighting ○ Medicines and other Health Care 	COR, Food & Civil Supply Dept., Revenue Dept. & Dist. Collectors, Water Supply Dept., GEB, Health Dept.
		59. Make necessary arrangements for public information/guidance, public opinion and rumor control	Information Dept.
		60. Impose restrictions for transportation in threatened areas	Transport Dept. and Dist. Collector, Home Dept.

Time Frame	Task	Activity	Responsibility
Time = 0 Hrs	Disaster Declaration	61. When Cyclone makes a landfall, Cyclone affected Dist. Collectors should send a communication to the State Govt. to declare the area as disaster affected, if necessary, (depending upon the nature and intensity of impact)	COR, Dist. Collector
	Preliminary Assessment, Deployment of Emergency Response Teams and Information Dissemination	62. Send teams to the affected areas to take stock of the effects of Cyclone and associated rain. 63. Send sector wise situation reports to: <ul style="list-style-type: none"> ○ State EOC/COR ○ GSDMA 	District Collector
		64. Deployment of following teams to Cyclone affected areas: <ul style="list-style-type: none"> ○ Emergency Communication Teams ○ Emergency Medical Services Teams ○ Search and Rescue Teams (With Equipment) ○ Preliminary damage Assessment Teams ○ Need Assessment Teams 	COR, Dist. Collector, Municipal Commissioner
		65. Establish communication link with affected districts by activating alternate communication equipments such as Satellite Phones, HF/VHF Sets, Ham Radio, V Set etc., in State/District EOCs and Taluka Control Rooms 66. Arrange dissemination of information about occurrence of Cyclone and areas that are affected by it to media & public.	COR, Dist. Collector, Information Dept.
Time = 0+ 24 Hrs	Mobilization and Deployment	67. Remain in constant touch with IMD for updates on weather forecast for the coming hours and plan accordingly 68. Immediate mobilization of following units/teams to areas affected by Cyclone and associated rains <ul style="list-style-type: none"> ○ S & R Teams of Fire and Emergency Services ○ Quick Medical Response Teams ○ Quick Damage & Loss Assessment Teams 	COR, Dist. Collector, Municipal Commissioner, Key line Dept.

Time Frame	Task	Activity	Responsibility
		<ul style="list-style-type: none"> ○ Quick Need Assessment Teams ○ Road Clearance Teams ○ Teams for disposal of dead bodies ○ Teams for disposal of carcasses ○ Teams for debris clearance (if any) ○ Teams for maintaining Law & Order in the affected areas ○ Arrange for S & R teams of Air Force (If required) 	
	Clearance of Access Roads to Reach at The Sites of Affected Areas	<p>69. To survey the access roads/routes leading to the affected areas and manage traffic for mobilization of equipments, machinery and volunteers.</p> <p>70. Identify alternate roads/routes for evacuation of affected people</p> <p>71. Undertake repairing/restoration of damaged roads leading to the affected areas.</p> <p>72. Identify and declare unsafe buildings/structures in Cyclone affected areas.</p> <p>73. Evacuate people from unsafe buildings/structures and shift them to relief camps/sites</p> <p>74. Divert/stop transport activities (Rail + Road) heading towards Cyclone affected areas</p>	R & B Dept. , Transport Dept., Railways, COR
	Necessary Arrangements at Evacuation/ Relief Centres	<p>75. To ensure that necessary arrangements at evacuation/relief centers is made with sufficient availability of:</p> <ul style="list-style-type: none"> a. Food, b. Water, c. Blankets/Clothing d. Medicines e. Lighting f. Sanitation and hygiene etc. <p>76. To ensure necessary security arrangements for the evacuees and the personnel (Emergency responders/relief teams) who are working at Relief Centers and involved in distribution of Relief Materials</p>	Revenue Dept., Civil Supply Dept., Collectors, Municipal Commissioner, Water Supply Dept., Health Dept., GEB, Power & Energy Dept., GWSSB & Local Authorities, Home Dept.

Time Frame	Task	Activity	Responsibility
		<p>77. To ensure that law and order is maintained at evacuation/relief centers and in the affected areas as well</p> <p>78. Arrange for a logistic plan and warehouse for receipt and management of relief material</p>	
	Safety of Fishermen and Salt Workers	<p>79. Take immediate actions for safety of fishermen, salt workers and visitors at cyclone affected coastal areas</p> <p>80. Ensure that all the fishermen and salt workers have returned from the sea or those who are in the sea are rescued and evacuated to safer places</p>	COR/DOR, Port and Fisheries Dept., Tourism Dept., Industries Dept.
	Immediate Health and Minimization of Disease Outbreak	<p>81. To establish camp hospitals near the affected areas</p> <p>82. To make transportation arrangements to shift seriously injured persons to nearest-camp Hospitals, Taluka and District Hospitals, Regional and State Hospitals</p> <p>83. Ensure that the Hospitals are well prepared to deal with seriously injured persons</p> <p>84. Ensure that the required medical assistance/aid and medicines are provided to the affected people at site as well as at evacuation/relief centers in the affected area and necessary records are maintained</p> <p>85. Take sanitation and epidemic control measures for preventing any water borne disease</p> <p>86. Keep adequate stock of essential medicines, first-aid etc. at taluka/district hospitals</p> <p>87. Take steps to purify drinking water sources</p> <p>88. If required, take the help of doctors/paramedics from the list of doctors/paramedics available at the taluka/district level for immediate medical assistance</p>	COR/ DOR, Health Dept.

Time Frame	Task	Activity	Responsibility
		89. Assess need for fodder if required 90. Keep teams ready for carcass disposal (if required)	Animal Husbandry Dept.
	Information to Public and Media	91. Establish Media/Press Centre for media management and information dissemination 92. Ensure that the information to media/general public about the response of the State Government is released in an organized manner 93. Organize media briefing twice a day at pre-determined intervals	Information Dept., COR
	Other Important Work Related to Immediate Response	94. Prepare quick need assessment report for planning of relief operation 95. Additional assistance may be asked for emergency response/relief from GoI-NDMA (If needed) 96. Prepare situation report and circulate it twice a day in the morning and evening to key Government functionaries 97. Maintain constant touch with National, District and Taluka EOCs and other control rooms 98. Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly 99. Conduct aerial survey of affected areas for taking a stalk of the situation	
		100. Prepare quick need assessment report for planning of relief operation 101. Additional assistance may be asked for emergency response/relief from GoI-NDMA (If needed) 102. Prepare situation report and circulate it twice a day in the morning and evening to key Government functionaries 103. Maintain constant touch with National, District and Taluka EOCs and other control rooms 104. Remain in constant touch with IMD	COR

Time Frame	Task	Activity	Responsibility
		for updates on weather forecast for the coming days and plan accordingly 105. Conduct aerial survey of affected areas for taking a stalk of the situation	
		106. Activate evacuation & relief centers according to needs/situation 107. Maintain record of persons admitted at evacuation/relief centres	Revenue Dept. Collector, COR
Time = 0 + 24 to 48 Hrs	Review of Situation and Reporting	108. Establish contact with IMD, CWC, ACWC, ISRO and the defense ministry of GoI for aerial / satellites imageries about further weather condition and plan accordingly	COR
	Restoration of Critical Infrastructure/ Essential Services	109. Ensure that the essential services/critical infrastructure of the affected areas have been restored or alternative arrangement is made for ensuring safety of people and smooth management of emergency response. 110. Ensure that key administrative and lifeline buildings are brought back to operation quickly. 111. Designate and deploy senior officers (as per the need) to worst affected area/s to oversee rescue/relief operation. 112. Ensure following primary necessities are restored <ul style="list-style-type: none"> ○ Power ○ Water ○ Telecommunication ○ Roads ○ Bridges 	COR, Line Depts., Dist. Collectors, Municipal Commissioner
	Disposal of Dead Bodies	113. Ensure following procedure is followed before disposal/handing over of dead bodies: <ul style="list-style-type: none"> a. Photographs of the dead bodies are taken, b. Identification of the dead bodies is done, 	Revenue Dept., Dist. Collector, Municipal Commissioner, Home Dept., Health Dept., Local Authorities

Time Frame	Task	Activity	Responsibility
		c. Post Mortem where ever necessary and possible is carried out, d. Handing over dead bodies of persons known/identified to their relatives, e. Disposal of unclaimed and unidentified dead bodies.	
		114. Ensure medical aid to injured cattle 115. Disposal of animal carcasses with the help of local bodies/health dept.	Animal Husbandry Dept.
	Public Information and Media Management	116. Ensure that the information about progress of rescue and relief is provided to media/public in an organized manner at least twice a day 117. Establish help lines for facilitating communication between the victims and their relatives residing outside the affected area/s 118. Establish Information Centers at strategic locations for providing information about persons evacuated to the relief centres/hospitals	COR, Information Dept., Dist. Collector, Municipal Commissioner
	Miscellaneous Rescue and Relief Works	119. Assess the situation and take appropriate action to accelerate the Search & Rescue Operations 120. Depute additional officers and supporting staff to Cyclone affected areas from non-affected areas (if required) to accelerate the rescue and relief operations	COR, Districts Collector, Municipal Commissioner
		121. Ensure that the relief assistance received from outside is centrally received, stored and sent for distribution to Cyclone affected areas according to their need and proper accounts are maintained about both receipt and distribution	COR, Civil Supply Dept.
		122. District Collector to oversee the functioning of relief centres and ensure adequate supply of relief materials	Revenue Dept, Civil Supply Dept.,

Time Frame	Task	Activity	Responsibility
Time = 0 + 48 to 96 Hrs	Continuous Rescue and Relief Works	123. Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly	COR, Dist. Collectors, Civil Supply Dept.
		124. Arrange for procurement of additional relief material required for relief operations (on the basis of need assessment)	
		125. Mobilize additional relief material required for relief operations	
		126. Maintain constant touch with State & Districts EOCs	
		127. Arrangement for transportation of injured from field hospital to base hospital	Revenue Dept., Health Dept. , Transport Dept., Line Deptts.
		128. Arrangement for transport of dead bodies to their native places	
		129. Ensure maintenance of record, timely reporting and information management	
		130. Ensure maintenance of record and information database	
Time = 0 + 96 to 168 Hrs	Continuous Rescue and Relief Works	131. Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly	COR
		132. Review the restoration of all the public and essential buildings/ structures in Cyclone affected areas	
		133. Review and follow-up all necessary arrangements for emergency response & relief in the affected area/s	
		134. On receiving the message from IMD about degradation of Cyclone, inform the concern dist. Collector	COR, IMD
		135. Organize a quick rapid visual survey of the affected areas (through a technical team of engineers) to ascertain the safety of the structures and decide on giving the go-ahead to people to move back to their respective houses	COR, Dist. Collectors, Municipal Commissioner, R & B Dept.

Time Frame	Task	Activity	Responsibility
		136. After receiving the message of de-warning, ensure that people are moved back safely to their houses	COR, Collector, Police Dept.
		137. Ensure relief disbursement, allotment of funds and grants to line department and district collectors for organizing emergency response, relief and evacuation arrangements	Revenue Dept.

2.8 Immediate Relief

2.8.1 Short-term Relief Measures

a. Search, Rescue and Medical Assistance

- i. Identification of areas where SAR Teams are to be deployed
- ii. Coordination of SAR teams for their quick deployment in allotted areas
- iii. Provision of quick transport of SAR teams to affected areas
- iv. The department of Roads and Buildings to evolve a mechanism for clearing access routes in order to facilitate search and rescue operations
- v. Mobilization of specialized equipment and machinery to affected areas
- vi. Cordoning of affected areas with control of entry and exit
- vii. Traffic Management by establishment of traffic points and check-posts
- viii. The Home Department to evolve a mechanism for providing security of properties of government and public in the affected areas

b. Emergency Relief

- i. Establishment of Temporary shelters for evacuees
- ii. Ensuring Arrangement for food, clothing, blanket/bedding, drinking water, sanitation and hygiene, lighting arrangements and essential medicines
- iii. Ensure deployment of mobile hospitals in affected areas for treatment of victims
- iv. Provide counselling services to the cyclone victims and their relatives
- v. Ensure establishment of communication link between the affected people and their relatives outside

c. The COR to ensure the following in the relief camps:

- i. Special emphasis on Hygiene and sanitation aspects should be given in relief camp sites
- ii. Separate area should be earmarked within the relief camp for storage of relief materials

- iii. Adequate manpower and transport facilities for the camp site.
- iv. Arrangements to be made for trauma management
- v. Mobile medical units to be sent to remote areas with a view to provide medical assistance to the victims/injured
- vi. Information centre should be established by the administration

2.8.2 Interim Relief Measures

- a. Arrangements to be made for quick identification and maintenance of the records of disposal of dead bodies in the affected areas **(Home, Revenue, Health Dept., Local Authorities)**
- b. Arrangements to be made to record the complaints of all persons reported missing. Follow up action in terms of verification of the report also needs to be made **(Home Dept.)**
- c. District Magistrates and Sub-Divisional Magistrates to be empowered to exempt the requirement of identification and post-mortem in case of mass casualties. Revenue Dept may depute additional sub-divisional magistrates to expedite disposal of the dead bodies **(Revenue & Home Dept.)**
- d. Unclaimed/unidentified dead bodies to be disposed off with the help of pre-identified voluntary agencies at the earliest after keeping their records **(Home, Revenue, Health Dept. & Local Bodies)**
- e. Additional manpower to be deployed in the affected areas for supplementing the efforts of the local administration **(GAD)**
- f. Separate Cell to be established at state/district/taluka level to coordinate with the NGOs and outside donor/aid agencies **(Revenue Dept.)**
- g. Regular meetings of the different stakeholders/departments should be organized at state level for sharing of information, developing strategies for relief operations. **(Commissioner of Relief & Collectors at District Level)**
- h. Information & Public Relation Dept to coordinate with the media to play a positive role in disseminating appropriate information to public and the government in order to facilitate the speedy recovery

2.8.3 Assessment of Damage/Loss and Relief Needs

- a. The Commissioner of Relief to issue instructions to the District Collectors to provide 'the need assessment' report. The Commissioner of Relief should consolidate the same and to prepare "States Need Assessment Report"
- b. The Commissioner of Relief to issue instructions to the District Collectors to provide the damage and loss assessment report. The Commissioner of Relief to consolidate the same and to prepare "state's damage and loss assessment report" which will be useful in planning and implementing the relief operation after the disaster for the victims of the disaster
- c. Adequate manpower, vehicles, stationery etc should be provided to supplement the efforts for need/loss assessment. **(Commissioner of Relief & Revenue Dept.)**

- d. The relief need assessment report should be provided by the Collectors **(Commissioner of Relief & Collectors)**
- e. Identification and demolition of dangerous structures in the affected areas to minimize further loss of life and injuries **(R & B Dept., Revenue Dept and Local Bodies)**
- f. Arrangements for distribution of gratuitous relief and cash doles **(Revenue Dept., Panchayat& Rural Housing Dept., UD&UHD Dept. and Collectors)**
- g. Arrangements to be made for survey of human loss and distribution of ex-gratia relief to the families of deceased persons **(Revenue Dept.)**
- h. Teams to be formed and dispatched to the affected areas for detailed assessment of houses and property damage assessment **(Revenue Dept and Local authorities)**
- i. As reconstruction of houses will take a long period, arrangements to be made to provide interim shelters to the affected **(Revenue Dept and Line Departments like Water Supply Dept., GEB, R & B Dept. etc)**
 - i. Identification of the site for interim shelter
 - ii. Allocation of areas to affected families
 - iii. Providing appropriate shelters to the affected families
 - iv. Providing essential services as under in the interim shelter sites like water, transportation, power, road, drainage/ sanitation, school, PDS, health, protection, distribution of shelter materials to individual families, etc.

Chapter 3: Action Plan for Tsunami

3.1 Introduction

This plan will address the response measures to be taken up to reduce the effects of tsunami waves with an effective coordinated way. Tsunamis are a series of waves usually generated by movement of the seafloor. These movements are caused by different types of geophysical phenomena such as earthquakes, landslides and volcanic eruptions. Tsunamis move at a speed equal to the square root of the product of gravity and the depth of the water. The tsunami waves behave very differently in deep water than in shallow water as their speed is related to the water depth. Tsunami waves form only a small hump, barely noticeable and harmless, which generally travels at a very high speed of 500 to 1,000 km/h. The tsunami's speed diminishes as it travels into shallower water to only tens of kilometers an hour, consequently increasing the wave height. Because of this shoaling effect, a tsunami, imperceptible at sea, may grow to be several meters or more in height near the coast forming the large destructive waves.

Gujarat is prone to tsunami risk due to its long coastline and probability of occurrence of near and offshore submarine earthquakes in the Arabian Sea. Makran Subduction Zone (MSZ) -South West of Karachi is an active fault area which may cause a high magnitude earthquake under the sea leading to a tsunami.

The Chapter 8 in Volume 1 of this SDMP mentioned the roles, functions and responsibilities of Emergency Support Functions (ESFs) that have a key role to play during the Response.

Further, SDMP gives emphasis on well-being of the economically weaker and socially marginalized sections, persons with disability, women, Children, Scheduled Castes, Scheduled Tribes and minorities as they tend to suffer more during disasters. The SDMP forbids all forms of discrimination – be it based on sex, caste, community, descent or religion – in any aspect of disaster risk management.

3.2 Associated Authority

The nodal Department for controlling, monitoring and directing measures for organizing response, relief and recovery is the Revenue Department (through Commissionerate of Relief and GSDMA, respectively) of the State. All other concerned line Departments should extend full cooperation in all matters pertaining to the management of the Tsunami disaster whenever it occurs.

3.3 Disaster Declaration

The Gujarat State Disaster Management Act, 2003 (Section 32) provides for the State Government to declare any area where Tsunami have occurred or likely to occur as disaster affected area on the recommendations of the State Relief Commissioner or the District Collector. The purpose of declaration of disaster is to organize effective response in reduction of the Tsunami effects. Such a declaration provides wide powers and responsibilities to the State Relief Commissioner and the District Collectors in order to handle the incident effectively.

3.4 Early Warning

Early warning helps to detect tsunamigenic earthquakes and to monitor tsunamis and to provide timely advisories to vulnerable community through proper communication with help of real time database, vulnerability study and Decision Support System.

Decision Support system is the set of rules to be followed for issue of tsunami bulletins. These rules are appropriately coded in the form of software that automatically generates bulletins by accessing the real-time data from the observing network as well as the model scenario database.



The Tsunami Early Warning Centre (at INCOIS) continuously monitors the seismic activity in the tsunamigenic source regions of the Indian Ocean through the network of national and international seismic stations. This network enables us to detect any tsunamigenic earthquakes within a time period of 10- minutes of occurrence. Tsunami bulletins are then generated based on pre-set decision support rules and disseminated to the concerned authorities for action, following the SOP. Thus Early Warning Centre provides 24*7 timely advisories as a part for prevention of a disaster.

Early warning centre helps in:

1. Continuous monitoring of Seismic and sea-level data
2. Use of community level inundation maps which helps in assessing the population and infrastructure at risk as part of early warning

Tsunami Alert, Watch and Advisory Bulletins received at the SEOCS and DEOCs need to be disseminated through the fastest means to the people in the coastal areas likely to be affected.

3.4.1 Warning/ Alert / Watch

Based on earthquake parameters, region's proximity to the earthquake zone (Travel Times) and expected run-up from pre-run model scenarios, warnings to far source regions are issued only after confirmation of tsunami triggering based on real-time water-level observations and correction of scenarios. This reduces possibility of false warnings.

The warning criteria are based on the premise that coastal areas falling within 60 minutes travel time from a tsunamigenic earthquake source need to be warned based solely on earthquake information, since enough time is not available for confirmation of water levels from Bottom Pressure Recorder (BPRs) and Tide Gauges. Those coastal areas falling outside the 60 minutes travel time from a tsunamigenic earthquake source are put under a watch status and upgraded to a warning only upon confirmation of water-level data, e.g. If a tsunamigenic earthquake happens in the coast of the Northern Indonesia, parts of the Andaman & Nicobar Islands falling within 60 minutes travel time of a tsunami wave are put under 'Warning' status. Other areas are put under 'Watch' Status and upgraded to a 'Warning' only if the Bottom Pressure Recorder's or tide gauges reveal significant change in water level. This implies that the possibility of false alarms is higher for areas close to the earthquake source; however for other regions since the warnings are issued only after confirmation of water-level data, the issue of false alarms doesn't arise. To reduce the rate of false alarms even in the near source regions, alerts are generated by analyzing the pre-run model scenarios, so that warnings are issued only to those coastal locations that are at risk.

3.4.2 Types of TWC Tsunami Bulletin Messages

a. *Earthquake Information Bulletin (T+20 Min)*

It contains information about origin time, latitude and longitude of the epicenter, name of geographical area, magnitude and depth of an earthquake. This message also contains preliminary evaluation of tsunami potential based on the magnitude. (e.g. earthquake occurring on land or earthquake with < M 6.5 or earthquake occurring > 100 Km depth or earthquake occurring in very shallow water column, etc. no tsunami is expected; Bulletin is provided to Ministry of Home Affairs (MHA).

b. *Tsunami Warning (T+30 Min) (RED)*

It contains information about the earthquake and a tsunami evaluation message indicating that tsunami is expected (e.g. For earthquakes with > M 6.5 occurring in the Ocean within a depth of < 100 Km, a tsunami warning will be issued for those areas falling within 60 minutes travel time from the earthquake source and if expected run up is > 2 m). This is the highest level wherein immediate actions are required to move public to higher grounds. Message also contains information on the travel times and tsunami grade (based on run-up estimates) at various coastal locations from pre-run model outputs. Information provided to Ministry of Home Affairs (MHA) and public.

c. *Tsunami Alert (T+30 Min) (ORANGE)*

It contains information about the earthquake and a tsunami evaluation message indicating that tsunami is expected (e.g. For earthquakes with > M 6.5 occurring in the Ocean within a depth of < 100 Km, a tsunami alert will be issued for those areas falling within 60 minutes travel time from the earthquake source and if expected run up is between 0.5 to 2 m as well as for those areas falling above 60 minutes travel time from the earthquake source and if expected run up is >2 m). This is the second highest level wherein immediate public evacuation is not required. Public should avoid beaches since strong current are expected. Local officials should be prepared for evacuation if it is upgraded to warning status. Message also contains information on the travel times and tsunami grade (based on run-up estimates) at various coastal locations from pre-run model outputs. Information provided to Ministry of Home Affairs (MHA) and public.

d. *Tsunami Watch (T+30 Min) (YELLOW)*

It contains information about the earthquake and a tsunami evaluation message indicating that tsunami is expected (e. g. For earthquakes with > M6.5 occurring in the Ocean within a depth of < 100 Km, a tsunami watch will be issued for those areas falling within 60 minutes travel time from the earthquake source and if expected run up is < 0.5 m and for those areas falling above 60 minutes travel time from the earthquake source and if expected run up is 0.5 to 2 m). This is the third highest level wherein immediate public evacuation is not required, Local officials should be prepared for evacuation if it is upgraded to warning status.

Message also contains information on the travel times and tsunami grade (based on run-up estimates) at various coastal locations from Pre-run model outputs. Information provided to Ministry of Home Affairs (MHA).

e. *Tsunami Cancellation (GREEN)*

It will be issued if the tsunami warning was issued on the basis of erroneous data or if the warning center determines from subsequent information that only an insignificant wave has been generated. In addition, tsunami warning may be canceled on a selective basis when a significant wave that has been generated clearly poses no threat to one or more of the areas the warning center warns, either because of intervening continents or islands which screen them or because the orientation of the generating area causes the tsunami to be directed away from these areas. To maintain credibility the warning center will use the terminology “non-destructive tsunami” in the cancellation message whenever applicable.

f. *Tsunami All Clear (GREEN)*

This bulletin indicates that the ‘Tsunami Threat’ is passed and no more dangerous waves are expected.

3.5 Plan Activation

The tsunami response structure will be activated on the occurrence of a major tsunami. The Commissioner of Relief (CoR) will activate all the Departments for emergency response including the State EOC (SEOC). He will issue instructions to include the following details:

- Specify exact resources required.
- The type of assistance to be provided
- The time limit within which assistance is needed
- The state, district or other contact persons/agencies for the provision of the assistance
- Other Task Forces with which coordination should take place

The SEOC and other control rooms at the state level as well as District Emergency Operation Centres (DEOCs) shall be activated with full strength. The State Government may publish a notification in the official gazette, declaring such area to be disaster-affected area under GSDMA Act (Section 32 (2) (a)).

Once the situation is totally controlled and normalcy is restored, the COR declares End of Emergency Response and issues instructions to withdraw the staff deployed in emergency duties.

3.6 Roles and Responsibility :

Following are the key emergency response measures when occurrence of tsunami generating earthquake under the ocean is reported:

Standard Operating Procedures (SOP)

Time Frame	Task	Activity	Responsibility
0 to (-) 60 Minutes	Warning Receipt and Dissemination - Monitoring seismic activity, provide warnings, based on seismic models and issue periodic bulletins	<ol style="list-style-type: none"> Report the occurrence of Tsunami generating earthquake to following officials: <ul style="list-style-type: none"> - Hon. Chief Minister - Hon. Minister – Disaster Management - National Disaster Management Authority, GoI. - COR/DOR - Principal Secretary (Revenue) - Chief Executive Officer, GSDMA - Chief Secretary of the State - Members of Crisis Management Group - All concerned District Collectors as well as Control Room DEOCs of the district/s likely to be affected as per preliminary warning of IMD and INCOIS. - Ministers and Secretaries of all line departments Instruct Collectors (of the districts likely to be affected) to activate DEOCs at full strength Alert all response teams in the State for deployment Remain in constant touch with control rooms at National & State Level Instruct and alert all secretary / heads of departments of the key line departments to activate their departmental plan and SOPs for Tsunami response 	INCOIS, ISR, IMD, COR
	Interdepartmental Coordination	<ol style="list-style-type: none"> Instruct all State government officers and employees in the State to report to their respective Head for emergency duties (Only if the warning is of a level 2 disaster or as per the decision taken in the meeting 	CoR, GAD

Time Frame	Task	Activity	Responsibility
		<p>of the Crisis Management Group headed by Chief Secretary)</p> <p>7. Alert the District Collectors of districts not likely to be affected to be prepared for providing:</p> <ul style="list-style-type: none"> ○ Additional manpower ○ Additional resources <ul style="list-style-type: none"> - Vehicles, Machinery & Equipment - Relief material to the districts likely to be affected 	
	Establishment of Lines of Communication	<p>8. Activate alternative communication equipments i.e. satellite phones, HF/VHF sets, Ham radio, VSAT in State EOC and ERCs, District and Taluka control rooms</p> <p>9. Establish communication links with ERCs and Search & Rescue Teams in all Municipal Corporations/Districts and alert them to be in stage of readiness.</p> <p>10. Establish communication links with villages likely to be affected as per the contact details available in SDRN.</p>	CoR
0 to (-) 50 Minutes	Review of situation and reporting	<p>11. Establish contact with IMD, INCOIS, ISRO and the Defence Ministry of GoI for aerial / satellites imageries.</p> <p>12. After reviewing the satellite images, issue instructions and orders for emergency response to areas likely to be affected.</p>	CoR
	Management of EOC, ERCs and Tsunami Response	<p>13. Take over full command of State EOC and ERCs.</p> <p>14. Instruct line departments to depute representatives at the State and District EOCs.</p> <p>15. Hold a meeting with leaders of emergency support functions (as detailed in Vol. 1 of the plan) and entrust them their tasks.</p>	CoR

Time Frame	Task	Activity	Responsibility
		16. Ensure that Tsunami information is disseminated to all who are at danger. 17. Arrange emergency meeting with State Crisis Management Group to devise a plan of action.	
		18. Arrange dissemination of information through various means of communication such as Radio, TV, Cable Network, SMS about Tsunami to districts/areas which are likely to be hit.	COR
		19. Impose restriction on all transport activities heading towards coastal areas that are likely to be affected by Tsunami.	Secretary Transport
		20. Mobilize following teams: <ul style="list-style-type: none"> ○ Evacuation ○ Emergency Medical Services ○ Search and Rescue 21. Mobilize following emergency response forces: <ul style="list-style-type: none"> ○ Fire & Emergency Services ○ NDRF/ SDRF ○ Village Disaster Management Teams ○ Police, Home Guards, Civil Defence ○ State Reserve Police Force ○ Army (if required) ○ Air Force (if required) 	COR
	Tsunami Response to Coastal Areas (Likely to be Affected)	22. Based on the warning issued by IMD/ INCOIS, pin point the districts and villages likely to be affected by Tsunami and start the procedure for identifying safe places/shelters for evacuation in those villages. 23. Village wise data of safe sheltering for evacuation available on SDRN should be referred and the District	COR, Transport Dept., Dist. Collector, Municipal Commissioner

Time Frame	Task	Activity	Responsibility
		Collectors/Village level officers should be contacted to know the status of the shelters with the capacity of the shelter and other available facilities at the site.	
		24. Make transport arrangement for mobilization of all emergency response teams.	
		25. Ensure arrangements are in place to evacuate fishermen and salt workers if needed.	Ports & Fisheries Dept., GMB, Revenue Dept.,
		26. Ensure safety of tourists visiting beaches along the coastline.	Tourism Dept.
		27. Cordon off coastal areas for restricting entries of rail or road traffic.	Home Dept., Dist. Collector, Municipal Commissioner
		28. Ensure law and order is maintained in areas likely to be affected.	
		29. Ensure that all critical activities (mainly industrial production) in areas likely to be affected are shutdown.	Line Depts. (GEB, E&F Depart., Industries & Mines etc.)
		30. Ensure dissemination of information to remote areas by means.	Dist. Collector, Municipal Commissioner, Information Dept.
		31. Ensure that local help lines are opened and effectively managed for public information, guidance and rumor control.	
		32. Ensure that the information to public and media about the progress of Tsunami waves at periodic intervals is released.	
		33. Health Department to activate their Departmental Tsunami Disaster Management Plan and SOPs for Management of	Health Dept.

Time Frame	Task	Activity	Responsibility
		casualties	
0 to (-) 15 Minutes	Review and Reporting	<p>34. Review and monitor following activities:</p> <ul style="list-style-type: none"> ○ Evacuation of people from coastal areas likely to be affected ○ Positioning of Search and Rescue Teams ○ Positioning of mobile communication units ○ Positioning of quick medical response teams ○ Mobilization of restoration teams of respective departments ○ Requirement of armed forces in rescue and relief operations ○ Dissemination of information to the vulnerable areas ○ All preparedness measures to be taken by various authorities <p>35. Keep in touch with National, District and Taluka EOCs/Control Rooms</p> <p>36. Release information at appropriate time to media and public regarding response measures organized by the Government</p>	COR, Information Dept.
	Emergency Relief Management	37. Ensure that the Relief Management work in the likely affected areas / districts are well organized.	COR
		<p>38. Ensure that the arrangement for basic following amenities at evacuation/relief centres are made available:</p> <ul style="list-style-type: none"> ○ Drinking water ○ Food ○ Clothing ○ Sanitation and hygiene ○ Lighting 	COR, Civil Supply Dept., Revenue Dept. & Dist. Collector, Municipal Commissioner, Water Supply Dept., GEB, Health Dept.

Time Frame	Task	Activity	Responsibility
		<ul style="list-style-type: none"> Medicines and Health Care 	
		39. Inform following agencies to be in a state of readiness for assisting in the Tsunami response measures (if required): <ul style="list-style-type: none"> Public sector agencies Private sector agencies NGOs CBOs Volunteer Organizations 	COR
		40. Request for assistance (if needed) to MHA/National Disaster Management Authority	COR
		41. Make necessary arrangements for public information/guidance, public opinion and rumour control.	Information Dept.
Time = 0 Hrs	Disaster Declaration	42. Record the reports in detail with time, source of reports etc. and declare the area as disaster affected, if necessary, (depending upon the nature and intensity of impact)	COR, Dist. Collector,
	Preliminary Assessment, Deployment of Emergency Response Teams and Dissemination of Information	43. Dist. Collector/s and Municipal Commissioners should send teams to the affected areas to take stalk of the effects of Tsunami. 44. District Collector/s and Municipal Commissioners should send sector wise situation reports to: <ul style="list-style-type: none"> State EOC /COR GSDMA 	Dist. Collector, Municipal Commissioner
		45. Deployment of following teams to Tsunami affected areas: <ul style="list-style-type: none"> Emergency Communication Teams Emergency Medical Services Teams Search and Rescue Teams (With Equipment) Preliminary damage and 	COR, Dist. Collector, Municipal Commissioner

Time Frame	Task	Activity	Responsibility
Time = 0 + 24 Hrs		needs Assessment Teams	
		46. Establish communication link with affected districts and towns by activating alternate communication equipments such as Satellite Phones, HF/VHF Sets, Ham Radio, V Set etc., in State/District EOCs and Taluka Control Rooms. 47. Arrange dissemination of information about occurrence of Tsunami and areas that are affected by it to Media & Public	COR, Dist. Collector, Municipal Commissioner, Information Dept.
	Mobilization and Deployment	48. Immediate mobilization of following units/teams to areas affected by Tsunami <ul style="list-style-type: none"> ○ S & R Teams of Fire and Emergency Services ○ SDRF ○ Quick Medical Response Teams ○ Quick Damage & Loss Assessment Teams ○ Quick Need Assessment Teams ○ Road Clearance Teams ○ Teams for dignified management of the the dead ○ Teams for disposal of carcasses ○ Teams for debris clearance (if any) ○ Teams for maintaining Law & Order in the affected areas ○ Arrange for S & R teams of Air Force (If required) 	COR, Municipal Commissioner, Home Dept., Concern line Dept., DSP.
	Measures for quick and organized response	49. State EOC, ERCs, the Collectors/ Municipal Commissioners of the affected district should ensure that the following response activities are carried out immediately:	COR, Collector, DSP, Municipal Commissioner, Line Dept.
	a. Clearance of access roads to the affected areas	50. To survey the access roads/routes leading to the affected areas and manage traffic for mobilization of	R & B Dept. , Transport Dept., Dist.

Time Frame	Task	Activity	Responsibility
		<p>equipments, machinery and volunteers.</p> <p>51. Identify alternate roads/routes for evacuation.</p> <p>52. Undertake repairing/restoration of damaged roads leading to the affected areas.</p> <p>53. Identify and declare unsafe buildings/structures in Tsunami affected areas.</p> <p>54. Evacuate people from unsafe buildings/ structures and shift them to relief camps/sites.</p>	Collector, Municipal Commissioner, Railways, COR
	b. Necessary Arrangements at evacuation/relief centres	<p>55. To ensure that necessary arrangements at evacuation/relief centers is made with sufficient availability of:</p> <ul style="list-style-type: none"> a. Food, b. Water, c. Blankets/Clothing d. Medicines e. Lighting f. Sanitation and hygiene etc. <p>56. To ensure necessary security arrangements for the personals (Emergency responders/relief teams) who are working at Relief Centers and involved in distribution of Relief Materials.</p> <p>57. To ensure that law and order is maintained at evacuation/relief centers and in the affected areas as well.</p>	Revenue Dept., Civil Supply Dept., Collector, DSP, Municipal Commissioner, Water Supply Dept., Health Dept., GEB, Power & Energy Dept., GWSSB & Local Authorities, Home Dept.
	c. Safety of fishermen and salt workers	<p>58. Immediate actions to be taken for safety of fishermen, salt workers and visitors at Tsunami affected coastal areas.</p> <p>59. Ensure that all the fishermen and salt workers have returned from the sea or those who are in the sea are</p>	COR, Port and Fisheries Dept., GMB, Tourism Dept., Industries & Mines Dept.

Time Frame	Task	Activity	Responsibility
		rescued and evacuated to safer places.	
	d. Ensure immediate health and minimization of outbreak of disease	<p>60. To establish camp hospitals near the affected areas.</p> <p>61. To make transportation arrangements to shift seriously injured persons to nearest-</p> <ul style="list-style-type: none"> a. Camp Hospitals, b. Taluka and District Hospitals, c. Regional and State Hospitals <p>62. Ensure that the Hospitals are well prepared to deal with seriously injured persons.</p> <p>63. To ensure that the required medical assistance/aid and medicines are provided to the affected people at site as well as at evacuation/relief centers in the affected area and necessary records are maintained.</p> <p>64. Take sanitation and epidemic control measures for preventing any water borne disease.</p> <p>65. Keep adequate stock of essential medicines, first-aid etc. at taluka/district hospitals</p> <p>66. Take steps to purify drinking water sources</p> <p>67. If required, take the help of doctors/paramedics from the list of doctors/paramedics available at the taluka/district level for immediate medical assistance.</p>	Health Dept., Transport Dept.
		<p>68. Assess need for fodder if required.</p> <p>69. Keep teams ready for carcass disposal (if required).</p>	Animal Husbandry Dept.
	e. Information to public and media	<p>70. Establish Media/Press Centre for media management and information dissemination</p> <p>71. Ensure that the information to media/general public about the</p>	Information Dept., COR

Time Frame	Task	Activity	Responsibility
		<p>response of the State Government is released in an organized manner.</p> <p>72. Organize media briefing twice a day at pre-determined intervals.</p>	
	f. Other important work related to immediate response	<p>73. Prepare quick need assessment report for planning of relief operation.</p> <p>74. Additional assistance may be asked for emergency response/relief from GoI-NDMA (If needed).</p> <p>75. Maintain constant touch with National, District and Taluka EOCs and other control rooms.</p> <p>76. Conduct Aerial survey of affected areas for taking a stalk of the situation.</p>	COR
Time = 0 + 24 to 48 Hrs	Restoration of critical infrastructure/essential services	<p>77. Ensure that the essential services/critical infrastructure of the affected areas have been restored or alternative arrangement is made for ensuring safety of people and smooth management of emergency response.</p> <p>78. Ensure that key administrative and lifeline buildings are brought back to operation quickly</p> <p>79. Ensure following primary necessities are restored</p> <ul style="list-style-type: none"> ○ Power ○ Water ○ Telecommunication ○ Roads ○ Bridges 	COR, Line Depts., Dist. Collector, Municipal Commissioner
	Dignified Management of Dead	<p>80. Ensure following procedure is followed before disposal/handing over of dead bodies:</p> <ul style="list-style-type: none"> ○ Photographs of the dead bodies are taken, ○ Identification of the dead bodies is done, ○ Post Mortem where ever 	Collector, DSP, Muni. Commissioner, Home Dept., Health Dept., Local Authorities

Time Frame	Task	Activity	Responsibility
		necessary and possible is carried out, <ul style="list-style-type: none"> ○ Handing over dead bodies of persons known/identified to their relatives, ○ Disposal of unclaimed and unidentified dead bodies. 	
		81. Animal Husbandry Department to ensure medical aid to cattle which are injured 82. Disposal of animal carcasses with the help of local bodies/health dept.	Animal Husbandry Dept, Local Authorities, health dept.
	Public Information and Media Management	83. Ensure that information about progress of rescue and relief is provided to media/public in an organized manner at least twice a day. 84. Establish Help Lines for facilitating communication between the victims and their relatives residing outside the affected area/s. 85. Establish Help Lines / Information Centers at strategic locations for providing information about persons evacuated to the relief centres/hospitals.	COR, Information Dept. and Dist. Collector, Municipal Commissioner
	Miscellaneous rescue and relief works	86. Assess the situation and take appropriate action to accelerate the Search & Rescue Operations. 87. Depute additional officers and supporting staff to Tsunami affected areas from non-affected areas (if required) to accelerate the rescue and relief operations.	COR, Districts Collector, DSP, Municipal Commissioner
		88. Ensure that the relief assistance received from outside is centrally received, stored and sent for distribution to Tsunami affected	COR, Civil Supply Dept.

Time Frame	Task	Activity	Responsibility
		areas according to their need and proper accounts are maintained about both receipt and distribution.	
		89. District Collector may oversee the functioning of relief centres and ensure adequate availability & supply of relief materials.	Revenue Dept, Civil Supply Dept.
Time = 0 + 48 to 96 Hrs		90. Arrange for procurement of additional relief material required for relief operations (on the basis of need assessment). 91. Mobilize additional relief material required for relief operations. 92. Maintain constant touch with State & Districts EOCs.	COR, Dist. Collector, Municipal Commissioner, Civil Supply Dept.
		93. Arrangement for transportation of injured from field hospital to base hospital 94. Arrangement for transport of dead bodies to their native places.	Revenue Dept., Health Dept., Transport Dept
		95. Ensure maintenance of record, timely reporting and information management. 96. Ensure maintenance of record and information database	Line Depts., Dist. Collector, COR
Time = 0 + 96 to 168 Hrs		97. Review the restoration of all the public and essential in Tsunami affected areas 98. Review and follow-up all necessary arrangements for emergency response & relief in the affected area/s.	COR
		99. After receiving the message of de-warning, ensure that people are moved back safely to their houses.	COR, Collector, DSP
		100. Organize a quick rapid visual survey of the affected areas	COR, Dist. Collectors,

Time Frame	Task	Activity	Responsibility
		(through a technical team of engineers) to ascertain the safety of the structures decide on giving the go-ahead to people to move back to their respective houses.	Municipal Commissioner , R&B
		101. Ensure relief disbursement, allotment of funds and grants to line department and district collectors for organizing emergency response, relief and evacuation arrangements.	Revenue Dept.

3.7 Relief Measures

3.7.1 Short Term Relief Measures

Ensure that all the following identified measures addresses the Minimum standard of relief defined by the state government.

- a. Provide temporary shelter to the affected people
- b. Temporary shelter site should be safe and easily accessible.
- c. Continue to provide essential services (food, water, clothing, sanitation, medical assistance, power, etc.) to the affected people.

The COR, Secretaries of Line Departments and concerned Collectors to ensure the following in the relief camps:

- i. Special emphasis on Hygiene and sanitation aspects should be given in relief camp sites. (Health Dept.)
- ii. Separate area should be earmarked within the relief camp for storage of relief materials. (Civil Supply & R & B Dept.)
- iii. Adequate manpower and transport facilities for the camp site. (Transport Department)
- iv. Arrangements to be made for trauma management. (Health Department)
- v. Mobile medical units to be sent to remote areas with a view to provide medical assistance to the victims/injured. (Health Dept.)
- vi. Information centre should be established by the administration. (I&B Department)

3.7.2 Interim Relief Measures

- a. Arrangements to be made for quick identification and maintenance of the records of disposal of dead bodies in the affected areas (Home, Revenue, Health Dept., Local Authorities).

- b. Arrangements to be made to record the complaints of all persons reported missing. Follow up action in terms of verification of the report also needs to be made. (Home Dept.)
- c. District Magistrates and Sub-Divisional Magistrates to be empowered to exempt the requirement of identification and post-mortem in case of mass casualties. Revenue Dept may depute additional Sub-Divisional Magistrates to expedite disposal of the dead bodies. (Revenue & Home Dept.)
- d. Unclaimed/unidentified dead bodies to be disposed off with the help of pre identified voluntary Agencies at the earliest after keeping their records. (Home, Revenue, Health Dept. & Local Bodies)
- e. Additional manpower to be deployed in the affected areas for supplementing the efforts of the local administration. (GAD).
- f. Separate Cell to be established at state/ district/ taluka level to coordinate with the NGOs and outside donor/aid agencies. (Revenue Dept.)
- g. Regular meetings of the different stakeholders/departments should be organized at state level for sharing of information, developing strategies for relief operations. (Commissioner of Relief & Collectors at District Level).
- h. Information & Public Relation Dept. to coordinate with the media to play a positive role in disseminating appropriate information to public and the government in order to facilitate the speedy recovery. (I & B Dept.)

3.7.3 Assessment of Damage/Loss and Relief Needs

- a. The Commissioner of Relief to issue instructions to the District Collectors to provide 'the need assessment' report. The Commissioner of Relief should consolidate the same and to prepare "States Need Assessment Report".
- b. The Commissioner of Relief to issue instructions to the District Collectors to provide the damage and loss assessment report. The Commissioner of Relief to consolidate the same and to prepare "Relief Memorandum" (if necessary) which will be useful in planning and implementing the relief operation after the disaster for the victims of the disaster.
- c. Adequate manpower, vehicles, stationery, etc. should be provided to supplement the efforts for need/ loss assessment. (Commissioner of Relief & Revenue Dept.)
- d. The Relief Memorandum should be provided by the Collectors. (Commissioner of Relief & Collectors)
- e. The damage assessment Performa is also attached in the Annexure-3. (COR & Collectors)
- f. Identification and demolition of dangerous structures in the affected areas to minimize further loss of life and injuries. (R & B Dept., Revenue Dept and Local Bodies)

- g. Arrangements for distribution of gratuitous relief and cash doles. (Revenue Dept., Panchayat & Rural Housing Dept., UD&UHD Dept. and Collectors)
- h. Arrangements to be made for survey of human loss and distribution of ex-gratia relief to the families of deceased persons. (Revenue Dept.)
- i. Teams to be formed and dispatched to the affected areas for detailed assessment of houses and property damage assessment. (Revenue Dept and Local authorities)
- j. As reconstruction of houses will take a long period, arrangements to be made to provide interim shelters to the affected. (Revenue Dept and Line Departments like Water Supply Dept., GEB, R & B Dept. etc)
 - i. Identification of the site for interim shelter
 - ii. Allocation of areas to affected families
 - iii. Providing appropriate shelters to the affected families
 - iv. Providing essential services as under in the interim shelter sites like water, transportation, power, road, drainage/ sanitation, school, PDS, health, protection, distribution of shelter materials to individual families, etc.

Chapter 4: Action Plan for Flood

4.1 Introduction

Floods are among the most recurrent phenomena and destructive natural hazard causing extensive damage to infrastructure, public and private services, environment and economy. With the growing incidences of climate change across the globe, the frequency and intensity of floods has grown in the State over the years. This may be attributed to unplanned development and increased encroachment of flood plains. The rivers bring heavy sediment load from the catchments. These, coupled with inadequate carrying capacity of the rivers are responsible for causing floods, drainage congestion and erosion of river-banks. Hence, apart from an effective disaster response system, it becomes of utmost importance to have a good flood prevention and mitigation strategy to achieve the objectives of vulnerability reduction.

4.2 Declaration of disaster

The Gujarat State Disaster Management Act, 2003 (Section 32) provides for the State Government to declare any area where flood have occurred or likely to occur as disaster affected area on the recommendations of the State Relief Commissioner or the District Collector. The purpose of the declaration is to organize effective response in mitigating the flood effects.

4.3 Flood Forecasting and Warning

India receives 80 per cent of its annual rainfall during the southwest monsoon season of June to September. Rainfall over the country during this season shows a wide range of spatial variation due to orographic influences and preferential occurrence of rain-bearing systems in certain regions. India has a very extensive raingauge network and rainfall monitoring over the country. The real-time monitoring and statistical analysis of district-wise daily rainfall is one of the important functions of the Hydrometeorological Division of IMD. Based on the real time daily rainfall data, weekly district-wise, sub-divisionwise and state-wise rainfall distribution summaries are prepared regularly by the Rainfall Monitoring Unit. Maps showing weekly and cumulative rainfall figures in 36 meteorological sub-divisions of the country are prepared. This information is very important to many user agencies, particularly for agricultural planning.

Flood Meteorological Offices (FMOs) have been set up by IMD at ten locations including Ahmedabad in Gujarat. During the flood season, FMOs provide valuable meteorological support to the Central Water Commission (CWC) for issuing flood warnings in respect of the Narmada, Tapi, Mahi, Sabarmati, Banas and Damodar Ganga rivers.

Further, a nationwide flood forecasting and warning system covering major inter-state rivers has been established by the Central Water Commission (CWC). The system under CWC is often supplemented by the states that make arrangements for advance warning at other stations strategically important to them. The CWC also extends FF services to such stations at the request of the states concerned. With reliable advance information/warning about impending floods, loss of life and property can be reduced to a considerable extent. People, cattle and valuable assets can be shifted in advance to safer places.

The main components of a national flood forecasting and warning system are as follows:

- Collection of real-time data and prediction of flood severity and time of onset of particular levels of flooding.

- Preparation of warning messages, describing what is happening, predictions of what will happen and expected impact and the same must be disseminated properly.
- Interpretation of the predictions and other flood information to determine flood impacts on vulnerable communities
- If predictions fail, the reasons of prediction failure should be communicated to communities in order to establish trust.
- For a flood warning system to work effectively, all these components must be integrated with each other rather than operating in isolation.

4.4 Community Based Flood Forecasting and Warning Systems

It is important that the people in each community receive information as early as possible about the possibility of a flood in their area. The way in which messages are disseminated in communities will depend on local conditions, but may include some or all of the following:

- Media warnings (print and electronic/through SMS/ Social Media)
- Flood warning activities can either be issuing a flood warning message to the target area, raising alert levels through warning signals such as a siren, hitting a gong, steel pipes, church bells, etc
- Dedicated automatic telephone warnings to at-risk properties
- Information about flood and flood condition in communities upstream/downstream from village to village.
- Keep watch and be regularly informed about the river level and embankment conditions in the local area. The monitoring of the river and embankment should be increased as the water level increases and crosses the critical danger level.
- Through use of technology like mass mobile messaging, SMS, YouTube & other social media website.

4.5 Involvement of Communities in Data Collection and Local Flood Warning Systems

If communities become involved in data collection for flood forecasting, and the importance of their role is understood, a sense of ownership is developed. Individuals can be appointed for the following tasks:

- a) Taking care of installations/ equipment
- b) Trained as gauge readers for manual instruments (rain gauges, water level recorders)
- c) Radio operators to report real-time observations
- d) Monitoring of hydrological data on a regular basis, daily basis, even without inclement weather condition should be observed.
- e) The involvement of members of the community also helps to prevent vandalism and damage to installations going unreported.

4.6 Procedure for Disseminating Warnings to Remote Areas

Responsibilities need to be defined clearly for lower tiers of administration and the emergency services to have predefined links with communities in remote areas. This should include:

- a) Community stations, FM Radio should be supplied with clear and accurate information
- b) Mass messaging and use of mobile phone operators in information dissemination
- c) Doordarshan and the local cable channels (TV channels & radio Channels including FM radio), Press Bulletin, Fax/Telephone, Social Media
- d) Power failures occur during times of inclement weather particularly during passage of a tropical cyclone/floods over the community and portable transistor radios may proved to be the best form of information in receiving flood warnings
- e) Use of appointed community wardens with direct two-way radio or mobile telephone access to warning agencies and emergency authorities
- f) Local means of raising alarms, for example church bells, sirens, loud hailer, loudspeakers, etc. The latter could be the responsibility of selected individuals or wardens, who need to be provided with equipment and transport, for example motor cycles or bicycles;
- g) Use of high end technology like mass mobile messaging, SMS, use of social media etc., satellite based disaster warning systems like satellite phones, Early Warning Dissemination System

4.7 Trigger Mechanism: Plan Activation

The flood response system will be activated on the occurrence of a heavy rain. The Commissioner of Relief (COR) will activate all the Departments for emergency response including the State EOC. He will issue instructions to include the following details:

- a) Specify exact resources required
- b) The type of assistance to be provided
- c) The time limit within which assistance is needed
- d) The state, district or other contact persons/agencies for the provision of the assistance
- e) Other Task Forces with which coordination should take place.

The state EOC and other control rooms at the state level as well as district control rooms should be activated with full strength. The State Government may publish a notification in the official gazette, declaring such area to be disaster-affected area under GSDMA Act (Section 32 (2) (a)). Once the situation is totally controlled and normalcy is restored, CoR declares End of Emergency Response and issues instructions to withdraw the staff deployed in emergency duties.

4.8 Roles and Responsibility

Following are the key emergency response measures in case of occurrence of floods:

Standard Operating Procedures (SOP)

Time Frame	Task	Activity	Responsibility
0-48 hours	Warning Receipt and Dissemination - Monitoring rainfall activity, provide warnings, based on hydraulic models and disseminate information	<ol style="list-style-type: none"> Report the occurrence of heavy rainfall to following officials: <ul style="list-style-type: none"> - Hon. Chief Minister - Hon. Minister – Disaster Management - MHA & National Disaster Management Authority, GoI. - COR/DOR - Principal Secretary (Revenue) - Chief Executive Officer, GSDMA - Chief Secretary of the State - Members of Crisis Management Group - All concerned District Collectors as well as DEOCs of the district/s likely to be affected as per preliminary warning of IMD and CWC. - Ministers and Secretaries of all line departments Instruct Collectors (of the districts likely to be affected) to activate DEOCs at full strength Alert all response teams in the State for deployment Remain in constant touch with Emergency Operation Centre at National & State Level Instruct and alert all secretary / heads of departments of the key line departments to activate their departmental plan and SOPs for Flood response 	IMD, CWC, COR, Water Resources Department
	Interdepartmental Coordination	<ol style="list-style-type: none"> Instruct all State government officers and employees in the State to report to their respective Head for emergency duties Alert the District Collectors of districts not likely to be affected to be prepared for providing: <ul style="list-style-type: none"> ○ Additional manpower ○ Additional resources <ul style="list-style-type: none"> - Vehicles, Machinery & Equipment - Relief material to the districts likely to be affected 	CoR, GAD

Time Frame	Task	Activity	Responsibility
	Establishment of Lines of Communication	<p>8. Activate alternative communication equipments i.e. satellite phones, HF/VHF sets, Ham radio, VSAT in State EOC and ERCs, District and Taluka control rooms</p> <p>9. Establish communication links with ERCs and Search & Rescue Teams in all Municipal Corporations/ Districts and alert them to be in stage of readiness.</p> <p>10. Establish communication links with villages likely to be affected as per the contact details available in SDRN and Village Disaster Management Plans (VDMP).</p>	CoR
0 to (-) 24 Hours	Review of situation and reporting	<p>11. Establish contact with IMD, CWC, BISAG and the Defence Ministry of GoI for aerial / satellites imageries.</p> <p>12. After reviewing the satellite images, issue instructions and orders for emergency response to areas likely to be affected.</p>	CoR
	Management of EOC, ERCs for Flood Response	<p>13. Take over full command of State EOC and ERCs.</p> <p>14. Instruct line departments to depute representatives at the State and District EOCs.</p> <p>15. Hold a meeting with leaders of emergency support functions (as detailed in Vol. 1 of the plan) and entrust them their tasks.</p> <p>16. Ensure that flood information is disseminated to all who are at danger.</p> <p>17. Arrange emergency meeting with State Crisis Management Group to devise a plan of action.</p>	CoR
		18. Arrange dissemination of information through various means of communication such as social media, Radio, TV, Cable Network, SMS about floods to districts/areas which are likely to be hit.	COR
		19. Impose restriction on all transport activities heading towards likely affected areas.	Secretary Transport

Time Frame	Task	Activity	Responsibility
		<p>20. Mobilize following teams:</p> <ul style="list-style-type: none"> ○ Evacuation ○ Emergency Medical Services ○ Search and Rescue <p>21. Mobilize following emergency response forces:</p> <ul style="list-style-type: none"> ○ Fire & Emergency Services ○ NDRF/ SDRF ○ Village Disaster Management Teams ○ Police, Home Guards, Civil Defence, Aapda Mitra ○ State Reserve Police Force ○ Arm Forces (if required) ○ Air Force (if required) 	COR
	Flood Response to the Areas (Likely to be Affected)	<p>22. Based on the warning issued by IMD/ CWC, pin point the districts and villages likely to be affected by floods and start the procedure for identifying safe places/shelters for evacuation in those villages.</p> <p>23. Village wise data of safe sheltering for evacuation available on SDRN/ VDMPS should be referred and the District Collectors/Village level officers should be contacted to know the status of the shelters with the capacity of the shelter and other available facilities at the site.</p> <p>24. Make transport arrangement for mobilization of all emergency response teams.</p>	COR, Transport Dept., Dist. Collector, Municipal Commissioner
		25. Ensure arrangements are in place to evacuate most vulnerables i.e. person with disability, pregnant women, etc.if needed.	Revenue Dept., WCD, Social Justice Department
		26. Ensure safety of tourists visiting flood affected places.	Tourism Dept.
		<p>27. Cordon off likely affected areas for restricting entries of rail or road traffic.</p> <p>28. Ensure law and order is maintained in areas likely to be affected.</p>	Home Dept., Dist. Collector, Municipal Commissioner

Time Frame	Task	Activity	Responsibility
		29. Ensure that all critical activities (mainly industrial production) in areas likely to be affected are shutdown.	Line Depts. (GEB, E&F Depart., Industries & Mines etc.)
		30. Ensure dissemination of information to remote areas by all means.	Dist. Collector, Municipal Commissioner, Information Dept.
		31. Ensure that local help lines are opened and effectively managed for public information, guidance and rumour control.	
		32. Ensure that the information to public and media about the progress of heavy rain at periodic intervals is released.	
		33. Health Department to activate their Departmental flood Disaster Management Plan and SOPs for Management of casualties	Health Dept.
0 to (-) 12 hours	Review and Reporting	34. Review and monitor following activities: <ul style="list-style-type: none"> ○ Evacuation of people from likely to be affected areas ○ Positioning of Search and Rescue Teams ○ Positioning of mobile communication units ○ Positioning of quick medical response teams ○ Mobilization of restoration teams of respective departments ○ Requirement of armed forces in rescue and relief operations ○ Dissemination of information to the vulnerable areas ○ All preparedness measures to be taken by various authorities 35. Keep in touch with National, District and Taluka EOCs/Control Rooms 36. Release information at appropriate time to media and public regarding response measures organized by the Government	COR, Information Dept.

Time Frame	Task	Activity	Responsibility
	Emergency Relief Management	37. Ensure that the Relief Management work in the likely affected areas / districts are well organized.	COR
		38. Ensure that the arrangement for basic following amenities at evacuation/relief centres are made available: <ul style="list-style-type: none"> ○ Drinking water ○ Food ○ Clothing ○ Sanitation and hygiene ○ Lighting ○ Medicines and Health Care 	COR, Civil Supply Dept., Revenue Dept. & Dist. Collector, Municipal Commissioner, Water Supply Dept., GEB, Health Dept.
		39. Inform following agencies to be in a state of readiness for assisting in the flood response measures (if required): <ul style="list-style-type: none"> ○ Public sector agencies ○ Private sector agencies ○ NGOs ○ CBOs ○ Volunteer/ religious Organizations 	COR
		40. Request for assistance (if needed) to MHA/National Disaster Management Authority	COR
		41. Make necessary arrangements for public information/guidance, public opinion and rumour control.	Information Dept.
0 to (+)24 hours	Disaster Declaration	42. Record the reports in detail with time, source of reports etc. and declare the area as disaster affected, if necessary, (depending upon the nature and intensity of impact)	COR, Dist. Collector,
	Preliminary Assessment, Deployment of Emergency Response Teams and Dissemination of Information	43. Dist. Collector/s and Municipal Commissioners should send teams to the affected areas to take stalk of the effects of Floods. 44. District Collector/s and Municipal Commissioners should send sector wise situation reports to: <ul style="list-style-type: none"> ○ State EOC/COR ○ GSDMA 	Dist. Collector, Municipal Commissioner

Time Frame	Task	Activity	Responsibility
		45. Deployment of following teams to Flood affected areas: <ul style="list-style-type: none"> ○ Emergency Communication Teams ○ Emergency Medical Services Teams ○ Search and Rescue Teams (With Equipment) ○ Preliminary damage and needsassessment teams 	COR, Dist. Collector, Municipal Commissioner
		46. Establish communication link with affected districts and towns by activating alternate communication equipments such as Satellite Phones, HF/VHF Sets, Ham Radio, V Set etc., in State/District EOCs and Taluka Control Rooms.	COR, Dist. Collector, Municipal Commissioner, Information Dept.
		47. Arrange dissemination of information about occurrence of flood and areas that are affected by it to Media & Public	
	Mobilization and Deployment	48. Immediate mobilization of following units/teams to areas affected by flood <ul style="list-style-type: none"> ○ S & R Teams of Fire and Emergency Services ○ SDRF ○ Quick Medical Response Teams ○ Quick Damage & Loss Assessment Teams ○ Quick Need Assessment Teams ○ Road Clearance Teams ○ Teams for dignified management of the the dead ○ Teams for disposal of carcasses ○ Teams for debris clearance (if any) ○ Teams for maintaining Law & Order in the affected areas ○ Arrange for S & R teams of Air Force (If required) 	COR, Municipal Commissioner, Home Dept., Concern line Dept., DSP.
	Measures for quick and organized response	49. State EOC, ERCs, the Collectors/ Municipal Commissioners of the affected District(s)/ Municipal Corporation (s)should ensure that the following response activities are carried out immediately:	COR, Collector, DSP, Municipal Commissioner, Line Dept.

Time Frame	Task	Activity	Responsibility
	g. Clearance of access roads to reach at the sites of affected areas	50. To survey the access roads/routes leading to the affected areas and manage traffic for mobilization of equipments, machinery and volunteers. 51. Identify alternate roads/routes for evacuation. 52. Undertake repairing/restoration of damaged roads leading to the affected areas. 53. Identify and declare unsafe buildings/structures in Flood affected areas. 54. Evacuate people from unsafe buildings/structures and shift them to relief camps/sites.	R & B Dept. , Transport Dept., Dist. Collector, Municipal Commissioner, Railways, COR
	h. Necessary Arrangements at evacuation/relief centres as per the Minimum Standard of Relief	55. To ensure that necessary arrangements at evacuation/relief centers is made with sufficient availability of: a. Food, b. Water, c. Blankets/Clothing d. Medicines e. Lighting f. Sanitation and hygiene etc. 56. To ensure necessary security arrangements for the personals (Emergency responders/ relief teams) who are working at Relief Centers and involved in distribution of Relief Materials. 57. To ensure that law and order is maintained at evacuation/relief centers and in the affected areas as well.	Revenue Dept., Civil Supply Dept., Collector, DSP, Municipal Commissioner, Water Supply Dept., Health Dept., GEB, Power & Energy Dept., GWSSB & Local Authorities, Home Dept.
	i. Ensure immediate health and minimization of outbreak of disease	58. To establish camp hospitals near the affected areas. 59. To make transportation arrangements to shift seriously injured persons to nearest- a. Camp Hospitals, b. Taluka and District Hospitals, c. Regional and State Hospitals	Health Dept., Transport Dept.

Time Frame	Task	Activity	Responsibility
		<p>60. Ensure that the Hospitals are well prepared to deal with seriously injured persons.</p> <p>61. To ensure that the required medical assistance/aid and medicines are provided to the affected people at site as well as at evacuation/relief centers in the affected area and necessary records are maintained.</p> <p>62. Take sanitation and epidemic control measures for preventing any water borne disease.</p> <p>63. Keep adequate stock of essential medicines, first-aid etc. at taluka/district hospitals</p> <p>64. Take steps to purify drinking water sources</p> <p>65. If required, take the help of doctors/paramedics from the list of doctors/paramedics available at the taluka/district level for immediate medical assistance.</p>	
		<p>66. Assess need for fodder if required.</p> <p>67. Keep ready teams for carcass disposal (if required).</p>	Animal Husbandry Dept.
	j. Information to public and media	<p>68. Establish Media/Press Centre for media management and information dissemination</p> <p>69. Ensure that the information to media/general public about the response of the State Government is released in an organized manner.</p> <p>70. Organize media briefing twice a day at pre-determined intervals.</p>	Information Dept., COR
	k. Other important work related to immediate response	<p>71. Prepare quick need assessment report for planning of relief operation.</p> <p>72. Additional assistance may be asked for emergency response/relief from GoI-NDMA (If needed).</p> <p>73. Maintain constant touch with National, District and Taluka EOCs and other control rooms.</p>	COR

Time Frame	Task	Activity	Responsibility
		74. Conduct Aerial survey of affected areas for taking a stalk of the situation.	
Time = 0 + 24 to 48 Hrs	Restoration of critical infrastructure/essential services	75. Ensure that the essential services/critical infrastructure of the affected areas have been restored or alternative arrangement is made for ensuring safety of people and smooth management of emergency response. 76. Ensure that key administrative and lifeline buildings are brought back to operation quickly 77. Ensure following primary necessities are restored <ul style="list-style-type: none"> ○ Power ○ Water ○ Telecommunication ○ Roads ○ Bridges 	COR, Line Depts., Dist. Collector, Municipal Commissioner
	Dignified Management of Dead	78. Ensure following procedure is followed before disposal/handing over of dead bodies: <ul style="list-style-type: none"> ○ Photographs of the dead bodies are taken, ○ Identification of the dead bodies is done, ○ Post Mortem where ever necessary and possible is carried out, ○ Handing over dead bodies of persons known/identified to their relatives, ○ Disposal of unclaimed and unidentified dead bodies. 	Collector, DSP, Municipal Commissioner, Home Dept., Health Dept., Local Authorities
		79. Animal Husbandry Department to ensure medical aid to cattle which are injured 80. Disposal of animal carcasses with the help of local bodies/health dept.	Animal Husbandry Dept, Local Authorities, health dept.
	Public Information and Media Management	81. Ensure that information about progress of rescue and relief is provided to media/public in an organized manner at least twice a day.	COR, Information Dept. and Dist. Collector,

Time Frame	Task	Activity	Responsibility
	Miscellaneous rescue and relief works	82. Establish Help Lines for facilitating communication between the victims and their relatives residing outside the affected area/s.	Municipal Commissioner
		83. Establish Help Lines / Information Centers at strategic locations for providing information about persons evacuated to the relief centres/hospitals.	
		84. Assess the situation and take appropriate action to accelerate the Search & Rescue Operations.	COR, Districts Collector, DSP, Municipal Commissioner
		85. Depute additional officers and supporting staff to flood affected areas from non-affected areas (if required) to accelerate the rescue and relief operations.	
		86. Ensure that the relief assistance received from outside is centrally received, stored and sent for distribution to flood affected areas according to their need and proper accounts are maintained about both receipt and distribution.	COR, Civil Supply Dept.
		87. District Collector may oversee the functioning of relief centres and ensure adequate availability & supply of relief materials.	Revenue Dept, Civil Supply Dept.
		88. Arrange for procurement of additional relief material required for relief operations (on the basis of need assessment).	COR, Dist. Collector, Municipal Commissioner, Civil Supply Dept.
		89. Mobilize additional relief material required for relief operations.	
Time = 0 + 48 to 96 Hrs		90. Maintain constant touch with State & Districts EOCs.	
		91. Arrangement for transportation of injured from field hospital to base hospital	Revenue Dept., Health & Transport Dept
		92. Arrangement for transport of dead bodies to their native places.	
		93. Ensure maintenance of record, timely reporting and information management.	Line Depts., Dist. Collector, COR
		94. Ensure maintenance of record and information database	

Time Frame	Task	Activity	Responsibility
Time = 0 + 96 to 168 Hrs		95. Review the restoration of all the public and essential in flood affected areas	COR
		96. Review and follow-up all necessary arrangements for emergency response & relief in the affected area/s.	
		97. After receiving the message of de-warning, ensure that people are moved back safely to their houses.	COR, Collector, DSP
		98. Organize a quick rapid visual survey of the affected areas (through a technical team of engineers) to ascertain the safety of the structures decide on giving the go-ahead to people to move back to their respective houses.	COR, Dist. Collectors, Municipal Commissioner, R&B
		99. Ensure relief disbursement, allotment of funds and grants to line department and district collectors for organizing emergency response, relief and evacuation arrangements.	Revenue Dept.

4.9 Relief Measures

Short Term Measures	Action Taken
Setting up of Shelter/ relief camps as per the Minimum Standards of Relief adopted by GoG	<ul style="list-style-type: none"> Disaster affected households shall be provided with necessary tools, equipment and materials for repair, reconstruction and maintenance for safe use of their shelter. Adequate numbers of buildings or open space should be identified where relief camps can be set up during emergency The temporary relief camps should have adequate provision of drinking water and bathing, sanitation and essential health-care facilities.
Distribution of food	<ul style="list-style-type: none"> Free distribution of foods shall be made to avoid hunger and malnutrition. Wherever possible, ration should be stored and dry rations should be distributed for home cooking.
Water	<ul style="list-style-type: none"> Availability of safe drinking water is very challenging particularly during floods. It must be ensured that affected people have adequate facilities and supplies to collect, store and use clear and safe water for drinking, cooking and personal hygiene.
Clothing	<ul style="list-style-type: none"> The people affected by the disaster shall be provided with sufficient clothing, blankets, etc. to ensure their safety and well-being.

Short Term Measures	Action Taken
Health, Sanitation and Hygiene	<ul style="list-style-type: none"> • During post disaster phase, many factors increase the risk of diseases and epidemics because of overcrowding, inadequate quantity and quality of water, poor environmental and sanitary conditions, decaying biological matter, water stagnation and inadequate shelter & food supplies. • There should be adequate supply of medicines, disinfectants, fumigants, personal protective equipments, diagnostic kits, portable oxygen cylinders, ventilators etc. to check outbreak of epidemics. It should be ensured that the medicines have not reached expiry date. • Sanitation services are crucial to prevent an outbreak of epidemics in post disaster phase.
Impact of floods on vulnerable section of society	<ul style="list-style-type: none"> • Children, pregnant women, elderly people, malnourished people, person with disability and people who are ill or immune-compromised, are particularly vulnerable when a disaster strikes, and take a relatively high share of the disease burden associated with emergencies. • The most vulnerable members of the community are the elderly and the youngest as they require special assistance

4.10 Interim Relief Measure

- a) Arrangements to be made for quick identification and maintenance of the records of disposal of dead bodies in the affected areas (Home Dept., Revenue Dept., Health Dept. and Local Authorities).
- b) Arrangements to be made to record the complaints of all persons reported missing. Follow up action in terms of verification of the report also needs to be made. (Home Dept.) Hence, Aapda Mitras assists in basic search & rescue operations and also provides help to the district administration for effective disaster response.
- c) District Magistrates and Sub-Divisional Magistrates to be empowered to exempt the requirement of identification and post-mortem in case of mass casualties. Revenue Dept may depute additional Sub-Divisional Magistrates to expedite disposal of the dead bodies. (Revenue & Home Dept.)
- d) Unclaimed/unidentified dead bodies to be disposed of with the help of pre identified voluntary agencies at the earliest after keeping their records. (Home Dept., Revenue Dept., Health Dept. & Local Bodies)
- e) Additional manpower to be deployed in the affected areas for supplementing the efforts of the local administration (GAD). Hence for immediate disaster response youth volunteers like NCC, NYKS, Scouts and Guides, NSS, SDRF, Aapda Mitra, Community, CBO's, NGO's, Volunteers will be augmented and deployed for assisting the district administration.
- f) Separate Cell to be established at state/district/ taluka level to coordinate with the NGOs and outside donor/aid agencies. (Revenue Dept.)

- g)** Information & Public Relation Dept to coordinate with the media to play a positive role in disseminating appropriate information to public and the government in order to facilitate the speedy recovery. (I. & B. Dept.)
- h)** Regular meetings of stakeholders/departments should be recognised at state level for sharing information, developing strategies for relief operations.(CoR & Collector at district level)
- i)** Ensure promoting private participation in disaster management as they can contribute by providing volunteers or expertise. Also by providing aid in implementation of Risk Transfer arrangements including multi- hazard insurance for life and property. A wide range of corporate and nonprofits organizations assist in disaster-relief activities hence enhancing the capacity of society.

4.11 Assessment of Damage/Loss and Relief Needs

- a)** The Commissioner of Relief to issue instructions to the District Collectors to provide the 'Need Assessment Report'. The Commissioner of Relief should consolidate the same and to prepare 'State's Need Assessment Report'.
- b)** The Commissioner of Relief to issue instructions to the District Collectors to provide the 'Damage and Loss Assessment Report'. The Commissioner of Relief to consolidate the same and to prepare 'State's Damage and Loss Assessment Report' which will be useful in planning and implementing the relief operations for disaster victims.
- c)** Adequate manpower, vehicles, stationery etc. should be provided to supplement the efforts for need/ loss assessment. (Commissioner of Relief & Revenue Dept.)
- d)** The relief need assessment report should be provided by the Collectors. (Commissioner of Relief & Collectors)
- e)** Identification and demolition of dangerous structures in the affected areas to minimize further loss of life and injuries. (R & B Dept., Revenue Dept and Urban Local Bodies)
- f)** Arrangements for distribution of gratuitous relief and cash doles. (Revenue Dept., Panchayat & Rural Housing Dept., UD & UHDept. and Collectors)
- g)** Arrangements to be made for survey of human loss and distribution of ex-gratia relief to the families of deceased persons. (Revenue Dept.)
- h)** Teams to be formed and dispatched to the affected areas for detailed assessment of houses and property damage assessment. (Revenue Dept. and Local authorities)

Chapter 5 : Action Plan For Urban Flood

5.1 Introduction

The submergence of usually dry area by a large amount of water that comes from sudden excessive rainfall, an overflowing river or lake, melting snow or an exceptionally high tide are defined as urban floods.

Urban flooding is significantly different from rural flooding as urbanization leads to developed catchments which increases the flood peaks from 1.8 to 8 times and flood volumes by up to 6 times. Consequently, flooding occurs very quickly due to faster flow times, sometimes in a matter of minutes. Urban flooding is caused by the combination of meteorological, hydrological, and human factors. Due to land-use changes, flooding in urban areas can happen very rapidly with large flow. The challenges of Urban Floods Disaster Management tend to be considerably different from that of flooding in other areas.

There has been an increasing trend of urban flood disasters in Gujarat over the past several years whereby major cities in Gujarat have been severely affected. The most notable amongst them are Ahmedabad in 2001, Surat in 2006, and Vadodara in 2019.

Apart from heavy rainfall during monsoons. There are other weather systems also that bring in a lot of rain. Sudden release or failure to release water from dams can also have severe impact. In addition, the urban heat island effect has resulted in an increase in rainfall over urban areas. Global climate change is resulting in changed weather patterns and increased episodes of high intensity rainfall events occurring in shorter periods of time. Cities/towns located on the coast, on river banks, upstream/ downstream of dams, inland cities and in hilly areas can all be affected.

Unplanned development and encroachments of sprawling habitations alongside rivers and watercourses have meddled with the natural streams and watercourses resulting into increasing episodes of urban flood.

5.2 Urbanization and Flood Risk

Clogging of storm-water drains because of silting, accumulation of non-biodegradable wastes and construction debris along with reduced infiltration due paving of surfaces which decreases ground absorption and increases the speed and amount of surface flow. Flash flood Water of Heavy rainfall concentrates and flows quickly through urban paved area and impounded in to low lying area raising the water level

Rapid urbanization combined with a **lack of efficient waste disposal systems** has left several water bodies in the cities in poor condition. Further, **Blocked waterways and reduced width and depth** of canals, along with construction reduce the permeability of the ground.

5.3 Issues in urban flood

Encroachments are major problem in many cities and towns. Habitations started growing into towns and cities alongside rivers and watercourses. As a result of this, the flow of water has increased in proportion to the urbanization of the watersheds. Ideally, the natural drains should have been widened (similar to road widening for increased traffic) to accommodate the higher flows of stormwater. But on the contrary, there have been large scale encroachments on the natural drains and the river flood plains. Consequently the capacity of the natural drains has decreased, resulting in flooding. Improper disposal of solid waste, including domestic, commercial and industrial waste and dumping of construction debris into the drains also contributes significantly to reducing their capacities. It is imperative to take better operations and maintenance actions

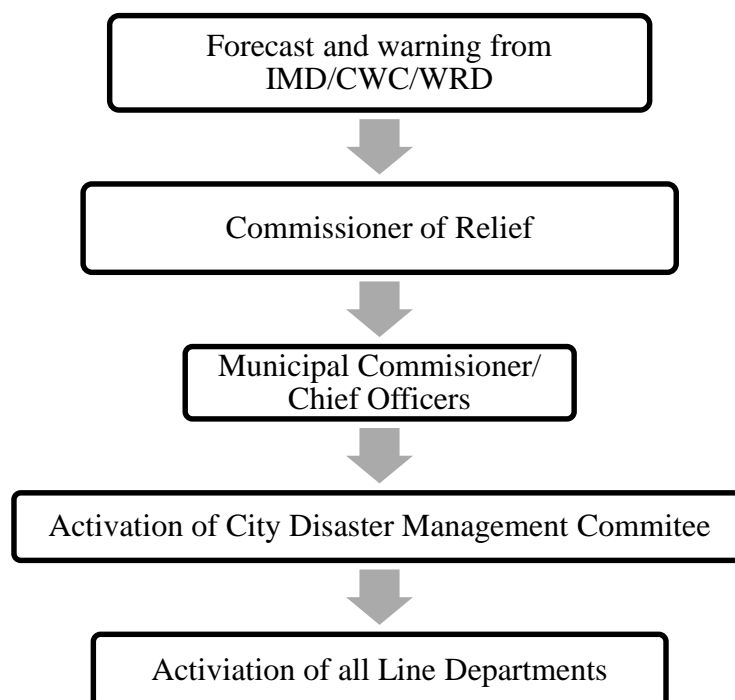
Increasing trend of urban flooding is a universal phenomenon and poses a great challenge to urban planners the world over. Problems associated with urban floods range from relatively localised incidents to major incidents, resulting in cities being inundated from hours to several days. Therefore, the impact can also be widespread, including temporary relocation of people, damage to civic amenities, deterioration of water quality and risk of epidemics.

5.4 Flood Forecasting and Warning

Flood forecasting and warning (FF and W) is an important measure for minimising loss of lives and properties and assists the authorities concerned, for prompt and effective response during and after floods. Urban Flood forecasting requires more understanding of land use land change pattern, meteorological and hydrological conditions. Flood warning systems need to be communicated to the communities at risk by converting forecast information into practice and by sending warning dissemination to people.

- Information regarding heavy rainfall or water release from IMD or irrigation respectively is conveyed to the concerned department / official / control rooms / community members using telecommunication, wireless message, by fax or in written by DEOC at district/**corporation** level.
- While in the city the route has **to be** finalized for early warning, accordingly early warning task force leading by fire brigade personnel, spreads the message **of alert in respective low lying areas**
- Preparation of warning messages, describing what is happening, predictions of what will happen and expected impact and the same must be disseminated properly.
- Interpretation of the predictions and other flood information to determine flood impacts on vulnerable communities

When early warning is declared the head of departments, nodal officers and administrative heads will enforce their own DM plan in action and response activities will be carried out accordingly.



Flow chart for Early Warning and Plan Activation

5.5 Trigger Mechanism: Plan Activation

The response system will be activated on the occurrence of a heavy rain. The Commissioner of Relief (COR) will activate all the Departments for emergency response including the State EOC. He will issue instructions to include the following detail

- Specify exact resources required
- The type of assistance to be provided
- The time limit within which assistance is needed
- The state, district or other contact persons/agencies for the provision of the assistance

The state EOC and other control rooms at the state level as well as district control rooms will be activated with full strength. The State Government will publish a notification in the official gazette, declaring such area to be disaster-affected area under GSDMA Act (Section 32 (2) (a)). Once the situation is totally controlled and normalcy is restored, the COR declares End of Emergency Response and issues instructions to withdraw the staff deployed in emergency duties. The roles and responsibilities are mentioned as below.

Standard Operating Procedures (SOP)

Time Frame	Task	Activity	Responsibility
Time = 0 – 72 Hrs.	Warning Receipt and Dissemination	<ol style="list-style-type: none">1. Inform COR/ DOR, PS (Revenue), CEO (GSDMA), Crisis Management Group, Hon. CM, Hon. Minister (DM), NDMA, Ministers and Secretaries of all line depts. as per the warning of IMD2. Inform & instruct relevant Municipal commissioner/ Chief Officer to activate control room at full strength3. DEOC to be activated for additional support4. Alert state response teams for deployment5. Remain in constant touch with control rooms at National & State Level.6. Instruct and alert heads of departments of the key line departments to activate their departmental plan and SOPs for Urban flood response	IMD, CWC, NWRWSK Dept. In-charge, SEOC

Time Frame	Task	Activity	Responsibility
	Interdepartmental Coordination	<p>7. Instruct all State Government officers and employees in the State to report to their respective Head for emergency duties (Only if the warning is of a level 2 disaster or as per the decision taken in the meeting of the Crisis Management Group headed by Chief Secretary) – Activate IRS</p> <p>8. Alert the Municipal Commissioner and Chief Officers of the safer areas to be prepared for providing the following to the district nearby likely affected towns/ cities:</p> <ul style="list-style-type: none"> • Additional manpower • Additional resources • Machinery & Equipment • Relief material 	CoR/ DoR Municipal Commissioner, UD & UHD Line Dept.
	Establishment of Lines of Communication	<p>9. Activate alternative communication equipments i.e. satellite phones, HF/VHF sets, Ham radio, VSAT in SEOC, DEOCs, TEOCs and ERCs</p> <p>10. Establish communication links with ERCs and Search & Rescue Teams in all Municipal Corporations and alert them to be in stage of readiness</p> <p>11. Establish communication links with villages likely to be affected as per the contact details available in SDRN</p>	CoR/ DoR Municipal Commissioner, Commissioner UD &UHD
Time = 0 – 48 Hrs	Review of situation and reporting	<p>12. Get the latest weather report from IMD for rainfall data</p> <p>13. After reviewing the weather report issue instructions and orders for emergency response to areas likely to be affected</p>	IMD, CWC Revenue Dept./ CoR
	Management of EOC, ERCs and	14. Take over full command of SEOC and ERCs	CoR Municipal

Time Frame	Task	Activity	Responsibility
	Urban FloodResponse	15. Instruct line departments to depute representatives at the State and District EOCs 16. Hold a meeting with leaders of task forces and entrust them their tasks 17. Arrange emergency meeting with State Crisis Management Group to devise a plan of action 18. Arrange dissemination of information through various means of communication such as Radio, TV, Cable Network, and SMS about Cyclone Warning to districts/areas which are likely to be hit by Cyclonic Storm. 19. Alert teams to remain in readiness- Evacuation, Emergency Medical Services, Search & Rescue, Fire & Emergency Services, NDRF, Police, Home Guards, SRPF, Army, Air Force	Commissioner UD &UHD Information Dept Line Dept.
		20. Impose restriction on all transport activities heading towards flood affected areas.	Port & Transport Dept. Home Dept
	Urban Flood Response(Likely to be Affected)	21. Based on the warning issued by IMD, CWC demarcate the cities and towns likely to be affected by floods and start the procedure for identifying safe places/shelters for evacuation Prepare route maps for safe place and evacuation shelters 22. City/ town wise data of safe shelters for evacuation available on SDRN should be referred and the municipal commissioner /chief officer should be contacted to know the status of the shelters with the capacity of the shelter and other available facilities at the site.	IMD Municipal Commissioner UD &UHDRevenue Dept., Transport Dept. and Dist. Collectors,

Time Frame	Task	Activity	Responsibility
		23. Make transport arrangement for mobilization of all emergency response teams 24. Make logistic arrangements for response teams	
		25. Cordoning off flooded areas for restricting entries of rail or road traffic 26. Ensure law and order is maintained in areas likely to be affected	Municipal Commissioner UD & UHD Home Dept., Dist. Collectors,
		27. Ensure that all critical activities (mainly industries) in areas likely to be affected are shutdown	Line Depts.
		28. Ensure that the schools and colleges are closed in areas likely to be affected by floods 29. Ensure availability & serviceability of flood shelters issued in schools/ universities/ institutions)	Education Dept. Municipal Commissioner
		30. Ensure dissemination of information to affected area 31. Ensure that local helplines are opened and effectively managed for public information, guidance and rumour control 32. Ensure that the information to public and media (AIR/ Doordarshan/ print/ FM) about the status of urban flood at periodic intervals is released	Municipal Commissioner UD &UHD Information Dept.
		33. Activate Departmental Disaster Management Plan and Departmental SOPs for Management of casualties 34. Ensure availability of QRT & essential medicines	Health Dept.
		35. Issue alert/ warning through SMS by establishing liaison with service providers	Telecom Service Provider

Time Frame	Task	Activity	Responsibility
		<p>36. Ensure safety & serviceability of critical communication towers through respective service providers</p> <p>37. Ensure establishment of alternate communication links like HF, VHF, HAM, Satellite Phones, etc.</p>	Municipal Commissioner UD &UHD
Time = 0 - 24 Hrs	Review of Situation and Reporting	<p>38. Establish contact with IMD, in order to receive latest update on rainfall data</p> <p>39. After reviewing the weather report issue instructions and orders for emergency response to areas likely to be affected areas</p> <p>40. Review and monitor – evacuation from to be affected areas; positioning of search & rescue teams, mobile communication units, quick medical response teams; dissemination of information to vulnerable areas; preparedness measures to be taken by various authorities</p> <p>41. Keep in touch with all the EOCs/ Control rooms</p> <p>42. Release information at appropriate time to media and public regarding response measures organized by the Government</p>	Revenue Dept./ COR Information Dept.
	Emergency Response Management	<p>43. If reports regarding heavy rainfall are confirmed by IMD and other sources, start the emergency response and relief operations</p> <p>44. Divert the emergency services to areas likely to be affected in the city as per the warning issued by IMD</p> <p>45. Inform the public residing in areas likely to be affected to evacuate through various means such as SMS, AIR, FM Radio, Doordarshan, etc.</p>	Revenue Dept., COR, Municipal Commissioner Home Dept. Information Dept. Dist. Collector

Time Frame	Task	Activity	Responsibility
		46. Start evacuation from the likely affected areas through Police support, if necessary	
		47. Disconnect power supply at the time of urban floods	Dept. of Power supply/ power company
	Emergency Relief Management	48. Ensure that the Relief Management work planned in the areas likely to be affected by the floods are well organized	COR/ Revenue Dept.
		49. Inform following agencies to be in a state of readiness for assisting in the urban floods response measures (if required): <ul style="list-style-type: none"> • Public sector agencies • Private sector agencies • NGOs, CBOs • Volunteer Organizations 	
		50. Request for help (if needed) to MHA/National Disaster Management Authority	
		51. Ensure that the arrangement for basic amenities(shown below) at evacuation/relief centres are made by the respective departments following the minimum standards of relief: <ul style="list-style-type: none"> • Drinking water • Food • Clothing • Sanitation and hygiene, • Lighting • Medicines and other Health Care 	COR, Food & Civil Supply Dept., Municipal Commissioner Revenue Dept. Water Supply Dept., GEB, Health Dept.
		52. Make necessary arrangements for public information/guidance, public opinion and rumour control	Information Dept. Municipal Commissioner
		53. Impose restrictions for transportation in threatened areas	Transport Dept. Municipal Commissioner Dist. Collector, Home Dept.

Time Frame	Task	Activity	Responsibility
Time = 0 Hrs	Disaster Declaration	54. When flood starts affecting city / town the Municipal Commissioner should send a communication to the State Govt. to declare the area as disaster affected, if necessary, (depending upon the nature and intensity of impact)	COR, Municipal Commission
	Preliminary Assessment, Deployment of Emergency Response Teams and Information Dissemination	55. Send teams to the affected areas to 56. take stock of the effects of floods 57. due to heavy rain. 58. Send sector wise situation reports to: <ul style="list-style-type: none"> • State EOC/COR • GSDMA • Respective DEOC 	Municipal Commissioner
		59. Deployment of following teams to flood affected areas: <ul style="list-style-type: none"> • Emergency Communication Teams • Emergency Medical Services Teams • Search and Rescue Teams (With Equipment) • Preliminary damage Assessment Teams • Need Assessment Teams 	COR, Municipal Commissioner Dist. Collector,
		60. Establish communication link with affected cities/ town by activating alternate communication equipments such as Satellite Phones, HF/VHF Sets, Ham Radio, V Set etc., in State/District EOCs and Taluka Control Rooms 61. Arrange dissemination of information about occurrence of urban floods and areas that are affected by it to media & public.	COR, Municipal Commissioner Information Dept.

Time Frame	Task	Activity	Responsibility
Time = 0+ 24 Hrs	Mobilization and Deployment	<p>62. Remain in constant touch with IMD for updates on weather forecast for the coming hours and plan accordingly</p> <p>63. Immediate mobilization of following units/teams to areas affected by floods</p> <ul style="list-style-type: none"> • S & R Teams of Fire and Emergency Services • Quick Medical Response Teams • Quick Damage & Loss Assessment Teams • Quick Need Assessment Teams • Road Clearance Teams • Teams for disposal of dead bodies • Teams for disposal of carcasses • Teams for dewatering • Teams for maintaining Law & Order in the affected areas • Team for restoration of water and power supply • Arrange for S & R teams of Air Force (If required) 	<p>IMD</p> <p>COR, Municipal Commissioner</p> <p>UD &UHD</p> <p>Dist. Collector,</p> <p>Key line Dept.</p>
	Clearance of Access Roads to Reach at The Sites of Affected Areas	<p>64. To survey the access roads/routes leading to the affected areas and manage traffic for mobilization of equipments, machinery and volunteers.</p> <p>65. Identify alternate roads/routes for evacuation of affected people</p> <p>66. Undertake repairing/restoration of damaged roads leading to the affected areas.</p> <p>67. Identify and declare unsafe buildings/structures in urban floods affected areas.</p> <p>68. Evacuate people from unsafe buildings/structures and shift them to relief camps/sites</p>	<p>R & B Dept. ,</p> <p>Transport Dept.,</p> <p>Municipal Commissioner</p> <p>UD & UHD</p>

Time Frame	Task	Activity	Responsibility
		69. Divert/stop transport activities (Rail + Road) heading towards flood affected areas	
	Necessary Arrangements at Evacuation/ Relief Centres	<p>70. To ensure that necessary arrangements at evacuation/relief centers is made sufficient availability as per the Minimum Standards of Relief by GoG</p> <p>71. To ensure necessary security arrangements for the personnel (Emergency responders/relief teams) who are working at Relief Centers and involved in distribution of Relief Materials</p> <p>72. To ensure that law and order is maintained at evacuation/relief centers and in the affected areas as well</p> <p>73. Arrange for a logistic plan and warehouse for receipt and management of relief material</p>	Revenue Dept., Civil Supply Dept., Municipal CommissioneCollectors, Water Supply Dept., Health Dept., GEB, Energy & Petro. Dept., GWSSB & Local Authorities, Home Dept.
	Immediate Health and Minimization of Disease Outbreak	<p>74. To establish relief camp hospitals near the affected areas</p> <p>75. To make transportation arrangements to shift stranded persons to nearest-camp Hospitals, City, Taluka and District Hospitals, Regional and State Hospitals</p> <p>76. Ensure that the Hospitals are well prepared to deal with emergencies like outbreak of water borne diseases</p> <p>77. Ensure that the required medical assistance/aid and medicines are provided to the affected people at site as well as at evacuation/relief centers in the affected area and necessary records are maintained</p> <p>78. Take sanitation and epidemic control measures for preventing any water borne disease</p>	<p>CoR/ DoR,</p> <p>Health dept</p> <p>Municipal Commissioner</p> <p>Collector</p> <p>Port & Transport Dept,</p> <p>Tourism Dept.,</p>

Time Frame	Task	Activity	Responsibility
		79. Keep adequate stock of essential medicines, first-aid etc. at taluka/district hospitals 80. Take steps to purify drinking water sources 81. If required, take the help of doctors/paramedics from the list of doctors/paramedics available at the city/taluka/district level for immediate medical assistance	
		82. Assess need for fodder if required 83. Keep ready teams for carcass disposal (if required)	Animal Husbandry Dept.
	Information to Public and Media	84. Establish Media/Press Centre for media management and information dissemination 85. Ensure that the information to media/general public about the response of the State Government is released in an organized manner 86. Organize media briefing twice a day at pre-determined intervals	Information Dept., CoR Municipal Commissioner
	Other Important Work Related to Immediate Response	87. Prepare quick need assessment report for planning of relief operation 88. Additional assistance may be asked for emergency response/relief from GoI-NDMA (If needed) 89. Prepare situation report and circulate it twice a day in the morning and evening to key Government functionaries 90. Maintain constant touch with National, District, City and Taluka EOCs and other control rooms 91. Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly	CoR Municipal commissioner District collector

Time Frame	Task	Activity	Responsibility
		92. Conduct aerial survey of affected areas for taking a stalk of the situation	
		93. Activate evacuation & relief centers according to needs/situation	Revenue Dept. COR
		94. Maintain record of persons admitted at evacuation/relief centres	Municipal Commissioner Collector
Time = 0 + 24 to 48 Hrs	Review of Situation and Reporting	95. Establish contact with IMD, CWC, for constant updates regarding rainfall data /weather condition and plan accordingly	COR Municipal Commissioner Collector
	Restoration of Critical Infrastructure/ Essential Services	96. Ensure that the essential services/critical infrastructure of the affected areas have been restored or alternative arrangement is made for ensuring safety of people and smooth management of emergency response. 97. Ensure that key administrative and lifeline buildings are brought back to operation quickly. 98. Designate and deploy senior officers (as per the need) to worst affected area/s to oversee rescue/relief operation. 99. Ensure following primary necessities are restored a. Power supply b. Water supply c. Communication d. Roads Bridges	CoR, Line Depts., Municipal Commissioner Dist. Collectors, Line dept. Eneregy & Petro.Dept. Power Supply Water Supply Ports and Transport
	Dignified Management of the Dead	100. Ensure following procedure is followed before disposal/ handing over of dead bodies:	Revenue Dept., Municipal

Time Frame	Task	Activity	Responsibility
		a. Photographs of the dead bodies are taken, b. Identification of the dead bodies is done, c. Post Mortem where ever necessary and possible is carried out, d. Handing over dead bodies of persons known/identified to their relatives, e. Disposal of unclaimed and unidentified dead bodies.	Commissione Dist. Collector, Home Dept., Health Dept., Local Authorities
		101. Ensure medical aid to injured cattle 102. Disposal of animal carcasses with the help of local bodies/health dept.	Animal Husbandry Dept.
	Public Information and Media Management	103. Ensure that the information about progress of rescue and relief is provided to media/public in an organized manner at least twice a day 104. Establish help lines for facilitating communication between the victims and their relatives residing outside the affected area/s 105. Establish Information Centers at strategic locations for providing information about persons evacuated to the relief centres/hospitals	COR, Information Dept., Municipal Commissioner Dist. Collector
	Miscellaneous Rescue and Relief Works	106. Assess the situation and take appropriate action to accelerate the Search & Rescue Operations 107. Depute additional officers and supporting staff to affected areas from non-affected areas (if required) to accelerate the rescue and relief operations	COR, Municipal Commissione Districts Collector

Time Frame	Task	Activity	Responsibility
		108. Ensure that the relief assistance received from outside is centrally received, stored and sent for distribution to flood affected areas according to their need and proper accounts are maintained about both receipt and distribution	COR, Civil Supply Dept.
Time = 0 + 48 to 96 Hrs	Continuous Rescue and Relief Works	109. Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly 110. Arrange for procurement of additional relief material required for relief operations (on the basis of need assessment) 111. Mobilize additional relief material required for relief operations 112. Maintain constant touch with State & Districts EOCs	COR, Municipal Commissioner Civil Supply Dept.
		113. Arrangement for transportation of injured from field hospital to base hospital 114. Arrangement for transport of dead bodies to their native places 115. Ensure maintenance of record, timely reporting and information management 116. Ensure maintenance of record and information database	Revenue Dept, Health Dept. , Transport Dept., Line Depts. Home Dept.
Time = 0 + 96 to 168 Hrs	Continuous Rescue and Relief Works	117. Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly 118. Review the restoration of all the public and essential buildings/ structures in flood affected areas	COR

Time Frame	Task	Activity	Responsibility
		119. Review and follow-up all necessary arrangements for emergency response & relief in the affected area/s	
		120. On receiving the message from IMD about rainfall and inform the concern municipal commissioner/Collector	COR, IMD
		121. Organize a quick rapid visual survey of the affected areas (through a technical team of engineers or drones) to ascertain the safety of the structures decide on giving the go-ahead to people to move back to their respective houses	COR, Municipal Commissioner Dist. Collectors, , R & B Dept.
		122. After receiving the message of de-warning, ensure that people are moved back safely to their houses	COR, Municipal Commissioner Collector, Home Dept.

Chapter 6 : Action Plan for Industrial & Chemical Disasters

6.1 Introduction

6.1.1 Background

Gujarat, the hub of chemical industry in India, accounts for 62 % of India's petrochemical production, 35% of other chemicals production and 18% of India's chemical exports. Gujarat's chemical & petrochemicals industry comprises of about 500 large and medium scale industrial units, about 16,000 small scale industrial units and other factory units. Over 6500 chemicals & petrochemicals are produced in the state, largest supplier of bio fertilizers, seeds, urea and other fertilizers. Gujarat has also taken lead to promote environment friendly practices through Effluent Treatment Plant; currently 28 such plants are operational.

The chemical and petrochemical industries present in Gujarat include refineries, chemical and LNG terminal, petrochemical complexes, chlor alkali plants, soda ash plants, chemical fertilizer plants and agro chemicals. There is also a Petroleum, Chemical & Petrochemical Investment Region (PCPIR) which is spread over 453 sq km in the coastal belt of Gulf of Khambhat in Bharuch district in the vicinity of other existing GIDC chemical estates, viz. Jhagadia, Ankleshwar, Panoli and onsite port terminal & LNG terminal at Dahej. Most prominent Indian and multinational organizations of chemical and petrochemical sector which are present in Gujarat state are Tata chemicals, Oil and Natural Gas Company limited (ONGC), Reliance industries, Indian Oil Corporation Limited (IOCL), Indian Petrochemical Corporation Limited (IPCL), Torrent Pharma, Zydus Cadila, ROSNEFT, Adani, Essar, IFFCO, Novartis and others.

The growth of chemical industries has led to an increase in the risk of occurrence of incidents associated with hazardous chemicals (HAZCHEM) and hazardous materials (HAZMAT). These events occur due to mishaps or failures in industry and negligence in following international codes and standards for chemical handling which affects the industrial functioning, and productivity. While the common causes for chemical accidents are deficiencies in safety management systems or human errors, natural calamities or sabotage may also trigger such accidents. Chemical/ industrial accidents are significant and have long term impact on the community and environment. It leads to injuries, pain, suffering, loss of lives, damage to property and environment.

6.1.2 Sources of Chemical Disasters

Chemical accidents may originate in:

1. Manufacturing and formulation installations including during commissioning and process operations; maintenance and disposal
2. Material handling and storage in manufacturing facilities, and isolated storages; warehouses and godowns including tank farms in ports and docks and fuel depots
3. Transportation (road, rail, air, water, and pipelines)

6.2.1 Causative Factors Leading to Chemical Disasters

Chemical disasters, in general, may result from:

1. Fire
2. Explosion
3. Toxic release
4. Poisoning
5. Combinations of the above

6.2.2 Initiators of Chemical Accidents

A number of factors including human errors could spark off chemical accidents with the potential to become chemical disasters. These are:

a. Process and Safety System Failure

1. Technical errors: design defects, fatigue, metal failure, corrosion, etc.
2. Human errors: neglecting safety instructions, deviating from specified procedures, etc.
3. Lack of information: absence of emergency warning procedures, nondisclosure of line of treatment, etc.
4. Organisational errors: poor emergency planning and coordination, poor communication with public, noncompliance with mock drills/exercises etc. which are required for ensuring a state of quick response and preparedness.

b. Natural Calamities

The Gujarat state is highly prone to natural disasters, which can also trigger chemical disasters. The release of acrylonitrile at Kandla Port, during an earthquake in 2001, is one of the examples.

c. Terrorist Attacks/Sabotage

Vulnerability to chemical disasters is further compounded by likely terrorist and warfare activities which include sabotage and attack on HAZCHEM installations and transportation vehicles.

6.3 Authority

Enforcement and monitoring of chemical safety and emergency management involves various central ministries/departments viz. MHA, MoEF, MoLE, MoA, MoP& NG, MoC&F, MoSRT&H, MoC&I, DEA, MoF etc. The MoLE, MoEF and MoSRT&H are responsible for enacting regulations.

a. State Level

At the State level, the State Crisis Group (SCG) is an apex body to deal with major chemical accidents and to provide expert guidance for handling them. SCG, under the Chairmanship of Chief Secretary consists of Secretary – Labour & Employment, Relief Commissioner, CEO – GSDMA, Secretary – Forest & Environment, Chairman – GPCB, PS – Industries & Mines, Secretary – Home, Director General – Police, Secretary – Health & Family Welfare, Secretary – Water Supply, Director – Industrial Safety & Health and Professional Head of the Fire Service Department, Home.

b. District Level

At the District level, the District Crisis Group (DCG) is an apex body to deal with major chemical accidents and to provide expert guidance for handling them. DCG has a strength of 34 members which includes District Collector, SDM and Dy.

Collector, DDO, Dy. Director – Industrial Safety & Health, DSP, PI, Fire Superintendent of the City Corporations or important Municipalities, Chief District Health Officer, Civil Surgeon, SE, Chief Officer, Dy. Chief Controller of Explosives, Commandant – SRPF, Group-I, Dy. Director – Information to name a few.

6.4 Flow of Information (Communication)

A procedure has to be laid out to communicate the accident / attack to the DEOC by giving details such as location of incident, chemical(s) involved, severity of incident, casualties (if any), etc. The person in-charge at DEOC shall then inform the first three responders i.e. Police, Fire & Emergency Services and Medical Department. He will then inform the District Collector and all other members of the DCG. The District Collector, in turn, would inform the Gujarat State Disaster Management Authority (GSDMA) and the SCG about the incident and ask for additional help in terms of resources and manpower (if at all required) after assessing the situation on site.

The SCG or the GSDMA would then inform the Central Crisis Group (CCG) about the incident along with other relevant details on hand. The first responders, after reaching the site, will secure more information about the incident and try to establish communication with the concerned agencies / departments for deploying resources / personnel as per the need of the situation.

6.5 Regulatory Framework

This plan derives its authority from the following acts and rules:

a. Acts

- i. The Factories Act, 1948, as amended in 1976 and 1987
- ii. The Environment (Protection) Act, 1986
- iii. The Disaster Management Act, 2005
- iv. The Public Liability Insurance Act, 1991 as amended in 1992
- v. The National Environment Tribunal Act, 1995
- vi. The Gujarat State Disaster Management Authority Act, 2003
- vii. The Explosive Act, 1884
- viii. The Petroleum Act, 1934
- ix. The Electricity Act, 2003
- x. Dock Workers (Safety, Health & Welfare) Act, 1986

b. Rules

- i. The Gujarat Factories Rules 1963 under the Factories Act, 1948 as amended in 1995
- ii. The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in 1994, 2000 and 2004
- iii. The Public Liability Insurance Rules, 1991 as amended in 1992
- iv. The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996

- v. Explosive Rules, 2008
- vi. Central Motor Vehicles Rules, 1989
- vii. Hazardous Wastes (Management, Handling and Trans-boundary Movement) Rules, 2008.

6.6 Trigger Mechanism for Industrial (Chemical) Disasters

The occupier / manager of the establishment responsible for releasing or discharging a hazardous chemical will notify incident the appropriate local control room and DEOC. Industry can additionally report to local control rooms of mutual aid partners, GVK 108, and local fire and police departments, as per the local emergency response plans.

On getting the first hand information about an emergency/disaster, the in-charge of the DEOC should immediately inform the District Collector and the first three responders i.e. Police, Fire & Emergency Services and Medical Services. District Collector alongwith Dy. DISH and two experts will join him.

The notification should specify the location of the incident, the type of chemical released/ used (if known), possible consequences and provide written reports on actions taken and on health effects. The District Collector should then inform the SEOC, the GSDMA and the Chairman of the SCG about the incident.

The SEOC will then issue alert or direct all the Emergency Responder Agencies at the State and District level for providing their services immediately. The SEOC will immediately take decision to deploy SRTs in the affected area/s.

During the initial stages of the emergency it is likely that the reports may be unclear and conflicting. Therefore, the first responders conducting the on-site assessment should secure reliable sources of information to allow an objective assessment of the situation. The assessment should include casualty, material damages, and the likely health consequences. It should also suggest antidotes and treatment regimes for those affected by medical care if the type/nature of chemical released/used during the disaster is known.

The SCG, after analyzing the information received from the District Collector and the first responders would then decide on mobilization of additional resources, medical aid and rescue equipment as required through various sources. The SCG should also instruct the Fire & Emergency/Rescue Services and Hospitals of the neighbouring districts to be on alert in case their services are needed.

The Team Commander of the ERT should cordon off the affected area. He should instruct the neighbouring population to stay away from the site. He should instruct the medical unit to detect the substances used during the attack through the available equipment/kit. He should also decide the place for establishing the decontamination unit at an appropriate location in consultation with doctors and paramedics. The Search & Rescue unit of the ERT should rescue and evacuate the affected people to a safe location.

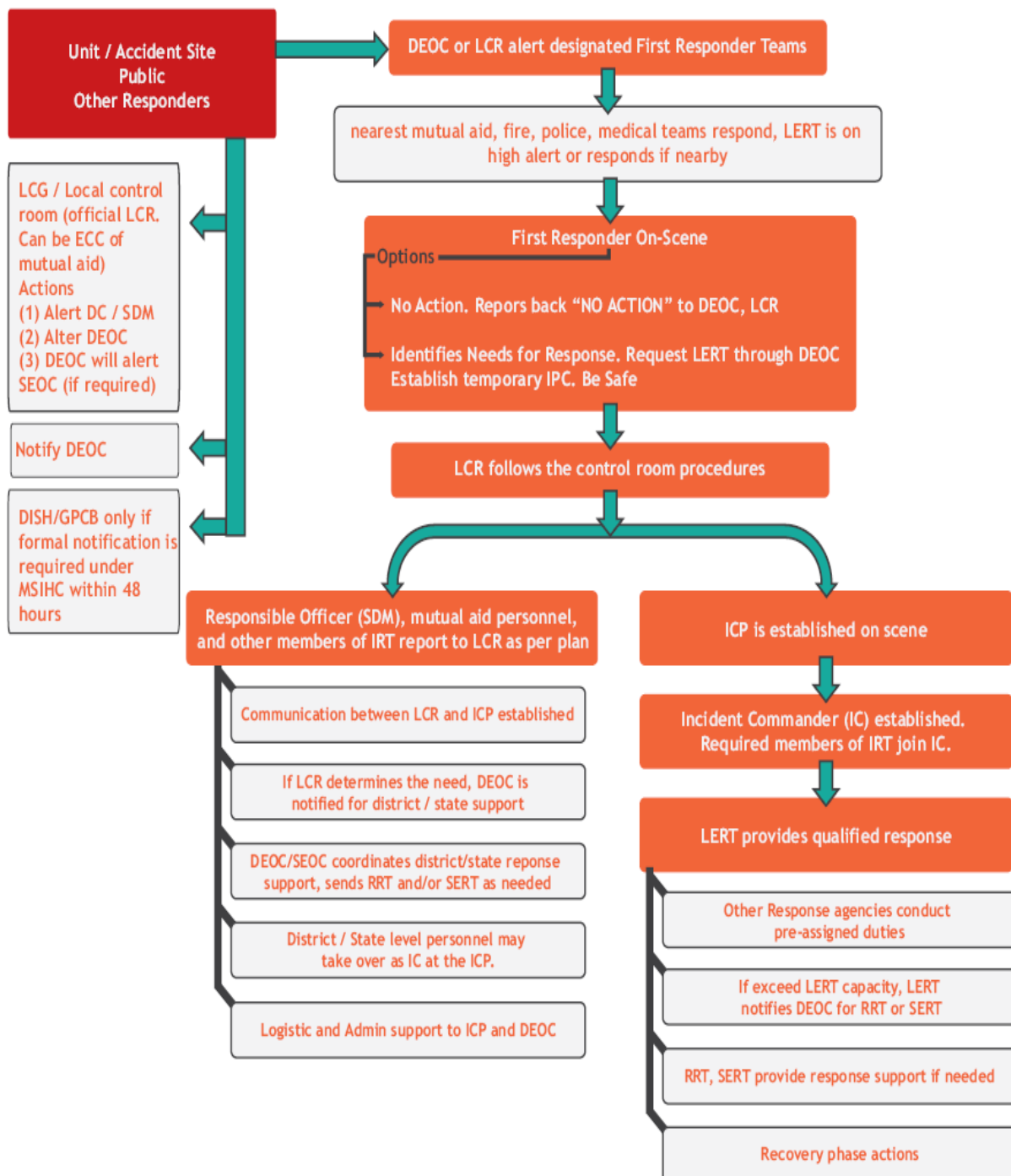
6.7 Response for Industrial (Chemical) Disasters

Response measures are those which are taken instantly prior to, and following, a Industrial & Chemical disaster aimed at limiting injuries, loss of life and damage to property and the environment and rescuing those who are affected or likely to be affected by it.

SCG will ensure that the functions and responsibilities of the chemical facility operators and response organisations are clearly defined and understood by all stakeholders. The CCG and the SCG/DISH will also determine the actions that need to be performed by each organisation during an emergency and whether it has the necessary resources and capabilities needed for the purpose.

For the fastest response, it is very important that the person who is receiving the information shall immediately pass on to the first responders, District Collector, Sub Div. Magistrate (Chairman for LCG) and other members of DCG. If he receives, further information after making the first call, he will convey that also in same order. Alternatively, if the information is more relevant to any particular department, he will first pass that information to its head.

Detailed emergency response process and roles and responsibility of different departments are as under:



Standard Operating Procedures (SOP)

Sr. No.	Task	Activity	Responsibility
1.	Disaster Declaration and Plan Activation	<ol style="list-style-type: none"> 1. Declare an off-site emergency in consultation with SCG and activate an off-site emergency plan 2. Activate DCG 3. Establish immediate communication with LCG, DCG, DEOC, SEOC, GSDMA and CCG 	Collector
2.	Mobilization & Deployment	<ol style="list-style-type: none"> 4. Arrange an immediate deployment of various ERTs in affected sector(s). (Police, Fire, S&R, Medical, etc.) 5. Based on the emergency monitoring teams from off-site areas initiate counter measures (such as sheltering and medical help) 6. Arrange an evacuation of the affected/ likely to be affected workers and population to safer places 7. Activate systems of the State machinery to meet the necessary requirements of the public in the camp till the people are in a position to go back to their homes after the affected areas are cleared and declared safe 8. Deploy QRMTs/ MFRs consisting of physicians, triage officer, nurses and paramedical staff 	Collector, Municipal Commissioner, DISH, DCG, Home Dept., Health Dept., Industry/ Industrial Association
		<ol style="list-style-type: none"> 9. To ensure that necessary arrangements at evacuation/ relief centers is made with sufficient availability of: <ol style="list-style-type: none"> a. Food, b. Water, c. Blankets/Clothing d. Medicines e. Lighting f. Sanitation and Hygiene, etc. 10. To ensure necessary security arrangements for the personnel (Emergency responders/relief teams) who are working at relief centers and involved in distribution of relief materials 11. To ensure that law and order is maintained at evacuation/relief centers and in the affected areas 	COR, Civil Supply Dept., Collectors, Municipal Commissioner, DISH, Water Supply Dept., Health Dept., GEB, Energy & Petrochemical Dept, GWSSB & Local Authorities, Home Dept.

Sr. No.	Task	Activity	Responsibility
3.	Addressing Health Related Issues	<p>12. Ensure that the required medical assistance/ aid and medicines/ antidotes are provided to the affected people at site as well as at evacuation/ relief centers in the affected area and necessary records are maintained</p> <p>13. Ensure that the hospitals are well prepared to deal with seriously injured persons</p> <p>14. Keep adequate stock of essential medicines, antidotes, first-aid etc. at taluka/district hospitals.</p> <p>15. If required, take the help of doctors/paramedics from the list of doctors/paramedics available at the taluka/district level for immediate medical assistance</p>	Health Dept.
4.	Information to public and media	<p>16. Make an arrangement for providing useful, timely, correct, consistent, and appropriate information to the public and media in the event of a chemical disaster.</p> <p>17. Ensure that the information to media/general public about the coordinated response is released in an organized manner.</p>	Collector, Municipal Commissioner DISH, COR, Commissioner of Info.,
5.	Disposal of Dead bodies	<p>18. Ensure following procedure is followed before disposal/handing over of dead bodies:</p> <ul style="list-style-type: none"> a. Photographs of the dead bodies are taken, b. Identification of the dead bodies is done, c. Post Mortem wherever necessary and possible is carried out, d. Handing over dead bodies of persons known/identified to their relatives <p>19. Disposal of unclaimed and unidentified dead bodies</p>	Collector, Municipal Commissioner, Revenue Dept., Health Dept., Home Dept., Local Authorities, Industry, Industry/Industrial Association
		<p>20. Animal Husbandry Department to ensure medical aid to cattle that are injured.</p> <p>21. Disposal of animal carcasses with the help of local bodies/health dept.</p>	Animal Husbandry Depts., Local Authorities, health dept.

Sr. No.	Task	Activity	Responsibility
Roles and Responsibility of Some of The First Responders during Chemical Attack/ Emergency			
1	Police	<ul style="list-style-type: none"> • Control and divert the traffic near the affected areas • Ensure law and order at the incident site during chemical emergency/ disaster and at evacuation centres too. • Provide security in evacuated areas • Give warning, carry out SAR operation and carry out relief & rehabilitation operation too <p>In case of Chemical attack:</p> <ul style="list-style-type: none"> • Secretary, Home and Director General of Police (DGP) will direct the participation of Police in the emergency response. • Secretary, Home and DG, Police will constitute an integrated command. • Secretary, Home and DGP will report to the SCR immediately upon the receipt of information about the disaster. • DGP will establish contact with the District Police Control Room immediately. He will get a situation estimate and assess the operational requirements for the police. • DGP will issue an alert to the DIG and the surrounding districts. He will direct all the police officials and forces in adjacent Districts to be deployed if necessary. The DG will ensure that the police forces required for traffic management, evacuation and law and order are available with the District Administration. • DGP will review the dissemination of warning and the need for evacuation. He will help the Fire & Emergency Services and the Deputy Director, Industrial Safety and Health with Police Wireless sets so that there is continuous communication among the first responders in the emergency situation. • DGP will ensure that the police force will not enter the area under disaster without the permission of the Fire & Emergency Services and Health officials. • In case of big explosion and fire, the DGP will assess the situation and suggest a Plan of Action based on his assessment of the immediate causation. • The DGP will order deployment of the police force for 	Home Dept.

Sr. No.	Task	Activity	Responsibility
		<p>evacuation of the people from the zone of the danger.</p> <ul style="list-style-type: none"> • The DGP will send instructions for the cordoning off of the area. People should not be allowed access anywhere close to the site of the disaster. • The DGP will review the traffic management in the area. The primary aim would be to ensure the transportation of the injured to the hospital, easy access for emergency responders and safe evacuation of the people from the danger zone. • The DGP will also issue directives that all the Private and Public Transport (trains and buses) be diverted from the disaster area. • The DGP will contact the DIG and ask him to organize the deployment of police force from other Districts, based on the need assessment. The DGP will also contact the Central Industrial Security Forces and other paramilitary forces to seek their deployment, if needed. • The DGP will supervise law and order situation. He will take all the possible precautions to ensure that public order is maintained and no one takes undue advantage of the situation. 	
2	Fire and Search & Rescue	<ul style="list-style-type: none"> • Reach at the site soonest possible and assess the situation (information about the chemical leak/spill, the action taken and current status) • In case of fire, start fire fighting with suitable medium and also take care of surrounding storages/ tanks to be over heated so that reduce the chances of ‘domino effect’. • In case of chemical leak, try to terminate the release/ stopping of leak with the use of proper PPE • Search and identify the risk and nullify the sources of leak / toxic release. If any unclear or unidentified substance or source is identified or detected, the team should send them immediately to the laboratory for further investigation / analysis • Secretary, Industries will coordinate redeployment of GIDC Fire Tenders from other places, as required • Secretary, Industries will also coordinate with the Private and Public Sector industries for deployment of their Fire Brigades to the site of the disaster. • The SCG, in consultation with the District Collector and other local officials will ensure that CFO, Fire & 	Fire and Emergency Services (F&ES), Municipal Corporation, GIDC

Sr. No.	Task	Activity	Responsibility
		<p>Emergency Services, Dy. Director - Industrial Safety and Health, Officer in charge Police and Health Personnel all work closely with full coordination</p> <ul style="list-style-type: none"> Ahmedabad, Vadodara, Valsad, Surat, Rajkot and Jamnagar are the main providers of Fire Services in the state. The DEOC will decide upon the deployment of Fire Services, based on distance and accessibility. To search and evacuate the affected population from the site of the incident. 	
3.	Medical Services	<ul style="list-style-type: none"> The Secretary - Health, Commissioner of Health, and emergency medicine experts will provide the necessary expertise and specialized services to the SCG The SCG will consider the level of exposure on the basis of situation estimate received from the District Administration. It will consider the intrinsic toxic potential of the chemical, its concentration, the duration of exposure and the health status of the people exposed Based on the information upon the level and extent of contamination, the SCG will decide on the issue of alert and warning to the people in the affected areas through the All India Radio, Doordarshan and Cable TV The SCG will contact the Civil Surgeon and the District Health Officer of the concerned district and ask them to deploy all the necessary medical facilities including doctors, nurses, medicines and ambulances The SCG will alert major hospitals in the area and ask them to be in readiness for receiving patients In case the nature of contamination requires much greater intervention, the SCG will inform the CCG and ask for the necessary medical assistance of experts, doctors and equipments. The relevant agency for emergency medicine in the Government of India is the Directorate General of the Health Services (DGHS) in the Ministry of Health and Family Welfare. The DGHS has set up the Emergency Medical Relief Cell for dealing with these contingencies The SCG will review the diagnostic support services: clinical laboratory, blood banks, radiology, pathology, pharmacy, paramedics, Red Cross, NGOs and volunteer personnel. It will seek all the steps to organize the necessary medical help through the deployment of 	Dept. of Health and Family Welfare

Sr. No.	Task	Activity	Responsibility
		<p>doctors, paramedics, and provision of blood and medicines, as required</p> <ul style="list-style-type: none"> • The SCG will review the administrative support required for the situation, which includes communications, transport of the victims and of the personnel, feeding of the personnel and patients, and supplies • The SCG will collect information on the number of deaths and persons injured; the nature of injuries and the likely long-term consequences • The SCG must assess the medical needs of the area on the basis of likely long-term consequences and take steps to equip local medical facilities for treating people on a long-term basis. The SCG must also make financial provision for spending on long-term treatment. • Psychosocial care for the victims of disaster by the team of experts. 	

6.8 Post Disaster Responsibilities

Once the situation at the site is under control, fire has been extinguished; the emission of vapours to the atmosphere has been effectively checked, the following actions have to be performed by various sub-teams of the SRT and the respective line departments as well as the District Administration.

6.7.1 Search & Detection of Leak / Toxic Release

The Search & Detection Team would identify the risk and nullify the sources of leak / toxic release. If any unclear or unidentified substance or source is identified or detected, the team should send them immediately to the laboratory for further investigation / analysis. The team should also preserve the samples from the site of the incident such as sand, water, air and other infected substances for further investigation which could aid in strengthening the case later on.

Technical expertise of GPCB, Fire & Emergency Services and the Health Department may be used by the Search & Detection Team in carrying out the activities if required.

6.7.2 Structural Inspections after Fires or Explosions

A major explosion could damage or destroy numerous buildings and any nearby bridges or tunnels. Similarly large fires can have major effects on buildings and other infrastructure facilities over a vast surrounding area. In either case, residents / owners of the partially damaged buildings will want to know if the structures are safe to occupy while they await repairs. Questions pertaining to the safety of highway or railway bridges must also be resolved quickly to avoid traffic complications. It must be ensured that the inspection personnel have special precautions (i.e. chemical protective gear) in addition to normal safety equipment for cases where the structure may still be contaminated by hazardous residues.

Fire & Emergency Services personnel along with the structural experts from the R & B Department shall be responsible for inspecting the structural integrity of damaged buildings, bridges or other structures in the aftermath of a fire or explosion.

6.7.3 Search, Rescue and Evacuation

After getting the go ahead from the technical personnel responsible for ensuring structural safety of the buildings in and around the incident site, the Search & Evacuation Team should carry out their job and evacuate the affected population from the site of the incident. They should brief the Information Officer about the rescue and evacuation status (including the place of temporary shelter) to ensure that no rumours are spread to avoid any panic amongst the general public. The team, with the help of Police personnel should also stop general public from moving towards the danger zone. The Team should provide guidance to people regarding evacuation route, first aid and decontamination area. They should also help the Medical Team in rushing the victims to nearby hospitals.

6.7.4 Post Incident Testing for Contamination

De-contamination Team would be responsible to decontaminate the affected area, population, members of SRT and equipment used during the operation on the site of the incident. In addition, the Team should also be responsible for erecting the decontamination chambers for the affected population. After the operation is completed in all respects, the Team should ensure that the site is totally decontaminated from the toxic substances. The team should also ensure that the water that was used for decontamination is properly discharged preferably to a sewerage system outlet and safely disposed.

Technical personnel from the GPCB, Fire & Emergency Services and the nearby industrial units as well as the personnel from the Medical Team should help the De-contamination Team to carry out their duty. Further, the Team shall also check crops, water (ground & surface), homes, stored foods and animals for possible chemical contamination.

6.7.5 Providing Medical and First Aid to the Victims

The Medical Team should provide first aid to the victims of the incident. If need arises, the team should also help the hospital staff of the hospital where the victims would be transported from the incident site. They should monitor the level of triage of the victims through checking their breathing and pulse. They should also decide on the type of decontamination (either wet or dry) depending upon the substances/chemicals used during the disaster. The team should also identify the trauma cases and counsel them appropriately.

6.7.6 Counselling and Rehabilitation of Victims

The psychological impact of a chemical disaster manifests as psychosocial trauma including psychological reactions, post-traumatic stress disorder and other psychological ailments in displaced disaster victims which need to be addressed. Counseling by psychologists and psychiatrists for those suffering from mental trauma is an essential element of medical rehabilitation.

6.7.7 Provision of Alternate Water Supplies

There are a number of circumstances under which a potable water supply may become unfit for human consumption for a time and require replacement. This is most commonly accomplished by bringing in supplies of bottled water and / or tankers / trailers capable of carrying water. The district Administration must ensure the availability of potable water for consumption of affected population as well as first responders engaged at the incident site.

6.7.8 Re-Entry into Evacuated Areas

Based on the assessment of the situation at the site, the DCG would take a decision on the termination of emergency. However, before taking this decision, several other actions needs to be ascertained such as restoration of electricity, gas and water supplies in the affected areas/ buildings, transport arrangements for bringing the affected population back from the temporary shelters, restoration of law & order in the affected area/s, etc. through the concerned Teams/ departments.

6.7.9 Responsibility of the Other Statutory Authority

The designated authority under various statues like Indian Boiler Act, Factory Act, E.P. Act, Explosive Act, Static and Mobile Pressure Vessel Act, etc. shall perform post emergency activities prescribed and also as directed by District Collector under Gujarat State Disaster Management Act, 2003.

a. Immediate Financial Relief to Victims

Under the Public Liability Insurance Act, 1991, MoEF has published the list of chemicals and threshold qualities beyond which the occupier or owner must take third-party PLI for providing relief to accident victims as per the direction of the collector. The Act also provides for an Environment Relief Fund (ERF) and enables payment of relief over and above the insured amount. The occupier or owner should pay an amount equal to the PLI premium to the ERF and deposit the same with the insurer. At state level GPCB is responsible to ensure compliance with PLI Act and at district level the collector and regional officer of GPCB are responsible. This act provides for immediate access to relief funds so that the compliance with Act should be verified and strengthened. It is already recommended that the maximum liability under the Act (currently Rs 5 cores) should be substantially enhanced.

b. Restoration and Regeneration of Ecosystem

The potential of chemical accidents to cause severe environmental damage has been realized on a number of occasions such as at Seveso, Bhopal, Mexico City (LPG disaster), Chernobyl, and Alaska (Exxon Valdez). For the remediation of the affected environment, it is essential to assess the environmental impacts which include determining the quantitative and qualitative nature of impact and ascertaining the components of the environment most at risk from chemical accidents. This assessment is dependent on certain factors such as the chemicals involved, pollutant concentrations in the environment, environment media polluted by the accident, topography, and meteorology. After assessing the impact, the government can choose the appropriate recovery strategy.

Chapter 7 : Action plan for Biological and Public Health Emergency

7.1 Introduction:

Biological emergency is one caused due to natural outbreaks of epidemics or intentional use of biological agents (viruses and microorganisms) or toxins through dissemination of such agents in ways to harm human population, food crops and livestock to cause outbreaks of diseases. This may happen through natural, accidental, or deliberate release of microorganisms into food, water, air, soil or into plants, crops, or livestock. Apart from the natural transnational movement of the pathogenic organisms, their intentional use as weapons of biological warfare and bioterrorism are anthropogenic hazards in the recent times. Handling exotic pathogens warrants suitable infrastructure, notably, high containment laboratories of bio-safety levels 3 and 4; recruitment of highly committed, dedicated and trained professionals; continuous availability of diagnostic reagents; enhancement of skills at various echelons of health professionals in early identification of such infections, investigation of outbreaks and institution of specific control measures. Natural outbreaks of disease may become epidemics and assume disastrous proportion if not contained in the initial stages. Epidemics can result in heavy mortalities in a short time, with a drop in the overall economic activity.

As large number of people now travels within and across national/international boundaries, the likelihood of fast global spread of epidemics has increased dramatically making localized outbreaks turn into national epidemics and global pandemics. As our society is in a state of flux, novel pathogens emerge to pose challenges not only at the point of primary contact but also in far removed locations. The increased interaction between humans and animals has increased the possibilities of zoonotic diseases emerging in epidemic form³.

7.2 Disaster Declaration:

The Gujarat State Disaster Management Act, 2003 (Section 32) provides for the State Government to declare any area where disaster have occurred or likely to occur as disaster affected area on the recommendations of the State Relief Commissioner or the District Collector. The purpose of the declaration is to organize effective response in mitigating the ill impacts.

7.3 Disaster warning:

Preparation of warning messages, describing what is happening, predictions or future probabilities of what will happen and expected impact and the outcome must be disseminated properly for better preparedness.

The parameters for preparedness include planning, capacity building, well established medical facilities, trained doctors and paramedical staff, workshop for rescue, rescue maps and flowchart indications in buildings. These preparedness parameters help in reducing the morbidity and mortality. Highly vulnerable groups such as elderly, young children, persons with disability, outdoor workers and slum residents should be provided specific messages in timely manner.

7.4 Response Mechanism

Response measures are those which are taken instantly prior to and following epidemic/ medical emergency/ disaster aimed at limiting injuries, loss of life and damage to property and the environment and rescuing those who are affected or likely to be affected by it.

³ National Disaster Management Plan, 2019

State Executive Committee (SEC) will ensure that the functions and responsibilities of the epidemic facility operators and response organizations are clearly defined and understood by all stakeholders. The SEC will also determine the actions that need to be performed by each organization during an emergency and whether it has the necessary resources and capabilities needed for the purpose. The advice of State Crisis Management Committee (SCMC) will also be sought in this matter.

7.5 Trigger Mechanism: Plan Activation

The response system will be activated on the occurrence of an eminent disaster/epidemic. Commissioner of Relief (CoR) will activate all the Departments for emergency response including the State EOC. He will issue instructions to include the following details:

- Specify exact resources required
- The type of assistance to be provided
- The time limit within which assistance is needed
- The state, district or other contact persons/agencies for the provision of the assistance
- Activation of all concerned line departments

The state EOC and other control rooms like Police, Health and other relevant control rooms at the state level as well as district control rooms should be activated with full strength. The State Government may publish a notification in the official gazette, declaring such area to be disaster-affected area under GSDMA Act (Section 32 (2) (a)). Once the situation is totally controlled and normalcy is restored, CoR declares End of Emergency Response and issues instructions to withdraw the staff deployed in emergency duties. The SOP for the same is as below:

Standard Operating Procedure (SOP) for Biological and Health Emergency

Sr. No	Task	Activity	Responsibility
1	Warning Receipt and Dissemination	<ol style="list-style-type: none"> 1. Inform COR, ACS/PS(Revenue), CEO (GSDMA), Crisis Management Group, Hon. CM, Hon. Minister (DM), NDMA, Ministers and Secretaries of all line depts. as per the warning of MoH&FW and Health Dept. 2. Inform & instruct District Collectors to activate District Control Room at full strength 3. Remain in constant touch with control rooms at National & State Level. 4. Instruct and alert Secretary of departments of the key line departments to activate their departmental plan and SOPs for immediate response 	Health & Family Welfare dept In charge - SEOC
2	Disaster Declaration and	<ol style="list-style-type: none"> 5. Declare an emergency in consultation with State Crisis Group (SCG) and activate an 	CoR

Sr. No	Task	Activity	Responsibility
	Plan Activation	<p>emergency plan</p> <p>6. Activate District Crisis Group (DCG)</p> <p>7. Establish immediate communication with Local Crisis Group (LCG), District Crisis Group (DCG), District Emergency Operation Centre (DEOC), State Emergency Operation Centre (SEOC), GSDMA and Central Crisis Group</p>	<p>Health & Family Welfare dept</p> <p>Collector</p>
3	Interdepartmental Coordination	<p>8. Instruct all State Government officers and employees in the State to report to their respective Head for emergency duties (Only if the warning is of a level 2 disaster or as per the decision taken in the meeting of the Crisis Management Group headed by Chief Secretary)</p> <p>9. Alert the District Collectors of districts not largely affected to be prepared for providing the following to the districts likely to be affected:</p> <ul style="list-style-type: none"> a. Additional manpower b. Additional resources c. Machinery & Equipment d. Relief material/Kits 	<p>CoR</p> <p>GAD,</p> <p>Health & Family Welfare dept</p> <p>Line depts. Collectors</p>
4	Establishment of Lines of Communication	10. Establish communication links with areas likely to be affected as per the contact details available in SDRN and hospitals	COR/ DOR Collectors, Municipal Commissioner
5	Transportation	<p>11. If required, impose restriction on all transport activities to avoid contagious effect.</p> <p>12. Setting up arrangements for the movement of citizens stranded-</p> <p>13. Abroad</p> <p>14. Inter/intra state</p> <p>15. Inter/intra district</p> <p>16. Activate systems of the State machinery to meet the necessary requirements of the public in the camp till the people are in a position to go back to their homes after the affected areas are cleared and declared safe.</p>	<ul style="list-style-type: none"> • Collector • Municipal Commissioner • Health Dept • Home Dept • MoEA • GAD • Port & Transport Dept. • Airline authorities • Railways

Sr. No	Task	Activity	Responsibility
			<ul style="list-style-type: none"> • GSRTC
6	Mobilisation and Deployment	<p>17. Deploy QRMTs/ MFRs consisting of physicians, triage officer, nurses and paramedical staff</p> <p>18. To ensure that necessary arrangements at evacuation/ relief centres is made with sufficient availability of:</p> <ol style="list-style-type: none"> a. Food, b. Water, c. Blankets/Clothing d. Medicines e. Quarantine facilities f. Isolation facilities g. Lighting h. Sanitation and Hygiene, etc. <p>19. To ensure necessary security arrangements for the personnel (Emergency responders/ relief teams) who are working at relief centres and involved in distribution of relief materials</p> <p>20. To ensure that law and order is maintained at evacuation/relief centres and in the affected areas as well</p> <p>21. Immediate mobilization of following units/ teams</p> <ul style="list-style-type: none"> • Quick Medical Response Teams • Quick Need Assessment Teams • Teams for disposal of dead bodies • Teams for maintaining Law & Order in the affected areas • Quick First Aid Team 	<ul style="list-style-type: none"> • COR, Collectors, Municipal Commissioner • DSP • Civil Supply Dept., , • DISH, • Water Supply Dept., • Health Dept., • GEB, • Energy and Petrochemical Department GWSSB & Local Authorities, • Home Dept.
7	Addressing Health Related Issues	<p>22. Ensure that the required medical assistance/ aid and medicines/ antidotes are provided to the affected people at site as well as at evacuation/ relief centre / quarantine / isolation centres in the affected area and necessary records are maintained</p> <p>23. Ensure that the hospitals are well prepared to</p>	<ul style="list-style-type: none"> • Collectors, • Municipal Commissioner • Health Dept.

Sr. No	Task	Activity	Responsibility
		<p>deal with seriously affected persons</p> <p>24. Keep adequate stock of essential medicines, vaccines, first-aid etc. at taluka/district hospitals.</p> <p>25. If required, take the help of doctors/paramedics from the list of doctors/paramedics available at the taluka/district level for immediate medical assistance</p>	
8	Response of Line Dept	<p>26. Activate Departmental Disaster Management Plan and Departmental SOPs for Management of casualties</p> <p>27. Ensure availability of QRT & essential medicines</p>	<ul style="list-style-type: none"> • Collectors, Municipal Commissioner • Health Dept.
		<p>28. Issue alert/ warning through mass media by establishing liaison with service providers</p> <p>29. Ensure safety & serviceability of critical communication towers through respective service providers</p>	<ul style="list-style-type: none"> • Telecom service providers • DST
9	Review of Situation and Reporting	<p>30. Review and monitor –mobile communication units, quick medical response teams; dissemination of information to vulnerable/hotspots/containment zone areas; preparedness measures to be taken by various authorities</p> <p>31. Keep in touch with National, District and Taluka Control Rooms</p> <p>32. Release information at appropriate time to media and public regarding response measures organized by the Government</p>	<ul style="list-style-type: none"> • Revenue Dept./ COR • Secretary, Health Dept • Collector • Municipal commissioner • Information Dept. • PIB
10	Emergency Relief Management	<p>33. Ensure that the Relief Management work planned in the areas affected are well organized</p> <p>34. Inform following agencies to be in a state of readiness for assisting in the response measures (if required):</p> <ul style="list-style-type: none"> • Public sector agencies • Private sector agencies • NGOs, CBOs 	<p>COR/ Revenue Dept.</p> <ul style="list-style-type: none"> • Collector

Sr. No	Task	Activity	Responsibility
		<ul style="list-style-type: none"> Volunteer Organizations 	
		35. Request for help (if needed) to MHA/ National Disaster Management Authority	
		36. Ensure that the arrangement for basic amenities at evacuation/relief centres are made by the respective departments: <ul style="list-style-type: none"> Drinking water Food Clothing Sanitation and hygiene, Lighting Medicines and other Health Care 	<ul style="list-style-type: none"> COR Collector Municipal commissioner Food & Civil Supply Dept., Revenue Dept. Water Supply Dept., GEB, Health Dept.
		37. Make necessary arrangements for public information/guidance, public opinion and rumour control	<ul style="list-style-type: none"> Collector Municipal commissioner Information Dept.
		38. Impose restrictions for transportation in majorly affected areas	Transport Dept. and Dist. Collector, Home Dept.
11	Preliminary Assessment, Deployment of Emergency Response Teams and Information Dissemination	39. Send sector wise situation reports to: <ul style="list-style-type: none"> State EOC/COR GSDMA 	District Collector
		40. Deployment of following teams Emergency Communication Teams <ul style="list-style-type: none"> Emergency Medical Services Teams Medical response team 	CoR, Dist. Collector, Municipal Commissioner Health dept
12	Immediate Health and Minimization of Disease Outbreak	41. To establish camp hospitals 42. To make transportation arrangements to shift seriously affected persons to nearest-camp Hospitals, Taluka and District Hospitals, Regional and State Hospitals immediately. 43. Ensure that the Hospitals are well prepared	Health Dept., Dist. Collector, Municipal Commissioner 108 GVK EMRI Services

Sr. No	Task	Activity	Responsibility
		<p>to deal with affected persons</p> <p>44. Ensure that the required medical assistance/ aid and medicines are provided to the affected people at site as well as at evacuation/relief centers in the affected area and necessary records are maintained</p> <p>45. Take sanitation and epidemic control measures for preventing any water borne disease</p> <p>46. Keep adequate stock of essential medicines, first-aid etc. at taluka/district hospitals</p> <p>47. Take steps to purify drinking water sources</p> <p>48. If required, take the help of doctors/ paramedics from the list of doctors/ paramedics available at the taluka/district level for immediate medical assistance</p>	Port & Transport Dept.,
13	Information to Public and Media	<p>49. Establish Media/Press Centre for media management and information dissemination</p> <p>50. Ensure that the information to media/general public about the response of the State Government is released in an organized manner</p> <p>51. Organize media briefing twice a day at pre-determined intervals</p>	Health Dept., Information Dept., COR
14	Other Important Work Related to Immediate Response	<p>52. Prepare quick need assessment report for planning of relief operation</p> <p>53. Additional assistance may be asked for emergency response/relief from GoI-NDMA (If needed)</p> <p>54. Prepare situation report and circulate it twice a day in the morning and evening to key Government functionaries</p> <p>55. Maintain constant touch with National, District and Taluka EOCs and other control rooms</p> <p>56. Remain in constant touch with Health Dept for updates on current for the coming days and plan accordingly</p>	<ul style="list-style-type: none"> • CoR • Health Dept
		<p>57. Activate evacuation & relief centres according to needs/situation</p> <p>58. Maintain record of persons admitted at</p>	Revenue Dept. Collector, CoR

Sr. No	Task	Activity	Responsibility
		evacuation/relief centres	
15	Dignified Management of Dead	59. Ensure following procedure is followed before disposal/handing over of dead bodies: 60. Photographs of the dead bodies are taken, 61. Identification of the dead bodies is done, 62. Post Mortem where ever necessary and possible is carried out, 63. Handing over dead bodies of persons known/identified to their relatives, 64. Disposal of unclaimed and unidentified dead bodies.	Dist. Collector, Municipal Commissioner, DSP Health Dept., Local Authorities
16	Public Information and Media Management	65. Ensure that the information about progress of epidemic spread/ contain is provided to media/public in an organized manner at least twice a day 66. Establish help lines for facilitating communication between the victims and their relatives residing outside the affected area/s 67. Establish Information Centres at strategic locations for providing information about persons evacuated to the relief centres/ hospitals	Health Dept, COR, Dist. Collector, Municipal Commissioner, Information Dept
17	Miscellaneous Rescue and Relief Works	68. Assess the situation and take appropriate action to accelerate the relief providing services. 69. Depute additional officers and supporting staff to enhance the diagnostic facility, treatment and discharge of affected person.	COR, Districts Collector, Municipal Commissioner Revenue Dept, UDD, Health Dept.
		70. Ensure that the relief assistance received from outside is centrally received, stored and sent for distribution proper accounts are maintained about both receipt and distribution	CoR, Collector, Municipal Commissioner
		71. District Collector/Municipal Commissioner may oversee the functioning of relief centres and ensure adequate supply of relief materials (medical logistics)	Collector, Municipal Commissioner Revenue Dept, Civil Supply Dept.,

Sr. No	Task	Activity	Responsibility
			Health Dept.
18	Continuous Rescue and Relief Works	<p>72. Arrange for procurement of additional medical supplies and relief material required for relief operations (on the basis of need assessment of Medical Logistics)</p> <p>73. Mobilize additional medical supplies and relief material required for relief operations</p> <p>74. Maintain constant touch with State & Districts EOCs</p>	COR, Dist. Collectors, Civil Supply Dept., Health Dept.
		<p>75. Arrangement for transportation of affected persons from field hospital to base hospital</p> <p>76. Arrangement for transport of dead bodies to their native places</p> <p>77. Ensure maintenance of record, timely reporting and information management</p>	Revenue Dept, Health Dept. , Transport Dept., Line Depts.
19	Continuous Monitoring	<p>78. Ensure data collection from each district regarding the number of patients admitted/dead from both Government hospital/private hospitals.</p> <p>79. Ensure that continuous monitoring is carried out.</p> <p>80. Prepare data analytics and documentation on daily basis.</p>	Health Dept. Collector, Municipal Commissioner COR
20	Setting up of testing facility and laboratories	<p>81. Arrangement of laboratories for the purpose of increased testing</p> <p>82. Identifying, supply chain and inventory management of other reagents for protection, detection, and medical management.</p>	Health dept. ICMR
21	Diagnostic Kits, Biomedical Equipments & PPE	<p>83. Arrangement of Rapid Diagnostic Kits</p> <p>84. Ensure that stockpiling of medicines, personal protective equipments like gloves, masks, Head Gears etc. are stocked up.</p> <p>85. Arrangement of diagnostic kits, ventilators, oxygen cylinders, antibiotics, vaccines, biomedical equipments etc</p> <p>86. Ensure adequate medical logistics in case of surge capacity.</p>	Health dept.
22	Biosafety and biosecurity	87. Ensure Strict compliance with Bio safety and bio security provisions in hospitals	Health dept. Collectors

Sr. No	Task	Activity	Responsibility
	measures and environmental measures	88. Ensure Environmental monitoring to prevent further spread of diseases. 89. Monitoring of water supply and sewage systems to prevent the dispersal of biological agents that can cause epidemics 90. Ensure regular surveillance	Municipal Commissioner Dept. of Drinking Water and Sanitation
23	Assessment of Situation	91. Regular and periodic monitoring of the situation 92. Ensure updates from research & academic institutions/universities working in the field of medicine for better decision making. 93. Ensure continuous updates and consultation with National/international organisations like ICMR, IMA, AIIMS, NIE, IIPH, WHO, UNICEF	Health dept. Collectors, MC
24	Other alternate Medicines and stockpiling medical facilities	94. Ensure that alternative medicines like homeopathy, herbal and Ayurvedic are used, 95. if required.	Health dept. Office of Director, AYUSH Revenue dept.
25	Concurrent study	96. To study and research of the pandemics and of biological agents, vaccines and other relevant drugs. 97. Research on biological hazard and its impact in the state/country.	Health dept. Research institute of National and State level

Chapter 8: Action Plan for Nuclear and Radiological Disasters

8.1 Introduction

The growth in the application of nuclear science and technology in the fields of power generation, medicine, industry, agriculture, research and defence has led to an increase in the risk of occurrence of Nuclear and Radiological emergencies.

Any radiation incident resulting in or having a potential to result in exposure and/or contamination of the workers or the public in excess of the respective permissible limits can lead to a nuclear/radiological emergency.

As on date, twenty one power reactors and eight research reactors are in operation in India, five power reactors are under construction, and plans exist to set up thorium-based reactors to meet the ever-increasing energy needs. Further, India is also one amongst the seven declared nuclear weapon states which uses nuclear technology for strategic purposes.

However, nuclear emergencies can still arise due to factors beyond the control of the operating agencies; e.g., human error, system failure, sabotage, earthquake, cyclone, flood, etc. Such failures, even though of very low probability, may lead to an on-site or off-site emergency. To combat this, proper emergency preparedness plans must be in place so that there is minimum loss of life, livelihood, property and impact on the environment.

Kakrapar Gujarat Site

Kakrapar Gujarat site is located in Mandavi Taluka of Surat district. It is situated on the southern bank of Moticher Lake, which is about 85 km by road from Surat city of Gujarat State. There are two operating 220 MW pressurized Heavy Water reactors. KAPS-1 went critical on 3rd September 1992 and began commercial electricity production few months later on 6th May 1993. KAPS-2 went critical on 8th January 1995 and began commercial production in 1st September 1995 and are operating. Two more units of 700 MWe (PHWRs) are being installed and its first unit as KAPS-3 is under commissioning stage and KAPS-4 is under construction. In addition, there are two heavy water plants in Gujarat (at Vadodara and Hazira).

8.2 Scope of the Action Plan

The scope of this document is from receiving of emergency intimation to the immediate response action.

8.3 Nuclear and Radiological Emergency/Disaster Scenarios

- a. An accident taking place in any nuclear facility of the nuclear fuel cycle including the nuclear reactor, or in a facility using radioactive sources, leading to a large-scale release of radioactivity in the environment.
- b. An accident in a nuclear fuel cycle facility where an uncontrolled nuclear chain reaction takes place inadvertently leading to bursts of neutrons and gamma radiation (as had happened at Tokaimura, Japan).
- c. An accident during the transportation of radioactive material.
- d. The malevolent use of radioactive material as Radiological Dispersal Device (RDD) by terrorists for dispersing radioactive material in the environment.
- e. A large-scale nuclear disaster resulting from a nuclear weapon attack (as had happened at Hiroshima and Nagasaki in Japan) which lead to large loss of lives and destruction of large areas and properties.

8.4 Authority

- a. The Department of Atomic Energy (DAE) has been identified as the nodal agency in the country for providing the necessary technical inputs to the national or local authorities for responding to any nuclear or radiological emergency in the public domain.
- b. The Ministry of Home Affairs (MHA) is the nodal ministry in such emergencies. The Department of Atomic Energy (DAE) and the Ministry of Home Affairs (MHA) are identified to coordinate and take response measures in the country in case of nuclear/radiological emergencies in public domain. DAE renders necessary technical support/expertise during such nuclear/radiological emergencies and coordinate activities with the other supporting ministries/departments. For this purpose, a Crisis Management Group (CMG) has been established in DAE in year 1987 and functioning as the apex advisory body.
- c. In the event of any radiological or nuclear emergency in the public domain, the CMG is immediately activated and will co-ordinate between the local authority in the affected area(s) and the National Crisis Management Committee (NCMC). The CMG comprises of senior officials drawn from various units of DAE like the Nuclear Power Corporation of India Ltd. (NPCIL), Bhabha Atomic Research Centre (BARC), Heavy Water Board (HWB) and the Directorate of Purchase and Stores (DP&S). It also includes a senior official from the regulatory authority, the Atomic Energy Regulatory Board (AERB). Director (or Associate Director), Health Safety and Environment Group, BARC, who is a member of CMG-DAE and an expert in Radiation Emergency Response; is designated as the Emergency Response Director (ERD) of DAE. Each member is backed by an alternate member, so that the CMG can be activated at a very short notice. Several resource agencies from BARC also back up the CMG. They can provide advice and assistance in the areas of radiation measurement and protection and medical assistance to radiation affected personnel.
- d. For an effective response to any major nuclear emergency, an immediate communication 25 Emergency Response Centres (ERCs) have been established across the country, by BARC and DAE. For Gujarat, Kakrapar is the ERC.
- e. In case of Gujarat, the ERC at Gujarat and other national resources such as the Armed Forces etc. shall deal with the situation. The role of the State Government and its agencies such as the Gujarat State Disaster Management Authority (GSDMA) will only be supportive and be at the directions of the CMG.

8.5 Regulatory Body

- a. AERB is the nuclear regulatory authority in India which, as per the legal framework of Atomic Energy Act, 1962, has the mandate for issuance of licenses to nuclear and radiation facilities upon ensuring compliance with the applicable standards and codes.
- b. It is emphasised that the AERB, which oversees nuclear and radiological safety in the country, has the powers to not only licence the operation of a facility but also the power to order partial or full shutdown of any facility that violates its guidelines.

- c. The AERB has been playing a very crucial role in the prevention of nuclear/radiological accidents by ensuring that proper safety design features and operating procedures in all nuclear and radiation facilities are in place.

8.6 Trigger Mechanism

The trigger mechanism prescribes the manner in which the disaster response system shall be automatically activated after receiving early warning signals of a disaster happening or likely to happen or on receipt of information of an incident.

As a basic regulatory requirement, emergency preparedness exists at KAPS to respond to any on-site emergency in their areas. But to handle radiological emergencies arising from a transport accident or from movement/ handling of “orphan sources” (radioactive sources that have lost regulatory control) or due to malevolent acts like explosion of a Radiological Dispersal Device (RDD), Radiation Exposure Device (RED) or Improvised Nuclear Device (IND) any time or anywhere in the State, a network of 25 number of Emergency Response Centres (ERCs) has been established by Bhabha Atomic Research Center (BARC) (for Gujarat the ERC is Kakrapar) and Department of Atomic Energy (DAE). This network is basically meant for responding to such emergencies and also for providing timely advice and guidance to the first responder at the State and National level. The Kakrapar ERC is equipped with radiation monitoring instruments, protective gear and other supporting infrastructures. Various units of Nuclear Emergency Response Teams (ERTs), consisting of personnel from different DAE units are also being raised. The centralised agency called the management activities not only by activating these ERC and ERTs but also by mobilising the resources from all DAE facilities at the time of crisis.

8.7 Line of Communication and Responsibility for the State

Nuclear disaster is a situation where chances of receiving any early warning are very low. In such a situation where no early warning signals are available, the primary objective of the trigger mechanism is to mount immediate isolation. The following procedure shall be followed in such situations:

- a. For metropolitan areas, the Incident Commander for all nuclear hazards shall be the Commissioner of Police(CP). For other areas it will be the Collector & District Magistrate (DM) who is designated as Responsible Officer/ Incident commander (RO/IC).
- b. The field functionary at ground zero shall inform the District Emergency Operation Centre (DEOC), the Commissioner of Police in a metropolitan area and the District Magistrate of the incident. DEOC / District Magistrate/ Commissioner of Police shall inform the State Emergency Operation Center (SEOC), Emergency Response Centers (ERCs), the Commissioner of Relief (COR) and GSDMA.
- c. Immediately thereafter, personnel from the AERC (Additional Emergency Response Centre) will determine the source of the radioactive emission and its strength (**Annexure 5, IAEA-EPR-FIRST RESPONDERS 2006**) and report the same to the Commissioner of Police. In non-Metropolitan Area, the District Collector will inform the GSDMA, Emergency Response Centers for carrying out the function.
- d. The COR or GSDMA shall convene an immediate meeting of the Crisis Management Group under the chair of Chief Secretary.

- e. COR shall inform National Emergency Operation Center and if required coordinate with Bhabha Atomic Research Center (BARC) for specialised support team from the 25 ERCs.
- f. The Commissioner of Police in a metropolitan area and the District Collector in others shall review the situation and activate coordination, command and control.
- g. Commissioner of Health (CoH) shall place medical and para-medical teams if required at the disposal of the Incident Commander.
- h. The Fire Brigade as well as personnel/ vehicles/ equipments from GSDMA's Emergency Response Centers (ERCs) will report to the Incident Commander.
- i. Commissioner of Relief (COR) shall also coordinate immediate evacuation of potentially affected civilians with the CP, Municipal Commissioner and Collector.
- j. Team for Rapid Assessment of damage shall be deployed.
- k. Chemical Biological Nuclear and Radiological team (CBRN) shall be formed and deployed to ground zero by the incident commander, i.e. Commissioner of Police in metropolitan areas and by the District Collector in other areas.

8.7.1 Response Mechanism

Response measures are those which are taken instantly prior to and following a Nuclear & Radiological emergency aimed at limiting injuries, loss of life and damage to property and the environment and rescuing those who are affected or likely to be affected by it.

National Executive Committee (NEC) will ensure that the functions and responsibilities of the nuclear facility operators and response organisations are clearly defined and understood by all stakeholders. The MHA and the NEC will also determine the actions that need to be performed by each organisation during an emergency and whether it has the necessary resources and capabilities needed for the purpose. The advice of National Crisis Management Committee (NCMC) will also be sought in this matter.

8.7.2 Emergency at Nuclear Facility

In plant emergency, the consequences of the accident are expected to be limited to the plant facility only.

The Site Emergency, wherein the consequences of an accident are not expected to cross the site boundary, that is, the Exclusion Zone - which means that even under this condition, there is no radiological emergency in the public domain.

The off-site Emergency which assumes the highly unlikely possibility of radiological releases in the public domain and detailed response plans have been drawn up even for this hypothetical scenario at each site. The initial safe distances suggested in **Radiological Emergencies (IAEA 2006) are given in Annexure 5**. The local District Administration, the Crisis Management Group, DAE and the NCMC get involved in this type of Emergency.

Standard Operating Procedure (SOP) for Nuclear and Radiological Disasters

Emergency	Activity	Responsibility
Off-Site Emergency	<ol style="list-style-type: none"> 1. Site Director declares Off-site Emergency and Collector & DM (RO/IC) notify Off-site Emergency. 2. Activate an offsite emergency control centre. 3. Establish immediate communication with ERC, State Government and the CMG, DAE. 4. Arrange an immediate deployment of various Emergency Response Teams in affected sector(s). 5. Based on the plant conditions, progression of the accident, Protective actions recommendation (PAR) are done by Site Emergency Director (SED). Refer Appendix-1. - 264 	Collector
	<ol style="list-style-type: none"> 6. Arrange an evacuation of the public to safer places. 7. Activate systems of the State machinery to meet the necessary requirements of the public in the camp till the people are in a position to go back to their homes after the affected areas are cleared and declared safe. 8. Deploy QRMTs/MFRs consisting of physicians, triage officer, RSO, nurses and paramedical staff. 	Collector, Municipal Commissioner, Home Dept., Health Dept.,
	<ol style="list-style-type: none"> 9. To ensure that necessary arrangements at evacuation/ relief centres is made with sufficient availability of: <ol style="list-style-type: none"> a. Food, b. Water, c. Blankets/Clothing d. Medicines e. Lighting f. Sanitation and hygiene etc. 10. To ensure necessary security arrangements for the personnel (emergency responders/ relief teams) who are working at relief centres and involved in distribution of relief materials. 11. To ensure that law & order is maintained at evacuated, relief centres and affected areas 	COR, Civil Supply Dept., Collectors, Municipal Commissioner, Water Supply Dept., Health Dept., GEB, Energy & Petrochemicals Dept., GWSSB & Local Authorities, Home Dept.
	<ol style="list-style-type: none"> 12. Make an arrangement for providing useful, timely, correct, consistent, and appropriate information to the public in the event of a nuclear or radiological emergency. 	Collector, COR, Info. Dept., Municipal Commissioner

Emergency	Activity	Responsibility
	13. Ensure that the information to media/ general public about the coordinated response is released in an organized manner.	
	14. Immediately activate and co-ordinate between the local authority in the affected area and the NCMC.	CMG
Nuclear/ Radiation emergency	15. Recognise the existence of an abnormal situation. 16. Identify and characterise the source and its origin. 17. Initiate a quick and reliable monitoring methodology to detect the onset of an accident/emergency condition and assess its magnitude. 18. Communicate the situation to fire fighting and medical services, police, civil defence, transport, and other agencies. 19. Estimate the dose via the relevant pathways (Dose Limits for exposures to ionising radiations for occupational workers given in Annexure 7)	ERC,DEA, AERB, CMG, Dist. Collector, CP, Municipal Commissioner
	20. Support decision making on protective measures for the population and the environment. 21. If required, distribute Iodine Thyroid Blocking (ITB) tablets at the earliest. 22. Respond quickly to the situation and mobilise resources at short notice. 23. Initiate protective actions at the earliest (for relief and rescue operations). 24. Make sure immediate measures need to be taken as the situation develops. 25. Ensure that the actions taken by the various agencies are well coordinated.	Dist. Collector, Municipal Commissioner, Health dept., ERC, COR,
	26. Send prior information (in respect of dos and don'ts) to those likely to be affected by the accident/emergency. These include: 27. Evacuation/ temporary relocation of the affected population, if required. 28. Withdrawal and substitution of supplies of food and drinking water (based on actual measurement of contamination found in food and drinking water). 29. Animal Husbandry and Agriculture Department personnel to ensure radiological protection following a nuclear emergency. 30. Initiation of the recovery phase at an appropriate time.	COR, Home Dept., State EOC, Civil Supply Dept., Animal and Husbandry dept., Information dept.

Emergency	Activity	Responsibility
‘Criticality’ Accidents	31. Critical Situation in a nuclear facility is a situation of national emergency. In case of Gujarat, the ERC at Gujarat and other national resources such as the Armed Forces etc. shall deal with the situation. The role of the State Government and its agencies such as the Gujarat State Disaster Management Authority will only be supportive and be at the directions of the Crisis Management Group set up by the Union /Central Government.	ERC, CMG, NEC, DAE
Transportation of Radioactive Materials	32. On discovery of any such accident, the District Magistrate in a district or the Commissioner of Police in a metropolitan area, shall inform the following – a. ERC at Kakrapar b. SEOC at Gandhinagar c. Commissioner of Relief	DM or CP
Radiological Dispersal Device Emergency	33. Mobilise and operate incident command 34. Oversee victims triage 35. Make sure that the site is cordoned and the perimeters are controlled and managed 36. Ensure notification and activation of special teams 37. Ensure traffic and access control 38. Ensure protection to at risk and vulnerable population 39. Gender issues must be kept in mind 40. Provide resources support and requests for assistance 41. Ensure public works coordination 42. Ensure public information, outreach, and communication activities. 43. Seal off the inner zone of 400m radius from the blast point as ‘no entry area’ except for emergency measures. 44. Perform life-saving rescue and emergency first aid for seriously injured. 45. Remove injured persons as far away as practical from the incident scene, especially in case of fire. 46. If medical attention is needed, assist in arrangements for medical assistance. 47. The medical personnel will be informed that radioactive contamination might exist on the victims and/or their clothing.	CMG, Dist. Collector, DM, Municipal Commissioner, CP, ERC, EOC, COR, Info. Dept., Home Dept., local authority, Health Dept. Civil supply Dept.,

Emergency	Activity	Responsibility
	<p>48. Identify all those who may have been exposed to a possible release of radioactive material.</p> <p>49. Identify those involved with the incident or potentially contaminated by the incident at the scene, except those requiring emergency medical evacuation.</p> <p>50. All individuals will be monitored and decontaminated, if necessary, and cleared after further medical treatment and discharged.</p> <p>51. Record names, addresses, destinations, and telephone numbers of those individuals who cannot be persuaded to stay at the incident scene.</p> <p>52. Prohibit eating, drinking and smoking in the incident area</p> <p>53. Use a handy evaluation tool when demonstrating counter measures.</p> <p>54. Advice to the local public following a Radiological Dispersal Device Explosion The public living in approximately twice the radius of the inner cordoned area are advised the following:</p> <p>55. If present in the inner zone, to get monitored at the earliest</p> <p>56. Avoid inadvertent ingestion</p> <p>57. Move away from the immediate area, at least several tens of metres from the explosion site and get inside a closed building. This will reduce exposure to both radiation and radioactive airborne dust</p> <p>58. Not to eat food until certified free from contamination</p> <p>59. Avoid any smoke/dust</p> <p>60. Turn on local radio/ TV channels for advice from emergency response centres/ health authorities</p> <p>61. Remove contaminated clothes and place these in a sealed plastic bag</p> <p>62. Take a shower to wash off dust and dirt. This will reduce total radiation exposure</p> <p>63. If radioactive material was released, local news broadcasts will advise people where to report for radiation monitoring and for blood and other tests to determine whether they were in fact exposed and steps to be taken to protect their health</p>	

Emergency	Activity	Responsibility
Loss or Theft of Radioisotopes/ Radioactive Material	<p>64. It is the user's responsibility to maintain an inventory of all sources at all times so in case of loss or theft of a radioactive source, the matter needs to be reported to the police, CMG and AERB immediately.</p> <p>65. Theft of sources should be dealt jointly by law and order enforcement agencies and radiation protection experts.</p>	Home Dept., Dist. Collector

Appendix-1

Protective actions recommendations:

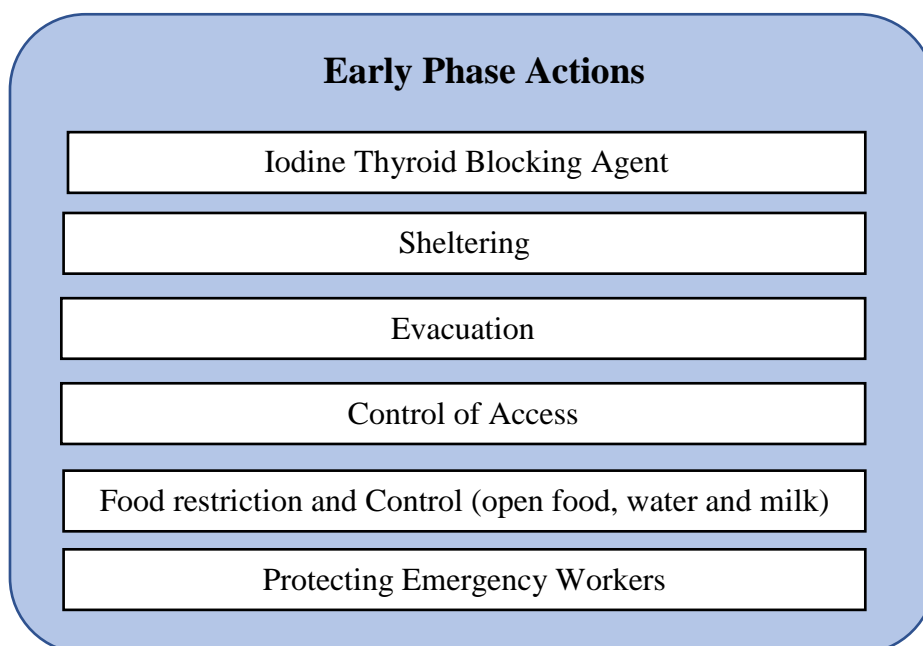
A severe accident at a nuclear power plant where failure of containment barriers leads to a major release of the core inventory will require the implementation of protection strategy (combination of protective actions) to reduce the dose to the public.

The protective actions off the site that may be taken in response to an emergency arising from a severe accident at a nuclear power plant are mainly:

Early phase protective actions (including precautionary and urgent actions) and other response actions that need to be taken promptly (normally within hours) in order to be effective. Their effectiveness will be markedly reduced if they are delayed.

Intermediate phase protective actions and other response actions can be implemented within days to weeks and still be effective.

The most common protective actions in the early phase include:



Other response actions include any response action other than a protective action. The most common other response actions are: medical examination, consultation and treatment; registration and longer term medical follow-up; providing psychological counselling; and public information and other actions for mitigating non-radiological consequences and for public reassurance.

Protective actions promptly taken (within hours to days) in the early phase to avoid or to minimize severe deterministic effects are termed as ***urgent protective actions***. This includes precautionary action taken before or shortly after any exposure occurs. Protective actions and other response actions taken (within days to weeks) to reduce the risk of stochastic effects are termed as ***early protective actions***.

During the early phase, protective action recommendations (PARs) are made by the plant management (Site Emergency Director) to district administration for implementation of the early phase protection strategy. In the early phase the initial protective action recommendations are developed considering the plant condition, projected dose, time period between an initiating event and arrival of a plume at a place in the public domain and the duration of release, in relation to the time needed to implement competing protective actions (i.e., evacuation and sheltering).-

Assessment of accident scenario will be continued once the initial protective actions have been recommended. The subsequent assessments would be encompassing additional information on facility conditions, radiation monitoring data, effluent release data and environmental data. The results of these continuing radiological assessments, including dose projections, should be used as the basis for refining the initial protective actions.

PARs for the intermediate phase cover exposure pathways like ingestion of food and water, long-term radiation exposure (i.e., longer than seven days), radiation exposure due to deposited radioactive materials, or long-term inhalation of re-suspended materials resulting in chronic exposures.

Chapter 9 : Action Plan for Fire

9.1 Introduction

Fires can start due to human activities or from natural causes. Forest fires can start from either natural causes or human activity or from a combination of both. The most common fires are the residential and non-residential structural fires caused usually by human activities. Most industrial and chemical fires are triggered by human activity. They are sometime caused by human errors, faulty designs, or mechanical failures. Fire can also be the secondary effect of a disaster like earthquake. Secondary fires after a disaster like earthquakes constitute a substantial and heavy risk. Damage to natural gas systems during an earthquake can lead to major fires and explosions. Damages to electrical systems during a disaster can ignite major fires. Varying risk scenarios need different types of equipment. The risk varies with geographical location such as hilly area, coastal-area, desert-area, and with different types of residential (medium/ low-rise/ high-rise) buildings, industrial, commercial area, or a combination of these. There is a considerable need for skill upgradation of the staff and modernization of the entire fire service system.¹

9.2 Types of Fire

Fires are classified in the following categories:

- **Class A Fires:** Involving combustible materials of organic nature, such as wood, paper, rubber and many plastics etc. where the cooling effect of water is essential for extinction of fires.
- **Class B Fires:** Involving flammable liquids, petroleum products or the like, where a blanketing effect is essential
- **Class C Fires:** Involving flammable gases under pressure including liquefied gases, where it is necessary to inhibit the burning gas at fast rate with an inert gas, powder or vapourising liquid for extinguishers
- **Class D Fires:** Involving combustible metals, such as magnesium, aluminium, zinc, sodium, potassium, etc. when the burning metals are reactive to water and water containing agents and in certain cases to carbon dioxide, halogenated hydrocarbons and ordinary dry powders.

1- NDMP Plan, 2019

9.3 Prevention from Fire

Fire extinguishers are the most common type of firefighting equipment being installed at office facilities, warehouses and sales offices. They should be selected based on the type of fire hazard, as depicted below:

- Class A fires – Water, foam, ABC dry powder and halocarbons
- Class B fires – Foam, dry powder, clean agent and carbon dioxide
- Class C fires – Dry powder, clean agent and carbon dioxide extinguishers
- Class D fires – Extinguishers with special dry powder for metal fires

9.4 Declaration of Disaster

The Gujarat State Disaster Management Act, 2003 provides for the State Government to declare any area where any disaster has occurred as disaster affected area on the recommendations of the State Relief Commissioner or the District Collector. The purpose of declaration of disaster is to

organize effective response and mitigating the earthquake effects. Such a declaration provides wide powers and responsibilities to the State Relief Commissioner and the District Collectors in order to handle the incident effectively

9.5 Institutional Mechanism

Fire service comes under the 12th schedule of the Constitution dealing with Municipal functions. At present, fire prevention and firefighting services are organized by the concerned States and Union Territories (UTs), and Urban Local Bodies (ULBs) in the Country. Directorate of National Disaster Response Force and Civil Defence (NDRF & CD, Fire Cell), Ministry of Home Affairs (MHA) renders technical advice to the States, UTs, and central ministries on fire protection, prevention, and legislation.

In view of the short comings in the fire services in different states of the country and the need to upgrade it, GoI in 1956 formed a Standing Fire Advisory Committee (SFAC) under the MHA with a mandate to examine the technical problems relating to fire services and to advise the GoI for speedy development and upgradation of fire services all over the country which was renamed as Standing Fire Advisory Council (SFAC) in 1980. This council has representation from each state fire service, as well as representation from Ministry of Home Affairs (MHA), Ministry of Defence (MoD), Ministry of Road Transport and Highways (MoT), Ministry of Communications and Information Technology (MoC) and Bureau of Indian Standards (BIS).

Gujarat State Disaster Management Act, 2003 mandated Gujarat State Disaster Management Authority to carry out mitigation and preparedness activities against any hazard including Fire and build the capacity of the state towards the same.

Further, Government of Gujarat has enacted Fire Prevention and Life Safety Measure Act, 2013, Gujarat Fire Prevention and Life Safety Measure Rules, 2014 and Gujarat Fire Prevention and Life Safety Measure Regulations, 2016 to ensure effective provisions for the Fire Prevention, Safety and Protection of Life and property in the State through Directorate.

Government of Gujarat has appointed a Director, Fire Prevention Services based on the Fire Prevention and Life Safety Measure Act, 2013. Further, as mandated in the Act, Five Regional Fire Officers have also been appointed by the State Government. In addition, there is a full-fledge Fire & Emergency Services operational in the all eight Municipal Comissionarate of the State under the UD & UHD Department.

All disaster specific mechanisms would come under a single umbrella allowing for immediate response to all types of disasters with an avowed objective of having a simplified and uncluttered system of response. At the top level, the Chief Secretary will act as the Chief of Operations and will be supported by the Relief Commissioner through the Branch arrangements at the State Emergency Operations Centre (EOC) & the District Emergency Operation Centre (DEOC) at the district level. In case of fire affecting larger community, the role of the Sub-Divisional Magistrate, comes into prominence under the guidance of District Magistrate and Collectors

9.6 Trigger Mechanism

State Government has started Directorate of fire under Urban Development Department (UDD). Thus UDD of the State will be the nodal department for formulating, controlling, monitoring and directing measures for Fire incident preparedness, organizing rescue, relief and rehabilitation. All

other concerned departments should extend full cooperation in all matters pertaining to the management of the fire whenever it occurs.

The occurrence of a fire may be reported by the Fire and Emergency services to the Commissioner of Relief by the fastest means. The State Crisis Management Committee (SCMC) under the chairmanship of the Chief Secretary should be activated immediately on the occurrence of any major fire incident.

Besides these, the SEOC also receives reports on the fire from district and taluka levels. On receipt of the information, the SEOC verifies the authenticity of the reports and will inform the real situation to concerned authorities.

Standard Operating Procedure (SOP)

Sr. No	Task	Activity	Responsibility
1.	Disaster and Plan Activation	<ol style="list-style-type: none"> 1. Activate fire emergency plan in consultation with SCG 2. Activate DCG 3. Establish immediate communication with LCG, DCG, DEOC, SEOC, GSDMA and CCG 	Director – Fire Prevention Services Collector, Municipal Commissioner
2.	Mobilization & Deployment	<ol style="list-style-type: none"> 4. Arrange an immediate deployment of various ERTs in affected sector(s). (Police, Fire, S&R, Medical, etc.) 5. Based on the emergency monitoring teams from affected areas initiate counter measures (such as sheltering and medical help) 6. Arrange an evacuation of the affected/ likely to be affected people, workers and population to safer places 7. Activate systems of the State machinery to meet the necessary requirements of the public in the camp till the people are in a position to go back to their homes after the affected areas are cleared and declared safe 8. Deploy QRMTs/ MFRs consisting of physicians, triage officer, nurses and paramedical staff 	Director – Fire Prevention Services, Collector, Municipal Commissioner, DCG, Home Dept., Health Dept., Industry/ Industrial Association
3	Fire Fighting	<ol style="list-style-type: none"> 9. Rush immediately to the site of Fire 10. Extinguishing the fire 11. Ventilation for dousing the fire 12. Search & Rescue the affected persons 13. Containment of the Fire 	Director – Fire Prevention Services, Chief Fire Officer, Regional Fire Officer
		14. To ensure that necessary arrangements at	Civil Supply Dept.,

Sr. No	Task	Activity	Responsibility
4	Evacuation	<p>evacuation/ relief centers is made with sufficient availability of:</p> <ol style="list-style-type: none"> Food, Water, Blankets/Clothing Medicines Lighting Sanitation and Hygiene, etc. <p>15. To ensure necessary security arrangements for the personnel (Emergency responders/ relief teams) who are working at relief centers and involved in distribution of relief materials</p> <p>16. To ensure that law and order is maintained at evacuation/relief centers and in the affected areas as well</p>	<p>Home Dept. Collectors, Municipal Commissioner, Water Supply Dept., Health Dept., GEB, Power & Energy Dept., & Local Authorities, Regional Fire Officer</p>
		<p>17. On the directions of Incident Commander (IC), the ESF Team Leader will perform evacuation. He will instruct the team to initiate evacuation of the areas expected to be exposed to more threat in future</p> <p>18. The QRT shall move alongwith adequate material and resources to carry out evacuation. People will be directed to move towards safer areas identified by technical experts</p> <p>19. The team leader will designate in-charge of relief centers and keep in touch with them for regular head count and care of evacuees</p> <p>20. Police, Fire, Civil Defence & Home Guard (CD & HG) and other government employees may have to go door to door to ensure that residents have been alerted about the fire</p>	<p>Collector, Municipal Commissioner DSP Home Dept, Fire & Emergency Services, Civil Defence, Revenue Dept Regional Fire Officer</p>
5	Addressing Health Related Issues	<p>21. Ensure that the required medical assistance/ aid and medicines/ antidotes are provided to the affected people at site as well as at evacuation/ relief centers in the affected area and necessary records are maintained</p> <p>22. Ensure that the hospitals are well prepared to deal with seriously injured/burn cases</p> <p>23. Keep adequate stock of essential medicines,</p>	<p>Health Dept.</p>

Sr. No	Task	Activity	Responsibility
		antidotes, first-aid, Burn bed etc. at taluka / district hospitals. 24. If required, take the help of doctors/paramedics from the list of doctors/paramedics available at the taluka/district level for immediate medical assistance	
6	Information to public and media	25. Make an arrangement for providing useful, timely, correct, consistent, and appropriate information to the public and media in the event of a fire incident 26. Ensure that the information to media/general public about the coordinated response is released in an organized manner.	Municipal Commissioner, Collector, Commissioner of Info., Fire & Emergency Services
7	Dignified Management of the Dead	27. Ensure following procedure is followed before disposal/handing over of dead bodies: a. Photographs of the dead bodies are taken, b. Identification of the dead bodies is done, c. Post Mortem wherever necessary and possible is carried out, d. Handing over dead bodies of persons known/identified to their relatives 28. Disposal of unclaimed and unidentified dead bodies	Collector, Municipal Commissioner, DSP, Health Dept., Revenue Dept., Home Dept., Local Authorities,
Roles and Responsibility of Some of The First Responders during Fire			
1	Police (Law and Order)	<ul style="list-style-type: none"> Control and divert the traffic near the fire affected areas Ensure law and order at the incident site during fire emergency/ disaster and at evacuation centres too. Provide security in evacuated areas Give warning to the people living in the nearby areas. Secretary, Home and Director General of Police (DGP) will direct the participation of Police in the emergency response and will constitute an integrated command. Issue an alert to the DIG and the surrounding districts. Direct all the police officials and 	Home Dept.

Sr. No	Task	Activity	Responsibility
		<p>forces in adjacent Districts to be deployed if necessary. Ensure that the police forces required for traffic management, evacuation and law and order are available with the District Administration.</p> <ul style="list-style-type: none"> • Review the dissemination of warning and the need for evacuation. Assist the Fire & Emergency Services with Police Wireless sets so that there is continuous communication among the first responders in the emergency situation. • In case of big explosion and fire, assess the situation and suggest a Plan of Action based on assessment of the immediate causation. • Order deployment of the police force for evacuation of the people from the zone of the danger. 	
2	Assess Situation	<ul style="list-style-type: none"> • Reach at the site as soon as possible and assess the situation (information about the chemical leak/spill, the action taken and current status) • Start fire fighting with suitable medium and also take care of surrounding storages/ tanks to be over heated so that reduce the chances of ‘domino effect’. • Secretary, UDD will coordinate redeployment of Fire Tenders from other places, as required • The SCG, in consultation with the District Collector/ Municipal corporation and other local officials will ensure that all the first responders work closely with full coordination • Search and identify the risk and nullify the sources of fire incident. If any unclear or unidentified substance or source is identified or detected, inform the higher authorities. 	Collector Municipal Corporation Fire and Emergency Services (F&ES)
3.	Medical Support	<ul style="list-style-type: none"> • Provide the necessary expertise and specialized services to the SCG • Deploy all the necessary medical facilities including doctors, nurses, medicines and ambulances in the affected areas 	Health & Family Welfare Department, Commissioner of health, Civil Surgeon,

Sr. No	Task	Activity	Responsibility
		<p>Alert major hospitals (both government & private) in the area and ask them to be in readiness for receiving patients</p> <ul style="list-style-type: none"> • Collect information on the number of deaths and persons injured; the nature of injuries and the likely long-term consequences • Assess the medical needs of the area on the basis of likely long-term consequences and take steps to equip local medical facilities for treating people on a long-term basis. 	District/ Municipal Corporation Hospitals
4	Incident Reporting	<ul style="list-style-type: none"> • Primary Incident report to be prepared and submitted the higher authorities • Detailed investigation report of the incident to be prepared and submitted to the higher authorities 	UD & UHD, State Fire Prevention Services

Chapter 10 : Action Plan for Cyber Attack

10.1 Introduction

Cyberspace is a complex environment consisting of interactions between people, software and services, supported by worldwide distribution of information and communication technology (ICT) devices and networks. As the world is going digital and online, the reliance of society on high end technology has increased and the threats of cyber attacks have also gained momentum. Cyber attack refers to breaching of data sitting from any corner of the world. It can remotely have access to sensitive information/data without the consent of the person. These attacks use malicious code to modify computer code, data or logic. It poses a grave danger to safety and security related incidents. It may be mainly recognized as threat to Critical Information Infrastructure like Banking Services, Financial Organizations, governmental organization and research institutions dealing with data of countries security etc. Cyber crime is one of the main threats to the digital economy, Government sensitive Data or any industries data theft.

Cyberspace is vulnerable to a wide variety of incidents, whether intentional or accidental, manmade or natural, and the data exchanged in the cyberspace can be exploited for nefarious purposes by both nation- states and non-state actors. Cyber attacks that target the infrastructure or underlying economic well-being of a nation state can effectively reduce available state resources and undermine confidence in their supporting structures. A cyber related incident of national significance may take any form; an organized cyber attack, an uncontrolled exploit such as computer virus or worms or any malicious software code, a national disaster with significant cyber consequences or other related incidents capable of causing extensive damage to the information infrastructure or key assets. Large-scale cyber incidents may overwhelm the government, public and private sector resources and services by disrupting functioning of critical information systems. Complications from disruptions of such a magnitude may threaten lives, economy and national security. Rapid identification, information exchange, investigation and coordinated response and remediation can mitigate the damage caused by malicious cyberspace activity.

10.2 The Disaster Management Act, 2005

The Disaster Management Act, 2005: “Disaster” means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.

A ‘**natural disaster**’ is one that emerges in the environmental settings – be natural, managed or civilized. In understanding the origin of a ‘natural disaster’ the natural’ implies to ‘nature’ of an event, process, condition or material (a hazard) that is responsible for causing catastrophe, damage or major loss. It may be related to one or more of geological, hydro-meteorological, industrial, urban or other natural environments.

A ‘**manmade**’ disaster is the direct creation/activity of human – being(s) with direct/indirect knowledge of the risk/resultant catastrophe/damage/loss or due to serious human/technical failure and ‘hazard(s)’ are created or utilized to generate the outcome. These are mostly related to disciplinary performance or security failure, defense/war and mass management / law & order aspects.

10.3 The Information Technology Act, 2000

Under Section 65 of Information Technology Act, 2000 it is a punishable offence “If a person knowingly or intentionally conceals, destroys or alters or intentionally or knowingly causes another to conceal, destroy or alter any computer source code used for a computer, computer programme, computer system or computer network, when the computer source code is required to be kept or maintained by law for the time being in force”.

10.4 National Cyber Security Policy 2013

The Government of India has come out with National Cyber Security Policy 2013 with a vision to build a secure and resilient cyberspace for citizens, businesses and Government. The objectives of the policy is to create a secure cyber ecosystem in the country, generate adequate trust & confidence in IT systems and transactions, create an assurance framework for design of security policies and for promotion and enabling actions for compliance to global security standards, strengthen the Regulatory framework, enhance and create National and Sectoral level 24 x 7 mechanisms for obtaining strategic information regarding threats, enhance the protection and resilience of Nation's critical information infrastructure by operating a 24x7 National Critical information Infrastructure Protection Centre (NCIIPC), develop suitable indigenous security technologies, improve visibility of the integrity of ICT products and services, create a workforce of 500,000 professionals skilled in cyber security, provide fiscal benefits to businesses, enable protection of information while in process, handling, storage & transit, enable effective prevention, investigation and prosecution of cyber crime, create a culture of cyber security and privacy, develop effective public private partnerships, and enhance global cooperation.

10.5 Nodal Agencies at the Centre - Ministry of Communication and Information Technology

The Indian Computer Emergency Response Team under Ministry of Electronics & Information Technology, GOI has been established as the nodal agency at the centre level which is responsible for national repository of and a referral agency for cyber intrusion, the collection, analysis and dissemination of information on cyber incidents and taking emergency measures to contain such incidents.

10.6 Cyber Attack.

In May 2000, The Internet Engineering Task Force defined attack in RFC 2828 as: an assault on system security that derives from an intelligent threat, i.e., an intelligent act that us a deliberate attempt (especially in the sense of a method or technique) to evade security services and violate the security policy of system.

10.7 TYPES OF CYBER ATTACKS

- **Malware-** Malware is a term used to describe malicious software, including spyware, ransom ware, viruses, and worms
- **Phishing-** It is usually employed to steal user data such as credit card numbers and login credentials. It happens when an attacker, posing as a trusted individual, tricks the victim to open a text message, email, or instant message. The victim is then deceived to open a malicious link that can cause the freezing of a system as part of a ransom ware attack, revealing sensitive information, or installation of malware.

- **Man-in-the-middle attack-** In cryptography and computer security, a *man-in-the-middle attack* (MITM), also known as a hijack **attack** is an **attack** where the attacker secretly relays and possibly alters the communications between two parties who believe that they are directly communicating with each other.
- **Denial-of-service attack -** A **Denial-of-Service (DoS) attack** is an **attack** meant to shut down a machine or network, making it inaccessible to its intended users. **DoS attacks** accomplish this by flooding the target with traffic, or sending it information that triggers a crash.
- **SQL injection-** An attacker wishing to execute **SQL injection** manipulates a standard **SQL** query to exploit non-validated input vulnerabilities in a database. ... As a result, the entire user database could be deleted. Another way **SQL** queries can be manipulated is with a UNION SELECT statement.
- **Zero-day exploit- Zero-day** is a flaw in software, hardware or firmware that is unknown to the party or parties responsible for patching or otherwise fixing the flaw. The term **zero day** may refer to the vulnerability itself, or an **attack** that has **zero days** between the time the vulnerability is discovered and the first **attack**.
- **DNS Tunneling- DNS Tunneling** is a method of cyber **attack** that encodes the data of other programs or protocols in **DNS** queries and responses. **DNS tunneling** enables these cybercriminals to insert malware or pass stolen information into **DNS** queries, creating a covert communication channel that bypasses most firewalls.
- **Eavesdropping Attack-** With an eavesdropping attack, hackers listen in on data that flows through the network. This gives them access to things like passwords, identifying details and credit card numbers. Eavesdropping attacks are different from man-in-the-middle attacks because the data still directly reaches its destination. Because of this, eavesdropping attacks are even harder to detect than man-in-the-middle attacks. There are two types of eavesdropping attacks; passive eavesdropping and active eavesdropping. With passive eavesdropping, the hacker simply “listens” to data that is passing through the network. With active eavesdropping, hackers disguise themselves. This allows them to impersonate a website where users would normally share their private data.
- **Drive-by Download Attacks-** Hackers use drive-by download attacks to spread malware. With this style of attack, hackers are casting a wide net as opposed to attacking specific targets. They upload the malicious code to unsecured websites. When users visit this site, the web server code automatically installs the malware or redirects the user to another corrupted site. These drive-by download attacks may be lurking in emails or pop-up windows as well.
- A botnet is a network of devices that has been infected with malicious software, such as a virus. Attackers can control a botnet as a group without the owner’s knowledge with the goal of increasing the magnitude of their attacks. Often, a botnet is used to overwhelm systems in a distributed-denial-of-service attack (DDoS) attack.

10.8 CYBER ATTACKS IN INDIA

10.8.1 Y2K Bug

The flaw, faced by computer programmers and users all over the world on January 1, 2000, is also known as the "millennium bug." (The letter K, which stands for kilo (a unit of 1000)), is commonly used to represent the number 1,000. So, **Y2K** stands for Year 2000. Many skeptics believe it was barely a problem at all.

10.8.2 Hack Attack on Indian Healthcare Websites

Indian-based healthcare websites became a victim of cyber-attack recently in 2019. As stated by US-based cyber-security firms, hackers broke in and invaded a leading India-based healthcare website. The hacker stole 68 lakh records of patients as well as doctors⁴.

10.8.3 SIM Swap Scam

Two hackers from Navi Mumbai were arrested for transferring 4 crore rupees from numerous bank accounts in August 2018. The illegally transferred money from bank accounts of many individuals. By fraudulently gaining SIM card information, both attackers blocked individuals' SIM cards and by the help of fake document posts, they carried out transactions via online banking. They also tried to hack accounts of various targeted companies⁵.

10.8.4 Chinese Cyber Attack:

In view of the ongoing India – China boarder conflict CERT-In, has warned the prospect of a large scale cyber attack that could target individuals & businesses using Covid-19 as a bait to steal personal and financial information. CERT-In says the potential phishing attackers could impersonate government agencies, departments and trade bodies tasked to oversee disbursement of government fiscal aid. Thus the cyber attacks have increased over a period of time.

10.9 Standard Operating Procedures:

A typical **SOP** should contain a list of specific actions that that **security** professionals need to take whenever their organization faces a particular **cyber** incident. It ensures that all employees within an organization know their responsibility and what activities they need to take in the event of a **cyber attack**. The **GOLDEN** hour concept in the other disasters would be here **GOLDEN Minute** in the Cyber Security because it is the game of seconds to lose data due to cyber attacks.

Sr. No.	Task	Activity	Responsibility
1.	Warning Receipt and Dissemination	1. Report the occurrence of Cyber Attack to following officials: <ul style="list-style-type: none">Hon. Chief MinisterHon. Minister – Disaster ManagementChief Secretary	Department of Science & Technology, GIL, NIC.

⁴ <https://www.futuremedicineindia.com/indian-healthcare-website-hacked-68-lakh-records-stolen-report/>

⁵ https://en.wikipedia.org/wiki/SIM_swap_scam

Sr. No.	Task	Activity	Responsibility
		<ul style="list-style-type: none"> Principal Secretary (DST) Chief Executive Officer, GSDMA Members of Crisis Management Group Ministers and Secretaries of all line departments <p>2. Remain in constant touch with CERT-In.</p>	
2.	Interdepartmental Coordination	<p>3. Instruct and alert all secretary / heads of departments of the key line departments to activate SOPs for Cyber Attack.</p> <p>4. Alert all response teams in the State</p> <p>5. Coordinate with all the ISP and TSP.</p>	Department of Science & Technology and All line departments.
3.	Creation of Helpline	<p>6. Establish Help Lines for facilitating communication between the departments and other services for immediate help.</p>	
4.	Information to public and media	<p>7. Establish Media/Press Centre for media management and information dissemination</p> <p>8. Ensure that the information to media/general public about the response of the State Government is released in an organized manner.</p> <p>9. Release information at appropriate time to media and public regarding response measures organized by the Government</p>	Information Dept., PIB, TV channels, Print Media, Social Media.
5.	State Data Center	<p>10. Form a response team</p> <p>11. Identifying preparedness Gap.</p> <p>12. Block IP address of unknown origin.</p> <p>13. Block server communication to system.</p> <p>14. Encryption of session ID</p> <p>15. Block malicious sites.</p> <p>16. Block malicious sites/ IP addresses.</p> <p>17. Enhancing response to cyber incidents & Reducing cyber risk.</p> <p>18. Use your backup servers.</p> <p>19. Use Data Encryption in transit.</p> <p>20. Isolate system where breach has occurred</p> <p>21. Investigate quickly by identifying the systems and manage the damage</p>	Department of Science & Technology and Service providers for Data Centre, GIL.

Sr. No.	Task	Activity	Responsibility
		<p>22. Response team is investigating the attack; ensure that they are documenting both their process and their findings.</p> <p>23. Contact clients & ask them to change their password.</p> <p>24. Data centre disaster recovery for resuming business operation & continuity.</p>	
6.	GSWAN	<p>25. Immediately stop unauthorised access control.</p> <p>26. Updation of network security and firewalls.</p> <p>27. Make backup of data and arrangements/availability of critical standby network equipment (Core, Switches & Router etc.)</p> <p>28. Make backup copies of important business data and information.</p> <p>29. Set up alarm systems for any attack (IT & website along with peripherals equipments & internet).</p> <p>30. Secure your Wi-Fi networks. If you have a Wi-Fi network for your workplace make sure it is secure and hidden.</p> <p>31. Use Data Encryption in transit.</p>	GSWAN service provider, DST.
7.	E Gram	<p>32. Updation of network security and firewalls.</p> <p>33. Physical security of E Gram infrastructure.</p> <p>34. All the servers must be protected against cyber attacks through change of access passwords.</p>	Panchayat and rural housing dept. and E Gram service providers.
8.	Pol Net	<p>35. Form a response team</p> <p>36. Identifying preparedness Gap</p> <p>37. Block malicious sites</p> <p>38. Enhancing response to cyber incidents and Reducing cyber risk</p> <p>39. Use your backup servers</p> <p>40. Isolate where breach has occurred</p> <p>41. Investigate quickly by identifying the systems and manage the damage</p> <p>42. Response team is investigating the attack; ensure that they are documenting both their process and their findings.</p>	Home Department, DCPW and GFSU.

Sr. No.	Task	Activity	Responsibility
		43. Contact clients & ask them to change their password. 44. Download and install software updates for your operating systems and applications as they become available.	
9.	Telecommunication	45. Routing protocols and DNS infrastructure. 46. Protection of the servers and user data. 47. Secure your Wi-Fi networks. If you have a Wi-Fi network for your workplace have make sure it is secure and hidden.	Telecommunication dept., ISP, TSP
10.	Banking and Financial Institutions	48. Control physical access to your computers and network components. 49. Servers must be fully protected with firewalls and updated. 50. All the servers of banks and financial institutions must be protected against cyber attacks by adding more layers of security. 51. See that LAN terminals are also encrypted. 52. Limit employee access to data and information and limit authority to install software. 53. Increase the physical security of the work place of banks / financial institutions.	Finance department, All banks nationalized and others, financial instructions.
11.	E Commerce	54. Servers must be fully protected with firewalls and updated. 55. All the servers must be protected against cyber attacks through change of access passwords. 56. Ensure safety of data of users and service providers. 57. Be aware if any malicious calls / information being asked over telephone, mobile or other modes. 58. Identify the actual site while doing any financial transaction. 59. Limit employee access to data and information and limit authority to install software.	DST, IT, All Service Providers, Consumers.

Sr. No.	Task	Activity	Responsibility
12.	Citizens	60. Don't open or click unsolicited Email addresses. 61. Don't share ATM or other pin code to anyone unknown, change them regularly. 62. Don't respond on suspicious mobile call. 63. Don't respond on suspicious / malicious emails. 64. Keep passwords strong and don't share them with anyone. 65. Report to the suspicious calls or emails. 66. Don't use cyber cafe for the financial transactions.	Consumers / citizens.
13.	Websites/Emails	67. Don't open or click attachments. 68. Don't open or click unsolicited Email addresses. 69. Avoid submitting financial details in the malicious sites or emails. 70. Keep changing passwords and security. 71. Prefer "HTTPS" URL instead of HTTP.	Nodal Officers of all departments, Service Providers.
14.	Energy and Petrochemical Dept.	72. Protection of automated grids. 73. Protection of Electricity and Gas routes. 74. Automated plans need to be protected / firewall protection.	Energy & Petrochemical sector, All line depts. Pvt service providers.
15.	Transportation	75. Automated road traffic management plan need to be protected from attacks. 76. Railways, Airways and IT infrastructure must be protected to avoid any disruption. 77. Servers must be fully protected with firewalls and updated.	Railways, Air Traffic Controller, GSRTC, Pvt. service providers.
16.	Water Sector	78. Computer controlled systems needs to be protected. 79. See that the water discharge system is made full proof from cyber attack. 80. Use of a firewall for Internet connection.	Narmada & water resource dept.
17.	Establishment of Lines of Alternate Communication	81. Activate alternative communication equipments. 82. Establish communication links with all the departments.	DST and Information Dept., Dept of Home and line

Sr. No.	Task	Activity	Responsibility
			depts.
18.	Review and Reporting	83. Review and monitor following activities: <ul style="list-style-type: none"> ○ Positioning of mobile communication units ○ Mobilization of restoration teams of respective departments ○ Dissemination of information to the vulnerable facilities ○ All preparedness measures to be taken by various authorities 84. Keep in touch with other depts. and agencies.	DST and Information Dept.
19.	Preliminary Assessment and Dissemination of Information	85. Arrange dissemination of information about occurrence of Cyber Attack to Media & Public and steps taken by the govt. to thwart the attack.	DST, IT, and all line depts.
20.	Restoration of critical infrastructure/essential services	86. Ensure that the essential services/critical infrastructure of the affected areas have been restored or alternative arrangement is made for ensuring safety of data and smooth management of emergency response. 87. Ensure that key administrative and lifeline data centre, websites are brought back to operation quickly 88. Ensure following primary necessities are restored <ul style="list-style-type: none"> ○ Telecommunication. ○ Power. ○ Transport. ○ Internet. 	DST, IT, ISP, TSP, Line Depts.
21.	Debriefing	89. Secure all records in the log book. 90. Compile a report which list the lessons learnt on the attack. 91. Assessment of situation how one would have responded if the emergency had escalated further. 92. Decide on changes and or improvement to the emergency management procedures and update SOP accordingly.	

Sr. No.	Task	Activity	Responsibility
		<p>93. Ensure that the MOUs with the service providers are appropriate if emergency reoccurred.</p> <p>94. Communicate to all relevant stakeholders any changes to prevent a reoccurrences.</p>	

Annexure

Annexure -1

Emergency Contact Number

1. Control Rooms (State & Govt. of India)

No.	Department	Phone	FAX
1	Ministry Of Home Affairs, New Delhi (Control Room)	011-23093054, 23092763, 23093564, 23092923 FAX-011-23092398	011-23093750
2	National Disaster Management Authority (NDMA) NDMA Bhawan, A-1, Safdarjung Enclave, New Delhi - 110 029	011-26701728 011-26701700	011-26701729
3	IMD (Seismo), New Delhi	011 24619943 011-24624588	011-24619943 011-24649850
4	IMD (MET), Ahmedabad	079-22865165 079-22867206 079-22858020	22865449 22864742
5	State Emergency Operation Center (SEOC), Gandhinagar	23251900 /23251902 23251907/08 23251914	23251912 23251916
6	Flood Control Cell -IRRIGATION 1st Floor, State Data Water Data Center, Sector-8, Gandhinagar	23248735 23248736	23240553
7	Flood Control Cell- R&B Deptt. Ground Floor Nirman Bhavan, Sector 10, Gandhinagar	23251510	23257681
8	Control Room -HEALTH - PMCC Ground Floor, Block No.5, Old Sachivalaya, Gandhinagar.	23250818	23250818
9	DGP, Police Bhavan, G'nagar (State Control) DYSP (I/C Control Room) 23249257	23246328 23246330/31	23246329
10	Control Room - NEW SACHIVALAYA (HOME) Block No. 2, Ground Floor, New Sachivalaya, G'nagar	23252957 23252958	23252075
11	Police Commissioner, Ahmedabad	25633636/25630100/ 200/300/400	25630600 25630700
12	Guj. Maritime Board, G'nagar	23224758	23236499
13	G.E.B. Vadodara	0265-2330017	2337918 2338164
14	GSRTC, Ahmedabad (1) Chief Traffic Commercial Managar (2) Transporation Suptdt.	22801264 (O)	22803057 (F)
15	ISR, Gandhinagar	66739000/66739102 M-9727717841	66739028

No.	Department	Phone	FAX
16	Control Room- GWSSB, Ground Floor, Jalseva Bhavanm GWSSB, Sector-10 A, Gandhinagar.	23220859	23225979
17	Member Secretary, GPCB Paryavaran Bhavan, Sector-10A, Gandhinagar. membersecretarygpcb@gmail.com	23232152	23222784
18	Control Room - FISHERIES 3rd Floor, Block No.10, Old Sachivalaya, Gandhinagar	23253730 23253740	23253730 23253740

I. National Level

1. Disaster Management Division, Ministry of Home Affairs, New Delhi

Sr. No.	Name	Designation	Office	Fax
1	Shri Amit Shah	Hon.Home Minister	011-23092462 011-23094686 23017256 (PH)	23017580
2	Shri Ajay Kumar Bhalla	Home Secretary	011-23092989 011-23093031	23093003
3	Shri SANJEEVA KUMAR	Secretary (BM)	23438266	23438267
4	Shri Rohtash BHANKHAR	DS (Disaster Management-III)	011-23438071	23438144
5	DIRECTOR	Disaster Management-I	011-23438123	23438071
6	Shri Pradipkumar	DS (DM-II)	011-23438154	-
7	Shri GOURI SHANKAR JHA	US. (Disaster Management-III)	011-23438144	23438144
9	Control Room (MHA)		011-23092885, 23092923 23092763, 23093450, 23093564 FAX- 011-23092398	-

2. National Disaster Management Authority

Designation	Name	Office	Fax	Email Id
Member Secretary	Shri Kamal Kishore	+91-11-26701701,704, 740	+91-11-26701716	secretary@ndma.gov.in kkishore@ndma.gov.in
Member	Lt. Gen Syed Ata Hasnain, PVSM, UYSM,	011-26701775	-	syedata.hasnain@ndma.gov.in

Designation	Name	Office	Fax	Email Id
	AVSM, SM, VSM & BAR (Retd)			
Member	Shri Rajendra Singh	011-26701738	011 26701754	rajendra.59@ndma.gov.in
Member	Shri Krishna Vatsa	011-26701776	-	krishna.vatsa@ndma.gov.in
Additional Secretary	Shri Alok, IAS	+91-11- 26701720	011- 26701816	addl-secy@ndma.gov.in
JS (Admin)	Ms. Sreyasi Chaudhuri	+91-11- 26701777	011- 26701864	s.chaudhuri@nic.in jsadm@ndma.gov.in
JS (Mitigation)	Col Kirti Pratap Singh (I/C)	+91-11- 26701765	011- 26701713	js-mitigation@ndma.gov.in
Financial Advisor	Shri Ravinesh Kumar	011-26701709	011- 26701715	fa@ndma.gov.in
Advisor (Ops & Communication)	Col Kirti Pratap Singh	011-26701886	-	advopscomn@ndma.gov.in
NDMA Control Room		011 26701728 9868891801 9868101885 Helpline No. 011-1078	011 26701729	controlroom@ndma.gov.in ndmacontrolroom@gmail.com

3. Indian National Centre for Ocean Information Services (INCOIS)

Address: Indian National Centre for Ocean Information Services (INCOIS)

"Ocean Valley",

Pragathi Nagar (BO), Nizampet (SO),

Hyderabad - 500 090

Warning Centre Number: 040-23895011

Office: 040-23895000 (9 am-5:30 pm)

040-23895002 (24 hrs)

Fax No.: 040-23895012

Email: tsunami@incois.gov.in

Name, designation & address of the officer	Telephone Number			Fax
	Office	Residence	Mobile	
Tummala Srinivasa Kumar Directo, INCOIS srinivas@incois.gov.in ,	23895000/6001	65863870	09441229297	23895012

Name, designation & address of the officer	Telephone Number			Fax
	Office	Residence	Mobile	
director@incois.gov.in				
Dr. E.Pattabhi Ram Rao (Data Management Group) pattabhi@incois.gov.in	23895008	23046412	09490191923	23895001
Control Room Tsunami warning centre (Operation Centre)	23895011/19 23886064 23886034	-	-	23895019 23895012

4. National Institute of Ocean Technology (NIOT)

Designation	Name	Office	Residence	Fax	E Mail
Director, NIOT	Dr G A RAMADASS	044-66783303 044066783575	-	044-22460275	ramadass@niot.res.in, ramadass.niot@gov.in

Address: Velachery-Tambaram Main Road,

Narayanapuram, Palikaranai,

Chennai,

Tamil Nadu- 600100

Phone: +91 44 66783300, Fax: +91 44 22460645

Email: postmaster@niot.res.in

5. Army, Air Force and Coast Guard

RAF (Rapid Action Force) Vastral Ahmedabad

No.	Designation	Name	Tel. No.s
1		Control Room	079-29708628

CRPF (Central Reserve Police Force) Group Centre Gandhinagar

No.	Designation	Name	Tel. No.s
1		Control Room	079-23200769, 23200241-29750263

Army camp (Ahmedabad)

No.	City	Name	(O)
1	Ahmedabad	Army Exchange- Hanuman Camp	22856251 (Exchnge)

Army camp (Gandhinagar)

No.	City	Name	(O)
1	Gandhinagar	Army Exchange-Chiloda Rod	23201507, 23201503, Ext.2198
2	Gandhinagar	Major Vikrant Sharma	(O)23200930,

No.	Designation	Name	Tel. No.s
			(R) 23201117 (M) 8155022787
3	Gandhinagar	Capt. Baxi	(M) 9888657335

Airforce

No.	City	Name	(O)
1	Gandhinagar	HQ SWAC Control Room	23242600, 23242700(Exch.)
2	Gandhinagar	Group Captain Vijendran	(M) 9427476071 (F) 23240054/94002, 23240076/88
3	Ahmedabad	Air Traffic Control	22869251
4	Delhi	Air HQ	011-23010231, 011-25687194- 97 (F) 011-23011051

6. Coastguard

Address : Udhog Bhavan, Gandhinagar

Telephone Exchange:	+91-79-23243315, 23243316
Fax :	+91-79-23243305
E-mail :	rhq-nw[at]indiancoastguard[dot]nic[dot]in
Ops Centre	+91-79-23243264, 23243283
COMSTAN	+91-79-23241717, 23243305
Commander Coast Guard Region (NW)	
Inspector General AK Harbola, TM	
Tele (O):	+91-79-23241701
Staff Officer to COMCG (NW) :	
Deputy Commandant Shivender Verma	
Tele (O):	+91-79-23243127

Chief of Staff (North West) :	
Deputy Inspector General Rajesh Makwana,TM & Bar	
Tele (O):	+91-79-23243310
Chief Staff Officer(Ops), North West Region :	
Deputy Inspector General V Anbarasan,TM	
Tele (O):	+91-79-23243184
Chief Staff Officer(P&A), North West Region :	
Deputy Inspector General Vijay Singh, TM	
Tele (O):	+91-79-23243136
Chief Staff Officer(Tech), North West Region :	
Deputy Inspector General Vivek Vajpayee,TM	
Tele (O):	+91-79-23243159
Regional Public Relation Officer (NW) :	
Commandant MAK Agrawal	
Tele (O):	91-79-23243197
Regional Public Information Officer (NW) :	
Commandant Rajeev Ranjan	
Tele (O):	+91-79-23243136

7. India Meteorological Department and Observatories India Meteorological Department and Observatories

STATE	IN-CHARGE	IN-CHARGE MOBILE.	DUTY OFFICER NO.	DUTY OFFICER EMAIL
GUJARAT	MS. MANORAMA MOHANTY, SC-F	9428909340	079-29705010	metahm01@gmail.com
MAHARASHTRA	SH. S G KAMBLE, SC-F	9819520521	022-2250431	acwc.mumbai@gmail.com
NAGALAND	DR. SANJAY ONEILL SHAW, SC-F	9864232832	-	-
ODISHA	SH. H R BISWAS, SC-F	9433125951	0674-2596093	mcbbsrdo@gmail.com
RAJASTHAN	DR. RADHE SHYAM, SC-C	8789162105	0141-2988121	mcjaipur@rediffmail.com
WEST BENGAL	DR. SANJIB BANDYOPADHYAY, SC-G	7980484279	033-24793167	comm.alp@gmail.com

1. Western Railway

Security Helpline (Suburban) 1311

Security Helpline (All India) 182

No.	Division	Designation	Landline/CUG/Fax
1	Ahmedabad	Divisional Railway Manager Shri Deepak Kumar Jha	(O)079-22204588 (M)9724093000 (F)22204589
2	Ahmedabad	ADRM Shri Anant Kumar	(O)22204590 (M) 9724090001
3	Ahmedabad	SR. DOM (Operating Dept.) Shri Pavankumar Sing	(O)22204008 (Fax) (M)9724093900
4	Ahmedabad	SR.DCM (Commercial Dept.) Shri Kushagra Mittal	(O)22201990(Fax) (M) 9724093950
5	Ahmedabad	SR.DEN/CO (Eng.Dept.) Shri Lokesh Kumar	(O)22205665 (M)9724093200
6	Ahmedabad	Sr.Divisional Safety Officer Shri A.V.Purohit	(O)22205005 (M) 9724093730
7	Ahmedabad	Station Director/ DOM (General) Shri Narendra Kumar	(O)22203330 (M) 9724093902
8	Vadodara	Divisional Railway Manager Shri Devendrakumar	(O)0265-2638081 (M) 9724091000
9	Bhavnagar	Divisional Railway Manager Shri Prateek Gosawami	(O)0278-2445475 (M)9724097000
10	Rajkot	Divisional Railway Manager Shri Parmeswar Funkwal	(O)0281-2477006 (M) 9724094000
11	Mumbai Central	Divisional Railway Manager Shri G V L Satya Kumar	(O)022-23002977 (M) 9004499000

No.	Division	Designation	Landline/CUG/Fax
12	Mumbai Central	Control Room	(O)022-67644615, 9004499936s
13	Mumbai Churchgate	Chief Bridge Engineer Shri Manjul Mathur	(O)022-22015154, (M) 9004490201

Western Railway - Headquarter Office (Mumbai)

Chief Bridge Engineer(Churchgate, Mumbai)	(O) 022-22015154 (M) 9869048946
Chief Controller (Churchgate, Mumbai)	022-22017420, 022-22084287

2. Airport Authority of India

No.	Airport	Designation & Name	Tel No.(O)/Mobile No./Fax
1	S.V.P.I. Airport, Ahmedabad	Shri Arun Kumar Khare Offtg. Airport Director	(O)22869211 (M) 9825024022 (F)22863561
2	S.V.P.I. Airport, Ahmedabad	Shift Duty Airport Manager T-1 (Domestic Terminal)	(O)22869266 (M)90999 51141
3	S.V.P.I. Airport, Ahmedabad	Shift Duty Airport Manager T-2 (Domestic Terminal)	(O)22858058 (M)90999 51142
4	S.V.P.I. Airport, Ahmedabad	Shri Pradeep Kumar, General Manager (T.M.)	(O) 22885520
5	S.V.P.I. Airport, Ahmedabad	Shift Duty Officer Air Traffic Control Tower	(O)22869251
6	S.V.P.I. Airport, Ahmedabad	Shri Davindra Arora General Manager (A.T.M.)	(O) 22863396
7	Rajkot	Airport Director,Rajkot Airport	(O) 0281-2451849 (F) 0281-2453009
8	Vadodra	Airport Director Vadodra Airport Sri T.K.Gupta	(O) 0265-2482228, 2481356, 2486718 (F)2464249, 2483899
9	Bhavnagar	Airport Authority,Bhavnagar Airport	(O) 0278-2212971 0278-2208226 (M) 9427211500

I. State Level**1. Gujarat State Disaster Management Authority, (GSDMA)**

No.	Name	Designation	(O)	(M)
1	Shri Kamal Dayani-IAS	Chief Executive Officer	23259276	99784 05830
2	Ms. Trupti Patel	PS to CEO	23259276	9662729291
3	Shri A.J.Asari-IAS	Additional CEO	23259451	9408978788
4	Ms Shital Goswami-GAS	Director-Admin	23259219	9737770293
5	Shri H.P.Patel-GAS	Director-DM	--	9825162217
6	Shri Samir Mehta	Controller of Account	23259278	9978405474
Gujarat Institute of Disaster Management (GIDM)				
1	Shri P.K.Taneja, Retd.IAS	Director General (GIDM)	23275801/804	9978406146
2	Shri Nisarg Dave	Director (F & A)	232-75811 Fax 232 75814	9727060666

2. SEOC Important Telephone Numbers - (079)

Sr. No.	Name	Designation	Office	Mobile No.
1	Shri C.C.Patel	Director of Relief	23251900	9824250136
2	Smt. R N Kushawa	Dy.Collector	23251900	9978903431
3	Shri Vipul Kharadi	Mamlatdar	23251900	8141206622
4	Shri G.P.Bhayani	Mamlatdar	23251902	9825097079
5	Shri J.B.Vaghela	Deputy Mamlatdar	23251902	9664730031
6	Shri S.S.Divakar	Deputy Mamlatdar	23251902	9426665585
7	Shri Prakash P.Rami	Deputy Mamlatdar	23251902	9428664663
8	Shri Jogidan Gadhavi	Deputy Mamlatdar	23251902	9274480700
9	Shri Shreyaben Patel	Deputy Mamlatdar	23251902	9428278843
10	Shri Aneri Modh	Deputy Mamlatdar	23251902	9428984306
E-mail		revcontrol1@gujarat.gov.in / revcontrol2@gujarat.gov.in		
SEOC		(O) 23251900,23251902,23251908		
		(F) 23251912/23251916		

3. 6 Bn, NDRF, Jardor-Vadodara-

No.	Designation	Name	Tel. No.
1	Commanadant	Shri V V Prusunnakumar	(O) 02668-274470,299201 (R)274211 (F)274470 (M) 094288 26445

No.	Designation	Name	Tel. No.
2	Second Incharge	Shri N.K.K.Prasad	(M) 94273 04217 (o)02668-274460
3	Dy. Commandant (Operational)	Shri Ranvijay Singh	(M)9427050984 (M) 9427304214 (M)8320459958
4	Dy. Commandant (Administrative)	Vacant	-
5	Control Room		02668-274245(F)02668-274470,(M)9723639166,9429469388

4. IMD Regional Offices

Indian Meteorological Department (IMD) Regional Offices

S.No	Location	Phone
1	CDR Bhuj	02832-220007, 250575
2	Veraval	02876-220004
3	Vadodara	0265-2482228
4	Deesa	02744-221178
5	Okha	02892-262129
6	Rajkot	0281-2451296
7	Keshod	De function
7	Porbandar	0286-2220955
9	Dwarka	02892-234437
10	Bhavnagar	0278-2209440
11	Surat	0261-2725092
12	Naliya	02831-222201
13	Kandla	02836-257905
14	Bhavnagar (Seismo)	0278-2560451/2 circuit house

5. Institute of Seismological Research

Address: Near P.D.P.U. campus, Raisan village, Gandhinagar

No.	Name	Desi.	(O)	(R)	(M)
1	I/C Dr.Sumer Chopra	Director General	66739001 66739015(Fax)	-	9426564038 9910414038
2	Shri Santosh Kumar	Scientist-E	66739023	-	99252 43646
3	Data Centre	-	66739000 (F) 66739028	-	9727717841

6. Bhaskaracharya Institute of Space Application & Geo-informatics (BISAG)

No.	Name	Desi.	(O)	(R)	(M)
1	Shri T.P.Singh	Director General	23213081/90 (F) 23213091	23254846	9909945001
2	S K Hudda	Director Administration	23213081	-	9978405803
3	Khalid Director	Project Manager	23213081	-	99099450

Information and Communication

Sr. No.	Name & Desination	Office	Mobile	Fax	
1	AIR, Ahmedabad Shri N.R. MEENA, PEx I/C Prog. Head	27540438	9913860467	27540195	ahmedabad@prasarbharati.gov.in
2	CBS,AIR, Ahmedabad Shri Yatin Dave Head of Office	27541597	9427615362	27541597	vbs079@gmail.com
3	AIR, Rajkot Shri Vasant Joshi, Asstt. Director (P)	0281- 2453503/ 2444603	9426987882	2453503	rajkot@air.org.in
4	AIR,Bhuj Dr, Meera Saurab Asstt.Director (P)	02832-250852 222503	9428156164	252251 250852	akashvanibhuj@gmail.com
5	AIR,Surat Amrapali Desai Asstt. Director (P)	0261-2232323 2236209	9427104852	2232323 2236209	air.surat@yahoo.com
6	AIR,Baroda Shri Jagdish Parmar Programme Executive	0265-2643796	9426588866	0265- 2642646	cbsvadodara@gmail.com
7	AIR,Godhara Ms Geeta Gida Prog. Executive	02672-241478 241660	9426719679	241478	godhrafm@gmail.com
8	AIR,Ahwa Shri Sailesh Pandya Head of Officer	02631-220295/ 220356	8866557727	026131- 220295	airahwap@gmail.com
9	AIR, Daman Shri Ojas Mankodi Program Executive	0260-2242966	9427214336	2242966	airdamanprog@gmail.com

1. Gujarat Maritime Board

Head Office, Control Room, Gandhinagar 079- 23224758

Fax No. 079- 23236499

DM Cell, Gandhinagar 079-23238346, 23238347, 23238351

Fax No.079- 23236499

Sr. No.	Name of Port	Port Officer	Office	Mobile	Fax No	E mail id
1	Gandhinagar	Capt. Ashwin Solanki, Chief Nautical officer, GMB, Gandhinagar	2822 220435	9979669659	23234716	solankiashwin@ yahoo.com
2	Magdalla	Capt. Banshiva Ladva, Port Officer, 3 rd Floor, BSNL Bhawan, Falsawadi, Nr. Belgium Tower, Surat- 395003	0261- 2430533	9825412186	0261-2435645	popbr1@rediffm ail.com
3	Gandhinagar	Shri Gauravkumar Mehta & Shri Ankur gupta (I/C) Control Room, Head office, Gandhinagar	079 232 24758 079 232 38346	-	23234704	-
4	Bharuch	Capt. Banshiva Ladva, Nautical officer & Port Officer, GMB Near ST Bus Stand, Bharuch	02642- 241772	9825412186	02642-243140	popbr1@rediffm ail.com
5	Bhavnagar	Capt. Kuldeep Singh , Port Officer, GMB, New Port, Bhavnagar	0278- 2210558; 0278- 2561221	9998057507	0278-2571221	-
6	Alang	Capt. Kuldeep Singh, Port Officer (I/C) GMB, Alang Ship recycling Yard, Tal. Talaja, Dist. Bhavnagar, ALANG	02842- 235621	9998057507	02842-235955	alanggmb@yaho o.com
7	Jafrabad	Capt. Arvind Kumar Mishra Port Officer GMB , Jafrabad Port, Dist.Amreli	02794- 245443	9099694747	02794-245165	gmbpojfd@gmai l.com
8	Veraval	Capt. Arvind Kumar Mishra, Port Officer(I/C), Gujarat Maritime Board Veraval Port, Veraval	02876- 221139; 02876- 220001	9099694747	02876-243138	poveraval@gmai l.com
9	Porbandar	Capt. Arvind Kumar Mishra Port Officer, Gujarat Maritime Board, Vaghsweari Plot, Port Colony No-1, Porbndar port, Porbandar.	0286- 2242404	9099694747	0286-2253664	popbr1@rediffm ail.com
10	Jamnagar	CAPT. Niraj Hirwani Port Officer, GMB, GMB Complex, Jamnagar	0288- 2712307	9558801612	0288-2712815	pojam.gmb@gm ail.com
11	Navlakhi (Morbi)	Capt. Niraj Hirwani, Pilot officer, Near Rly. Crossing, Char Godown, Morbi	02822- 227304	9558801612	02822-234465	<u>pfsonavlakhi@g</u> <u>mail.com</u>
12	Okha	CAPT. Niraj Hirwani, Port Officer, GMB, Okha Port, OKHA	02892- 262109	9558801612	02892-262002	portofficerokp@ gmail.com
13	Mandvi	Shri R.C.Patel, Port Officer, I/C Mandvi Port, Mandvi.	02834- 222633	9925153083	02834-230033	pomgmb@yahoo .co.in

2. Telecommunication

No.	Name	Desi.	(O)	(R)	(M)
1	Shri Hemang Purohit	DS(IT)	23250438	-	9978405941
2	Shri Kamlesh Raval	Communication Engineer (IT)	26440908	-	9825045169
3	BSNL. Gandhinagar	Shri Kamle General Manager	23248555 23229390	-	8275711100
4	BSNL. Gandhinagar	Shri R.Kumar Divi. Eng. (External)	23249555	-	9426604777
5	BSNL. Gandhinagar	Shri Shashank Johri Commercial Officer	23240999 23220500	-	9427319900
6	BSNL. Gandhinagar	Shri J. S. Patel DGM. BSNL	232229191	23246848	9408597879
7	BSNL. Ahmedabad	Shri K.R.Shah AGM(OP) BSNL	079-26481260	26481420	9426622244
8	Vodafone	Head (Admin & Safty) rajesh.roy2@vodafone.com	079-26577228 079-71716001	-	-
9	Bharti Airtel	Anant Arora Gujarat Head, Bharti Airtel	-	-	9979999221
10	Tata Docomo	Niraj Mehta Dy.General Manager	-	-	9033076800
11	Idea	Punit Krishnan Manager (Facility & Admin)	079-66714000	-	9824004701

III. District Level

1. GSWAN Network

GSWAN Control (Help)		777
Sr. No.	District Name	Code
1	Ahmedabad	2000
2	Amreli	2200
3	Anand	2300
4	Banaskantha	2400
5	Bharuch	2500
6	Bhavnagar	2600
7	Dahod	2700
8	Dang	2800
9	Gandhinagar	2900
10	Jamnagar	3000
11	Junagadh	3100

GSWAN Control (Help)		777
Sr. No.	District Name	Code
12	Kheda	3200
13	Kutch	3300
14	Mehsana	3400
15	Narmda	3500
16	Navsari	3600
17	Panchmahal	3700
18	Patan	3800
19	Porbandar	3900
20	Rajkot	6000
21	Sabarkantha	6100
22	Surat	6200
23	Surendranagar	6300
24	Vadodara	6400
25	Valsad	6500

Sr. No.	Local Office	Extn.No.
1	Collector	123
2	RDC	132
3	Pa to Collector	123
4	Add. Collector	121
5	Dist. Planning Officer	124
6	Election Department	125
7	Disaster Management	100
8	Dist. Supply Officer	126
9	PRO Branch	127
10	Chitnis	128
11	Home Deppartment	129
12	Mid Day meal Office	130
13	MDC	131
14	GSWAN Coordinator	133

S. No.	Other Office	Extn.No.
1	DSP (Rural)	200
2	DDO & Panchayat	201
3	Prant Office	202
4	Mamlatdar Office (City)	203
5	Civil Surgen	204
6	Civil Survey Office	205
7	DILR	206
8	Dist. Indust. Office	207
9	RTO	208
10	Social Walfate	209
11	DEO	210
12	Dist. Cout	211
13	Dist. Register	212
14	Dist. Mahiti Office	213
15	Stamp Duty	214
16	LAQ (SSNL)	215
17	Geology & Mining Office	216
18	Forest Office	217
19	Waher Supply	218
20	R & B	219

District Name: - PATAN (STD Code: 02766)					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri Arvind Vijyan., I.A.S	9978406218	233301	collector-pat@gmail.com
2	DDO	Shri D.M. Solanki	9978406243	231446	ddo-pat@gujarat.gov.in
3	S P	Shri Vijaykumar Patel, I.P.S	9978405078	230500	sp-patan@gujarat.gov.in
4	Resi. Addl. Collector	Shri Pradipsinh Rathod	9978405190	233400	add-collector-pat@gujarat.gov.in
5	Dy. District Development Officer (Mehsul)	Shri R. K. Makvana	8980604081	232521, 223296	dyddo-rev-pat@gujarat.gov.in
6	Deputy Conservator of Forest	Smt Bindu Patel	9998608804	231694	dycfpatan25@yahoo.in
7	Dy. SP	Shri K K Pandya I/c	9978405019	230502	sp-patan@gujarat.gov.in
8	Chief District Health officer	Shri Dr. V.A.Patel	9099018621	220592, 221554	cdho.health.patan@gmail.com
9	Director, DRDA	I/C Shri R. K. Makvana	8980604081	291706, 220711	drda.pat@gujarat.gov.in
10	DSO	Shri H B Kodaravi	9427369902	224660	dso-pat@gujarat.gov.in
11	Medical Superintendent (Civil Hospital)	Dr. Dixit modh	8735975555	265200	gmershospitalpatan@gmail.com
12	CDMO	Rajesh Tahkhar	8758818018	2333111	cdmo.health.patan@gmail.com
13	DEO	Shri B.P.Patel	9909970222	230025	patandeo@gmail.com
14	DPEO	Shri N.M.Raval	9909971692	234239	dpcpatan@gmail.com

District Name: - PATAN (STD Code: 02766)					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
15	General Manager, DIC	Shri Mihir Makwana	998318579	234517	gm-dic-pat@gujarat.gov.in
16	Ass. Director of Information	Shri Kuldeep Parmar	9898463636	297035	ddinfopatan@gmail.com
17	Port Officer, GMB	NA	NA	NA	NA
18	Chief Fire officer	Shri Snehal Modi	9879376414 9106865993	233232	np_patan@yahoo.co.in
19	Executive Engineer, R & B (State)	Shri D L Rathod	9427683276	233777	exernptn@gmail.com
20	Executive Engineer, R & B (Panchayat)	Shri M M Chaudhari	9879350620	234285	eepatan@yahoo.co.in
21	Executive Engineer, irrigation (State)	Shri S I Patel	9724579837	220472	Patanirri5@gmail.com
22	Executive Engineer, irrigation (Panchayat)	Shri V C Bhavasar	8530532521	234240	exeiri-ddo-pat@gujarat.gov.in
23	Executive Engineer GWSSB	Shri N P Patel	9978406477	226716	gwseecrdn00@gmail.com
24	Superintendent Engineer, UGVCL,	Shri S A Bhattachary	9925210234	230439	eepatando@ugvc.com
25	Dy Director of Animal husbandry	Shri B M Saragara i/c	7016958348	292299	Dydir-ah-pat@gujarat.gov.in
26	District Agriculture officer	Shri S n Prajapati	9924226408	224489	dao-ddo-pat@gujarat.gov.in

District Name: - PATAN (STD Code: 02766)					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
27	Program Officer ICDS	Shri Gauriben Solanki	9979339093	225816	poicdapat123@gmail.com
28	Director Industrial Safety and Health	Shri R K Patel	9879152821	027620231501	ad1-dish-msn@gujarat.gov.in
29	DC/ST Manager depot.	Shri Goswami		6359918622	dmpatangsrc@gmail.com
30	Superintendent of Fisher	Na	Na	Na	Na
31	Regional officer, GPCB	Shri J D Priyadashi	7574827432	02742-251301	ro-gpcb-pal@gujarat.gov.in , gpcbpalanpur@gmail.com
32	Manager BSNL	Shree Parekh	9426302123	222150	hdoppatan@gmail.com
35	Mamlatdar Disaster	Shri H.J. Raval	9825220025	224830	deocpatan@gmail.com
37	DPO Disaster	K S Patel	9426533915	224830	deocpatan@gmail.com
38	Dy. Mamlatdar Disaster	Sanjay Desai	9428651608	224830	deocpatan@gmail.com

District Name: - Tapi					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Dr. Vipin Garg	9978405364	224460	collector-tapi@gujarat.gov.in
2	DDO	Shri V.N.Shah	9978405263	222141	ddo-tapi@gujarat.gov.in
3	S P	Shri Rahul Patel	9978405488	222700	sp-tapi@gujarat.gov.in

District Name: - Tapi					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
4	Resi. Addl. Collector	Shri R.J. Valvi	9978405415	224450	addcollector-tapi@gujarat.gov.in
5	Dy. District Development Officer (Mehsul)	Shri R.H.Rathva	7567018102	220405	ddo-tapi@gujarat.gov.in
6	Deputy Conservator of Forest	Shri Punit Nair	8158560627	222019	dcfvyara1@gmail.com
7	Dy. SP	Shri S.M.Jadeja	9978408077	224193	sp-tapi@gujarat.gov.in
8	Chief District Health officer	Dr.Paul Vasava	9879544425	220376	cdho.health.tapi@gmail.com
9	Director, DRDA	Shri R.H.Rathva	7567042193	223232	drda.tap@gmail.com
10	DSO	Smt.Trupti M. Patel	9879598335	224401	Inc-dso-tapi@gujarat.gov.in
11	Medical Superintendent (Civil Hospital)	-	-	-	-
12	CDMO	Shri Naitik Chaudhari	9927742501	220053	ghvyara@gmail.com
13	DEO	Shri Dharaben	9913933043	221624	tapideo@gmail.com
14	DPEO	Shri J.C.Chaudhari	9825282461	222057	tapidpc@gmail.com
15	General Manager, DIC	Shri D.D.Solanki	9925333268	221840	gm-dic-tap@gujarat.gov.in
16	Ass. Director of Information	Shri Ninesh Bhabhor	9586221935	222980	tapiadi932@gmail.com
17	Port Officer, GMB	-	-	-	-
18	Station Fire officer	Shri Naran Bandhiya	6354659697	222022	vyaranagar@yahoo.co.in
19	Executive Engineer, R & B (State)	Shri Manish Patel	9426842467	220419	rnbtpati@yahoo.co.in
20	Executive Engineer, R & B (Panchayat)	Shri D.A. Patel	9979353215	220058	exepan_rnb_tapi@yahoo.in

District Name: - Tapi						
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id	
21	Executive Engineer, irrigation (State)	-	-	-	-	
22	Executive Engineer, irrigation (Panchayat)	Shri D.R.Patel	9825352556	220142	exe.panirri.tapi@gmail.com	
23	Executive Engineer GWSSB	Shri A.B.Garasiya	9978406649	-	tapi.dwsc@gmail.com	
24	Superintendent Engineer, DGVCL,	Shri M.S.Patel	9879200771	220165	do.vyara@gebmil.com	
25	Dy Director of Animal husbandry	Dr.R.S.Gavit	9427154641	220679	a.h.d.tapi@gmail.com	
26	District Agriculture officer	Shri Chetan C. Garasiya	9909971329	220365	agri.tapi@gmail.com	
27	Program Officer ICDS	Shri Tanvi Patel	6359923551	224577	dpc.icds.tapi1@gmail.com	
28	Director Industrial Safety and Health	-	-	-	-	
29	DC/ST Manager depot.	Shri Zakir Shaikh	9359918765	-	dmsnd2624@gmail.com	
30	Superintendent of Fisher	Shri A.M.Patel	9427127103	-	fisheriesdepartment.ukai@gmail.com	
31	Regional officer, GPCB	Shri H.M.Gavit	9825155421	-	-	
32	Manager BSNL	Sapnaben	94294 08330		csc.bsnl.vyr@gmail.com	
35	Mamlatdar Disaster	-	-	-	-	
37	DPO Disaster	Shri K.K.Gamit	9825920032	223332	dpo.gsdma.tapi@gmail.com	
38	Dy. Mamlatdar Disaster	Smt.Dipika K.Chaudhari	9512396038	-	Disatapi26@gmail.com	

District Name: - Gir Somnath (02876)					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri H. K. Vadhvaniya, IAS	9978405934	285001	collectorgirsomnath@gmail.com
2	DDO	Shri. Ravindra Khatale	9978406495	285255	ddo.girsomnath@gmail.com
3	S P	Shri. Rahul Tripathi	9978405974	222250	sp-gir@gujarat.gov.in
4	Resi. Addl. Collector	Shri.B. G LIMBASIYA	9824221009	285003	addl-collector-girsomnath@gujarat.gov.in
5	Dy. District Development Officer (Mehsul)	Smt. Pallavi Baraiya	9099051019	249249	ddogs@gmail.com
6	Deputy Conservator of Forest	Shri G. A. Sodha	9726383909	223227	dcf.gir.west@gmail.com
7	Dy. SP	Ms. H. S. Chaudhari		223101	sp-gir@gujarat.gov.in
8	Chief District Health officer	Shri Harun Bhaya	7567889923	240051	cdho.health.girsomnath@gmail.com
9	Director, DRDA	Shri S.J. Khachar	9978691553	245271	drdagirsomnath@gmail.com
10	DSO	Shri Tushar K. Jani	9724363100	240032	dsogirsomnath@gmail.com
11	Medical Superintendent (Civil Hospital)	Dr. Ram Balu	9033869836	240015	npcdcs.girsomnath@gmail.com
12	CDMO	--	--	--	--
13	DEO	Shri Rajesh Dodiya	7574822584	221095	girsomnathdeo@gmail.com
14	DPEO	Shri Rajesh Dodiya	7574822584	244500	girsomnathdpeo@gmail.com
15	General Manager, DIC	Shri P.B. Patel	9106540764	244222	gm-dic-gir@gujarat.gov.in
16	Ass. Director of Information	Shri Himant Gonjiya	9426985625	240108	mahitigirsomnath@gmail.com
17	Port Officer, GMB	Shri P. H. Chaudhri	243138	220001	poveraval@gmail.com
18	Fire officer	Shri Raviraj Chavda	9033760750	22001	np_veraval@yahoo.com
19	Executive Engineer, R & B	Shri S. R. Charaniya	9664511198	220237	mbveraval@gmail.com

District Name: - Gir Somnath (02876)						
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id	
	(State)					
20	Executive Engineer, R & B (Panchayat)	Shri A. N. Bhadoriya	7567835505	285352	panchayatnbgirsomnath@gmail.com	
21	Executive Engineer, irrigation (State)	Shri P. J. Vyas	9099954459	249247	ee.pidv@gmail.com	
22	Executive Engineer, irrigation (Panchayat)	Shri P. J. Vyas (I/C)	9099954459	249247	ee.pidv@gmail.com	
23	Executive Engineer GW/SSB	Shri J. N. Rathod	9978406851	224840	wdn2jnd@gmail.com	
24	Executive Engineer, PGVCL,	Shri Pankaj Joshi	9879200788	220169	eevrl.pgvc1@gebmil.com	
25	Dy Director of Animal husbandry	Shri P. D. Karetha	9979861705	249203	ddo.girsomnath@gmail.com	
26	District Agriculture officer	Shri P. M. Babariya	9687215777	249080	daogirsomnath@gmail.com	
27	Program Officer ICDS	Shri K. B. Nimavat	7574891971	249200	ddo.girsomnath@gmail.com	
28	Director Industrial Safety and Health	Shri J. M. Dwivedi	9824190891	2636946	dvdish-jun@gujarat.gov.in	
29	DC/ST Manager depot.	Shri Bhavin Rabari	6359918588	220094	dmdveraval@gmail.com	
30	Superintendent of Fisheries	Shri V. K. Gohil	9408320907	243102	adfveraval@gmail.com	
31	Regional officer, GPCB	Shri B. R. Kunadiya	9157649148	2651506	ro-gpcb-juna@gujarat.gov.in	
32	Manager BSNL	Shri P. C. Kariya	9429944720	246000	sraol13@gmail.com	
35	Mamlatdar Disaster	--	--	--	--	
37	DPO Disaster (I/C)	Shri Y.S. Shivani (I/c)	9427433979	285063	yakinshivani@gmail.com	
38	Dy. Mamlatdar Disaster	Shri V.S. Chavda	9726785181	285064	dismgmt-girsomnath@gujarat.gov.in	

District Name: - Bhavnagar (0278)					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri R.K.Mehta	9978406206	2428822	collector-bav@gujarat.gov.in
2	DDO	Dr. Prashant Jilova	9978406231	2426810	ddo-bav@gujarat.gov.in
3	S P	Dr.Ravindra Patel	9978405067	2520050	sp-bav@gujrat.gov.in
4	Resi. Addl. Collector	Shri B.J.Patel	9978405178	2427756	add-collector-bav@gujarat.gov.in
5	Dy. District Development Officer (Mehsul)	Shri G.G.Devmani	7567017325	2433868	dyddo.rev.bhv@gmail.com
6	Deputy Conservator of Forest	Shri Sadik Mujaavar	7567861778	2428644	dcf-bav@gujarat.gov.in
7	Dy. SP	Shri R.R.Sindhal	9978407982	2513717	dysp-hq-bav@gujarat.gov.in
8	Chief District Health officer	Dr. Chandramanikumar	9727779661	2423665	cdho-bav@gmail.com
9	Director, DRDA	Shri J.N.Jharu	7567032839	2427535	dirdrda-bav@gujarat.gov.in
10	DSO	Shri H.M.Jankat	7567021670	2428908	dso-bav@gujarat.gov.in
11	Medical Superintendent (Civil Hospital)	Dr. Jayeshkumar Brahmhatt	9898141114	2427524	civilhospital-bav@gmail.com
12	MO-BMC	Dr.R.K.Sinha	9727776890	2424801	mo-bmc@gmail.com
13	DEO	Shri S.K.Vyas	9909970212	2426629	deo-bav@gmail.com
14	DPEO	Shri S.K.Vyas	9909971655	2523582	dpeo-bhavnagar@gmail.com
15	General Manager, DIC	Shri Tanvi Patel	7587177329	2422225	-
16	Ass. Director of Information	Shri Chintan Raval	9537409098	2424994	dydirinfo-bav@gmail.com
17	Port Officer, GMB	Cap.Rakeshkumar Mishra	9601254062	02842 235622	pogmb-alang@gmail.com

District Name: - Bhavnagar (0278)						
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id	
18	Chief Fire officer	Shri M.M.Hirpara	9727712177	2439292	cfo.bmcfire@gmail.com	
19	Executive Engineer, R & B (State)	Shri R.U.Patel	9427264050	2423383	-	
20	Executive Engineer, R & B (Panchayat)	Shri S.D.Chaudhari	9979261664	2422548	-	
21	Executive Engineer, irrigation (State)	Shri S.J.Gupta	9978405570	2430155	-	
22	Executive Engineer, irrigation (Panchayat)	Shri Ranabhai Bhaliya	9825431099	2510135	-	
23	Executive Engineer GWSSB	Shri Deepa Parmar	9978095184	2425849	-	
24	Superintendent Engineer, PGVCL	Shri U.G.Vasava	9879203840	2524924	-	
25	Dy Director of Animal Husbandry	Dr.K.H.Baraiya	9427511553	2524376	dydir-ah-bav@gujarat.gov.in	
26	District Agriculture officer	Shri Ashok M. Patel	9427632297	2439931	dao.bhavnagar@gmail.com	
27	Program Officer ICDS	Shri Sharadaben Desai	9879396232	2519411	pobhavnagar@gmail.com	
28	Ass. Director Industrial Safety and Health	Shri Mitesh Menat	9427508476	2428473	-	
29	DC/ST Manager depot.	Shri M.D.Shukla	6359919028	2428264	-	
30	Superintendent of Fisher	Shri K.V.Ramani	8141789262	2427567	-	
31	Regional officer, GPCB	Shri A.J.Rathod	8140944711	2524108	-	
32	Manager BSNL	Shri	9426686986	243400	-	
35	Mamlatdar Disaster	Shri S.N.Vala (I/C)	9426902111	2521555	dismgmt-bav@gujarat.gov.in	
37	DPO Disaster	Shri Dimpal Teraiya	9824438275	2521554	teraiya.dimpal.89@gmail.com	
38	Dy. Mamlatdar Disaster	Shri S.N.Vala	9426902111	2521555	dismgmt-bav@gujarat.gov.in	

District Name: -Chhotaudepur (02669)					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Smt. Stuti Charan (IAS)	99784 05937	233003	collector-cho@gujarat.gov.in
2	DDO	Shri Ganga Singh (IAS)	9978406468	233050	ddochhotaudepur@gmail.com
3	S P	Shri Dharmendra Sharma (IPS)	9978405977	233077	control-sp-cpr@gujarat.gov.in
4	Resi. Addl. Collector	Shri R. K. Bhagora (GAS)	7574953262	233004	collector-cho@gujarat.gov.in
5	Dy. District Development Officer (Mehsul)	Shri Raju Parmar	9879097521	-	daochhotaudepur@gmail.com
6	Deputy Conservator of Forest	Shri V. M. Desai	7861801824	-	dcfchhotaudepur@gmail.com
7	Dy. SP	Shri D. K. Rathod	9909409710	233104	control-sp-cpr@gujarat.gov.in
8	Chief District Health officer	Dr. M. T. Chhari	9375101163	-	dh.health.chhotaudepur@gmail.com
9	Director, DRDA	Shri K. D. Bhagat (GAS)	9825668196	-	drdachhotaudepur@gmail.com
10	DSO	Shri Abhishek Sinha (GAS)	8866543157	-	dsochhota@gmail.com
11	Medical Superintendent(Civil Hospital)	Dr. Yogesh Parmar	9099971818	-	cdmo-chho@gujarat.gov.in
12	CDMO	Shri Samir Parikh	9898450765	-	cdmo-chho@gujarat.gov.in
13	DEO	Shri K.B.Pachani	9904203704	-	deochhotaudepur@gmail.com
14	DPEO	Shri Imran Soni	9428167141	-	dpochhotaudepur@gmail.com
15	General Manager, DIC	Shri S.J.Thakor	9978675598	-	gm-dic-chh@gujarat.gov.in
16	Ass. Director of Information	Shri C.F. Vasava	8238736444	-	infochhota@gmail.com
17	Executive Engineer, R & B (State)	Shri G.D.Rana	9726580922	-	rmbchhotaudepur@gmail.com
18	Executive Engineer, R & B (Panchayat)	Shri H.C.Vasava	9428694599	-	rmbpanchayatrchhotaudepur@gmail.com

District Name: -Chhotaudepur (02669)					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
19	Executive Engineer, irrigation (State)	Shri A.R.Patel	9687067441	-	eeirrchhotaudepur@gmail.com
20	Executive Engineer, irrigation (Panchayat)	Shri A.K.Mishra	7240860701	-	eeirrrpanchayatchh@gmail.com
21	Executive Engineer GWSSB	Shri K.S.Baraiya	9978915589	-	eegwssbchhotaudepur@gmail.com
22	Superintendent Engineer, MGVCCL,	Shri K.R.Shah	9879200829	-	semgvcclchhota@gmail.com
23	Dy Director of Animal husbandry	Dr. Vikrant Garasiya	9662936250	-	-
24	District Agriculture officer	Shri Krunal Patel	9825513952	-	daochhotaudepur@gmail.com
25	Program Officer ICDS	Smt. Parul Vasava	9904982232	-	po.icds.chhota@gmail.com
26	DC/ST Manager depot.	Shree	6359918353	-	-
27	Superintendent of Fisher	Smt. A.P.Patel	9978723989	-	-
28	Regional officer, GPCB	Shri J. M. Mahida	7574820110	-	gpcbchhotaudepur@gmail.com
29	Manager BSNL	Shri Piraji Tagyalkar	9423775776	-	-
30	Mamlatdar Disaster	Shri S. A. Rathva	98243 28774	233021 233022	disasterchhotaudepur@gmail.com
31	DPO Disaster	Shri B. L. Parmar	99786 21514	233021 233022	parmarbantish@gmail.com
32	Dy. Mamlatdar Disaster	Shri Viral Chaudhari	99259 14769	233021 233022	disasterchhotaudepur@gmail.com

District Name: -Vadodara (0265)						
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id	
1	Collector	Shri A.B.Gor (IAS)	99784 06224	2433000	collector-vad@gujarat.gov.in	
2	DDO	Mrs. Mamta Hirpara (IAS)	99784 06249	2432027	ddo-vad@gujarat.gov.in	
3	S P	Shri Rohan Anand (IPS)	99784 06094	2412225	sp-vad@gujarat.gov.in	
4	Resi. Addl. Collector	Dr. B. S. Prajapati (GAS)	99784 05196	2419700	rdc-vad@gujarat.gov.in	
5	Dy. District Development Officer (Mehsul)	Smt.R.G.Vasava	75670 17977	2431770	dyddorevvado@gmail.com	
6	Deputy Conservator of Forest	Shri Ravirajsinh Rathod	92652 42340	2431128	dcfsfvadodara@gmail.com	
7	Dy. SP	Smt.Chetna Chuadhari	99784 07981	2435400	dysp-admin-vad@gujarat.gov.in	
8	Chief District Health officer	Dr. Minaxi Chauhan	89800 39101	2432383	clho-ddo-vad@gujarat.gov.in	
9	Director, DRDA	Smt Joshi	75670 43376	2487432	drda-vad@yahoo.com	
10	DSO	Smt.K.B.Patel	75670 22447	2423086	dso-vad@gujarat.gov.in	
11	Medical Superintendent (Civil Hospital)	Dr. Ranjan Iyer	98251 84648	2424848		

District Name: -Vadodara (0265)					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
12	CDMO	Dr. Kamal Mishra	82380 12033	2517400	cdmo.health.jamnabai@gmail.com
13	DEO	Shri B.J.Vanjara	97274 20737	2461703	vadodeo@gmail.com
14	DPEO	Shri Sachin Doshi	99099 87576	2436411	dpeovadodara@gmail.com
15	General Manager, DIC	Shri H.N.Mevada	99786 75598	2423246	Gm-dic-vad@gujarat.gov.in
16	Ass. Director of Information	Shri B.P.Desai	94265 67970	2458761	cdmo-vad@gujarat.gov.in
17	Chief Fire officer	Shri P.G.Brahmbhatt	99240 25094	2413635	cfovadodarafire@gmail.com
18	Executive Engineer, R & B (State)	Shri K.R.Thorat	97275 99555	2352099	exedist@yahoo.co.in
19	Executive Engineer, R & B (Panchayat)	Shri Nainesh Nayakawala	79842 45226	2432643	exnvadodara@yahoo.co.in
20	Executive Engineer, irrigation (State)	Shri M.D.Gohil	99099 45904	2429600	vidvadodara@gmail.com
21	Executive Engineer, irrigation (Panchayat)	Shri K.M.Thakkar	99799 60074	2431075	Exeengpicpiv18@gmail.com
22	Executive Engineer GWSSB	Shri R.L.Parmar	99784	-	eephmndvadodara@yahoo.in

District Name: -Vadodara (0265)					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
			06530		
23	Superintendent Engineer, MGVCCL,	Shri Nayan Chavda	99252 08353	2355520	sebaroda.mgvcl@gmail.com
24	Dy Director of Animal husbandry	Dr. J.R.Dave	97257 02475	-	
25	District Agriculture officer	Shri N.M.Vasava	95863 10461	2433641	dao-vad@gujarat.gov.in
26	Program Officer ICDS	Smt. Nayana Pargi	63599 23971	-	po.icds.baroda@gmail.com
27	Director Industrial Safety and Health	Shri D.R.Prajapati	96620 21546	2432543	itdish-vad@gujarat.gov.in
28	DC/ST Manager depot.	Shri S.P.Matroja	63599 19030	2338050	dcbrd@gsrtc.in
29	Superintendent of Fisher	Shri S.M.Adresana	95740 85475	2423947	
30	Regional officer, GPCB	Shri R.B. Trivedi	94278 47265	2354850 2331928	gpcbvadodara@gmail.com
31	Manager BSNL	Shree Sharma	94267 46161	-	-
32	Mamlatdar Disaster	Shri P.K.Parmar	98980 36994	2427592	disast-vad@gujarat.gov.in vad.deoc@gmail.com

District Name: -Vadodara (0265)					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
35	DPO Disaster	Shri B.L.Parmar	99786 21514	2427592	parmarbantish@gmail.com
37	Dy. Mamlatdar Disaster	Shri S.R.Machhi	96246 94850	2427592	disast-vad@gujarat.gov.in vad.deoc@gmail.com

District : Sabarkantha							
Sr. No.	Designation	Name	Office	Resi	Mobile	Fax	Email ID
1	Collector	N.N.DAVE	241001/ 240600	223001	9978406221	241611	colector-sab@gujarat.gov.in
2	D D O	Harshad Vora	242350	222351	9978406246	240872	ddo-sab@gujarat.gov.in
3	DSP	Vishalkumar Vaghela	247333	223333	9978405081	247933	sp-sab@gujarat.gov.in
4	Resi. Addi.Collector	D.K. Brahmhatt	246012	228001	99784052119	-	addl-collector-sab@gujarat.gov.in
5	DRDA	K.P. Patidar	242521/244897	-	9978407887	240433	drda-sab@gmail.com
6	DSO	M.G.Solanki	240698/240492	-	7874217707	27552144	dso-sab@gujarat.gov.in
7	Dy. DDO (Revenue)	Rita Patel	240918	-	9429201578	240872	ddo-sab@gujarat.gov.in
8	CDHO	Raj Sutariya	246422	234633	9687679008	234633	cdho.sab @gujarat.gov.in
9	DEO	Mitaben Gadhvi	240793	244235	9909970217	240793	deo.sabarkantha@gmail.com
10	DPEO	Harshad Chaudhary	240694	-	9909971696	-	dpo.sabarkantha@gmail.com
11	General Manager DIC	Keyur Modi	240948	-	9714785277	245274	-dic-sab@gujarat.gov.in

District : Sabarkantha							
Sr. No.	Designation	Name	Office	Resi	Mobile	Fax	Email ID
12	Dy.Director Info	Arvind B Machar	241699	-	9925255862	240699	info-sab@gujarat.gov.in
13	Chief Fire Officer	Rajendrsinh	246720	-	8238039122	-	np_himatnagar@gmail.com
14	Control Room Mam.Disa.	D.R.Patel	249039	-	9426150328	230100	dismgmt-sab@gujarat.gov.in
15	DPO	Megha Rabari	249039	-	8160439782	230100	megharabari96@gmail.com

Sr. No	Taluka Name	Designation	Officer Name	Code	(O)	Mobile	Police Station	Email ID
1	Himmatnagar	Prant Officer	Jayant kishor Mankale	02772	240946	9978405193	247432	po-sab@gujarat.gov.in
		Mamlatdar	Ankit J patel		246481/ 244123	7567006287		mam-himatnagar@gujarat.gov.in
		TDO	P.M.SISODIYA		245152	9913587300		tdo-himatnagar12@gmail.com
		Chief Officer	Alpeshbhai Patel		235710	9586905554		np-himatnagar@yahoo.com
2	Idar	Prant Officer	Tejas Chaudhari	02778	250551	9978405347	250024	ero-28-office@gmail.com
		Mamlatdar	K.J.VAGHELA		250003/ 250100	8200266712		mam-Idar@gujarat.gov.in
		TDO	DINESH G PATEL		250022	9825334776		tdo-idar@gmail.com
		Chief Officer	HARISH AGR VAL		250046	9426279530		np_idar@yahoo.com

Sr. No	Taluka Name	Designation	Officer Name	Code	(O)	Mobile	Police Station	Email ID
3	Khedbrahma	Prant Officer	Hard U Shah	02775	220122	7567008553	237433/ 220064	<u>ero-29-office@gmail.com</u>
		Mamlatdar	N.T.PARMAR		222001	9825944830		mam-khed@gujarat.gov.in
		TDO	NARESH V HATAR		220008	7575041095		tdokhedbrahma08@gmail.com
		Chief Officer	HARISH AGRVAL		220021	9426279530		np_khedbhrama@yahoo.com
4	Poshina	Prant Officer	Hard U Shah	02775	220122	7567008553	238233/ 283347	<u>ero-29-office@gmail.com</u>
		Mamlatdar	H.D.PRAJAPATI		283533	9925309760		mam-poshina@gujarat.gov.in
		TDO	NARESH V HATAR		283313	7575041095		tdoposhina @gmail.com
		Chief Officer			-			-
5	Prantij	Prant Officer	M.N.DODIYA	02770	232204	7567008736	233076	<u>sdm-prantij@gmail.com</u>
		Mamlatdar	Vidhiben Patel		230425/ 231525	9978958328		<u>mam-prantij@gujarat.gov.in</u>
		TDO	Nitin Chaudhary		230436	9574953173		tdo-prantij@gujarat.gov.in
		Chief Officer	Prathanben		233410	7383613424		<u>np-prantij@yahoo.com</u>
6	Talod	Prant Officer	M.N.DODIYA	02770	232204	7567008736	233076	<u>sdm-prantij@gmail.com</u>
		Mamlatdar	Himanshu Chauhan		220641/ 221872	6353246125		mam-talod @ @gujarat.gov.in
		TDO	Maulik Sharma		221872	9429758542		<u>tdo-talod@gmail.com</u>
		Chief Officer	Hiren B Solanki		220652	7984611935		<u>np-talod@yahoo.com</u>

Sr. No	Taluka Name	Designation	Officer Name	Code	(O)	Mobile	Police Station	Email ID
7	Vadali	Prant Officer	Tejas Chaudhari	02778	250551	9978405347	250024/ 222031	ero-28-office@gmail.com
		Mamlatdar	N.D.PATEL		222017	8200266712		mam-vadali@gujarat.gov.in
		TDO	Balvansinh Rajput		222630	9925223645		tdo-vadali2630@gmail.com
		Chief Officer	Jaiminbhai		222016	9737949764		vadalinagarpalika@yahoo.com
8	Vijaynagar	Prant Officer	HARS U SHAH	02775	220122	7567008553	220064/ 254026	ero-29-office@gmail.com
		Mamlatdar	M.G.NIMAVAT		254340/ 254640	8128254340		mam-vijaynagar@gujarat.gov.in
		TDO	Sagarbhai Bodar		254024	9724592684		tdo-vijaynagar@guharat.gov.in
		Chief Officer	-		-	-		-

District : DANG STD NO :- 02631

Sr. No.	Designation	Name	Mobile	Landline	Email Id
1	Collector	Shri M I Patel	9978406208	220201	collector-dang@gujarat.gov.in
2	DDO	Shri R M Damor	9978406233	220254	ddo-dang@gujarat.gov.in
3	S P	Shri Ravirajsinh Jadeja	9978405021	220248	dang@gujarat.gov.in
4	Resi. Addl. Collector	Shri P A Gamit	9978447801	220221	rac-dang@gujarat.gov.in
5	Dy. District Development Officer (Panchayat)	Shri Y P Joshi	9429972209	220317	dyddo-dan@gujarat.gov.in
6	Deputy Conservator of Forest (North Dang)	Shri D R Rabari	9998430007	220203	dcfdangnorth16@gmail.com
	Deputy Conservator of Forest (South Dang)	Shri Prashadravi Radhakrishn	9821565564	220246	dcfdangsouth16@gmail.com

District : DANG STD NO :- 02631					
Sr. No.	Designation	Name	Mobile	Landline	Email Id
7	Dy. SP	Shri Ashwin Patel	9978535727	220200	dysp-hq-dang@gujarat.gov.in
8	Chief District Health officer	Shri Himanshu Gamit	7359289196	220344	adho-dan@gujarat.gov.in
9	Director, DRDA	Shri S D Tabiyar	9408024048	220217	drda-dan@gujara.gov.in
10	DSO	Shri R C Chauhan (I/C)	9978447807	220384	dso-dan@gujarat.gov.in
11	Medical Superintendent(Civil Hospital)	-	-	-	-
12	CDMO	Shri Ankit Rathod (I/C)	9824738734	220205	cdmo.health.ahwal@gmail.com
13	DEO	Shri V D Deshmukh (I/C)	7284889586	220208	dangldeo@gmail.com
14	DPEO	Shri N H Thakare	9426868079	220337	dpeo-dan@gujarat.gov.in
15	General Manager, DIC	Shri S R Patel	9427345931	220101	gm-dic-dan@gujarat.gov.in
16	Ass. Director of Information	Shri Umesh Gavit	9662257331	220326	adiahwa@gmail.com
17	Port Officer, GMB	-	-	-	-
18	Chief Fire officer	-	-	-	-
19	Executive Engineer, R & B (State)	Shri S R Patel	9712017210	220228	rnb dang@gmail.com
20	Executive Engineer, R & B (Panchayat)	Shri R B Chaudhari	9979508969	220309	exernb-ddo-dan@gujarat.gov.in
21	Executive Engineer, irrigation (State)	-	--	-	-
22	Executive Engineer, irrigation (Panchayat)	Shri R R Gavit	9426821825	220368	exeirridangpanch@gmail.com
23	Executive Engineer GWSSB	Shri H B Dhimmar(I/C)	9978406666	220391	dangs.dwsc@gmail.com
24	Superintendent Engineer, DGVCL,	Shri V D Patel (I/C)	9879201051	220079	dgvclahwa@gmail.com

District : DANG STD NO :- 02631					
Sr. No.	Designation	Name	Mobile	Landline	Email Id
25	Dy Director of Animal husbandry	Shri N H Thakare	9426868079	220375	dydir-ah-dan@gujarat.gov.in
26	District Agriculture officer	Shri H M Patel	8511167786	220320	dao-ddo-dan@gujarat.gov.in
27	Program Officer ICDS	Shri Jyotsnaben Patel	9099289252	220318	po-icds-dan@gujarat.gov.in
28	Director Industrial Safety and Health	-	-	-	-
29	DC/ST Manager depot.	Shri K A Parmar	6359918785	220308	dmahwagrtc@gmail.com
30	Superintendent of Fisher	-	-	-	-
31	Regional officer, GPCB	Shri A G Patel (I/C)	9726944666	02632-2432089	ro-gpcb-vapi@gujarat.gov.in
32	Manager BSNL	Shri Satishkumar Sing	9427112045		
35	Mamlatdar Disaster	Shri A R Chavda	9879970244	220347	dismgmt-dan@gujarat.gov.in
37	DPO Disaster	Shri C M Patel	8866641248	220347	chintucn3@gmail.com
38	Dy. Mamlatdar Disaster	Shri R V Vasava	9913829222	220347	dangdisaster@gmail.com

District Name: - Valsad				
Sr. No.	Designation	Name	Mobile	Email Id
1	Collector	Smt. Kshipra Aagre	9978406225	collector-val@gujarat.gov.in
2	DDO	Shri Manish Gurvani	9978406250	ddo-val@gujarat.gov.in
3	S P	Shri Rajdipsinh Zala	9978405085	sp-val@gujarat.gov.in
4	Resi. Addl. Collector	Shri A.R.Jha	9978405253	add-collector-val@gujarat.gov.in

District Name: - Valsad					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
5	Dy. District Development Officer (Mehsul)	Shri S.D.Patel (I/C)	7567018430	02632-253027	
6	Deputy Conservator of Forest (North)	Su Shri Nisha Raj	8758590210	02632-254151	dcfvalsadnorth16@gmail.com
	Deputy Conservator of Forest (South)	Shri Rushiraj Puvar	7574950437	02632-253809	dcfvalsadsouth16@gmail.com
7	Dy. SP (Headquarter)	Shri R D Faldu	9909050005	02632-253333	lib-sp-val@gujarat.gov.in
	DY.SP.Valsad	Shri A .K.Varma	9978499000	02632-253333	lib-sp-val@gujarat.gov.in
8	Chief District Health officer	Dr. K.P.Patel	7573972948	02632-253080	cdho.health.valsad@gmail.com
9	Director, DRDA	Shri. Ashok Kalsariya	7567043830	02632-254093	drda.val@gmail.com
10	DSO	Su Shri Kajal Gamit	7016955313	02632-244192	dso-val@gujarat.gov.in
11	Medical Superintendent(Civil Hospital)	Shri J.K.Patel	7069335354	02632-251744	civilhospital.valsad@gmail.com
12	CDMO	Shri Bhavesh Goyani	9925242144	02632-251744	civilhospital.valsad@gmail.com
13	DEO	Shri. B.D.Bariya	9909987577	02632-254228	vlsddeo@gmail.com
14	DPEO	Shri. B.D.Bariya	9909987577	02632-254228	dpeovalsad@gmail.com
15	General Manager, DIC	Shri M.K. Ladani (I/C)	75670 21207	02632-254283	gm-dic-val@gujarat.gov.in
16	Ass. Director of Information	Shri Y.M.Gosai(I/C)	9726034321	02632-253817	ddivalsad@gmail.com
17	Port Officer, GMB	Shri B N Ladva	9638112186		
18	Chief Fire officer	Shri Yatin Patel	7698556010	02632-242702	np_valsad@yahoo.co.in
19	Executive Engineer, R & B (State)	Shri N.N.Patel	9426872472	02632-251952	rnb_val@yahoo.in
20	Executive Engineer, R & B (Panchayat)	Shri D.A.Patel	9979353215	02632-242893	exnrbval@gmail.com
21	Executive Engineer, irrigation (State)	-	-	-	-

District Name: - Valsad					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
22	Executive Engineer, irrigation (Panchayat)	Shri A.D.Patel	9913459303	02632-244314	
23	Executive Engineer GWSSB	Shri H.M.Patel	9978408848	02632-242595	valsad.dwsc2@gmail.com
24	Superintendent Engineer, DGVCL,	Shri M.M.Patel	7069750090	02632-25396	gebvalsad@gmail.com
25	Dy Director of Animal husbandry	Shri Dr B.L.Mahala	9979666144	02632-241229	dydirahdpvalsad@gmail.com
26	District Agriculture officer	Shri A.K.Garasiya	9327745285	2632-253891	daovalsad@gmail.com
27	Program Officer ICDS	Su Shri Nilam Patel	9574827828	02632-242773	icds.valsad@gmail.com
28	Director Industrial Safety and Health	Shri D.K.Vasava	9825801547	02632-253612	
29	DC/ST Manager depot.	Shri B.S.Sharma	9998953009	02632-227934	
30	Superintendent of Fisher	Smt Bhartiben Patel	9427350829	02632-254204	adir-fish-valsad@gujarat.gov.in
31	Regional officer, GPCB	Shri P.U.Dave	7574827442	02632-2432089	gpcbvapi@gmail.com
32	Manager BSNL	Shri H.R.Patel	9426000707	02632-244000	
35	Mamlatdar Disaster	Su Shri Priyanka Patel	9638684568	02632-243238	dismgmt-val@gujarat.ov.in
37	DPO Disaster	Shri Jayvirsinh Raol	8849000397	02632-243238	dismgmt-val@gujarat.ov.in
38	Dy. Mamlatdar Disaster	(I/C)DakshaBen Patel	9879570899	02632-243238	dismgmt-val@gujarat.ov.in

District Name: - Panchmahal					
Sr. No	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri Ashish Kumar IAS	239001	9978406207	collector-dah@gujarat.gov.in

District Name: - Panchmahal						
Sr. No	Designation	Name	Mobile	Landline No.	Email Id	
2	DDO	Shri D.K.Baria	9978406242	253377-51	ddo-pan@gujarat.gov.in	
3	S P	Shri. Himanshusolanki	9978405077	242200	sp-pan@gujarat.gov.in	
4	Resi. Addl. Collector	Shri M.D.chudasama	9978405189	242450	rdc-pan@gujarat.gov.in	
5	Dy. District Development Officer (Mehsul)	Shri H.T.makvana	9409142404	253352	dyddo-pan@gujarat.gov.in	
6	Deputy Conservator of Forest	Shri Muralilal Meena	9978780717	242210		
7	Dy. SP	Shri				
8	Chief District Health officer	Shri.M R Chaudhri	7567893400	253367	dpc-panchmahal@yahoo.com	
9	Director, DRDA	Shri . D R Patel I/C	9978405652	253391/92	drda-pan@gujarat.gov.in	
10	DSO	Shri N. U. Pathan	7016261314	242936	dso-pan@gujarat.gov.in	
11	Medical Superintendent(Civil Hospital)	Dr. N S Hada	75678 67486	246548	cdmo.health.dahod@gmail.com	
12	CDMO	Dr. N S Hada	75678 67486	246548	cdmo.health.dahod@gmail.com	
13	DEO	Shri J.M.Patel ,I/C	9909970209	242240		
14	DPEO	Smt.G.S.Patel	9909971689	253376	dpeogodhra@gmail.com	
15	General Manager, DIC	Shri S J Thakor	7567020896		gm-dic-pan@gujarat.gov.in	
16	Dy. Director of Information	Smt.ParulManiyar	7575857845	249111	Smt.ParulManiyar	
17	Port Officer, GMB	-				
18	Chief Fire officer	Shri P F Solanki	9985655817 8780272718			

District Name: - Panchmahal						
Sr. No	Designation	Name	Mobile	Landline No.	Email Id	
19	Executive Engineer, R & B (State)	Shri N C Bhatt	9824549379	243421	rnb-pan@gujarat.gov.in	
20	Executive Engineer, R & B (Panchayat)	Shri C N Rathwa	9427066938	253384	Panchmahal-pan-exe@yahoo.com	
21	Executive Engineer, irrigation (State)	Shri H R Trivedi	9228878888		ppdgodhra@gmail.com	
22	Executive Engineer, irrigation (Panchayat)	Shri C N Rathwa,i/c	9427066938	253388	Exeirri-ddogms@yahoo.com	
23	Executive Engineer GWSSB	Shri Sanket Patel	9925030908			
24	Superintendent Engineer, MGVCCL,	Shri N A Shah	9925208209	262205	Segodhra.mgvcl@gmail.com	
25	Dy Director of Animal husbandry	Dr.N A Patel	9426362862			
26	District Agriculture officer	Shri M G Patel	9106101267	253371	dao.panchmahal@gmail.com	
27	Program Officer ICDS	Smt.C N Bhabhor	9428446244	253372	Po.icds.panchmahals@gmail.com	
28	Director Industrial Safety and Health	Shri B D Gamit	9978262544			
29	DC/ST Manager depot.	Shri B R Dindor	63599 19032	02672 261913		
30	Superintendent of Fisher	Miss Madhvi Meghatar	9913324700	265705	fisheriesgodhra@gmail.com	
31	Regional officer, GPCB					
32	ASSI. G.M. BSNL	Shri Sanjay	9428514322			
35	Mamlatdar Disaster	Shri M M Diwan	242536	8128880789	dismgmt-dah@gujarat.gov.in	
37	DPO Disaster	Shri Viral A Christian	239277	9510843873	dismgmt-dah@gujarat.gov.in	
38	Dy. Mamlatdar Disaster	Smt. Pinal Baraiya	239277	9727661202	dismgmt-dah@gujarat.gov.in	

District Name: - Dahod					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri Dr.Harshit Gosavi IAS	239001	9978406207	collector-dah@gujarat.gov.in
2	DDO	Shri Utsav Gautam IAS	293066	9978406232	ddodahod@gmail.com
3	S P	Shri Balaram Mina-IPS	222300	9978405068	dahodsp@gmail.com
4	Resi. Addl. Collector	Shri A B Pandor -GAS	239111	9978405179	racdahod@gmail.com
5	Dy. District Development Officer (Mehsul)	Shri K K Patel	239150	7284930880	dyddorevdahod@gmail.com
6	Deputy Conservator of Forest	Shri Amitkumar Nayak	9081040287	266137	
7	Dy. SP	Shri			
8	Chief District Health officer	Dr. S. K. Yadav	239130	7567895502	cdmodahod@gmail.com
9	Director, DRDA	Shri B. M. Patel	239055	7567033431	drdadahod1@gmail.com
10	DSO	Shri Mitesh Vasava -GAS	239250	7567022187	dsodahod@gmail.com
11	Medical Superintendent(Civil Hospital)	Dr. N S Hada	75678 67486	246548	cdmo.health.dahod@gmail.com
12	CDMO	Dr. N S Hada	75678 67486	246548	cdmo.health.dahod@gmail.com
13	DEO	Shri Mayur S Parekh (I/c)	239113	9909971662	deodahod1@gmail.com
14	DPEO	Shri Mayur S Parekh (I/c)	239113	9909971662	deodahod1@gmail.com
15	General Manager, DIC	Shri K R Lakhtariya	9429851125	266086	gm.dic-dah@gujarat.gov.in
16	Dy. Director of Information	Shri S J Baleviya	239242	9925936257	ddinfodahod@gmail.com
17	Port Officer, GMB				
18	Chief Fire officer				

District Name: - Dahod					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
19	Executive Engineer, R & B (State)	Shri D M Bhatt	9428303336	266994	rnbdahod@yahoo.com
20	Executive Engineer, R & B (Panchayat)	Shri A S Patel	9428435337	239237	exernbdhd@gmail.com
21	Executive Engineer, irrigation (State)	C A Gohil	9408874781	224525	exendid@gmail.com
22	Executive Engineer, irrigation (Panchayat)				
23	Executive Engineer GWSSB	Shri M D Bhatiya	9978406685	250856	eeddahod@gmail.com
24	Superintendent Engineer, MGVCCL,	Shri P N Thanavala	9925208146	240918	dahodmdn.ee@gmail.com
25	Dy Director of Animal husbandry	Shri K L Gosai	94260 61219	239118	dahoddaho@gmail.com
26	District Agriculture officer	Shri P R Dave	8780754577	239107	daodahod@gmail.com
27	Program Officer ICDS	Mrs Iraben Chauhan	9428506120	239179	po.icdsdahod@gmail.com
28	Director Industrial Safety and Health	Shri B D Gamit		9978262544	
29	DC/ST Manager depot.	Shri B R Dindor	63599 19032	02672 261913	
30	Superintendent of Fisher	Shri M J Sanghani	90339 33207	239037	
31	Regional officer, GPCB				
32	ASSI. G.M. BSNL	Shri Manish Talera	9425166789	240350	
35	Mamlatdar Disaster	Shri C B Vahoniya	239277	9099135611	dismgmt-dah@gujarat.gov.in
37	DPO Disaster	Shri Viral A Christian	239277	9510843873	dismgmt-dah@gujarat.gov.in
38	Dy. Mamlatdar Disaster	Shri Taral Patel	239277	9925678837	dismgmt-dah@gujarat.gov.in

District Name: - Morbi					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri G.T. Pandya (IAS)	9978405932	02822 240701	collector-mor@gujarat.gov.in
2	DDO	Shri D.D.Jadeja	9978406470	02822 222899	ddo-morbi@gujarat.gov.in
3	S P	Shri Rahul Tripathi (IPS)	9978405975	02822 243480	sp-morbi@gujarat.gov.in
4	Resi. Addl. Collector	Shri. N. K. Muchhar (GAS)	9927759674	02822-240701	addl-collector-mor@gujarat.gov.in
5	Dy. District Development Officer (Mehsul)	Shri. Ilaben Gohil	9978448950	02822-222852	dyddo.morvi@gmail.com
6	Deputy Conservator of Forest	Dr. Chiragh Amin	9974189059	02822-241611	forest.dcfshraj@gmail.com
7	Dy. SP	Shri P.A.Zala	9909462667	02822-241909	-
8	Chief District Health officer	Dr. Kavita J. Dave	9909981695	02822 222707	cdho.health.morbi2@gmail.com
9	Director, DRDA	Shri. N.S.Gadhvi	9978405234	02822-220780	drsmorbi@gmail.com
10	DSO	Shree D.C. Parmar	7069625122	242008	dsomorbi@gmail.com
11	Medical Superintendent(Civil Hospital)	Dr. Dudhrejiya	7567876154	230538	cdmo.health.morbi@gmail.com
12	CDMO	Dr. Dudrachia RMO Dr. R. Sardva	7567876154 9825358999	02822 230538	cdmo.health.morbi@gmail.com
13	DEO	I/C Shri N.V.Ranipa	9979312659	02822-222875	morbideonew@gmail.com morbideo36@gmail.com
14	DPEO	Shri P.V. Ambaria	9879784033	02822-222710	morbideo36@gmail.com
15	General Manager, DIC	Shri K.P.Mori	9227753656	242715	gm-dic-mor@gujarat.gov.in

District Name: - Morbi					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
16	Ass. Director of Information	Shri G.R.Pedhva	9429199886	241012	informationmorbi@gmail.com
17	Port Officer, GMB	Shri Niraj Hirvani	9558801612	229101	pilotofficergmb@gmail.com
18	Chief Fire officer	Shri Divendrabhai jadeja	9979027520	230050	dfs.morbi@gmail.com
19	Executive Engineer, R & B (State)	Shri K.N. Zala	9428272830	240524	exe.mor.rnb@gmail.com
20	Executive Engineer, R & B (Panchayat)	Shri A.N.Choudhari	9825406053	222840	expmorrnb@gmail.com
21	Executive Engineer, irrigation (State)	Shri A.L.Savaliya	8980558757	240139	eeidnmorbi@gmail.com
22	Executive Engineer, irrigation (Panchayat)	Shri Gulab Bhai s. Patel	9909716977	222848	morbipanchayatirrigation@gmail.com
23	Executive Engineer GWSSB	Shri V.M.Vankani	9978440633	223839	eephwdmrb@gmail.com
24	Superintendent Engineer, DGVCL,	Shri V.L Dobriya	9925209959	242291	asmrb.pgvcl@gebmail.com
25	Dy Director of Animal husbandry	Shri J.P.Ughreja	9974342640	222712	drdayal98397@gmail.com
26	District Agriculture officer	Shri V.K.Chouhan	9408168801	222709	daomorbi@gmail.com
27	Program Officer ICDS	Shri M.A.Upadhiyay	9638114124	222716	icds.morbi@gmail.com
28	Director Industrial Safety and Health	Shri J.M. Dvivedi	9824190891	242350	dyclabmorbi@gmail.com
29	DC/ST Manager depot.	Shri Dilip Sandhani Porsang	9998953191	230701	dmmrvdepot@gmail.com
30	Superintendent of Fisher	Shri Kotadiya Paresh	9601121404	243577	sfmorbi@gmail.com
31	Regional officer, GPCB	Shri K.B.Waghela	7874410299	228001	ro-gpcb-morb@gujarat.gov.in

District Name: - Morbi					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
32	Manager BSNL	Shri Vishal Vidja	9429280028	220895	cscmorbi1990@gmail.com
35	Mamlatdar Disaster	NA	NA	NA	NA
37	DPO Disaster	Amreen Khan	9907698161	02822-243300	dmcmorbi@gmail.com
38	Dy. Mamlatdar Disaster	Shri. M. J. Patel	9426784412	02822-243300	dmcmorbi@gmail.com

District Name: - Junagadh STD Code-0285 Year-2023					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri Anilkumar R. Ranavasiya	9978406211	2630100	collector-jun@gujarat.gov.in
2	DDO	Shri. Mirant Parikh (IAS)	9978406236	2635315	ddo-jun@gujarat.gov.in
3	S P	Shri Ravi Teja Vasamsetty (IPS)	9978405250	2635633	sp-jun@gujarat.gov.in
4	Resi. Addl. Collector	Shri P.G. Patel (I/C)	9978405211	2636666	add-collector-jun@gujarat.gov.in
5	Dy. District Development Officer (Mahesul)	Shri.P.A.Jadeja	9408146800	2636032	ddo-jun@gujarat.gov.in
6	Deputy Conservator of Forest	Shri Axay Joshi	9978405156	2631026	dcf-jcir-jun@gujarat.gov.in
7	Dy. SP	Shri A.A.Patani	8980047154		dsp-jun@gujarat.gov.in
8	Chief District Health officer	Dr.Shilpaben Javiya	7567885674		
9	Director, DRDA	Shri P.G. Patel	75670 35902	2633179	drda-jun1@gmail.com
10	DSO	Dr.R.N.Chudhari	9408308508	2631480	dso-jun@gujarat.gov.in,

District Name: - Junagadh STD Code-0285 Year-2023					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
11	Medical Superintendent(Civil Hospital)	Shri Pala Lakhotra	9825237200	2651436	
12	CDMO	Shri Pala Lakhotra	9825237200	2651436	
13	DEO	Shri.B.H.Vadher	9909970207	2630151	deo-jun@gujarat.gov.in
14	DPEO	Shri V.D. Ghunchala (i/c)	9904129181	2634136	dpeojunagadh@gmail.com
15	General Manager, DIC	Shri D.M. Joshi	63571 50197	2630625	gm-dic-jun@gujarat.gov.in
16	Ass. Director of Information	Shri N.M. Mehta (i/c)	98252 63775	2627281	mahitijunagadh@gmail.com
17	Port Officer, GMB				poveraval@gmail.com
18	Chief Fire officer	Shri Dipak Jani	96247 53333	2654101	municipalcorporationjund@yahoo.co
19	Executive Engineer, R & B (State)	Shri A.G.Solanki	9426849591	2631628	exe_jun_rmb@yahoo.in
20	Executive Engineer, R & B (Panchayat)	Shri A.G.Solanki	9426849591	2631628	exernb-ddo-jun@gujarat.gov.in
21	Executive Engineer, irrigation (State)	J.H. Jadav Class-2	7698151853	2673252	eejind@gmail.com
22	Executive Engineer, irrigation (Panchayat)	R.L. Khambhla (I/C)	9537586212	2622143	pidjnd.ee50@yahoo.in
23	Executive Engineer GWSSB	B.J. Joshi (i/C)	9978443548	2629400	cez5general1@gmail.com
24	Superintendent Engineer, PGVCL,	Shri P.R.Karangiya	9879618768	2654765	eejcd.pgvcl@gebmil.com
25	Dy Director of Animal husbandry	V.B. Ahir	9427955952	2634096	dydir-ah-jun@gujarat.gov.in

District Name: - Junagadh STD Code-0285 Year-2023					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
26	District Agriculture officer	J.D. Gondaliya4 Class-2	9879390315	2633046	dao-ddo-jun@gujarat.gov.in
27	Program Officer ICDS	Shardaben C. Desai	9879396232	2631434	icdsjnd@gmail.com
28	Director Industrial Safety and Health	J.M. Dwivedi	9824190891	2636946	dydish-jun@gujarat.gov.in
29	DC/ST Manager depot.	R.P. Shrimali	6359919035	2670134	dcjunagadh@gmail.com
30	Fisher Officer Mangrol	Shri.P.R.Rada	9898851288	2878222169	sf-fish-mgl@gujarat.gov.in
31	Regional officer, GPCB	B.R. Kunadiya Class-2	9157649148	2651506	ro-gpcb-juna@gujarat.gov.in
32	Manager BSNL				
35	Mamlatdar Disaster	Shri D.R. Khamal (IC)	9558751240	2633446	dismgmt-jun@gujarat.gov.in
37	DPO Disaster	Shri Kratu S.Trivedi	9426969236	2633447	kratustrivedi@gmail.com
38	Dy. Mamlatdar Disaster	Shri D.R. Khamal	9558751240	2633448	dismgmt-jun@gujarat.gov.in

District Name: - Porbandar STD : 0286 Year-2023					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri K.D.Lakhani	9978406219	2243801	collector-por@gujarat.gov.in
2	DDO	Shri V.K. Advani	9978405079	2243803	ddo-por@gujarat.gov.in
3	S P	Shri Ravi Mohan Saini	9978405079	2211222	sp-por@gujarat.gov.in
4	Resi. Addl. Collector	Shri M.K. Joshi	9978405191	2221085	add-collector-por@gujarat.gov.in

District Name: - Porbandar STD : 0286 Year-2023					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
5	Dy. District Development Officer (Mehsul)	Shri N.L.Sadhu	87582 69809	-	dyddo-pan-por@gujarat.gov.in
6	Deputy Conservator of Forest	Shri D J Pandya	94295 51267	2242551	dcfpbr@gmail.com
7	Dy. Police Officer	Shri B.A. Patel	9898343034	2240957	sp-por@gujarat.gov.in
8	Chief District Health officer	Shri Dr.Kavita Dave	9512015633	2241134	cdho.health.porbandar@gmail.com
9	Director, DRDA	Shri Rekhaba Sarvaiya	99250 17584	2213736	drda.por@gmail.com
10	DSO	Shri Hiral Desai	73599 77795	2220070	dso-por@gujarat.gov.in
11	Medical Superintendent (Civil Hospital)	Dr. Dharmesh Parekh I/C	94272 65955	2242910	Aha.health.porbandar@gmail.com
12	CDMO	Shri Divyaben Daga	94272 04447	2242910	Cdmo.health.porbandar@gmail.com
13	DEO	Shri K.D.Kansagara	9909970225	2251350	porbandardeo@gmail.com
14	DPEO	Shri K.D.Kansagara	9909970225	2252808	dpeoporbandar@gmail.com
15	General Manager, DIC	Shri V.B.Jariya	82004 93882	2222168	Gm-dic-por@gujarat.gov.in
16	Ass. Director of Information	Shri Naresh Mehta	9825263775	2222470	informationpor@gmail.com
17	Port Officer, GMB	Shri A.K.Misra	9099694747	2242408	gmbporbandar@gmail.com
18	Fire officer	Shri Abhay Mehta	83068 32283	2249850	copbr2008@gmail.com
19	Executive Engineer, R & B (State)	Shri V N Chaudhary	96870 88473	2242547	ee_rnb_pbr@yahoo.co.in
20	Executive Engineer, R & B (Panchayat)	Shri Karan Tater	96647-27879 86193-74735	2212971	exernbddopor@gmail.com

District Name: - Porbandar STD : 0286 Year-2023					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
21	Executive Engineer, irrigation (State)	Shri J K Karavadra	75671 86511	2222897	exeirripor@gmail.com
22	Executive Engineer, irrigation (Panchayat)	Shri J K Karavadra	75671 86511	2222897	exeirripor@gmail.com
23	Executive Engineer GWSSB	Shri V P Chauhan	9904154605	2242528	eeprgwssb@gmail.com
24	Superintendent Engineer, PGVCL,	Shri Kodyatar	98256 03182	2240947	sepbr.pgvcl@gebmil.com detech4pbr.pgvcl@gebmil.com
25	Dy Director of Animal husbandry	Dr.S.B.Kunadiya	9426422877	2213681	Dy.dir_ah@gmail.com
26	District Agriculture officer	Shri H.A.Trivedi	95744 45535	2252809	dao-ddo-por@gujarat.gov.in
27	Program Officer ICDS	Shri Vijay Joshi	90999 56866	2220302	-
28	Director Industrial Safety and Health	Shri J.N. Dwivedi (IC)	9824190891	2636946	dydish-jun@gujarat.gov.in
29	DC/ST Manager depot.	Shri makwana sir	6359918582	2240959 2242409	dmapbr@gmail.com dmpbr@gsrtc.in
30	Superintendent of Fisher	Shri Sangita A Bharadiya	96625 46241	2240949	adfporbandar@gmail.com
31	Regional officer, GPCB	Shri Kalpanaben Parmar	98792 05066	2220050	dee2-sau-gpcb@gujarat.gov.in porbandargpcb@gmail.com
32	Manager BSNL	Shri sanjay kaushik	9625968590	2251400	
35	Mamlatdar Disaster	Shri g.g.mandiya	9723320244	2220801	dismgmt-por@gujarat.gov.in

District Name: - Porbandar STD : 0286 Year-2023				
Sr. No.	Designation	Name	Mobile	Landline No.
37	DPO Disaster	Shri Kratu Trivedi (I/c)	8160313839	2220800
38	Dy. Mamlatdar Disaster	Shri d.p.bhogayata	9979908481	2220800
				Email Id
				kratustrivedi@gmail.com
				dismgmt-por@gujarat.gov.in

District Name: - Surat STD Code-0261 Year-2023				
Sr. No.	Designation	Name	Mobile	Landline No.
1	Collector	Shree Aayush Oak	99784-06222	2652525/ 2655151
2	DDO	B.K. Vasava	99784-06247	2422160- 2425751
3	S P	Hitesh Joysar	99784-05082	2651831
4	Resi. Addl. Collector	Shri Y. B. Jhala	9978405220	2660011
5	Dy. District Development Officer (Mahesul)	Dilip Vaghela	75670-17817	2422160-2425751
6	Deputy Conservator of Forest	Shri Anand kumar	8980613505	2733824-5
7	Dy. SP	Shri I J Patel	9978408074	
8	Chief District Health officer	Anil Patel	97277-09501	2430780/589
9	Director, DRDA	M.B. Prajapati	94275-76036	2780272
10	DSO	N. P. Savaliya	95108-67267	2655751
11	Medical Superintendent(Civil Hospital)	Smt. Vandana Desai	9909906019	0261-2208337
12	CDMO			
				Email Id
				collector-sur@gujarat.gov.in
				ddo-jun@gujarat.gov.in
				sp-jun@gujarat.gov.in
				rdc-sur@gujarat.gov.in
				dyddo-rev-sur@gujarat.gov.in
				cdho.health.surat3@gmail.com
				drdasurat@gmail.com
				dso-sur@gujarat.gov.in

District Name: - Surat STD Code-0261 Year-2023					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
13	DEO	I/c Shree Dipak Darji		2595903	dpcsurat@gmail.com
14	DPEO	Shree Dipak Darji	99099-71697	2425751	dpcsurat@gmail.com
15	General Manager, DIC	Shree Mitesh Ladani	82001-67350	2465925	jm-dic-sur@gujarat.gov.in
16	Dy. Director of Information	Shree Umesh Bavisha	99258-05742	2464225	infosurat2013@gmail.com
17	Port Officer, GMB	B N Ladva	9638112186		banshiva.ladva@gmail.com
18	Chief Fire officer	I/C. Basant Pareek	9724345553	2414195	cfo@suratmunicipal.org
19	Executive Engineer, R & B (State)	Shri Jatin Patel	9426849591	2471097	exe2-sur@gujarat.gov.in
20	Executive Engineer, R & B (Panchayat)	Shri J K Patel	9924111365	2472337	
21	Executive Engineer, irrigation (State)	Shri J C Chaudhary	9978405550	2667426	
22	Executive Engineer, irrigation (Panchayat)				
23	Executive Engineer GWSSB	Shri R G Chaudhary	7567861399	2782088	
24	Superintendent Engineer, DGVCL,	Shri A G Patel	9825044957	2804301-3	eejcd.pgvcl@gebmail.com
25	Dy Director of Animal husbandry	Shri M P Bhimani	9033794615	2461319	dydir-ah-jun@gujarat.gov.in
26	District Agriculture officer	Shri Satish Gamit	9979468070	2425951	
27	Program Officer ICDS	Komal Thakor	9727549056	2425751	
28	Director Industrial Safety and Health	Shri Amit Goswami	9099657831	2653502	dldish-jun@gujarat.gov.in
29	DC/ST Manager depot.	Shri O G Surti	6359919040	2551431	

District Name: - Surat STD Code-0261 Year-2023					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
30	Assistant Director Fisheries	Shrimati Binduben	8320095167	2462846	sf-fish-mgl@gujarat.gov.in
31	Regional officer, GPCB	Smt. Jignaben	9157649148	2442696	ro-gpcb-sura@gujarat.gov.in
32	Manager BSNL	S K Patel	9427111811		
35	Mamlatdar Disaster	Shri Pratik Jakher	9978416111	2663200	66.disastersurat@gmail.com
37	DPO Disaster	Shri Kaushik Poriya	9033920674	2663200	kaushikgsdma@gmail.com
38	Dy. Mamlatdar Disaster	Sajidlal Muhammad Meruzai	9925700732	2663200	66.disastersurat@gmail.com

District Name: - Navsari					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri Amit Prakash Yadav	9978406215	02637-244999	collector-nav@gujarat.gov.in
2	DDO	Su Shri Pusplata	9978406240	243498	ddo-nav@gujarat.gov.in
3	S P	Shri Rushikesh Upadhyay	9978405075	247510	sp-nav@gujarat.gov.in
4	Resi. Addl. Collector	Shri Ketan P Joshi	9978405187	246299	add-collector-nav@gujarat.gov.in
5	Dy. District Development Officer (Mehsul)	Smt Sitaben	7567017683	244399	dyddorev12@gmail.com
6	Deputy Conservator of Forest (North)	Su Shri Nisha Raj	8758590210	02632-254151	dcfvalsadnorth16@gmail.com
	Deputy Conservator of Forest (South)				

District Name: - Navsari					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
7	Dy. SP (Headquarter)	Shri V N Patel	9978408268	247501	
	DY.SP.Valsad				
8	Chief District Health officer	Shri Dr Rajendra Raguwala	9727709655	280143	cdho.health.navsari@gmail.com
9	Director, DRDA	Shri M.S.Gadhvi	9825518780		drda.nav@gmail.com
10	DSO	Shri Prites K Patel	9829844207	248155	
11	Medical Superintendent(Civil Hospital)				
12	CDMO	Dr Aarti D Parekh	9687685806	250389	cdmo.helath.navsari@gmail.com
13	DEO	Dr Rajeshri	9909970223		navsarideo@gamil.com
14	DPEO	I/C Bhagirathsinh Parmar	9913933043		dpcnavsari@gmail.com
15	General Manager, DIC	Shri M.K.Ladani	8879966892	248873	gm-dic-nav@gujarat.gov.in
16	Ass. Director of Information	Shri Y M Gosai	9726034321	244914	navsariadi@gmail.com
17	Port Officer, GMB	Shri B M Ladva	9638112186		
18	Chief Fire officer	Shri Gadhvi	9974335667		
19	Executive Engineer, R & B (State)	Shri U G Patel	9825605099	258041	rnb.nav@gmail.com
20	Executive Engineer, R & B (Panchayat)	Shri N.N.Patel	9904179900	231900	nvs.eepd@gmail.com
21	Executive Engineer, irrigation (State)				
22	Executive Engineer, irrigation (Panchayat)	Shri D.B.Patel	9978406664	257066	eenavsari@gmail.com
23	Executive Engineer GW/SSB	Shri R.G.Choudhri	9978406856	232240	navsari.dwsc1@gmail.com

District Name: - Navsari						
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id	
24	Superintendent Engineer, DGVCL,	Shri V.B.Lad	9879201076	258861	do.navsaricity@gebmail.com	
25	Dy Director of Animal husbandry	Dr. M.C.Patel	9426881836	02637-235833	dpahnavsari@gmail.com	
26	District Agriculture officer	Dr. Atul R Gajera	9998843777	02637-233030	daonavsari@gmail.com	
27	Program Officer ICDS	Smt Pushpaben	9913673426	231990	dpcicds.navsari@gmail.com	
28	Director Industrial Safety and Health	Shri Rawat	7874618222			
29	DC/ST Manager depot.	Shri V.H.Sharma	6359919041	02632-227934	gsrtcld72@gmail.com dcvalsadgsrtc@gmail.com	
30	Superintendent of Fisher	Sushri Binduben	8320095167	234775	ssoni1641@gmail.com / adnavsari02637@gmail.com	
31	Regional officer, GPCB					
32	Manager BSNL	Shri Jayesh T Patel	9427105848	234800		
35	Mamlatdar Disaster	Shri Mrunaldan Ishrani	9913366000	02637233002		
37	DPO Disaster	Shri Jayvirsinh Raol	8849000397	02637233002	dismgmtnav@gmail.com	
38	Dy. Mamlatdar Disaster	Shri Saileshbhai Rabari	9313081213	02637233002	dismgmtnav@gmail.com	

Jamnagar (STD Code: 0288)						
Sr. No.	Designation	Name	Office	Resi	Mobile	Fax
1	Collector	Shri B.A.Shah	2555869	2554059	9978406210	2555899
2	Municipal Commissioner	Shri D.N.Modi	2552321	2552372	7567038888	2554454
						collector-jam@gujarat.gov.in mcjamnagar@gmail.com

Jamnagar (STD Code: 0288)							
Sr. No.	Designation	Name	Office	Resi	Mobile	Fax	e-mail
3	D D O	Shri Vikalp Bhardwaj	2553901	2552402	9978406235	2552394	ddo-jam@gujarat.gov.in
4	SP	Shri Premeek Delu	2554203	2555868	9978405071	2556382	sp-jam@gujarat.gov.in
5	Resi. Addl. Collector	Shri Bhavesh N. Kher	2550284	2672131	9978405210	2555899	addl-collector@gujarat.gov.in
6	Director-DRDA	Shri N.F. Chaudhari	2753289	2662106	9265705588	2756557	drda.jam@gmail.com
7	District Supply Officer	Shri N.H. Makwana	2553897	-	7567022435	2553897	dso-jam@gujarat.gov.in
8	Dy. DDO (Revenue)	I/C Shri A.S. Mandot	2555749	2756346	9978411134	2552394	dyddo-rev-jam@gujarat.gov.in
9	Dy. DDO (Panchayat)	Shri A.S. Mandot	2553901	-	9978411134		dyddo-pan-jam@gujarat.gov.in
10	CDHO-District Panchayat	Shri H.H. Bhaya	2671097	-	7567880001	2552394	cdho.health.jamnagar@gmail.com
11	District Education officer	Shri M.K. Bhatt	2553321	-	9909970214 9909970206	2553321	jamdeo@gmail.com
12	District Pri. Edu. Officer	Shri S.J. Dumraliya	2676532	-	9909971674	2671532 2552394	dpeojamnagar@gmail.com
13	Dy. Muni. Commi.	Shri Bhavesh Jani I/C	2550231	2553740	9099646178	2554454	amcomm@yahoo.com
14	Shasan adhikari	Shri Falguni Patel	2671195	-	9824723781	2554454	aomds.jamnagar1@yahoo.com
15	General Manager DIC	Shri P.B. Patel	2660381	-	6357150195	2660391	gm-dic-jam@gujarat.gov.in
16	Dy. Dir. Info	Shri H.P. Gojariya I/C	2679234	-	9426985625	2661267	informationjam@gmail.com
17	Chief Fire Officer	Shri K.K. Bishnoi	2672208	-	9879531101	2554454	knbishnoi@gmail.com
18	DPO Disaster management	Shri Mansi singh	2553404	-	8319460485	2541485	dismgmt-jam@gujarat.gov.in
19	Control Room Mam. Disa.	Shri M.M. Kavadiya	2553404	-	7575806636	2541485	dismgmt-jam@gujarat.gov.in

Jamnagar (STD Code: 0288)						
Sr. No.	Designation	Name	Office	Resi	Mobile	Fax
20	Ex.Engineer-GWSSB	Shri N.M.Gothi I/C	2677279	-	8511495704	2555146
21	RTO	Shri K.K.Upadhyay I/C	2672100	-	9586739727	-

Taluka Name	Designation	Officer Name (Shri)	Code	(O)	Mobile	Police Station	e-mail
Dhrol	Prant Officer	Shri V.B.Sakariya	02897	222311	7567009545	222033	po-dhrol@gujarat.gov.in
	Mamlatdar	Shri A.S.Zapda		222001	7567002912		mam-dhrol@gujarat.gov.in
	TDO	Shri B.R.Sojitra		222004	7567013194		tdo-dhrol@gujarat.gov.in
	Chief Officer	Shri R.K.Karamur		223772	7046465432		np_dhrol@yahoo.co.in
Jamjodhpur	Prant Officer	Shri N.D.Govani	02898	272711	7567009628	220069	po-lalpur-jam@gujarat.gov.in
	Mamlatdar	Shri K.C.Vaghela		220036	7567002866		mam-jamjodhpur@gujarat.gov.in
	TDO	Shri Bhumika Patel		220002	7567013131		tdojamjodhpur@gmail.com
	Chief Officer	Shri M.J.Jodhpura		220040	9825049312		np_jamjodhpur@yahoo.co.in
Jamnagar City	Prant Officer	Shri D.D.Shah	0288	2552130	9978405342	2552940	po-jam@gujarat.gov.in
	Dy.SP HQ.	Shri M.B.Solanki		2550397	9978408189		-
	Dy.SP City	Shri Varun Vasava		2552940	7698326583		-
	Mamlatdar	Shri V.R.Makadiya		2674575	9426167947		mam-jamcity@gujarat.gov.in
Jamnagar Rural	Prant Officer	Shri D.V.Dobariya	0288	2570063	9978405182	2551822	po-jam-rural@gujarat.gov.in
	Mamlatdar	Shri Tanvi Trivedi		2678704	7567002946		mam-jamnagar@gujarat.gov.in

Taluka Name	Designation	Officer Name (Shri)	Code	(O)	Mobile	Police Station	e-mail
	TDO	Shri N.A.Sarvaiya		2678188	9426953755		tdo-jamnagar@gujarat.gov.in
	Chief Officer Sikka	Shri Harish Agrawal		344045	9426279530		np_sikka@gmail.com
Jodiya	Prant Officer	Shri V.B.Sakariya	02893	252130	7567009545	222033	po-dhrol-jam@gujarat.gov.in
	Mamlatdar	Shri V.C.Dabhi		222021	7567003034		mam-jodia@gujarat.gov.in
	TDO	Shri M.K.patel		222042	7567019352		tdo-jodia@gujarat.gov.in
Kalavad	Prant Officer	Shri D.V.Dobariya	02894	2552130	9978405182	222033	po-jam-rural@gujarat.gov.in
	Mamlatdar	Shri F.S.purohit		222002	7567002884		mam-kalavad@gujarat.gov.in
	TDO	Shri H.N.Gohil		222001	7567013239 9712792424		tdo-kalavad@gmail.com
	Chief Officer	Shri Bhavnaben Goswami		222059	9574642924		np_kalavad@gmail.com
Lalpur	Prant Officer	Shri N.D.Govani	02895	272711	7567009628	272236	po-lalpur-jam@gujarat.gov.in
	Mamlatdar	Shri B.N.Rajkotiya		272222	7567002832		mam-lalpur@gujarat.gov.in
	TDO	Shri P.J.maheta		272226	7567013284		tdolalpurjam@gmail.com

District: Devbumi Dwarka (STD Code: 02833)					
S. No.	Designation	Name	Office	Mobile	Fax
1	Collector	Shree Ashok Sharma	232803	9978405933	232102
2	D D O	Shree S.D.Dhanani	235947	9978406492	235947

District: Devbumi Dwarka (STD Code: 02833)						
S. No.	Designation	Name	Office	Mobile	Fax	Email Id
3	SP	Shree Nitesh Panday	233223	9978405976	232002	sp-jam-dbdwarka@gujarat.gov.in, spdevbhumi@gmail.com
4	Deputy Conservator of Forest, Vistaran	Shree Agneeshwar Vyash	232574	7574950062	-	dcfsfdbd82@gmail.com acf.khmb@gmail.com
5	Deputy Conservator of Forest, Marine National Park	Shree R Shenthil	2552077, 2679357	8980029321	2770161	mnpforest@yahoo.com mnpforest@gmail.com
6	Resident Additional Collector	Shree B.M.Jotaniya	232620	9727763794	232102	addl-collector-dev@gujarat.gov.in
7	DFO, (Normal)	Shree R Dhanpal	232574	8238861705	-	dcfjmr@gmail.com
8	DFO, (Normal) Porbandar (Barada)	Shree Agneeshwar Vyash	0286- 2242551	7574950062	2210373	dcfpbr@gmail.com
9	Director-DRDA	Shree J.R.Parmar	235947	7567035875	-	drda.dwarka@gmail.com
10	Executive Engineer, R & B (State)	Shree B.G. Vayda	0288- 2550362	9904358846	2678106	eerdbdwarka@gmail.com
11	Executive Engineer, R & B (Panchayat)	Shree Y.V.More	02833 – 234211	9879054976	-	eedwarka@yahoo.com
12	Executive Engineer, Salinity department	Shree devesh kumar singh	0288- 2570423/4 FAX 2551917	9408103062	-	scdnjam@yahoo.co.in

District: Devbumi Dwarka (STD Code: 02833)						
S. No.	Designation	Name	Office	Mobile	Fax	Email Id
13	Executive Engineer, GWSSB	Shree Juman A. Rangavala	234781, 235765	9978441948	-	eec-gwssb-kha@gujarat.gov.in
14	DSO	Shree Astha Dangar	235990	9978405950	232102	supp-devbdwarka@gujarat.gov.in
15	Dy. DDO (Revenue)	Shree J.R.Parmar	235947	7567035875		dy.ddo.gen@gmail.com
16	Dy. Director Animal Husbandry	Dr. A.N.Patel	02833-234251	6351112690	9426852736	-
17	CDHO	Shree M.N.Bhandari	234001	9727700033	2671097	cdho.health.dwarka@gmail.com , dpmcc.health.dwarka@gmail.com
18	Superintendent of Civil Hospital, Khambhaliya	Shree Manoj Kapur	02833-235170	9909949385	-	cdmo-health-jad@gujarat.gov.in
19	DEO	Shree Astha Dangar	235976	9978405950	-	deodevbhumiidwarka@gmail.com
20	DPEO	Shree S.J.Dumraniya	236376	7567806316	-	dpeodevbhoomidwarka@gmail.com
21	RO-GPCB	Shree Kalpnaben Parmar	0288-2752366	9879205066	-	ro-gpcb-jamn@gujarat.gov.in
22	District Agriculture Officer	Shree V.M.Bathar	235868	8320515047	-	dao-agri-devbhumi@gujarat.gov.in
23	ARTO,	Shree G.V.Talsaniya	233300	7600522512	-	arto-trans-dbd@gujarat.gov.in
24	PO-GMB, Okha	Shree Rahul Mishra	02892-262001, 262049, 262039	9879936125	262002	portofficerokp@gmail.com
25	Superintendent of Fisheries	Shree K.K.Karena	02892-262076	9429096015	-	fisheries-okha-dev@gujarat.gov.in

District: Devbumi Dwarka (STD Code: 02833)						
S. No.	Designation	Name	Office	Mobile	Fax	Email Id
26	Deputy Director, Industrial Safety & Health	Shree K.A.Ravat	0288-2678206	7874618222	-	ad4-dish-brd@gujarat.gov.in astdish-jam@gujarat.gov.in
27	General Manager DIC	Shree V.B.Jariya	234145	8200224571	2660392	gm-dic-dbd@gujarat.gov.in
28	Dy. Director Information	Shree Naresh Maheta	235932	9825263775	232073	informationdev dwarka@gmail.com
29	Executive Engineer-PGVCL, Khambhaliya Division	Shree B.M.Patel	234791/94	9879200762	235088	de1khdo.pgvcl@gebmil.com hrjmnkhdo.pgvcl@gebmil.com
30	Executive Engineer-PGVCL, Dwarka Division	Shree N.J.Goraniya	02892-234610	7567109172	-	ee.dwarkado.pgvcl@gebmil.com
31	District Project Officer-GSDMA	Shree Mansi Singh	232183, 232125, 232084	8319460485	232102	disa-devbdwarka@gujarat.gov.in
32	Deputy Mamlatdar, Disaster Management	Shree Rambhai Chavda	232183, 232125, 232084	9904084101	232102	disa-devbdwarka@gujarat.gov.in

S. No.	Taluka Name	Designation	Officer Name	Office No.	Mobile	Email Id
1	Khambhaliya	Prant Officer	Shree P.A.Kotadiya	02833-234577	9978405354	sdm-kham-jam@gujarat.gov.in
		Mamlatdar	Shree M.M.Sambad	02833-234788	9586783669	mam-khambhaliya@gujarat.gov.in

S. No.	Taluka Name	Designation	Officer Name	Office No.	Mobile	Email Id
2	Bhanvad	TDO	Shree A.I.Shekh	02833-234792/99	9327803973	tdo-khambhalia@gujarat.gov.in
		Chief Officer Khambhalia	Shree Bharat Vyash	02833-234712	9723565252	np_khambhaliya@yahoo.co.in
		Chief Officer salaya	Shree Amith A. Pandya	02833-285448	9106894100	np_salaya@yahoo.co.in
		Prant Officer	Shree P.A.Kotadiya	02833-234577	9978405354	sdm-kham-jam@gujarat.gov.in
		Mamlatdar	Shree H.B.Bhalala	02896-232113, 232116	7567002729	mam-bhanvad@gujarat.gov.in
3	Kalyanpur	TDO	Shree K.R.Chudasama	02896-232024	8238017007	tdo-bhanvad@gujarat.gov.in
		Chief Officer Bhanvad	Shree Bhavin K. Kandhani	02896-232159	8780263154	np_bhanvad@yahoo.co.in
		Prant Officer	Shree P.H.Talsaniya	02892-235733/53	7567001052	po-dwarka-jam@gujarat.gov.in dwarkaprant@gmail.com
		Mamlatdar	Shree D.M.Rindani	02891-286227	7567099970	mam-kalyanpur@gujarat.gov.in
		TDO	Shree R.L.Dagara	02891-286223	7567018989	tdo-kalyanpur@gujarat.gov.in
4	Okha Mandal/Dwarka	Chief Officer Raval	Shree Parakramsinh Makavana	02891-228249	9687951797	np_jamraval@yahoo.co.in
		Prant Officer	Shree P.H.Talsaniya	02892-235733/53	7567001052	po-dwarka-jam@gujarat.gov.in dwarkaprant@gmail.com
		Mamlatdar	Shree V.R.Varu	02892-234541	7567002769	mam-okhamandal@gujarat.gov.in
		TDO	Shree K.V.Sherthiya	02892-234052	9427240250	tdo-okhamandal@gujarat.gov.in
		Chief Officer Dwarka	Shree Uday R. Nashit	02892-234919, 234449	7016848701	np_dwarka@yahoo.co.in
		Chief Officer Okha	Shree Uday R. Nashi	02892-262035	7016848701	np_okha@yahoo.co.in

District Name: - Surendranagar					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri K C Sampat	9978406223	282200	collector-snr@gujarat.gov.in,
2	DDO	Shri P.M.Makvana	99784 06248	283752	ddo-snr@gujarat.gov.in,
3	S P	Shri Haresh Dudhat	282100	99784 05083	sp-control-srn@gujarat.gov.in
4	Resi. Addl. Collector	Shri D. I Bhaglani	285200	99784 05224	rdc-srn@gujarat.gov.in
5	Dy. District Development Officer (Mehsul)	Shri H G Patel	285602	8866224659	dy.ddo-snr@gujarat.gov.in,
6	Deputy Conservator of Forest	Shri N J Parmar	283401	9924858300	
7	Dy. SP	Shri H P Doshi	282100	9978407894	dy.sp-control-srn@gujarat.gov.in
8	Chief District Health officer	Dr. B.G Gohil (i/c)	285383	9727721376	cdho-srn@gujarat.gov.in
9	Director, DRDA	Shri R.M. Rayjada	284808/284809	7567039837 9879388262	drda-snr@gujarat.gov.in,
10	DSO	Shri K.T.Pandya	284351	9904734277	dso-srn@gujarat.gov.in
11	Medical Superintendent (Civil Hospital)	Shri M B Mudgal	223052/222553	9426472979	cdmo-srn@gujarat.gov.in
12	CDMO	Shri M B Mudgal	223052/222553	9426472979	cdmo-srn@gujarat.gov.in
13	DEO	Shri K N Barot	284710	9909970219	dposnr@gmail.com
14	DPEO	Shri Shilpaben Patel	283099	99099 71695	dpeosnr@gmail.com
15	General Manager, DIC	Shri S.B. Parejiya	283465	9924025050	dic-snr@gujarat.gov.in
16	Ass. Director of Information	Shri Ghanshyam Pedva	282253	9825599149	information-snr@gujarat.gov.in
17	Port Officer, GMB	nill			

District Name: - Surendranagar					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
18	Chief Fire officer	nil			
19	Executive Engineer, R & B (State)	shri K. D . Rathod	282252	9825278854	
20	Executive Engineer, R & B (Panchayat)	Shri J. C. Rathod	285812	8980897333	
21	Executive Engineer, irrigation (State)	Shri Akash Patel		9998297718	
22	Executive Engineer, irrigation (Panchayat)	Shri K B Pateliya	284902	9428769385	
23	Executive Engineer GWSSB	shri M T Thakur	284598	9978440394	gwseecsnr0@gmail.com
24	Superintendent Engineer, PGVCL,	Shri V J Markana	223450	9825603180	sesnr.pgvcl@gmail.com
25	Dy Director of Animal husbandry	Dr. B.B.Patel		9638328884	
26	District Agriculture officer	Shri M P Parmar		9898260931	
27	Program Officer ICDS	Shri Klpanaben Shukla	283717	8980223112	
28	Director Industrial Safety and Health	Shri Jatin Adeshara	282351	9825714748	
29	DC/ST Manager depot.	Shri I J Nayi	221152	6359918739	
30	Superintendent of Fisher	Shri C. N. Suchak			
31	Regional officer, GPCB	shri K. K. Lakum		9106444307	
32	Manager BSNL	Shri Hitesh Joshi		9427215615	
35	Mamlatdar Disaster	Shri P I Gadhavi	283400	9825670911	dismgmt-snr@gujarat.gov.in,
37	DPO Disaster	Shri Nilesh Parmar	283400	97121 85595	dismgmt-snr@gujarat.gov.in,
38	Dy. Mamlatdar Disaster	Shri B.D Parmar	283400	9726414401	dismgmt-snr@gujarat.gov.in,

District Name: - Gandhinagar						
Sr. No	Designation	Name	Office	Mobile	Fax	Email ID
1	2	3	4	6	7	8
1	Collector	shri. Hitesh koya	23259030 23259029	9978406209	23259040	collector-gnr@gujarat.gov.in
2	Municipal Commissioner	Shri. Jitendrasinh Vaghela	23220440	9978400531	23221419	Municipal Commissioner
3.	D D O	Smt. Surbhi Gautam	23222618 23256981	9978406234	23223266	ddo-gnr@gujarat.gov.in
4.	DSP	Shri. Tarun Duggal	23210901	9978405070		sp-gnr@gujarat.gov.in
5.	Resi. Addi. Collector	Shri. Bharat Joshi	23221460 23259035	9978405181	23259181	rac-gnr@gujarat.gov.in
6.	D.R.D.A.	Shri. B.K.PATEL	23246153 23259052	7567035216	23232143	drda.gnr@gmail.com
7.	Dy.DDO	Smt. Jahnvi Patel	23251246	7567017487	23223266	dydeognrooffice@gmail.com
8	D.S.O.	Ms. Shaweta Pandya	23259041 23259182	9099939631	23259041	dso-gnr@gujarat.gov.in
9.	CDHO	Dr.Ashok Vaishnav (I/C)	23256942 23256945	9909039329	23222088	cdho.health.gandhinagar@gmail.com
10	DEO,	Shri Dr. B.N.PRAJAPATI	23259065 23259066	9909970227	23220314	gandhideo@gmail.com
11	DPEO	Shri Hemang Bhatt	23256955 23222540	9870093227	23223266	dpeogandhinagar@gmail.com
12	Dy. Muni. Commissioner	Shri Keyur Jethva	23256981	9638377777		ahmgandhinagar8@gmail.com
13	Shasanadhikari	Smt Kiran Patel (I/c)	23225470	9978011701	---	shasanadhikari@gmail.com

District Name: - Gandhinagar						
Sr. No	Designation	Name	Office	Mobile	Fax	Email ID
1	2	3	4	6	7	8
14	General Manager, DIC		23259057 23259054		23259281	gm-dic-gnr@gujarat.gov.in
15	Dy.info.officer					infoddigandhinagar2005@gmail.com
16	Chief Fire Officer	Shri Kaizad Dastur	2322210, 23222742	9099493671	-	maheshmodfire@gmail.com
17	Control Room Mam. Disaster	Ms. R.N.Parmar	23256720 23256639	9979246021	23245878	dismgmt-gnr@gujarat.gov.in
18	DPO GSDMA	Smt. Megha Rabari	23256639	8160439782	23245878	dpo.gandhinagar@gmail.com

Taluka Name	Designation	Officer Name (Shri)	Code	(O)	Mobile	Police Station	Email ID
Dahegam	Prant Officer (LizenOfficer)	Shri. B.B.Modiya	02716	23259093	9978405756	232632	po-gnr@gujarat.gov.in
	Mamlatdar	Shri. Ravi Thesiya		232002	7574055981		mam-dehgam@ gujarat.gov.in
	TDO	Shri. P.J.Mahida		232627	8160034062		tdo- dehgam@gujarat.gov.in
	Chief Officer	Ms. Roshani Patel		232626	9909923595		dehgamn@gmail.com
Gandhinagar	Prant Officer	Shri. B.B.Modiya	079	23259030	9978405756	232-59092	po-gnr@ gujarat.gov.in
	Mamlatdar	Shri H. M.Patel		23259075	7567002594		mam-gandhinagar@ gujarat.gov.in
	TDO	Shri Vinod Joshi		23220795 23259088	9409532389		tlprh.gnr@gmail.com

Taluka Name	Designation	Officer Name (Shri)	Code	(O)	Mobile	Police Station	Email ID
Kalol	Prant Officer	Ms. Krishna Vaghela	02764	222333	9727260336	221394 223392	po-kalol@gujarat.gov.in
	Mamlatdar	Shri. Rudradatsinh Vaghela		220414	9925248220		mam-kalol@gujarat.gov.in
	Mamlatdar (City)	Shri. Rudradatsinh Vaghela(I/c)		220414	9925248220		mam-kalol@gujarat.gov.in
	TDO	Shri Kalpeshsinh Chavda		223950 220213	7567013119		tdo-kalol@gujarat.gov.in
	Chief Officer	Shri Nitin Bodat		223291	6359876203		np_kalol@yahoo.co.in
	Prant Officer (Lizen Officer)	Ms. Shaweta Pandya		23259033	9099939631		po-kalol@gujarat.gov.in
Mansa	Mamlatdar	Shri Vishal Patel	02763	270662	9724531114	27005	mam-Mansa@gujarat.gov.in
	TDO	Shri P.A.Gohil		270082	7567013177		tdo-mansa@gujarat.gov.in
	Chief Officer	Shri Satish Patel		273863	9427345167		manasa_nagarpalika@yahoo.co.in

District Name: - Ahmedabad					
Sr. no.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri Praveena D.K	9908406201	079-27551681	collector-ahd@gujarat.gov.in
2	DDO	Shri Mehul Dave	99784 06226	079-25506487	ddo-ahd@gujarat.gov.in
3	S P	Shri Sanjay Shrivastav	9978405093	079-25630200	cp-ahd@gujarat.gov.in
4	Resi. Addl. Collector	Shri S.K.Patel	9978405173	079-27551681	Addl-collector-ahd@gujarat.gov.in

District Name: - Ahmedabad					
Sr. no.	Designation	Name	Mobile	Landline No.	Email Id
5	Dy. District Development Officer (Mehsul)	Shri Suraj Barot	9978401207	079-25508141	dydd.rev.ahd@gmail.com
6	Deputy Conservator of Forest	Shri Priyanka	9782251239	079-29701083	dcf.ahd.forest@gmail.com
7	Dy. SP	Shri Amit Vasava	9978406342	079-26890886	sp-ahd@gujarat.gov.in
8	Chief District Health officer	Dr. Shailesh Parmar	9428901489	079-25507076	cdho.health.ahmedabad@gmail.com
9	Director, DRDA	Shri A.M.Desai	9924454003	079-26646143	drda.ahd@gmail.com
10	DSO	Shri A.D.Joshi	9978408084	079-27567970	dsoahmedabadcity001@gmail.com
11	Medical Superintendent(Civil Hospital)	Shri Jagdish Solanki	9925387497	079-22680732	Ms.health.ahmedabad.civil@gmail.com
12	CDMO	Shri Pradip Patel	7567897491	079-27661526	cdmo.health.ahmedabadsola@gmail.com
13	DEO	Dr.Bharat Vadher	9909970202	079-27912966	ahmrdeo@gmail.com
14	DPEO	Shri Rohit Chaudhary	9909971649	079-25507126	dpeo.ddo.ahd@gmail.com
15	General Manager, DIC	Shri P.M.Mistry	9426325759	079-25502349	dish-ahd@gujarat.gov.in
16	Ass. Director of Information	Shri Himanshu Upadhyay	99789 04203	079-26306737	samacharabd@gmail.com
17	Port Officer, GMB				
18	Chief Fire officer	J.N.Khadiya	9327038758	27913497	afes@ahmedabadcity.gov.in
19	Executive Engineer, R & B (State)	shri Kaushal Brahmabhatt	9825773282	27910154	rnbahmedabad@gmail.com

District Name: - Ahmedabad					
Sr. no.	Designation	Name	Mobile	Landline No.	Email Id
20	Executive Engineer, R & B (Panchayat)	Shri M.S.Bhoya	9979002455	25511608	exe_ahd@yahoo.in
21	Executive Engineer, irrigation (State)	Shri Chetan Vaghela	8160715028	27913497	eeaidn121@gmail.com
22	Executive Engineer, irrigation (Panchayat)	Shri G.P.Prajapati	9824961625	25507470	irrigationm.ahmedabad@gmail.com
23	Executive Engineer GWSSB	Shri Pradip Shah	9978406704	9978441113	gwseecamd1@gmail.com
24	Superintendent Engineer, DGVCL,	Shri B.K.Patel	9687662391	27506070	desbtdo@ugvcl.com
25	Dy Director of Animal husbandry				
26	District Agriculture officer	shri H.I.Patel	9998976545	2551022	dao.ddo.ahd@gmail.com
27	Program Officer ICDS	Parulben NayaK	9427546529	25510522	programofficerabd@yahoo.in
28	Director Industrial Safety and Health	Shri M.C.Gohil	9824653057	25502346	dish-ahd@gujarat.gov.in
29	DC/ST Manager depot.				
30	Superintendent of Fisher	Chintal Suchak	9898164800		leena_patel74@yahoo.com
31	Regional officer, GPCB	N.D.Ajmera	9712924377		ro-gpcb-amed@gujarat.gov.in
32	Mamlatdar Disaster	Shri KanaksinhGohil	9586913701	27552144	dismgmt-ahd@gujarat-gov.in
33	DPO Disaster	Shri kinjal Pandya(i/c)	9426185224	27552144	dismgmt-ahd@gujarat-gov.in
34	Dy. Mamlatdar Disaster	Shri Ashiyana Shekh	9586913701	27552144	dismgmt-ahd@gujarat-gov.in

District Name: - Mahisagar						
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id	
1	Collector	Shri. B.K.Pandya	9978405936	02674-250664	collector-mah@gujarat.gov.in	
2	DDO	Shri. C.L.Patel	9978406497	02674-250945	ddo-mahi@gujarat.gov.in	
3	S P	Shri. R.P.Barot	9978408065	02674-254004	sp-lunav-mahi@gujarat.gov.in	
4	Resi. Addl. Collector	Shri.C.V.Lata	9727763950	02674-250165	addl-collector-mah@gujarat.gov.in	
5	Dy. District Development Officer (Mehsul)	Shri C.D.Bhagora	7984686158	02674-250946	dyddo.mahi.mahekam@gmail.com	
6	Deputy Conservator of Forest	Shri.N.V.Chaudhari	7984863895	02674-251154	dcfmahi@gmail.com	
7	Dy. SP	Shri P.H.Valavi	8849007909	02674-254001	sp-lunav-mahi@gujarat.gov.in	
8	Chief District Health officer	Dr.C.R.Patel	7567895502	02674-252702	cdho.health.mahisagar@gmail.com	
9	Director, DRDA	Shri M.B. Thakor	9925315468	02674-251123	drda.mahisagar@gmail.com	
10	DSO	Shri C.V.Patel	7574898793	02674-250722	dso-mahi@gujarat.gov.in	
11	Medical Superintendent (Civil Hospital)	Dr.Bhamini Pandit	7984856329	02674-250008	Sdhlunawada.health.panchmahal@gmail.com	
12	CDMO	-	-	-	-	
13	DEO	Smt Gayatriben H.Patel (i/c)	9909971689	02674-250901	deomahisagar@gmail.com	
14	DPEO	Dr.Avaniba D.Mori	7567804983	02674-255590	dpeomahisagar@gmail.com	
15	General Manager, DIC	Shri. R.V.Ninama	9428460065		gm-dic-lun@gujarat.gov.in	

District Name: - Mahisagar						
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id	
16	Ass. Director of Information	Shri Shaileshbhai Baldaniya	9824646132	02674-254051	mahimahiti254051@gmail.com	
17	Port Officer, GMB	-	-	-	-	
18	Chief Fire officer	-	-	-	-	
19	Executive Engineer, R & B (State)	Shri. V.P. Khatediya	9925048136	02674-250486	rmlunawada@gmail.com	
20	Executive Engineer, R & B (Panchayat)	Shri. V.B.Patel(i/c)	9825075116	02674-252123	exn-pan-mahi@gujarat.gov.in	
21	Executive Engineer, irrigation (State)	Shri.S.T.Gamit	9879566722	02675-237525	kpcdiwada@yahoo.com	
22	Executive Engineer, irrigation (Panchayat)	Shri.R M Damor	9879173323	02674-250308	xenpidmahisagar@gmail.com	
23	Executive Engineer GWSSB	Shri.P.P.Pithva	9978406620	02674-250308	eemahisagar1@gmail.com	
24	Executive Engineer, MGVCCL,	Shri.A A Ganchi	9925213275	02674-250553	eelunawada.mgvcl@gebmil.com	
25	Dy Director of Animal husbandry	Shri.M G Chavda	9924439069	026474-250144	dahoahmahisagar@gmail.com	
26	District Agriculture officer	Shri.J.R.Patel	7226952008	02674-250195	dao.mahisagar@gmail.com	
27	Program Officer ICDS	Smt. Daxaben Tabiyar	6359923732	02674-252995	po.icdsmahisagar@gmail.com	
28	Director Industrial Safety and Health	Shri.B.D.Gamit	8849976845	02682-568986	dydish-khe@gujarat.gov.in	

District Name: - Mahisagar					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
29	DC/ST Manager depot.	Shri.B.R.Dindor	6359919032	02672-261913	dmlunawada123@gmail.com
30	Superintendent of Fisher	Shri.S.D.Rathod	9427364716	02675-237512	supptd-fish-mahi@gujarat.gov.in
31	Regional officer, GPCB	-	-	0272-245869	ro-gpcb-godh@gujarat.gov.in
32	Manager BSNL	Shri Satish Pamnani	9427613549	02672-250180	gdhsdotlvd@gmail.com
35	Mamlatdar Disaster	Shri S.C.Sangada(i/c)	9429292846	02674-252301	disaster-mahi@gujarat.gov.in
37	DPO Disaster	Shri Jigar I Makwana	9898100757	02674-252300	jigarnakwana@live.com
38	Dy. Mamlatdar Disaster	Shri.S B Shrimali	8200848410	02674-252300	disaster.mahisagar@gmail.com

District Name: - Arvalli					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Ms.Prashasti Pareek	9978405935	02774-250200	collector-arv@gujarat.gov.in
2	DDO	Shri. K N Shah	9978406496	02774-241544	ddo-arv@gujarat.gov.in
3	S P	Shri Sanjay Kharat IPS	9978405978	02774-248666	dysp-hq-arv@gujarat.gov.in
4	Resi. Addl. Collector	Shri.N D Parmar	9727756393	02774-250205	collectorarvalli@gmail.com
5	Dy. District Development Officer (Mehsul)	Shri. V.R.Barot	8238092202	02774-240744	dyddomhk@gmail.com
6	Deputy Conservator of Forest	Shri P Purushothama	7574955046	02774-240251	
7	Dy. SP	Shri B B Basiya	9978408587	02774-248666	Dysp-hq-arv@gujarat.gov.in

District Name: - Arvalli						
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id	
8	Chief District Health officer	Shri.M.A.Siddiki	8200197005	02774-250016	Cdho.health.arvalli@gmail.com	
9	Director, DRDA	Shri.R.N.Kuchara	9925025475	02774-247164	Drdarvalli@gmail.com	
10	DSO	Dr.H H Punjabi	9512056925	02774-250214	dsoarvmodasa@gmail.com	
11	Medical Superintendent(Civil Hospital)	-	-	-	-	
12	CDMO	-	-	-	-	
13	DEO	Smt.Archana M Chaudhary	7574812280	02774-250190	aravallideo@gmail.com	
14	DPEO	Smt.Archana M Chaudhary(i/c)	7574812280	02774-250029	dpeoarvalli@gmail.com	
15	General Manager, DIC	Shri J D Ninama	9925194121	02774-250182	gm-dic-ara@gujarat.gov.in	
16	Ass. Director of Information	Ms.Nidhi Jaiswal	9687609143	02774-250234	arvallimedia.dmooffice@gmail.com	
17	Port Officer, GMB	-	-	-	-	
18	Fire officer	Shri Hemrajsingh Vaghela	6354920138	02774-246209	np_modasa@yahoo.in	
19	Executive Engineer, R & B (State)	Shri M K Prajapati	9429129493	02774-246359	eerbmodasa@gmail.com	
20	Executive Engineer, R & B (Panchayat)	Shri M K Vasava	9408169869	02774-246392	eerbpan.arvalli@gmail.com	
21	Executive Engineer, irrigation (State)	Shri S L Shah	9426362111	02774-246392	Ipdn.irr@gmail.com	

District Name: - Arvalli					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
22	Executive Engineer, irrigation (Panchayat)	Shri M K Vasava	9408169869	02774-250018	exn-pan-ara@gujarat.gov.in
23	Executive Engineer GWSSB	-	-	-	-
24	Superintendent Engineer, UGVCL,	Shri P C Shah	9925212163	02774-240262	eemodasa@ugvcl.com
25	Dy Director of Animal husbandry	Dr.K J Patel	9426025721	02774-241779	daho-arvalli@gmail.com
26	District Agriculture officer	Shri Ashvin Patel	9426025721		dao-arvalli@gmail.com
27	Program Officer ICDS	Shri B G Ninama (I/c)	-	-	po-icds-arvalli@gmail.com
28	Director Industrial Safety and Health	-	-	079-23233231	ddl-dish-gan@gujarat.gov.in
29	DC/ST Manager depot.	Shri H R Patel	6359918520	02774-246239	-
30	Superintendent of Fisher	Shri M I Thalotiya	9824346023	02774-250172	suptd-fish-ara@gujarat.gov.in
31	Regional officer, GPCB	Shri Mukesh Shukla	9239657547	02774-229272	
32	Manager BSNL	Shri Pratapshih Devda	9974605342	02774-246720	
35	Mamlatdar Disaster	-	-	-	-
37	DPO Disaster	Shri Jigar I Makwana	9898100757	02674-252300	Jigarmakwana@live.com
38	Dy. Mamlatdar Disaster	Ms Harshaben Desai	9327113678	0274-250221	disaster.arvalli@gmail.com

District Name: - BANASKANTHA						
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id	
1	Collector	Shree Varunkumar Baranwal	9978406204	02742-257171	collector-ban@gujarat.gov.in	
2	D.D.O	Shree Swpnil Khare	9978406229	02742-254060	ddo-ban@gujarat.gov.in	
3	S.P	Shree Akshy Raj Makvana	9978405065	02742-257015	sp-ban@gujarat.gov.in	
4	Resi. Addl. Collector	Shree R.N.Pandya	9978405176	02742-254004	rdc-ban@gujarat.gov.in	
5	Dy. District Development Officer (Mehsul)	Shree K.K. Chaudhary	9426337660	02742-257087	dyddo-vikas-ban@gujarat.gov.in	
6	Deputy Conservator of Forest	Shree Abhaysingh	9558773578	02742-257065	--	
7	Dy. S.P	Shree R K Patel	8200981392	02742-252600	--	
8	Chief District Health officer	Shree Dr.Jayesh Patel	9090986262 9727730002	0242-250004	cdho.health.banaskantha@gmail.com	
9	Director, D.R.D.A	Shree R.I.Shekh	9825806888	02742-260004	drdabanas@gmail.com	
10	D.S.O	Shree R.K.Kharadi	7567021929	02742-254309	dso-ban@gujarat.gov.in	
11	Medical Superintendent(Civil Hospital)	--	--	--	--	
12	C.D.M.O	Shree Dr.D.B. Maheta	8160938523 9727730003	02742-257339	--	
13	D.E.O	Shree N.B.Chavda	9909970210	02742-257055	bns-deo@gmail.com	
14	D.P.E.O	I/C Shree N.B.Chavda	9909971654	02742-257063	dpeobanaskantha @gmail.com	
15	General Manager, D.I.C	Shree R.K. Vasava	8460827591	02742-254307	gm-dic-ban@gujarat.gov.in	

District Name: - BANASKANTHA					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
16	Ass. Director of Information	Shree Amitbhai gadhavi	9924391616	02742-252664	cdmo.ban@gmail.com
17	Port Officer, GMB	--	--	--	--
18	Chief Fire officer	--	--	--	--
19	Executive Engineer, R & B (State)	Shree Kalpesh bhai Patel	9998262335	02742-262335	--
20	Executive Engineer, R & B (Panchayat)	Shree I K Patel	9714797331	02742-253195	--
21	Executive Engineer, irrigation (State)	Shree Jitubhai Barot	9173340296	02742-253503	--
22	Executive Engineer, irrigation (Panchayat)	Shree G N Damor	9825016040	02742-257279	--
23	Executive Engineer GWSSB	Shree R D Mamtara	9978406679	02742-254255	--
24	Superintendent Engineer, U.G.V.C.L	Shree R M Modh	9925212601	02742-256535	--
25	Dy Director of Animal husbandry	Shree Dr.J.P. Majedhiya	9427043736	02742-252305	--
26	District Agriculture officer	Shree M.M. Prajapati	9426534735	02742-252634	--
27	Program Officer ICDS	Shree Ushaben Gajjar	9408020364	02742-253549	--
28	Dy.Director Industrial Safety and Health	Shree			--
29	D.C/S.T depot.	Shree K.S. Chaudhary	6359919038	02742-257285	--
30	Superintendent of Fisher	Shree D M Patel	9904844142	02742-253529	--

District Name: - BANASKANTHA					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
31	Regional officer, G.P.C.B	Shree J M Chauthry	8200026160	02742-251301	--
32	Manager B.S.N.L	Shree K.P.Parmar	9427309870	02742-250500	--
35	Mamlatdar (Disaster)	Shree B.B.Patel	9427449951	02742-250627	dismgmt-ban@gujarat.gov.in
37	D.P.O (Disaster Management)	Shree S.N.Chauhan	9537511458	02742-250627	dpodisasterbk@gmail.com
38	Dy. Mamlatdar (Disaster)	Shree M.B.Darji	9824665424	02742-250627	dismgmt-ban@gujarat.gov.in

District : Kheda-Nadiad (STD Code :0268)						
Sr. No.	Designation	Name	Office	Resi	Mobile	Fax
1	Collector	Shri K.L.Bachani	2553334	2556700	9978406212	2553358
2	DDO	Shri Shivani goel	2557262	232802	9978406237	2557567
3	DSP	Shri Rajesh Ghadiya	2550150	-	9978405072	2552750
4	Resi.Add. Collector	Shri B.S.Patel	2553336	2532777	9978405597	2553358
5	DRDA	-	2550221	-	7567036029	2551169
6	DSO	Shri V.C.Bodana	2553839	-	7567021504	2551131
7	Dy.DDO (Revenue)	Shri S.L.Rathod	2557230	-	7574001241	2557567
8	CDHO	Dr V.S.Druven	2556273	-	9099024729	-
9	Executive Engineer , State, R&B	Shree B.T.Salvi	2566404	-	9825407449	-

District : Kheda-Nadiad (STD Code :0268)							
Sr. No.	Designation	Name	Office	Resi	Mobile	Fax	Email ID
10	Executive Engineer , Panchayat, R&B	Shri H.U.Patel	2557640	-	7874210067 9925435560	-	exepannad@gmail.com
11	Deputy / Assistant Director Industrial Health & Safety	Shree N.R.Parnar	2568986	-	8200314028	-	Dy-khe@gujarat.gov.in
12	DEO	I/C Shree K.A.Patel	2550183	2550183	9909971682	2550183	khedeo@gmail.gov.in
13	DPEO	Shree K.A.Patel	2557452 2532125	-	9909971682	-	dpo-khe@gujarat.gov.in
14	Dy. Director information	Sushree Nitya Trivedi	2550903 2850631	-	7383216489	2552187	mahitinadiad@gmail.com
15	General Manager DIC	-	2555003	-	7587177329 7203030002	244716	gm-dic-khe-Gujarat.gov.in
16	Chief Fire Officer	Shree Dixit Patel	2550106	-	9879253440	-	nadiadmunicipality@ yahoo.com
17	Mam.Disa. Control Room	Shree S.G.Rabari	2553356	-	9825778124	2553358	eoc.kheda@gmail.com
18	District Project Officer	Sachee Desai	2553357		9725678973	2553358	sacheedesai@gmail.com

Taluka Name	Designation	Officer name	Code	Office	Mobile	Police station	Email ID
Nadiad (City)	Prant Officer	Shree J.M.Bhoraniya	268	2553362	9978405751 7600051060	2550232 2566333	prantnadiad6371@gmail.com

Taluka Name	Designation	Officer name	Code	Office	Mobile	Police station	Email ID
	Mamlatdar	Shree S.D.Patel		2531770	7567003783		mam-nadiad@gujrat.gov.in
	Chief Officer	ShreeRr.J.J.Hudad		2551376/77	9687780004		nadiadmunicipality@yahoo.com
Nadiad (Rurl)	Prant Officer	Shree J.M.Bhoraniya	268	2553362	9978405751	2561745	prantnadiad6371@gmail.com
	Mamlatdar	Ku.J.M.Gadhia		2553020	7600051060		mam-nadiad@gujrat.gov.in
	TDO	Shri adhity modi		2550575	7567014005		tdo-nadiyad@gujarat.gov.in
	Prant Officer	Sushree Riddhi m.Shukla		222504	9408757549	223033	sdm-rev-thasra@gujarat.gov.in
Thasra	Mamlatdar	Su Shri N.S.Suvera	2699	223053	7567003719		mam-thasra@gujrat.gov.in
	TDO	Ku Avni N.Tabiyar		222499	7567014034		tdo-thasara@gujarat.gov.in
	Chief Officer	Shree Digvijaysinh Prajapati		222060	8200519736		np_thasara@yahoo.co.in
	Prant Officer	Shree Anilkumar Goswami		255658	7567010699	243433	sdm-kapdwanj@gmail.com
Kathlal	Mamlatdar	Shri D.P.Chauhan	2691	243712	7567003580		mam-kahtlal@gujrat.gov.in
	TDO	Shree Jabaka kotadiya		244144	9104466203		tdo-kathlal@gujarat.gov.in
	Chief Officer	Shri urmilaben sumesra		243408	7405930422		Kkathlal-palika@yahoo.co.in
	Prant Officer	I/C Shri V.C.Bodana		224301	7567021504	244082	sdmkheda@gmail.com
Mahemdabad	Mamlatdar	Shri S.R.Bariya	2694	244590	7567003804		mam-mehmadabad@gujrat.gov.in
	TDO	Shri P.S.Parmar		244019	7567013857		tdo-mehmdabad@guajarat.gov.in
	Chief Officer	i/c Shree C.S.Desai		244032	9429420308		np_mbad@yahoo.co.in

Taluka Name	Designation	Officer name	Code	Office	Mobile	Police station	Email ID
Matar	Prant Officer	I/C Shri V.C.Bodana	2694	224301	7567021504	285533	sdmkheda@gmail.com
	Mamlatdar	Shri V.P.Purohit		285544	7567003657		mam-matar@gujrat.gov.in
	TDO	Shri K.V.Nanda		285238	7567013827		tdo-matar@guajarat.gov.in
Kheda	Prant Officer	I/C Shri V.C.Bodana	2694	224301	7567021504	222033	sdmkheda@gmail.com
	Mamlatdar	Shri Agarsinh Chauhan		224331	7567003642		mam-kheda@gujrat.gov.in
	TDO	Shri V.K.Gadhavi		225254	7567014114		tdo-kheda@gujrat.gov.in
	Chief Officer	Shri Bhadresh Patel		222074	8128887271		np_kheda@yahoo.co.in
Mahudha	Prant Officer	Shree J.M.Bhoraniya	268	2553362	7600051060	2572533	prantnadiad6371@gmail.com
	Mamlatdar	Ku Krishna B Solanki		2572755	7567003703		mam-mahudha@gujrat.gov.in
	TDO	Sushri Jyotiben Desai		2572299	7567014105		tdo-mahudha@guajarat.gov.in
	Chief Officer	Shree C.S.Desai		2572534	9429420308		comahudha@yahoo.co.in
Kapadwanj	Prant Officer	Shree Anilkumar Goswami	2691	255658	7567010699		sdm.kapadwanj@gmail.com
	Mamlatdar	Shri J.N.Patel		252626	7567003782		mam-kapadwanj@gujarat.gov.in
	TDO	Shree S.L.Nisarata		252110	7567013924		tdo-kapadwanj@gujarat.gov.in
	Chief Officer	Shri Savan C.Ratani		252365	9979780088		np_kapadwanj@yahoo.co.in
Vaso	Prant Officer	shree j.m.bhoraniya	268	2553362	7600051060		prantnadiad6371@gmail.com
	Mamlatdar	Shri J.P.Zala		2586401	9904813555		mamlatdarvaso@gmail.com

Taluka Name	Designation	Officer name	Code	Office	Mobile	Police station	Email ID
	TDO	Shree Malay Bhuva		2586476	7069077576		tdovaso@gmail.com
Galteshvar	Prant Officer	riddi m.sukla	2699	222504	9408757549		
	Mamlatdar	Shri Sohini g.Patel		233053	9428030006		mam-galt-kheda@gujrat.gov.in
	TDO	Dr A.M.Prajapati		234171	7069077578		tdo-galteshvar@gujrat.gov.in
					9909232423		men.galteswar@gmail.com

District Name: - Narmada					
Sr. No.	Designation	Name	Mobile	Landline No. Code No (02640)	Email Id
1	Collector	Sweta Tevatiya	9978406216	02640-222161	collector-nar@gujarat.gov.in
2	DDO	Ankit Pannu	9978406241	02640-224820	ddo-nar@gujarat.gov.in
3	S P	Prashant Sumbe	9978405076	222316	sp-nar@gujarat.gov.in
4	Resi. Addl. Collector	C.A. Gandhi	9978405188	222326	rdc-nar@gujarat.gov.in
5	Dy. District Development Officer (Mehsul)	Smt Sudha vasava	9978405612	220723	ddo-nar@gujarat.gov.in
6	Deputy Conservator of Forest	Niraj kumar	8630202414	02640-220013	
7	Dy. SP	P RPatel	9925140776	-	sp-nar@gujarat.gov.in
8	Chief District Health officer	Dr.Janak Medhak	9727723764	221806	cdho.health.narmada@gmail.com
9	Director, DRDA	J K Jadhav	7990935524	221579	
10	DSO	K.S. Ninama	8647062985	224828	dso-nar@gujarat.gov.in
11	Medical Superintendent(Civil Hospital)	-	-	-	

District Name: - Narmada					
Sr. No.	Designation	Name	Mobile	Landline No. Code No (02640)	Email Id
12	CDMO	Dr Sangita parikh i/c	9825332749	220030	
13	DEO	M C Bhusara	9909970226	222603	
14	DPEO	Jayesh M Patel	9909971686	222920	
15	General Manager, DIC	J.B. Dave	6357150191	224182	gm-dic-nar@gujarat.gov.in
16	Dy. Director of Information	Arvindbhai Machhar	9925255862	224038	ddinarmada@gmail.com
17	Port Officer, GMB	-	-	-	-
18	Fire officer	Anil Bhai Rohit	9978572183	220763	np_rajpipla@yahoo.co.in
19	Executive Engineer, R & B (State)	Satish Modi	8980419272	223032	rnb_rajpipla@yahoo.in
20	Executive Engineer, R & B (Panchayat)	Anil patel	9099167871	221949	
21	Executive Engineer, irrigation (State)	-	-	-	-
22	Executive Engineer, irrigation (Panchayat)	A S Tadv	9426335217	222484	
23	Executive Engineer GWSSB	R B Zala	9978443247	220008	
24	E. Engineer, DGVCL,	D N Chauhan	9879200776	222152	
25	Dy Director of Animal husbandry	J R Dave	9725702475	222081	
26	District Agriculture officer	V V Patel	9428063677	220080	
27	Program Officer ICDS	Krishna Patel	9099621689	222019	
28	Director Industrial Safety and Health	-	-	-	
29	ST Manager depot.	K H Nai	6359918387	02640-222472	

District Name: - Narmada					
Sr. No.	Designation	Name	Mobile	Landline No. Code No (02640)	Email Id
30	Superintendent of Fisher	H G Palanpura	9274705581	02640-222431	
31	Regional officer, GPCB	Shailesh Patel ic	7984941436	-	
32	Manager BSNL	Manu Abraham	9427114333	-	
35	Mamlatdar Disaster	V C Chavda	9925479057	224001	dismgmt-nar@gujarat.gov.in
37	DPO Disaster	K.K.Gamit i/c	9825920032	224001	dponar.gsdma@gmail.com
38	Dy. Mamlatdar Disaster	Mina ben	9879729654	224001	dismgmt-nar@gujarat.gov.in

District Name: - Rajkot					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri Prabhava Joshi IAS	99784 06220	2473900 2479351	collector-raj@gujarat.gov.in
2	DDO	Shri Dev Choudhari	9978406245	0281-2477008	ddo-raj@gujarat.gov.in
3	S P (Rajkot Rural)	Shri Jaypalsinh Rathod IPS	99784 05080	2433444	sp-rural-raj@gujarat.gov.in
4	Resi. Addl. Collector	shri S.J. Khanchar	9978447471	2476874	add-collector-raj@gujarat.gov.in
5	Dy. District Development Officer (Mehsul)				
6	Deputy Conservator of Forest	Shri Tushar Patel	7490027654	2476497	dcfrjt@gmail.com
7	Dy. SP	Shri. H.S. Ratnu	99799 08184	2447317	-

District Name: - Rajkot					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
8	Chief District Health officer	Dr. Nilesh Rathod	9825211895	2443235	cdho.health.rajkot@gmail.com
9	Director, DRDA	Shri R.S. Thummar	99784 47471	2474305	drdaraj2002@yahoo.com
10	DSO	Shri Avniben A.Haran	7567021682	2476891	dso-raj@gujarat.gov.in
11	Medical Superintendent(Civil Hospital)	Dr. Ketan Piplia,	9426045106	2228574	pkhospital_rajkot@yahoo.com cdmo.health.rajkotpkg@gmail.com
12	CDMO	Dr. Ketan Piplia,	9426045106	2228574	pkhospital_rajkot@yahoo.com cdmo.health.rajkotpkg@gmail.com
13	DEO	Shri B.S. Kaila	8441433450	2223453	rajkotdeo@gmail.com
14	DPEO	Shri D.R.Sardwa	9909971694	0281 2444437	dpeorajkot@yahoo.com
15	General Manager, DIC	Shri K. V.Mori	92277 53656	2476293	gm-dic-raj@gujarat.gov.in
16	Ass. Director of Information	Shri Nirala Joshi	98254 79292	2229325	rajkotinformation@gmail.com
17	Port Officer, GMB	NA	NA	NA	NA
18	Chief Fire officer	Shri IleshKher	9979515966	2227222	ssyshailash@yahoo.com
19	Executive Engineer, R & B (State)	Shri R.A. Javia E. I/C	83202 34941	2465583	city_division@yahoo.in eecitydivision@gmail.com
20	Executive Engineer, R & B (Panchayat)	Mr. Sandeep Mahala	9687614822	0281- 2441017	exep-raj-rnb@gujarat.gov.in
21	Executive Engineer, irrigation (State)	shri Preksha Goswami	9408886299	2441125	eeridn@gmail.com

District Name: - Rajkot					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
22	Executive Engineer, irrigation (Panchayat)	Shri BP Bhimjiani	7984985663	0281-2441311	exeiri-ddo-raj@gujarat.gov.in rjtpid@gmail.com
23	Executive Engineer GWSSB	Mr. Ankit Gohel	8200715265	2563745	wdn1rjt@gmail.com
24	Superintendent Engineer, DGVCL,	Shri SM Khirsaria	9925209176	2226755	serjc.pgvel@gmail.com
25	Dy Director of Animal husbandry	Dr. K.U.Khanpara i/c	9825840584 9664632937	0281-2444782	dydir-ah-raj@gujarat.gov.in
26	District Agriculture officer	Shri R.R.Tilva	7575800087	2440889	dao-ddo-raj@gujarat.gov.in
27	Program Officer ICDS	Mr. Vatslaben S. Dave	98252 20570	0281 2447775	PO.icds.Rajkot@gmail.com
28	Director Industrial Safety and Health	Shri D.B. Monpara	9429359523	2443280	itdish-raj@gujarat.gov.in
29	DC/ST Manager depot.	Shri J.B. Karotra	9099950081	2386340,	dc_rajkot@yahoo.in estagsrtc2019@gmail.com
30	Superintendent of Fisher	NA	NA	NA	NA
31	Regional officer, GPCB	Shri B M Makwana	98256 22089	2465015	ro-gpcb-raj@gujarat.gov.in
32	Manager BSNL	-	-	-	-
35	Mamlatdar Disaster	Shri K.L. Chavda	9428002630	241573	disastercellrajkot@gmail.com
37	DPO Disaster	I/C Amreen Khan	9907698161	241573	disastercellrajkot@gmail.com
38	Dy. Mamlatdar Disaster	Shri Nikhil Gohil	7622016355	241573	disastercellrajkot@gmail.com

District : Kutch						
Sr. No.	Designation	Name	Office	Mobile	Fax	Email
1	Collector	Shri Amit Arora, IAS	028322250020	9978406213	250430	collector-kut@gujarat.gov.in
2	D D O	Shri S. K. Prajapati IAS	028322250080	9978406238	250355	ddo-kut@gujarat.gov.in
3	DSP (Western)	Shri Saurabh Singh	028322250444	8866490932	250427	sp-kut@gujarat.gov.in
4	DSP (Eastern)	Shri Mahendra Bagadiya	02836280287	9099110444	280211	sp-east-kut@gujarat.gov.in
5	Resi. Addl. Collector	Shri Mitesh Pandya GAS	028322250650	9925273884	250430	add-collector-kut@gujarat.gov.in
6	DRDA	Shri G. K. Rathod	028322231577	7567899036	231342	drda-kut@gujarat.gov.in
7	DSO	I/C Shri Mehul V Desai	02832221453	8000874447	227495	dso-kut@gujarat.gov.in
9	CDHO	I/C Dr. R. R. Fulmali	028322252207	6354264142	221666	cdho.health.kutch@gmail.com
10	DEO	Shri	028322250156	9909970204	250156	kutchhdeo@gmail.com
11	DPEO	Shri Sanjay Davda	02832221103	8866275461	252403	dpckutchh@gmail.com
12	General Manager DIC		028322250501	9879596947	251874	gm-dic-kut@gujarat.gov.in
13	Dy.Dir.Info		02832224859		250954	ddibhuj@gmail.com
14	Chief Fire Officer	Shri Anil Maru	-	9978246682	-	anilkumarafire1@gmail.com
15	Control Room Mam.Disa.	H. A. Nagori	028322250923	9879586647	224150	dismgmt-kut@gmail.com
16	DPO	I/c Kamlesh Patel	028322250923	9426533915	224150	kamleshpatel.kp@gmail.com

Taluka	Designation	Officer Name (Shri)	Code	(O)	Mobile	Police Station	Email ID
Abdasa	Prant Officer	Shri Devang Rathod	2831	222188	9913688472	02849-231401,	dcabdas@gmail.com
	Mamlatdar	Yajuwendra vala		222131	9563633569	02849-231406,	mam-abdada@gujarat.gov.in
	TDO	Kalpesh Maheta		222135	8852336985		tdo.abdasa@gmail.com
Anjar	Prant Officer	Shri Mehul V Desai	2836	243345	9879195918	242517	sdmanjar@gmail.com
	Mamlatdar	Shri Anil Jadav		242588	9979036958		mam-anjar@gujarat.gov.in
	TDO	Raja Bhatt		242595	8852336988		tdo.anjar@gmail.com
	Chief Officer	Umesh Sodha		242544	9987898258		np_anjar@yahoo.co.in
Bhachau	Prant Officer	Shri Balmukund Suryavanshi	2837	224101	9979917807	291136	dcbhachau@gmail.com
	Mamlatdar	j. H. Pan		224026	9824589678		mam-bhachau@gujarat.gov.in
	TDO	Shri Solanki		223302	9429360445		tdo.bhachau@gmail.com
	Chief Officer	Shailendrasinh Zala		224028	9825228136		np_bhachau@yahoo.co.in
Bhuj	Prant Officer	I/C Shri M. M. Barasara	2832	251007	9979326215	253050	pobhuj@gmail.com
	Mamlatdar City	Kalpanaben Gondia		231579	9909849983		mam-rev-bhujcity@gujarat.gov.in
	Mamlatdar Rural	vivek Barhat		230832	7567003879		mam-bhuj@gujarat.gov.in
	TDO	Mahesh Bhatt		221711	8852363652		tdo.bhuj@gmail.com
	Chief Officer	jigar patel		253805	9409549944		npbhuj@yahoo.co.in
Gandhidham	Prant Officer	Shri Mehul V Desai	2836	243345	9879195918	232500	sdmanjar@gmail.com

Taluka Name	Designation	Officer Name (Shri)	Code	(O)	Mobile	Police Station	Email ID
	Mamlatdar	Shri Bhagirath Zala		250270	9985636569		mam-gandhidham@gujarat.gov.in
	TDO	M/s P K Chaudhary		280260	9985633658		tdo.gandhidham@gmail.com
	Chief Officer	Darshan Soneta		231610	8852336589		np_gandhidham@yahoo.co.in
	Prant Officer	Shri M. M. Barasara		222122	9979326215		prantnakhatrana@gmail.com
Lakhpat	Mamlatdar	Shri Parth Jaiswal	2839	233341	9978525698	233333	mam-lakhapat@gujarat.gov.in
	TDO	k d maheta		233334	8854536532		tdo.lakhpat1@gmail.com
	Prant Officer	Shri Chetan Misan		223112	9409322835		dcmundra45@gmail.com
Mandvi	Mamlatdar	Shri Madhubhai Prajapati	2834	222711	9985236596	230008	mam-mandavi@gujarat.gov.in
	TDO	Hareh Dabhi		223079	8852336596		tdo.mandvi@gmail.com
	Chief Officer	Kalyan Dudhat		223010	8898536985		np_mandavik@yahoo.co.in
	Prant Officer	Shri Chetan Misan		223112	9409322835		dcmundra45@gmail.com
Mundra	Mamlatdar	Shri V. A. Patel	2838	222127	9426309240	222121	mam-mundra@gujarat.gov.in
	TDO	Hareh joshi		222128	8523699875		tdo.mundra@gmail.com
	Chief Officer	Mahendra Hubda		222153	9985233695		mundrabaroi.municipality@gmail.com
	Prant Officer	Shri M. M. Barasara		222122	9979326215		prantnakhatrana@gmail.com
Nakhatrana	Mamlatdar	Falajibhai Chodhri	2835	222124	9979423700	222133	mam-nakhatrana@gujarat.gov.in
	TDO	J K Pandya		222144	9985236563		tdo.nakhatrana@gmail.com
	Prant Officer	Shri Balmukund Suryavanshi		224101	9979917807		dcbhachau@gmail.com
Rapar	Prant Officer		2830			220013	

Taluka	Designation	Officer Name	Code	(O)	Mobile	Police Station	Email ID
Name		(Shri)					
	Mamlatdar	Ketan Chodhri		220001	9408544555		mam-rapar@gujarat.gov.in
	TDO	K V Modhera		220003	8140705922		tdo.rapar@gmail.com
	Chief Officer	Navghan Gadhvi		220011	9974140752		np_rapar@yahoo.co.in

District : Bharuch							
S. No.	Designation	Name	Office	Residence	Mobile	Fax	Email Id
1	Collector	Tushar Sumera (IAS)	240600	223701	9978406205	240602	collector-bha@gujarat.gov.in
3	SP	Dr Leena Patil (IPS)	223633	223330	9978405066	223401	sp-bha@gujarat.gov.in
4	D D O	P.R.Joshi	240603	245880	9978406230	240951	ddo-bha@gujarat.gov.in
5	Resident Additional Collector	N R Dhandhal (GAS)	222332	231275	9978405177	240602	add-collector-bha@gujarat.gov.in
6	Executive Engineer, R & B	Anil Vasava	261394	651642	9825562962	241476	rnb-bharuch@yahoo.co.in
7	DSO	Ronak J Shah	241500	-	7567021674	240862	dso-bha@gujarat.gov.in
8	CDHO	Dr J S Dulera	243660	-	9726956500	261332	cdho.health.bharuch@gmail.com
9	DEO	K.F.VASAVA	240424	221800	9909970211	240424	bharuchdeo@gmail.com
10	DPEO	I/C K.F.VASAVA	244210	-	9909971661	240951	ssabharuch17@gamil.com , dpcbharuch@gmail.com
11	Shasanadhikari	i/c Nishant Dave	240159	-	9428053457	240159	aomsbbrc2011@gmail.com
12	General Manager DIC	Jigar Dave	243478	-	6357150191	241602	gm-dic-bha@gujarat.gov.in

District : Bharuch						
S. No.	Designation	Name	Office	Residence	Mobile	Fax
13	Dy. Director Information	Bhavanaben Vasava	222348	264003	8980647078	240850
14	Director, Industrial Safety & Health	I/C Dipakkumar Vasava	240421	-	9825801547	240421
15	Disaster Mamlatdar	I/C S.V.KALSARIYA	242300	-	7043590680	242300
16	DPO	I/C. Surat	242300	-		251900

Details of Talukas						
S. No.	Taluka Name	Designation	Officer Name	Office No.	Mobile	Fax
1	Bharuch (02642)	Prant Officer Bharuch	U N Jadeja	241980	9978405256	221346
		Mamlatdar Bharuch Rural	A.K.Bhatiya	243536 242218	9727800764	243536
		Mamlatdar Bharuch City	P.K.OZA		9427044836	
		TDO Bharuch	D.G.Desai	243404	9825923700	242402
2	Vagara (02641)	Chief Officer Bharuch	Dasrathsinh Gohil	243525	9574700002	243525
		Prant Officer Bharuch	U N Jadeja	241980	9978405256	221346
		Mamlatdar Vagara	Vidhu Khaitan	225221	8460225902	225221
		TDO Vagara	Mahesh patel	225223	9327036759	225223
3	Jambusar	Prant Officer Jambusar	M B Patel	220170 220191	7567011407	220170

Details of Talukas							
S. No.	Taluka Name	Designation	Officer Name	Office No.	Mobile	Fax	Email Id
	(02644)	Mamlatdar Jambusar	V B Parmar	220070	9426892660	220070	mam-jambusar@gujarat.gov.in
		TDO Jambusar	Mahendra Chaudhari	220071	8153853604	220071	tdo-jambusar@gmail.com
		Chief Officer Jambusar	D.C.Damor	220360	9726285755	220360	np_jambusar1@yahoo.com
4	Amod (02641)	Prant Officer	M B Patel	220170 220191	7567011407	220170	po-jambusar@gujarat.gov.in
		Mamlatdar Amod	S.S.Gavit	245040	7567001322	245040	mam-amod@gujarat.gov.in
		TDO Amod	Naresh Iadumor	245269	9687770011	245840	tdo-amod@gujarat.gov.in
		Chief Officer Amod	Komal dhiniya	245442	8849568634	-	np_amod@yahoo.co.in
5	Ankleshwar (02646)	Prant Officer Ankleshwar	Naitika Patel	227648	7567011436	227648	sdm-ank-bha@gujarat.gov.in
		Mamlatdar Ankleshwar	Karansinh Rajput	224603 224961	7567001495	224603	mam-ankleshwar@gujarat.gov.in
		TDO Ankleshwar	D.R.Patel	247801	7567018865	247801	tdo-ankleshwar@gujarat.gov.in
		Chief Officer Ankleshwar	Kesav Koladiya	247965	9825808418	247965	np_ankleshwar@yahoo.co.in
6	Hansot (02646)	Prant Officer Ankleshwar	Naitika Patel	227648	7567011436	227648	sdm-ank-bha@gujarat.gov.in
		Mamlatdar Hansot	H.G. Beladiya	262026	7567001392	262026	mam-hansot@gujarat.gov.in

Details of Talukas							
S. No.	Taluka Name	Designation	Officer Name	Office No.	Mobile	Fax	Email Id
		TDO Hansot	Alpana Nair	262025	7567012651	262025	tdo-hansot@gujarat.gov.in
7	Jhagadia (02645)	Prant Officer Jhagadiya	D S Baria	220052 220053	7567011411	227648	po-jhagadiya@gujarat.gov.in
		Mamlatdar Jhagadia	G G Rathawa	220039	7016550794	220039	mam-jhagadiya@gujarat.gov.in
		TDO Jhagadia	Prakash Patel	220036	7567018293	220035	tdo-jhagadiya@gujarat.gov.in
8	Valiya (02643)	Prant Officer Jhagadiya	D S Baria	220052 220053	7567011411	227648	po-jhagadiya@gujarat.gov.in
		Mamlatdar Valiya	Ms.M.D.Mistri	270623	9879699684	270623	mam-valiya@gujarat.gov.in
		TDO Valiya	I/C R.D.Ahir	270626	9426837496	270626	tdo-valiya@gujarat.gov.in
9	Netrang (02643)	Prant Officer Jhagadiya	D S Baria	220052 220053	7567011411	227648	po-jhagadiya@gujarat.gov.in
		Mamlatdar Netrang	A.S.Vasava	282038	9978008446	282038	mam-netrang@gujarat.gov.in
		TDO Netrang	R.B.Malek	282216	7567866901	282216	tdo-netrang@gujarat.gov.in

District Name: - Mehsana				
Sr.No.	Designation	Name	Mobile	Email Id
1	Collector	M Nagarajan	9978406214	02952-222200
2	DDO	Dr Om Prakash		221447
3	S P	achal tyagi	62240 22403	

District Name: - Mehsana					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
4	Resi. Addl. Collector	i r vada	9978405213	૦૨૭૬૨-૨૨૨૨૦૩	
5	Dy. District Development Officer (Mehsul)	r b kharadi	9426578657	૦૨૭૬૨-૨૨૨૩૩૩	
6	Deputy Conservator of Forest	yogesh desai	7574950444	૦૨૭૬૨-૨૨૧૧૨૫	
7	Dy. SP				
8	Chief District Health officer	dr v k patel(i/c)	9727721377	૦૨૭૬૨-૨૨૨૩૨૪	
9	Director, DRDA	h m chavda	૯૯૭૯૮ ૬૧૬૯૦	૦૨૭૬૨-૨૨૨૩૨૮	
10	DSO	palak trivedi	9408760989	2762222208	
11	Medical Superintendent(Civil Hospital)	dr u b gandhi	9825005656	૦૨૭૬૨-૨૨૧૭૮૪	
12	CDMO	dr b b solanki	9099064816	૦૨૭૬૨-૨૨૨૩૨૪	
13	DEO				
14	DPEO	gurang c vyas	9909971684	૦૨૭૬૨-૨૨૨૩૨૦	
15	General Manager, DIC	tarunbhai	9890089588		
16	Ass. Director of Information	parulben maniyara	9426352750	૦૨૭૬૨-૨૨૧૮૮૮	
17	Port Officer, GMB	-	-	-	
18	Chief Fire officer	Haresh Patel	9725059228		

District Name: - Mehsana					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
19	Executive Engineer, R & B (State)	d r patel	૯૯૭૯૪ ૦૨૫૩૦		
20	Executive Engineer, R & B (Panchayat)				
21	Executive Engineer, irrigation (State)				
22	Executive Engineer, irrigation (Panchayat)	satishbhai patel	9825197301	૦૨૭૬૨-૨૨૨૩૦૮ ૦૨૭૬૨-૨૨૨૩૧૩	
23	Executive Engineer GWSSB	pradipbhai	9825010186		
24	Superintendent Engineer, DGVCL,				
25	Dy Director of Animal husbandry	dr bhameshkumar d amin	9428357733	૦૨૭૬૨-૨૨૨૪૮૧	
26	District Agriculture officer	b j joshi	૯૪૨૯૨૮૨૧૯૮ ૯૮૯૮૦૦૦૩૫૬	૦૨૭૬૨-૨૨૨૩૧૬ ૦૨૭૬૨-૨૨૨૩૧૭	
27	Program Officer ICDS	jignsha k dave	8487051918	૦૨૭૬૨-૨૨૨૪૧૦	
28	Director Industrial Safety and Health	r d patel	9879152821		
29	DC/ST Manager depot.	yogesh chodhary	૬૩૫૯૯ ૧૮૫૯૧		
30	Superintendent of Fisher	-	-	-	
31	Regional officer, GPCB	d m rathod	9427307939		
32	Manager BSNL	Sandip Chodhary			
35	Mamlatdar Disaster	Bakulesh Darji	9825450387	222220	
37	DPO Disaster	Anjela Gamadia	9898283817	222220	

District Name: - Mehsana					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
38	Dy. Mamlatdar Disaster	Arief Mansuri	8732931145	222220	

District Name: - Anand					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	D.S.Gadhavi	99784 06203	262271	
2	DDO	Milind bapana	99784 06228	264110	
3	S P	Pravin kumar	99784 05064	260027	
4	Resi. Addl. Collector	K.V.Vyas	99784 05175	262040	
5	Dy. District Development Officer (Mehsul)	J.D.Prajapati	75670 17249		
6	Deputy Conservator of Forest	Namrta D Italiyan	90677 86406	264855	
7	Dy. SP	J.N.Panchal	9978408879	260027	
8	Chief District Health officer	Dr.Megha Mehta	75678 70001	263277	
9	Director, DRDA	J.V.Desai	90999 55929	264474	
10	DSO	Shivangi J Shah	75670 10458	263620	
11	Medical Superintendent(Civil Hospital)	-	-	-	
12	CDMO	Dr.Purvi Nayak	75678 70002	262751	
13	DEO	Archnaben V Prajapati(I/C)	99099 70231	264153	
14	DPEO	Archnaben V Prajapati	99099 71653	263205	

District Name: - Anand					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
15	General Manager, DIC	Rajesh S Patel (I/C)	99798 47673	264394	
16	Ass. Director of Information	Hetalbhai Dave	98255 99149	264994	
17	Port Officer, GMB	-	-	-	
18	Chief Fire officer	Dahrmeshbhai Gor	9375026058		
19	Executive Engineer, R & B (State)	M B Patel	99256 16442	260455	
20	Executive Engineer, R & B (Panchayat)	hitesh gadhvi	98796 50171	261597	
21	Executive Engineer, irrigation (State)	m p gabhirkar	94276 17673	262044	
22	Executive Engineer, irrigation (Panchayat)	manoj t parmar	99042 45358	264098	
23	Executive Engineer GWSSB	j c dabhi	99784 06674		
24	Superintendent Engineer, DGVCL,	-	-	-	
25	Dy Director of Animal husbandry	S B Upadhyay		261136	
26	District Agriculture officer	chitan s patel	99989 66798	262102	
27	Program Officer ICDS	kalpana patel (I/C)	78740 24765		
28	Director Industrial Safety and Health	nareshbhai parmar	99789 09142		
29	DC/ST Manager depot.	rinaben darji	63599 18644		
30	Superintendent of Fisher	r p sakhareliya	89802 54359	262023	
31	Regional officer, GPCB	nehalben d ajmera	98980 03096	266194/ 266195	
32	Manager BSNL				

District Name: - Anand					
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
35	Mamlatdar Disaster	m m megha	94286 97076	293885	
37	DPO Disaster	Anjela Gamadia	9898283817	293885	
38	Dy. Mamlatdar Disaster	Jayeshbhai Vasava	9428076304	293885	

District Name: - Botad					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Dr. Jincy Roy (IAS)	9978405931	02849-271301	collector-botad@gujarat.gov.in
2	DDO	Mr.Akshay Budaniya (IAS)		02849-255222	ddo.botad@gmail.com
3	S P	Mr.B.F.Baloliya	9978405988	02849-231400	sp-botad@gujarat.gov.in
4	Resi. Addl. Collector	Mr. Mukesh Parmar (G.A.S)	9727758035	02849-271307	addl-collector-botad@gmail.com
5	Dy. District Development Officer (Mehsul)	Mr. T.M.Makwana	9909886328	02849-231530	dyddoestbotad@gmail.com
6	Deputy Conservator of Forest	Shri Ayush Verma	7574955044	02849-271318	forest.bvn@gmail.com
7	Dy. SP	Mr. Maharshi Vyas	9978407988	02849-251416	sdpo-botad-bav@gujarat.gov.in
8	Chief District Health officer	Mr. J.S.Kanoriya (I/C)	9727709655	02849-231534	cdho.health.botad@gmail.com

District Name: - Botad						
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id	
9	Director, DRDA	Mr. T.M.Makwana (I/C)	9909886328	02849-271621	drda-botad@gmail.com	
10	DSO	Shri R.K.Wangwani (I/C)	9925014830	02849-271324	dso.collectorbotad@gmail.com	
11	Medical Superintendent (Civil Hospital)	-	-	-	-	
12	CDMO	Dr. Alpesh G. Gangani	9409468125	02849-251425	cdmo.health.botad@gmail.com	
13	DEO	Mr. V.P.Parmar (I/C)	7574812276	02849-271327	botaddeo@gmail.com	
14	DPEO	Mr.Bharatbhai Vadher	7567803017	02849-271387	dpeobotad@gmail.com	
15	General Manager, DIC	Mr. P.P. Tadvi	9824260270	02849-271612	gm-dic-bot@gujarat.gov.in	
16	Ass. Director of Information	Mr. R J vyas	7041903366	02849-271350	mahitibotad2014@gmail.com	
17	Port Officer, GMB	-	-	-	-	
18	Fire officer	Mr. Rajeshbhai Dhandhal	9512100101	02849-252420	np_botad@yahoo.co.in	
19	Executive Engineer, R & B (State)	Mr. Hetsava Dholawala	9099885607	-	eebotad@gmail.com	
20	Executive Engineer, R & B (Panchayat)	Ms. Gitaben Patel	9825379219	-	exe.btd@gmail.com	
21	Executive Engineer, irrigation (State)	Mr. H.J. Sikotra	9913900424	-	eebidbotad@gmail.com	
22	Executive Engineer, irrigation (Panchayat)	Shri Chirag Waghamsi	9904236563	02847-235130	-	
23	Executive Engineer GWSSB	Mr. DA Singhal	9978406824	02849-251483	eewdnbotad@gmail.com	
24	Superintendent Engineer, UGVCL,	Mr. P.J. Mehta	9978936293	02849-256001	sebt.d.pgvcl@gebmil.com	
25	Dy Director of Animal husbandry	Shri R G Vala	9998583410	-	dr.rameshvala@gmail.com	
26	District Agriculture officer	Shri B R Baldania	9727925560	02849-0271346	dao.botad.agri@gmail.com	
27	Program Officer ICDS	-	-	-	-	

District Name: - Botad					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
28	Director Industrial Safety and Health	-	-	-	-
29	DC/ST Manager depot.	Shri A H Solanki	6359918393	02849-255509	dc_bvn@yahoo.in
30	Superintendent of Fisher	-	-	-	-
31	Regional officer, GPCB	Dr. P. S. Dave	9427710988	-	ro-gpcb-ahmr@gujarat.gov.in
32	Manager BSNL	Shri Jambuch	9409102510	0278251008	-
35	Mamlatdar Disaster	Mr. M.T. Vanol (I/C)	9979604859	02849-271340	disas.collector@gmail.com
37	DPO Disaster	Mr. Nilesh parmar (I/C)	9712185595	-	ngparmar9499@gmail.com
38	Dy. Mamlatdar Disaster	Mr. Anilbhai Sonara	9724684567	02849-271340	disas.collector@gmail.com

District Name: - Amreli					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Shri Ajay Dahiya	9978406202	222307	collector-amr@gujarat.gov.in
2	DDO	Shri Dinesh Gaurav	9978406227	222313	ddo-amr@gujarat.gov.in
3	S P	Shri Himkarsing	9978405063	222333	sp-amr@gujarat.gov.in
4	Resi. Addl. Collector	Shri R.V.Vala	9978405203	228903	add-collectoramr@gujarat.gov.in
5	Dy. District Development Officer (Mehsul)	Shri C.B.Rathva	9712397727	223546	dyddo-amr@gujarat.gov.in
6	Deputy Conservator of Forest	Shri Sadik Munjavar i/c	7567861778	226984	-
7	Dy. SP	Shri Ashokbhai Gohil	9825412976	223498	sp-amr@gujarat.gov.in
8	Chief District Health officer	Shri R.M.Joshi	9687642244	232344	dso.health.amreli@gmail.com

District Name: - Amreli					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
9	Director, DRDA	Shri A.V.Vastani	7567031983	223563	drdaamreli@yahoo.com
10	DSO	Shri Pujaben Jotaniya	9974948643	222807	dso-amr@gujarat.gov.in
11	Medical Superintendent(Civil Hospital)	Shri Haresh Vala i/c	9825503982	-	-
12	CDMO	Shri Haresh Vala	9825503982	-	=
13	DEO	Shri L.P.Upadhyay	9909970203	222936	deoamreli@gmail.com
14	DPEO	Shri K.V.Mayani	9909971652	222109	dpeoamreli@gmail.com
15	General Manager, DIC	Shri G.M.Bhatiya	7203027889	222529	gm-dic-amr@gujarat.gov.in
16	Ass. Director of Information	Shri D.J.Chhantabar	8980784342	2223404	amrelisse@gmail.com
17	Port Officer, GMB	Shri V.F.Choudhari	9925153030	245165	=
18	Chief Fire officer	Shri H.C.Gadhavi	7567677377	223592	-
19	Executive Engineer, R & B (State)	Shri D.K.Solanki	8264029757	223100	=
20	Executive Engineer, R & B (Panchayat)	Shri S.B.Purohit	8800130026	222112	eepmbamreli@gmail.com
21	Executive Engineer, irrigation (State)	Shri A.B.Rathod	9512838981		=
22	Executive Engineer, irrigation (Panchayat)	Shri D.H.Chauhan i/c	9427244674	222164	amrpri@yahoo.co.in
23	Executive Engineer GWSSB	Shri V.M.Bhamani	9978406805	-	=
24	Superintendent Engineer, PGVCL,	Shri A.R.Parikh	9825603179	-	=
25	Dy Director of Animal husbandry	Shri Do.S.B.Kundiya	9712275101	223058	dydir-ah-amr@gujarat.gov.in
26	District Agriculture officer	Shri J.K.Kanani	9913215747	223324	daoamreli@gmail.com

District Name: - Amreli					
Sr.No.	Designation	Name	Mobile	Landline No.	Email Id
27	Program Officer ICDS	Shri A.K.Sing i/c	9727723302	221326	po.icds-amreli@gmail.com
28	Director Industrial Safety and Health				
29	DC/ST Manager depot.	Shri V.H.Thavani	6359918316	-	-
30	Superintendent of Fisher	Shri Sikotriya	8866646675	-	-
31	Regional officer, GPCB				
32	Manager BSNL	Shri M.G.Bhadru	9427110211	-	-
35	Mamlatdar Disaster	Shri D.T.Vohra i/c	9408377979	230735	dismgmt-amr@gujarat.gov.in
37	DPO Disaster	Shri Dimpal Teraiya i/c	9824438175	230735	dismgmt-amr@gujarat.gov.in
38	Dy. Mamlatdar Disaster	Shri D.T.Vohra i/c	9408377979	230735	dismgmt-amr@gujarat.gov.in

Municipal Commissioners of Gujarat

No.	Name	City	Telephone No.	E-mail
1	Shri M. Thennarasan, IAS	Municipal Commissioner, Ahmedabad	(O)07925352828 (M) 9978407033	mc@ahmedabadcity.gov.in
2	Shri Anand Babulal Patel, IAS	Municipal Commissioner, Rajkot	(O)02812224133 (M) 9714503701	mc_rmc@rmc.gov.in
3	Shri J. N. Vaghela, IAS	Municipal Commissioner, Gandhinagar	(O)07923220440 (M) 9427686622	gmc8gandhinagar@gmail.com

4	Shri N. V. Upadhyay, IAS	Municipal Commissioner, Bhavnagar	(O)02782510532 (M) 9978404500	commi-bmc@gujarat.gov.in
5	Ms. Shalini Agrawal, IAS	Municipal Commissioner, Surat	(O)02612422244 (M) 9978408744	commissioner@suratmunicipal.org
6	Shri D. N. Modi, IAS	Municipal Commissioner, Jamnagar	(O)02882552321	mcjamanagar@gmail.com
7	Shri R. J. Tanna, IAS	Municipal Commissioner, Junagadh	(O)02852650450 (M) 9978400501	municipalcorporationjund@yahoo.co.in
8	Shri Dilip Kumar Rana, IAS	Municipal Commissioner, Vadodara	(O) 02652433344 (M) 9978406213	commissioner@vmc.gov.in

II. Important Websites

Department	Website
MHA	www.mha.nic.in
NDMA	www.ndma.gov.in
GSDMA	www.gsdma.org
GIDM	http://www.gidm.in/
NIDM	www.nidm.net
IDRN	http://idrn.gov.in
SDRN	http://117.239.205.164/SDRN_NEW/
IMD	www.imd.gov.in
ISR, Gujarat	http://dst.gujarat.gov.in/isr.htm
BISAG	http://www.bisag.gujarat.gov.in
GSWAN	http://www.gswan.gov.in

Annexure 2

Emergency Response Center

Sr. No.	Name of the ERC	Contact Details					
		Chief Fire Officer (CFO)		Station Officer		Project Officer / District Project Officer	
		Name	Number	Name	Number	Name	Number
1	Gandhinagar	Shri Jayesh Khadiya	9327038758	Shri Gadhvi	9409304023	Ms.Megha Rabari	8160439782
		Shri Kaizad Dastoor	7069013708				
2	Vadodara	Parth Brahmhbhatt	9924025094	Nikunj Azad	9712928101	Chirasmita Barik	9737478088
3	Gandhidham-Kutch	Ilesh Kher	9879515966	Narendra Bhai Gadhavi	9825572188	Bantish Parmar	8866621514
4	Surat	Basant Pareek	9724345553	Jagdish Patel	9724345684	Madhav Hathi	9601341869
						Nital Doshi	8780656017
5	Rajkot	Ilesh Kher	9714503715	Shailesh Nadiyapara	9714912125	Kaushik Kumar	9033920674
						Madhav Hathi	9601341869

Annexure 3 (Ref Page 45)
Format for Damage and Loss Assessment (Relief Memorandum)

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

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

C. Location, Type & Occupancy of Building:

Location: **Brief Details:**
 Building Name: _____ Number of stones above ground: _____
 Address: _____ below ground: _____
 _____ Parking Floor: ☐ Ground Level
 _____ ☐ Basement Level
 Contact: _____ Phone: _____ Approx. Footprint area (sqm): _____
 Survey No.: _____ No. of residential units: _____
 Final Plot No.: _____ No. of residential units: _____
 Sub Plot No.: _____ not habitable
 Town Planning Scheme No.: _____

(To be collected from Competent Authority)

Type of Construction:

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

Primary Occupancy:

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

D. Assessment:

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

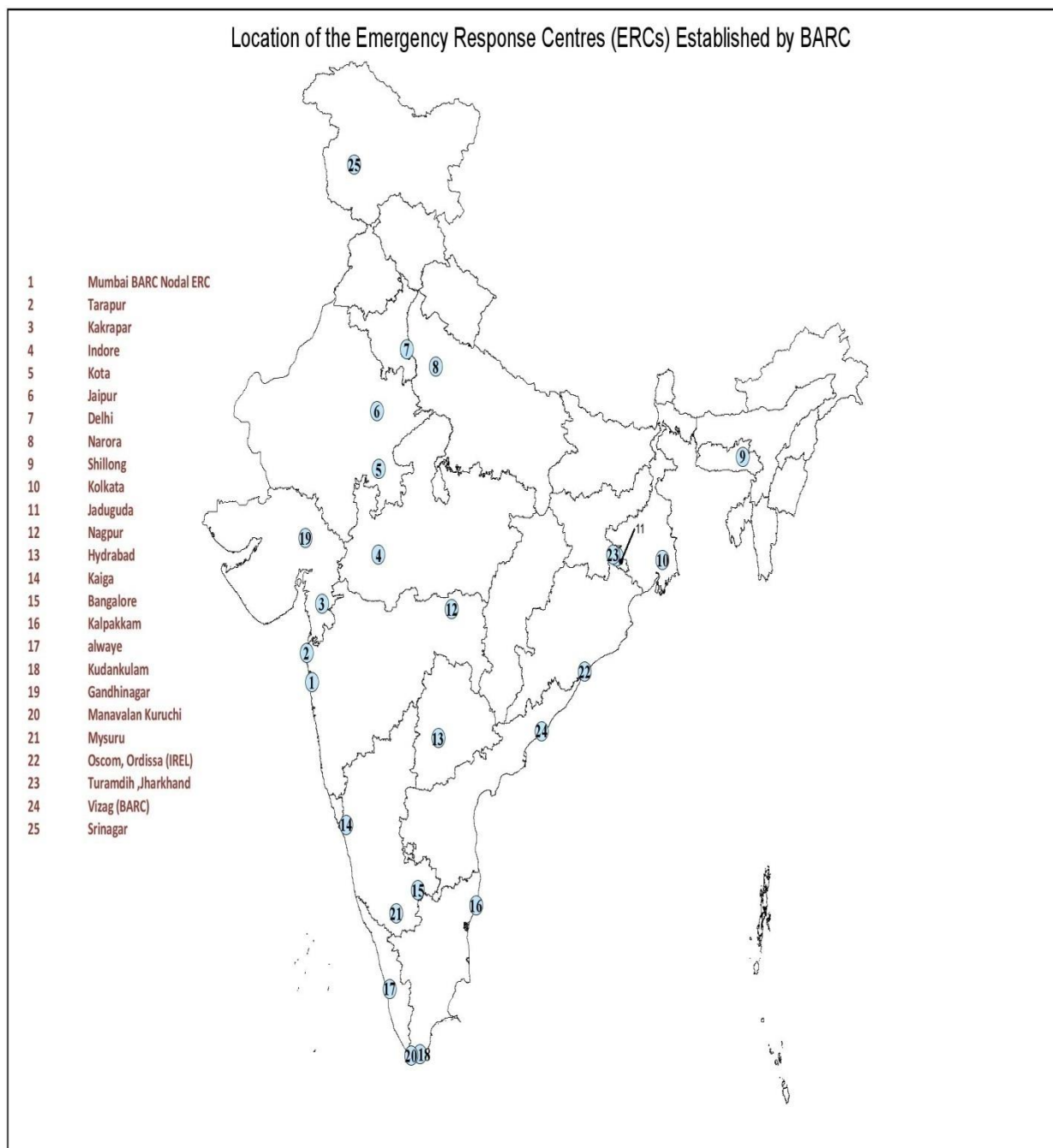
Observed Conditions	None	Minor	Moderate	Severe
● Collapse, partial collapse, or subsidence or uneven settlement of foundations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Building or story leaning	<input type="checkbox"/>	<input type="checkbox"/>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

Sketches:

Photographers:

Annexure 4

Location of the Emergency Response Centres (ERCs) Established by BARC



Annexure 5 (Ref Page 107-108)

**Suggested Radius of Inner Cordoned Area (Safety Perimeter) for Radiological Emergencies
(IAEA-EPR-FIRST RESPONDERS 2006)**

Situation	Initial Inner Cordoned Area (Safety Perimeter)
Initial Determination (Radiological Emergency in Open Area)	
Unshielded or damaged potentially dangerous source	30m around
Major spill from a potentially dangerous source	100m around
Fire, explosion or fumes involving a potentially dangerous source	300m radius
Suspected bomb (potential RDD), exploded or unexploded	400m radius or more to protect against an explosion
Initial Determination (Radiological Emergency Inside a Building)	
Damage, loss of shielding or spill involving a potentially dangerous source	Affected and adjacent areas (including floors above and below)
Fire or other event involving a potentially dangerous source that can spread materials throughout the building (e.g., through the ventilation system)	Entire building and appropriate outside distance as indicated above
Expansion Based on Radiological Monitoring	
Ambient dose rate of 100 μ Sv/h	Wherever these levels are measured

Annexure 6

Technical Specifications of Instruments

- I. For the purpose of surveillance, it is proposed to equip fairly good number of vehicles patrolling on road in all metropolitan cities and other district headquarter – town, that have high potential of radiological hazards with **Go/No-Go type of Survey Instrument**. It will give an audio – visual alarm at dose rate exceeding 1mR/hr (.01mSv/hr). (**@ 1 no. For each AERC**)
- II. Portable Survey Meter with maximum dose range (Gamma Rays) of 5 R/hr (50 m Sv/hr). It will read the radiation field in an affected area. (**@ 1 no. for each AERC**)
- III. Digital Dosimeters to provide digital display of cumulative dose received and to a trigger an alarm when the cumulative dose exceeds a set value (**@ 5 nos. for each AERC**)
- IV. **Comfo – Respirators** to prevent particular radioactivity from inhalation and/or exposure to the face and eye. It is like a helmet to protect face, eye and nose. (**@ 5 nos. for each AERC**)
- V. **Radiation Symbols** to be utilised for cordoning off the suspected/affected area of radiological contamination. (**@ 10 nos. For each AERC**)
- VI. **Oro- Nasal Surgical Masks** for preventing inhalation of particulate radioactive material. (**@ 50 nos. for each AERC**)
- VII. **Centralised Laboratory Facility** at each town/metro to ensure workability of all the instruments. It will have facility for calibration, maintenance etc. This will house one radioactive source (Cs- 137/Co-60) for calibration, a high range survey meter and some instruments for maintenance. (@1no. per town/metro). The room required for this laboratory will be provided by the concerned State Government.

Annexure 7 (Ref Page 127)

Dose Limits

AERB has prescribed the following dose limits for exposures to ionising radiations for occupational workers.

A) Effective dose¹ (whole body)

1. 20 mSv averaged over five consecutive years, calculated on a sliding scale of five years²; (The cumulative effective dose in the same five year period shall not exceed 100 mSv)
2. a maximum of 30 mSv in any year.

B) Equivalent dose (Individual Organs)

- | | |
|---|----------------------|
| 1. i) Eye lens | 150 mSv per year and |
| 2. ii) Skin ³ | 500 mSv per year |
| 3. iii) Extremities
(hands and feet) | 500 mSv per year |

C) Pregnant woman

- | | |
|--|----------|
| 1. Equivalent dose limit to the surface of the
woman's lower abdomen
(for the remaining period of pregnancy) | 2 mSv |
| 2. Annual Limit on Intake (ALI) for radio nuclides
(for the remaining period of pregnancy) | 0.05 ALI |

D) Apprentices and students (above the age of 16 years)

- | | |
|-------------------------------------|-----------------|
| Effective dose ((whole body): | 6 mSv per year |
| Equivalent dose (Individual Organs) | |
| 1. Eye lens | 15 mSv per year |
| 2. Skin | 50 mSv per year |
| 3. Extremities
(hands and feet) | 50 mSv per year |

In addition, investigation limits are also prescribed by AERB at which investigation of exposure cases exceeding these limits are carried out by an AERB committee.

Note-

1. Effective dose means summation of the tissue equivalent doses, each multiplied by the appropriate tissue-weighting factor.
2. Sliding scale of five years means current year and previous four years.
3. Average dose over 1cm² of the most highly irradiated area of the skin.

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27. https://www.npcil.nic.in/content/504_1_KakaraparSite.aspx (Nuclear Power Corporation of India Limited)
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