



Government of Gujarat

GUJARAT STATE DISASTER MANAGEMENT PLAN 2025-26 VOLUME II



GSDMA

GUJARAT STATE DISASTER MANAGEMENT AUTHORITY

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

GUJARAT STATE DISASTER MANAGEMENT PLAN

VOLUME 2



2025-26

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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
MRTTH	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
NCS	National Center for Seismology
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	Rashtriya Madhyamik Shiksha Abhiyan
RMSC	Regional Specialized 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 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 (MW 7.6) 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 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 National Centre for Seismology (NCS) under Ministry of Earth Sciences (MoES) / Institute of Seismological Research (ISR)/Indian National Centre for Ocean Information Services (INCOIS) 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. National Center of Seismology, New Delhi
- b. Institute of Seismological Research (ISR)
- c. Sardar Sarovar Narmada Nigam Ltd (SSNNL)
- d. National Geophysical Research Institute (NGRI)

- e. State Emergency Operation Centre (SEOC)
- f. District Emergency Operation Centre (DEOC)
- g. Taluka Emergency Operation Centre (TEOC)
- h. Police Control Rooms
- i. Fire Brigade Control Rooms
- j. 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 Mitras 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.

1. 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 NCS, 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	
	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	

Time Frame	Task	Responsibility
	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 Commissioners
	21. With help of local authorities, local agencies, volunteers, RWAs, ensure that people do not go back to unsafe structures unless instructed as safe	
	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.

Time Frame	Task	Responsibility
	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	
	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	

Time Frame	Task	Responsibility
	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
	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.

Time Frame	Task	Responsibility
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	COR, Information Dept.
	65. Organise media briefing twice a day at pre-determined intervals	COR, Revenue Dept.
	66. Depute additional officers and supporting staff to affected areas from non-affected areas	R & B Dept.
	67. Identify and declare unsafe structures in earthquake affected areas	
0 + 48 Hours	68. Ensure safety and security of personnel deputed in affected areas for emergency response operation	Home Dept.
	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.

Time Frame	Task	Responsibility
	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

- a. Provide temporary shelter to affected people
- b. Evacuation site should be safe and easily accessible
- c. 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/shelters.
 - 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 **cyclonic Storm**, generally known as ‘cyclone’, is the term used globally to cover tropical weather systems in which associated maximum sustained wind speed (MSW) equal or exceeds ‘gale force’ (minimum of 34 knot, i.e., 62 kmph). MSW is defined as the 3-minute average wind at a height of 10 meter above the ground. These are intense low-pressure areas of the earth-atmosphere coupled system and are multi hazard 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 (east coast) and Arabian Sea (west coast). 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 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) including UTs Diu and Dadar Nagar Haveli on the west coast are highly vulnerable to cyclone disasters². The tropical cyclones are classified according to their intensity based on MSW reported/estimated anywhere in the associated cyclonic circulation at the surface level which is as per table shown below.

Gujarat comes in the region of tropical cyclone with the longest coastline 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 (LPA)	Less than 31	Less than 17
2.	Depression (D)	31 to 49	17 to 27
3.	Deep Depression (DD)	50 to 61	28 to 33
4.	Cyclonic Storm (CS)	62 to 88	34 to 47
5.	Severe Cyclonic Storm (SCS)	89 to 117	48 to 63
6.	Very Severe Cyclonic Storm (VSCS)	119 to 167	64 to 89
7.	Extremely Severe Cyclonic Storm (ESCS)	168 to 221	90 to 119
8.	Super Cyclonic Storm (SuCS)	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

IMD is nodal agency to provide cyclone warning services in the country. It also acts as Regional Specialised Meteorological Centre (RSMC) and Tropical Cyclone Advisory Centre (TCAC), New Delhi. The most important warning by IMD for disaster management is the one issued to government officials under a four-stage warning system as detailed below

a. Pre-Cyclone Watch (Before 72 hours) (Yellow)

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 at least 72 hours in advance of the commencement of adverse weather over the coastal areas. It is issued at least once a day. It contains early warning about the development of a cyclonic disturbance in the North Indian Ocean (NIO), its likely intensification into a TC and the coastal belt likely to experience adverse weather.

b. Cyclone Alert (Before 48 hours) (Orange)

It is issued at least 48 hours before the commencement of the bad weather over the coastal areas. It is issued every three hours. It contains information on the location and intensity of the storm, likely direction of its movement, intensification, coastal districts likely to experience adverse weather and advice to fishermen, general public, media and disaster managers

c. Cyclone Warning (Before 24 hours) (Red)

It is issued at least 24 hours before the commencement of the bad weather over the coastal areas. These warnings give the latest position of cyclone and its intensity, likely point and time of landfall, associated heavy rainfall, strong wind and storm surge alongwith their impact and advice to general public, media, fishermen and disaster managers. The severity increases as the cyclone approaches closer to the coast.

d. Post Landfall Outlook (Before 12 hours) (Red)

It is issued at least 12 hours in advance of the expected time of cyclone's landfall. More accurate and specific information about the likely direction of movement, time /place of landfall of cyclone and associated bad weather likely to be experienced in the interior areas is indicated in the bulletin. In addition, the information regarding expected damage due to cyclones 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 the 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 the 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, equipment 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 an area to be a disaster-affected area under the GSDMA Act (Section 32 (2) (a)).

Once the situation is totally controlled and normalcy is restored, the COR declares an 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
	Interdepartmental Coordination	<ol style="list-style-type: none"> 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 	COR/ DOR

Time Frame	Task	Activity	Responsibility
		<p>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 	
	Establishment of Lines of Communication	<p>8. Activate alternative communication equipment 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 the situation and reporting	<p>11. Establish contact with IMD, CWC, ACWC, ISRO and the defence ministry of GoI for aerial / satellite 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 the 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 Cyclone Response	<p>14. Take over full command of SEOC and ERCs</p> <p>15. Instruct line departments to depute representatives at the State and District EOCs</p> <p>16. Hold a meeting with leaders of task forces and entrust them their tasks</p> <p>17. Arrange emergency meeting with State Crisis Management Group to devise a plan of action</p>	COR

Time Frame	Task	Activity	Responsibility
		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 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 25. Make transport arrangement for mobilization of all emergency response teams 26. Make logistic arrangements for response teams	Revenue Dept., Transport Dept. and Dist. Collectors, Municipal Commissioner
		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 to restrict entries of rail or road traffic 30. Ensure law and order are maintained in areas likely to be affected	Home Dept., Dist. Collectors,

Time Frame	Task	Activity	Responsibility
		31. Ensure that all critical activities (mainly industrial production) in areas likely to be affected are shut down	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	Education Dept.
		33. Ensure availability & serviceability of cyclone shelters issued in schools	
		34. Ensure dissemination of information to remote areas by local means	Dist. Collector, Information Dept.
		35. Ensure that local helplines are opened and effectively managed for public information, guidance and rumour control	
		36. Ensure that the information to the public and media (AIR/ Doordarshan/ print/ FM) about the progress of Cyclone at periodic intervals is released	
		37. Activate Departmental Disaster Management Plan and Departmental SOPs for the Management of casualties	Health Dept.
		38. Ensure availability of QRT & essential medicines	
		39. Issue alert/warnings through mass SMS by establishing liaisons with telecom service providers	Dept. of Science & Technology
		40. Ensure the 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 the 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 defence ministry of GoI for aerial / satellite 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, and quick medical response teams;	Revenue Dept./ COR Information Dept.

Time Frame	Task	Activity	Responsibility
		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 the appropriate time to the media and the public regarding response measures organised by the Government	
	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. 52. Start evacuation from the likely affected areas through Police support, if necessary	Revenue Dept., COR, Dist. Collector, Home Dept.
		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 organised 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	COR/ Revenue Dept.
		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	COR, Food & Civil Supply Dept., Revenue Dept. & Dist. Collectors,

Time Frame	Task	Activity	Responsibility
		<ul style="list-style-type: none"> ○ Clothing ○ Sanitation and hygiene, ○ Lighting ○ Medicines and other Health Care 	Water Supply Dept., GEB, Health Dept.
		59. Make necessary arrangements for public information/guidance, public opinion and rumour control	Information Dept.
		60. Impose restrictions for transportation in threatened areas	Transport Dept. and Dist. Collector, Home Dept.
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 equipment 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.
	Mobilization and Deployment	67. Remain in constant touch with IMD for updates on weather forecast for the coming hours and plan accordingly.	COR, Dist. Collector, Municipal Commissioner, Key line Dept.

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

Time Frame	Task	Activity	Responsibility
		77. To ensure that law and order is maintained at evacuation/relief centres and in the affected areas as well 78. Arrange for a logistic plan and warehouse for receipt and management of relief material	Authorities, Home Dept.
	Safety of Fishermen and Salt Workers	79. Take immediate actions for safety of fishermen, salt workers and visitors at cyclone affected coastal areas 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	COR/DOR, Port and Fisheries Dept., Tourism Dept., Industries Dept.
	Immediate Health and Minimization of Disease Outbreak	81. To establish camp hospitals near the affected areas 82. To make transportation arrangements to shift seriously injured persons to nearest camp Hospitals, Taluka and District Hospitals, Regional and State Hospitals 83. Ensure that the Hospitals are well prepared to deal with seriously injured persons. 84. Ensure that the required medical assistance/aid and medicines are provided to the affected people at the site as well as at evacuation/relief centres in the affected area and necessary records are maintained. 85. Take sanitation and epidemic control measures to prevent any water borne disease. 86. Keep adequate stock of essential medicines, first-aid etc. at taluka/district hospitals 87. Take steps to purify drinking water sources 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	COR/ DOR, Health Dept.
		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.	Information Dept., COR

Time Frame	Task	Activity	Responsibility
		93. Organize media briefing twice a day at pre-determined intervals	
	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 for updates on the weather forecast for the coming days and plan accordingly 105. Conduct an aerial survey of affected areas to take a stalk of the situation	COR
		106. Activate evacuation & relief centres 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 defence ministry of GoI for aerial / satellite imageries about further weather conditions 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 the safety of people and smooth management of emergency response.	COR, Line Depts., Dist. Collectors, Municipal Commissioner

Time Frame	Task	Activity	Responsibility
		<p>110. Ensure that key administrative and lifeline buildings are brought back to operation quickly.</p> <p>111. Designate and deploy senior officers (as per the need) to the worst affected area/s to oversee rescue/relief operations.</p> <p>112. Ensure the following primary necessities.</p> <ul style="list-style-type: none"> are restored. ○ Power ○ Water ○ Telecommunication ○ Roads ○ Bridges 	
	Disposal of Dead Bodies	<p>113. 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. Postmortem wherever 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. 	Revenue Dept., Dist. Collector, Municipal Commissioner, Home Dept., Health Dept., Local Authorities
		<p>114. Ensure medical aid to injured cattle.</p> <p>115. Disposal of animal carcasses with the help of local bodies/health dept.</p>	Animal Husbandry Dept.
	Public Information and Media Management	<p>116. Ensure that the information about the progress of rescue and relief is provided to the media/public in an organized manner at least twice a day.</p> <p>117. Establish helplines for facilitating communication between the victims and their relatives residing outside the affected area/s</p> <p>118. Establish Information Centres at strategic locations for providing information about persons evacuated to the relief centres/hospitals</p>	COR, Information Dept., Dist. Collector, Municipal Commissioner
	Miscellaneous Rescue and Relief Works	<p>119. Assess the situation and take appropriate action to accelerate the Search & Rescue Operations</p> <p>120. Depute additional officers and supporting staff to Cyclone affected areas from non-affected areas (if required) to accelerate the rescue and relief operations</p>	COR, Districts Collector, Municipal Commissioner

Time Frame	Task	Activity	Responsibility
		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 that 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 = 0 + 48 to 96 Hrs	Continuous Rescue and Relief Works	123. Remain in constant touch with IMD for updates on the weather forecast for the coming days and plan accordingly. 124. Arrange for procurement of additional relief material required for relief operations (based on need assessment) 125. Mobilize additional relief material required for relief operations. 126. Maintain constant touch with State & Districts EOCs	COR, Dist. Collectors, Civil Supply Dept.
		127. Arrangement for transportation of injured from field hospital to base hospital. 128. Arrangements for transport of dead bodies to their native places 129. Ensure maintenance of records, timely reporting and information management 130. Ensure maintenance of record and information database	Revenue Dept., Health Dept., Transport Dept., Line Depts..
Time = 0 + 96 to 168 Hrs.	Continuous Rescue and Relief Works	131. Remain in constant touch with IMD for updates on the weather forecast for the coming days and plan accordingly. 132. Review the restoration of all the public and essential buildings/ structures in cyclone-affected areas. 133. Review and follow up on all necessary arrangements for emergency response & relief in the affected area/s	COR
		134. On receiving the message from IMD about the degradation of Cyclone, inform the concerned 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.
		136. After receiving the message of de-warning, ensure that people are moved back safely to their houses	COR, Collector, Police Dept.

Time Frame	Task	Activity	Responsibility
		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 10-12 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	1. Report the occurrence of Tsunami generating earthquake to following officials: - 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 Control Room DEOCs of the district/s likely to be affected as per preliminary warning of INCOIS. - Ministers and Secretaries of all line departments 2. Instruct Collectors (of the districts likely to be affected) to activate DEOCs at full strength.	INCOIS, ISR, COR

Time Frame	Task	Activity	Responsibility
		3. Alert all response teams in the State for deployment. 4. Remain in constant touch with control rooms at National & State Level 5. Instruct and alert all secretary / heads of departments of the key line departments to activate their departmental plan and SOPs for Tsunami response.	
	Interdepartmental Coordination	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) 7. 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
	Establishment of Lines of Communication	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. 9. Establish communication links with ERCs and Search & Rescue Teams in all Municipal Corporations/Districts and alert them to be in stage of readiness. 10. Establish communication links with villages likely to be affected as per the contact details available in SDRN.	CoR
0 to (-) 50 Minutes	Review of situation and reporting	11. Establish contact with INCOIS, ISRO and the Defence Ministry of GoI for aerial / satellites imageries.	CoR

Time Frame	Task	Activity	Responsibility
	Management of EOC, ERCs and Tsunami Response	12. After reviewing the satellite images, issue instructions and orders for emergency response to areas likely to be affected.	
		13. Take over full command of State EOC and ERCs. 14. Instruct line departments to depute representatives at the State and District EOCs. 15. Hold a meeting with leaders of emergency support functions (as detailed in Vol. 1 of the plan) and entrust them their tasks. 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.	CoR
		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

Time Frame	Task	Activity	Responsibility
	Tsunami Response to Coastal Areas (Likely to be Affected)	<p>22. Based on the warning issued by 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.</p> <p>23. Village wise data of safe sheltering 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.</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 fishermen and salt workers if needed.	Ports & Fisheries Dept., GMB, Revenue Dept.,
		26. Ensure safety of tourists visiting beaches along the coastline.	Tourism Dept.
		<p>27. Cordon off coastal 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
		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.)
		<p>30. Ensure dissemination of information to remote areas by means.</p> <p>31. Ensure that local help lines are opened and effectively managed for public information, guidance and rumour control.</p> <p>32. Ensure that the information to public and media about the progress of Tsunami waves at periodic intervals is released.</p>	Dist. Collector, Municipal Commissioner, Information Dept.

Time Frame	Task	Activity	Responsibility
		33. Health Department to activate their Departmental Tsunami Disaster Management Plan and SOPs for Management of casualties	Health Dept.
0 to (-) 15 Minutes	Review and Reporting	34. Review and monitor following activities: <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 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.
	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 Tsunami response measures (if required):	COR

Time Frame	Task	Activity	Responsibility
		<ul style="list-style-type: none"> ○ Public sector agencies ○ Private sector agencies ○ NGOs ○ CBOs ○ Volunteer Organizations 	
		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 needs Assessment 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. 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.

Time Frame	Task	Activity	Responsibility
Time = 0 + 24 Hrs	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 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 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 Tsunami 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

Time Frame	Task	Activity	Responsibility
	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 rescued and evacuated to safer places.</p>	COR, Port and Fisheries Dept., GMB, Tourism Dept., Industries & Mines Dept.
	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>	Health Dept., Transport Dept.

Time Frame	Task	Activity	Responsibility
		65. Keep adequate stock of essential medicines, first-aid etc. at taluka/district hospitals 66. Take steps to purify drinking water sources 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.	
		68. Assess need for fodder if required. 69. Keep teams ready for carcass disposal (if required).	Animal Husbandry Dept.
	e. Information to public and media	70. Establish Media/Press Centre for media management and information dissemination 71. Ensure that the information to media/general public about the response of the State Government is released in an organized manner. 72. Organize media briefing twice a day at pre-determined intervals.	Information Dept., COR
	f. Other important work related to immediate response	73. Prepare quick need assessment report for planning of relief operation. 74. Additional assistance may be asked for emergency response/relief from GoI-NDMA (If needed). 75. Maintain constant touch with National, District and Taluka EOCs and other control rooms. 76. Conduct Aerial survey of affected areas for taking a stalk of the situation.	COR
Time = 0 + 24 to 48 Hrs	Restoration of critical infrastructure/essential services	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. 78. Ensure that key administrative and lifeline buildings are brought back to operation quickly 79. Ensure following primary necessities are restored	COR, Line Depts., Dist. Collector, Municipal Commissioner

Time Frame	Task	Activity	Responsibility
		<ul style="list-style-type: none"> ○ Power ○ Water ○ Telecommunication ○ Roads ○ Bridges 	
	Dignified Management of Dead	80. 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, Muni. Commissioner, Home Dept., Health Dept., Local Authorities
		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.	COR, Districts Collector, DSP, Municipal Commissioner

Time Frame	Task	Activity	Responsibility
		87. Depute additional officers and supporting staff to Tsunami affected areas from non-affected areas (if required) to accelerate the rescue and relief operations.	
		88. Ensure that the relief assistance received from outside is centrally received, stored and sent for distribution to Tsunami affected areas according to their need and proper accounts are maintained about both receipt and distribution.	COR, Civil Supply Dept.
		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).	COR, Dist. Collector, Municipal Commissioner, Civil Supply Dept.
		91. Mobilize additional relief material required for relief operations.	
		92. Maintain constant touch with State & Districts EOCs.	
		93. Arrangement for transportation of injured from field hospital to base hospital	Revenue Dept., Health Dept., Transport Dept
		94. Arrangement for transport of dead bodies to their native places.	
		95. Ensure maintenance of record, timely reporting and information management.	Line Depts., Dist. Collector, COR
		96. Ensure maintenance of record and information database	
Time = 0 + 96 to 168 Hrs		97. Review the restoration of all the public and essential in Tsunami affected areas	COR
		98. Review and follow-up all necessary arrangements for emergency response & relief in the affected area/s.	
		99. After receiving the message of de-warning, ensure that people are moved back safely to their houses.	COR, Collector, DSP

Time Frame	Task	Activity	Responsibility
		100. 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
		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 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 needs assessment’ report. The Commissioner of Relief should consolidate the same and to prepare “States Needs 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. Page-257** (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 rain gauge 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, daily, weekly, monthly, seasonal and cumulative district-wise, sub-division wise and state-wise rainfall distribution summaries are prepared regularly by the Rainfall Monitoring Unit. Maps showing daily, weekly, monthly, seasonal and cumulative and cumulative rainfall figures in 738 districts, 36 meteorological sub-divisions and 36 states/UTs of the country are also 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 fifteen locations including Ahmedabad in Gujarat. During the flood season, FMO Ahmedabad provides hydrometeorological support mainly in the form of river sub-basin wise Quantitative Precipitation Forecast (QPF) valid for day 1 to day 7 to the Central Water Commission (CWC) for issuing flood warnings in respect of the Narmada, Tapi, Mahi, Sabarmati, Banas and Deman Ganga rivers.

IMD provides location specific Flash Flood guidance advisory up to watershed level (1lakh watersheds) four times a day (00UTC, 06 UTC, 12UTC, 18UTC). Categories of alerts are Flash Flood Threat (6 hr Lead time) & Flash Flood Risk (12hr/24hr/36 hr Lead time).

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 prove 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 motorcycles 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	1. 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 	IMD, CWC, COR, Water Resources Department

Time Frame	Task	Activity	Responsibility
		<ul style="list-style-type: none"> - 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 <ol style="list-style-type: none"> 2. Instruct Collectors (of the districts likely to be affected) to activate DEOCs at full strength 3. Alert all response teams in the State for deployment 4. Remain in constant touch with Emergency Operation Centre at National & State Level 5. Instruct and alert all secretary / heads of departments of the key line departments to activate their departmental plan and SOPs for Flood response 	
	Interdepartmental Coordination	<ol style="list-style-type: none"> 6. Instruct all State government officers and employees in the State to report to their respective Head for emergency duties 7. Alert the District Collectors of districts not likely to be affected to be prepared for providing: <ul style="list-style-type: none"> o Additional manpower o Additional resources <ul style="list-style-type: none"> - Vehicles, Machinery & Equipment - Relief material to the districts likely to be affected 	CoR, GAD
	Establishment of Lines of Communication	<ol style="list-style-type: none"> 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. 9. Establish communication links with ERCs and Search & Rescue Teams in all Municipal Corporations/ Districts and alert them to be in stage of readiness. 10. Establish communication links with villages likely to be affected as per the contact details available in SDRN and Village Disaster Management Plans (VDMP). 	CoR
0 to (-) 24 Hours	Review of situation and reporting	<ol style="list-style-type: none"> 11. Establish contact with IMD, CWC, BISAG and the Defence Ministry of GoI for aerial / satellites imageries. 12. After reviewing the satellite images, issue instructions and orders for emergency response to areas likely to be affected. 	CoR

Time Frame	Task	Activity	Responsibility
	Management of EOC, ERCs for Flood Response	13. Take over full command of State EOC and ERCs. 14. Instruct line departments to depute representatives at the State and District EOCs. 15. Hold a meeting with leaders of emergency support functions (as detailed in Vol. 1 of the plan) and entrust them their tasks. 16. Ensure that flood information is disseminated to all who are at danger. 17. Arrange emergency meeting with State Crisis Management Group to devise a plan of action.	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
		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, Aapda Mitras ○ State Reserve Police Force ○ Arm Forces (if required) ○ Air Force (if required) 	COR
	Flood Response to the Areas (Likely to be Affected)	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. 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.	COR, Transport Dept., Dist. Collector, Municipal Commissioner

Time Frame	Task	Activity	Responsibility
		24. Make transport arrangement for mobilization of all emergency response teams.	
		25. Ensure arrangements are in place to evacuate most vulnerable 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.
		27. Cordon off likely affected 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 all means. 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.	Dist. Collector, Municipal Commissioner, Information Dept.
		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.
	Emergency Relief Management	37. Ensure that the Relief Management work in the likely affected areas / districts are well organized.	COR

Time Frame	Task	Activity	Responsibility
		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
		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 needs assessment teams 	COR, Dist. Collector, Municipal Commissioner

Time Frame	Task	Activity	Responsibility
		<p>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.</p> <p>47. Arrange dissemination of information about occurrence of flood and areas that are affected by it to Media & Public</p>	COR, Dist. Collector, Municipal Commissioner, Information Dept.
	Mobilization and Deployment	<p>48. Immediate mobilization of following units/teams to areas affected by flood</p> <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 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.
	g. Clearance of access roads to reach at the sites of affected areas	<p>50. To survey the access roads/routes leading to the affected areas and manage traffic for mobilization of 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 Flood affected areas.</p> <p>54. Evacuate people from unsafe buildings/ structures and shift them to relief camps/sites.</p>	R & B Dept., Transport Dept., Dist. Collector, Municipal Commissioner, Railways, COR

Time Frame	Task	Activity	Responsibility
	h. Necessary Arrangements at evacuation/relief centres as per the Minimum Standard of Relief	<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.
	i. Ensure immediate health and minimization of outbreak of disease	<p>58. To establish camp hospitals near the affected areas.</p> <p>59. 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>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>	Health Dept., Transport Dept.

Time Frame	Task	Activity	Responsibility
		66. Assess need for fodder if required. 67. Keep ready teams for carcass disposal (if required).	Animal Husbandry Dept.
	j. Information to public and media	68. Establish Media/Press Centre for media management and information dissemination 69. Ensure that the information to media/general public about the response of the State Government is released in an organized manner. 70. Organize media briefing twice a day at pre-determined intervals.	Information Dept., COR
	k. Other important work related to immediate response	71. Prepare quick need assessment report for planning of relief operation. 72. Additional assistance may be asked for emergency response/relief from GoI-NDMA (If needed). 73. Maintain constant touch with National, District and Taluka EOCs and other control rooms. 74. Conduct Aerial survey of affected areas for taking a stalk of the situation.	COR
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, 	Collector, DSP, Municipal Commissioner, Home Dept., Health Dept., Local Authorities

Time Frame	Task	Activity	Responsibility
		○ Disposal of unclaimed and unidentified dead bodies.	
		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. 82. Establish Help Lines for facilitating communication between the victims and their relatives residing outside the affected area/s. 83. 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	84. Assess the situation and take appropriate action to accelerate the Search & Rescue Operations. 85. Depute additional officers and supporting staff to flood affected areas from non-affected areas (if required) to accelerate the rescue and relief operations.	COR, Districts Collector, DSP, Municipal Commissioner
		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.
Time = 0 + 48 to 96 Hrs		88. Arrange for procurement of additional relief material required for relief operations (on the basis of need assessment). 89. Mobilize additional relief material required for relief operations. 90. Maintain constant touch with State & Districts EOCs.	COR, Dist. Collector, Municipal Commissioner, Civil Supply Dept.

Time Frame	Task	Activity	Responsibility
		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 = 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.

Short Term Measures	Action Taken
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.
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

- 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).
- 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.
- 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 a '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 a '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 & UH 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)

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

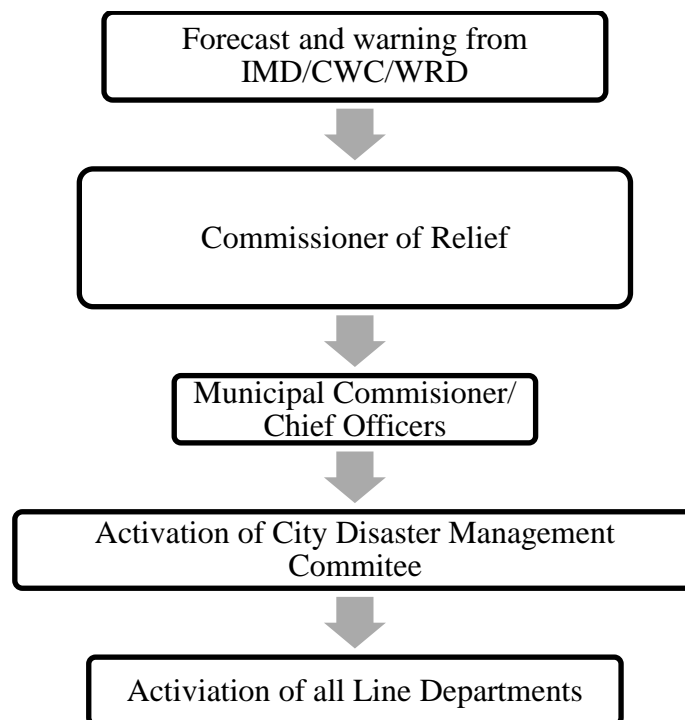
Increasing trend of urban flooding is a universal phenomenon and poses a great challenge to urban planners the world over. Problems associated with urban floods range from relatively localised incidents to major incidents, resulting in cities being inundated from hours to several days. Therefore, the 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 IMD 2. Inform & instruct relevant Municipal commissioner/ Chief Officer to activate control room at full strength 3. DEOC to be activated for additional support 4. Alert state response teams for deployment 5. 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
	Interdepartmental Coordination	<ol style="list-style-type: none"> 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 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: <ul style="list-style-type: none"> • Additional manpower • Additional resources • Machinery & Equipment • Relief material 	CoR/ DoR Municipal Commissioner, UD & UHD Line Dept.

Time Frame	Task	Activity	Responsibility
	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 Urban Flood Response	<p>14. Take over full command of SEOC and ERCs</p> <p>15. Instruct line departments to depute representatives at the State and District EOCs</p> <p>16. Hold a meeting with leaders of task forces and entrust them their tasks</p> <p>17. Arrange emergency meeting with State Crisis Management Group to devise a plan of action</p> <p>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.</p> <p>19. Alert teams to remain in readiness-Evacuation, Emergency Medical Services, Search & Rescue, Fire & Emergency Services, NDRF, Police, Home Guards, SRPF, Army, Air Force</p>	<p>CoR Municipal Commissioner UD &UHD Information Dept Line Dept.</p>
		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	IMD, CWC Municipal Commissioner UD &UHD Revenue Dept., Transport Dept.

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

Time Frame	Task	Activity	Responsibility
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> <p>46. Start evacuation from the likely affected areas through Police support, if necessary</p>	Revenue Dept., COR, Municipal Commissioner Home Dept. Information Dept. Dist. Collector
		47. Disconnect power supply at the time of urban floods	Dept. of Power supply/ power company
	Emergency Relief Management	<p>48. Ensure that the Relief Management work planned in the areas likely to be affected by the floods are well organized.</p> <p>49. Inform following agencies to be in a state of readiness for assisting in the urban floods response measures (if required):</p> <ul style="list-style-type: none"> • Public sector agencies • Private sector agencies • NGOs, CBOs • Volunteer Organizations <p>50. Request for help (if needed) to MHA/National Disaster Management Authority</p>	COR/ Revenue Dept. Municipal Commissioner

Time Frame	Task	Activity	Responsibility
		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 = 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,

Time Frame	Task	Activity	Responsibility
		<p>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</p> <p>61. Arrange dissemination of information about occurrence of urban floods and areas that are affected by it to media & public.</p>	<p>COR,</p> <p>Municipal Commissioner</p> <p>Information Dept.</p>
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,</p> <p>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 equipment's, 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>69. Divert/stop transport activities (Rail + Road) heading towards flood affected areas</p>	<p>R & B Dept. ,</p> <p>Transport Dept.,</p> <p>Municipal Commissioner</p> <p>UD & UHD</p>

Time Frame	Task	Activity	Responsibility
	Necessary Arrangements at Evacuation/ Relief Centres	<p>70. To ensure that necessary arrangements at evacuation/relief centres 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 Centres and involved in distribution of Relief Materials</p> <p>72. To ensure that law and order is maintained at evacuation/relief centres 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>	<p>Revenue Dept., Civil Supply Dept., Municipal Commissioner Collectors, Water Supply Dept., Health Dept., GEB, Energy & Petro. Dept., GWSSB & Local Authorities, Home Dept.</p>
	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 centres 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>79. Keep adequate stock of essential medicines, first-aid etc. at taluka/district hospitals.</p> <p>80. Take steps to purify drinking water sources.</p> <p>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</p>	<p>CoR/ DoR, Health dept Municipal Commissioner Collector Port & Transport Dept, Tourism Dept.,</p>
		<p>82. Assess need for fodder if required.</p> <p>83. Keep ready teams for carcass disposal (if required)</p>	<p>Animal Husbandry Dept.</p>

Time Frame	Task	Activity	Responsibility
	Information to Public and Media	<p>84. Establish Media/Press Centre for media management and information dissemination.</p> <p>85. Ensure that the information to media/general public about the response of the State Government is released in an organized manner.</p> <p>86. Organize media briefing twice a day at pre-determined intervals</p>	Information Dept., CoR Municipal Commissioner
	Other Important Work Related to Immediate Response	<p>87. Prepare quick need assessment report for planning of relief operation.</p> <p>88. Additional assistance may be asked for emergency response/relief from GoI-NDMA (If needed)</p> <p>89. Prepare situation report and circulate it twice a day in the morning and evening to key Government functionaries.</p> <p>90. Maintain constant touch with National, District, City and Taluka EOCs and other control rooms.</p> <p>91. Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly.</p> <p>92. Conduct aerial survey of affected areas for taking a stalk of the situation</p>	<p>CoR</p> <p>Municipal commissioner</p> <p>District collector</p>
		<p>93. Activate evacuation & relief centers according to needs/situation.</p> <p>94. Maintain record of persons admitted at evacuation/relief centres</p>	<p>Revenue Dept. COR</p> <p>Municipal Commissioner Collector</p>
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	<p>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.</p> <p>97. Ensure that key administrative and lifeline buildings are brought back to operation quickly.</p> <p>98. Designate and deploy senior officers (as per the need) to worst affected area/s to oversee rescue/relief operation.</p>	<p>CoR, Line Depts., Municipal Commissioner</p> <p>Dist. Collectors,</p> <p>Line dept.</p> <p>Eneregy& Petro.Dept.</p> <p>Power Supply</p> <p>Water Supply</p>

Time Frame	Task	Activity	Responsibility
		99. Ensure following primary necessities are restored. <ul style="list-style-type: none"> a. Power supply b. Water supply c. Communication d. Roads & Bridges 	Ports and Transport
	Dignified Management of the Dead	100. 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, c. Postmortem 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. 	Revenue Dept., Municipal Commissioner 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 Centres 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 Commissioner District 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 119. Review and follow-up all necessary arrangements for emergency response & relief in the affected area/s	COR
		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 828 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, color 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)

6.1.3 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

6.1.4 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.

6.2 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, SP, 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.

6.3 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.

6.4 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.

6.5 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 firsthand 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 along with 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 analysing 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.

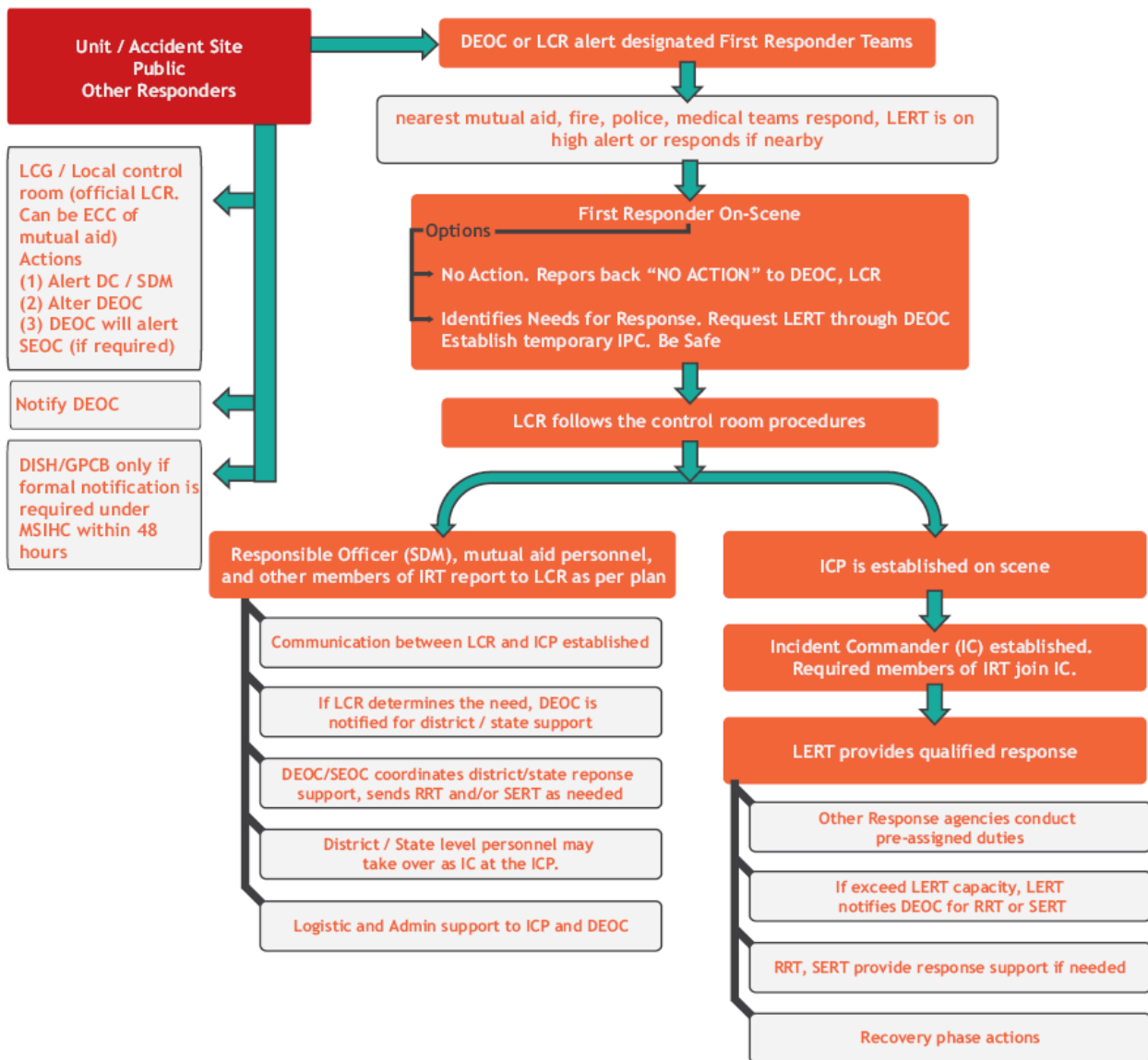
6.6 Response for Industrial (Chemical) Disasters

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 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 	Collector, Municipal Commissioner, DISH, DCG, Home Dept., Health Dept., Industry/ Industrial Association COR, Civil Supply Dept., Collectors, Municipal Commissioner, DISH, Water Supply Dept., Health Dept., GEB, Energy & Petrochemical Dept, GWSSB & Local Authorities, Home Dept.
3.	Addressing Health Related Issues	<ol style="list-style-type: none"> 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 13. Ensure that the hospitals are well prepared to deal with seriously injured persons 14. Keep adequate stock of essential medicines, antidotes, first-aid etc. at taluka/district hospitals. 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 	Health Dept.

Sr. No.	Task	Activity	Responsibility
4.	Information to public and media	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. 17. Ensure that the information to media/general public about the coordinated response is released in an organized manner.	Collector, Municipal Commissioner DISH, COR, Commissioner of Info.,
5.	Disposal of Dead bodies	18. 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, c. Post Mortem wherever necessary and possible is carried out, d. Handing over dead bodies of persons known/identified to their relatives 19. Disposal of unclaimed and unidentified dead bodies 20. Animal Husbandry Department to ensure medical aid to cattle that are injured. 21. Disposal of animal carcasses with the help of local bodies/health dept.	Collector, Municipal Commissioner, Revenue Dept., Health Dept., Home Dept., Local Authorities, Industry, Industry/Industrial Association Animal Husbandry Depts., Local Authorities, health dept.
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. 	Home Dept.

Sr. No.	Task	Activity	Responsibility
		<ul style="list-style-type: none"> • 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 evacuation of the people from the zone of the danger. • 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 	Fire and Emergency Services (F&ES), Municipal Corporation, GIDC

Sr. No.	Task	Activity	Responsibility
		<ul style="list-style-type: none"> 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 & Emergency Services, Dy. Director - Industrial Safety and Health, Officer in charge Police and Health Personnel all work closely with full coordination 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 doctors, paramedics, and provision of blood and medicines, as required The SCG will review the administrative support required for the situation, which includes 	Dept. of Health and Family Welfare

Sr. No.	Task	Activity	Responsibility
		<p>communications, transport of the victims and of the personnel, feeding of the personnel and patients, and supplies</p> <ul style="list-style-type: none"> • 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. 	

6.7 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 statutes 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 quantities 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 travel 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.

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.

³ National Disaster Management Plan, 2019

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 strength3. 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 Plan Activation	<ol style="list-style-type: none">5. Declare an emergency in consultation with State Crisis Group (SCG) and activate an emergency plan6. Activate District Crisis Group (DCG)7. Establish immediate communication with Local Crisis Group (LCG), District Crisis Group (DCG), District Emergency Operation Centre (DEOC), State Emergency Operation Centre	CoR Health & Family Welfare dept Collector

Sr. No	Task	Activity	Responsibility
		(SEOC), GSDMA and Central Crisis Group	
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 • 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> <ul style="list-style-type: none"> a. Food, 	<ul style="list-style-type: none"> • COR, Collectors,

Sr. No	Task	Activity	Responsibility
		<ul style="list-style-type: none"> 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 	<p>Municipal Commissioner</p> <ul style="list-style-type: none"> • 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 deal with seriously affected persons</p> <p>24. Keep adequate stock of essential medicines, vaccines, first-aid etc. at taluka/district hospitals.</p>	<ul style="list-style-type: none"> • Collectors, • Municipal Commissioner • Health Dept.

Sr. No	Task	Activity	Responsibility
		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	
8	Response of Line Dept	26. Activate Departmental Disaster Management Plan and Departmental SOPs for Management of casualties	• Collectors, Municipal Commissioner
		27. Ensure availability of QRT & essential medicines	• Health Dept.
		28. Issue alert/ warning through mass media by establishing liaison with service providers 29. Ensure safety & serviceability of critical communication towers through respective service providers	• Telecom service providers • DST
9	Review of Situation and Reporting	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 31. Keep in touch with National, District and Taluka Control Rooms 32. Release information at appropriate time to media and public regarding response measures organized by the Government	• Revenue Dept./ COR • Secretary, Health Dept • Collector • Municipal commissioner • Information Dept. • PIB
10	Emergency Relief Management	33. Ensure that the Relief Management work planned in the areas affected are well organized 34. Inform following agencies to be in a state of readiness for assisting in the response measures (if required): <ul style="list-style-type: none"> • Public sector agencies • Private sector agencies • NGOs, CBOs • Volunteer Organizations 35. Request for help (if needed) to MHA/National Disaster Management Authority	COR/ Revenue Dept. • Collector

Sr. No	Task	Activity	Responsibility
		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 to deal with affected persons. 44. Ensure that the required medical assistance/aid and medicines are provided to the affected people at site as well as at evacuation/relief centres in	Health Dept., Dist. Collector, Municipal Commissioner 108 GVK EMRI Services Port & Transport Dept,

Sr. No	Task	Activity	Responsibility
		<p>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>	
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 evacuation/relief centres</p>	Revenue Dept. Collector, CoR

Sr. No	Task	Activity	Responsibility
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., Health Dept.

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

Sr. No	Task	Activity	Responsibility
22	Biosafety and biosecurity measures and environmental measures	87. Ensure Strict compliance with Bio safety and bio security provisions in hospitals 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	Health dept. Collectors 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. **(Annexure-4) Page-222**
- 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 emphasized that the AERB, which oversees nuclear and radiological safety in the country, has the powers to not only license 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 Centers (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 centralized agency called the management activities not only by activating these ERC and ERTs but also by mobilizing 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 Centre (SEOC), Emergency Response Centres (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, Page-223) 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 Centres 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 Centre and if required coordinate with Bhabha Atomic Research Centre (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/ equipment's from GSDMA's Emergency Response Centres (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 organizations 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 organization 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 6 Page-224**) 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. 	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 Page233)	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. 48. Identify all those who may have been exposed to a possible release of radioactive material.	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>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>	
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

Protective actions recommendations:

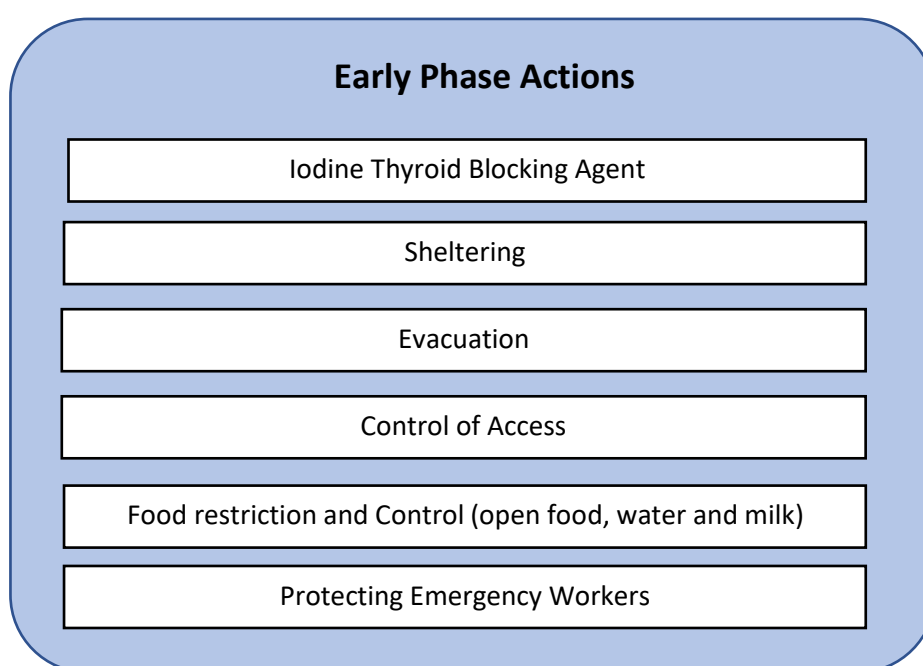
A severe accident at a nuclear power plant where failure of containment barriers leads to a major release of the core inventory will require the implementation of protection strategy (combination of protective actions) to reduce the dose to the public.

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 vaporising 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 Defense (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 Defense (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 all eight Municipal Commissionerate 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
4	Evacuation	<ol style="list-style-type: none"> 14. 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. 15. To ensure necessary security arrangements for the personnel (Emergency responders/ relief teams) who are working at relief 	Civil Supply Dept., Home Dept. Collectors, Municipal Commissioner, Water Supply Dept., Health Dept., GEB, Power & Energy Dept., & Local Authorities, Regional Fire Officer

Sr. No.	Task	Activity	Responsibility
		<p>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>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 Defense, 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 centres 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, antidotes, first-aid, Burn bed etc. at taluka /district hospitals.</p> <p>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</p>	Health Dept.
6	Information to public and media	<p>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</p> <p>26. Ensure that the information to media/general public about the coordinated response is released in an organized manner.</p>	Municipal Commissioner Collector, Commissioner of Info., Fire & Emergency Services

Sr. No.	Task	Activity	Responsibility
7	Dignified Management of the Dead	<p>27. 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>28. Disposal of unclaimed and unidentified dead bodies</p>	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 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. • 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. 	Home Dept.

Sr. No.	Task	Activity	Responsibility
		<ul style="list-style-type: none"> 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 Alert major hospitals (both government & private) in the area and ask them to be in readiness for receiving patients 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. 	Health & Family Welfare Department, Commissioner of health, Civil Surgeon, 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 manmade causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.

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 center 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 Tunnelling- DNS Tunnelling** is a method of cyber-**attack** that encodes the data of other programs or protocols in **DNS** queries and responses. **DNS tunnelling** 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.

S. 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 Minister• Hon. Minister – Disaster Management• Chief Secretary• Principal Secretary (DST)• Chief Executive Officer, GSDMA	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

S. No.	Task	Activity	Responsibility
		<ul style="list-style-type: none"> 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	6. Establish Help Lines for facilitating communication between the departments and other services for immediate help.	
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 Centre	<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>	Department of Science & Technology and Service providers for Data Centre, GIL.

S. No.	Task	Activity	Responsibility
		<p>21. Investigate quickly by identifying the systems and manage the damage</p> <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 equipment's & 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>	Home Department, DCPW and GFSU.

S. No.	Task	Activity	Responsibility
		40. Isolate where breach has occurred 41. Investigate quickly by identifying the systems and manage the damage 42. Response team is investigating the attack; ensure that they are documenting both their process and their findings. 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.	DST, IT, All Service Providers, Consumers.

S. No.	Task	Activity	Responsibility
		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.	
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.	Railways, Air Traffic Controller, GSRTC, Pvt.

S. No.	Task	Activity	Responsibility
		76. Railways, Airways and IT infrastructure must be protected to avoid any disruption. 77. Servers must be fully protected with firewalls and updated.	service providers.
16.	Water Sector	78. Computer controlled systems need 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 equipment's. 82. Establish communication links with all the departments.	DST and Information Dept., Dept of Home and line 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	DST, IT, ISP, TSP, Line Depts.

S. No.	Task	Activity	Responsibility
		88. Ensure following primary necessities are restored <ul style="list-style-type: none"> ○Telecommunication. ○Power. ○Transport. ○Internet. 	
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. 93. Ensure that the MOUs with the service providers are appropriate if emergency reoccurred. 94. Communicate to all relevant stakeholders any changes to prevent a reoccurrences.	

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	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	24x7 Earthquake Monitoring Centre, National Centre for Seismology (NCS), New Delhi	011 24344348 011- 24344547	-
4	IMD (MET), Ahmedabad	079-22865165 079-22867206 079-22858020	22865449 22864742
5	State Emergency Operation Centre (SEOC), Gandhinagar	23251900 /23251902 23251907/08 23251914	23251912 23251916
6	Flood Control Cell -IRRIGATION 1st Floor, State Data Water Data Centre, Sector- 8, Gandhinagar	23248735 23248736	-
7	Flood Control Cell- R&B Dept. Ground Floor Nirman Bhavan, Sector 10, Gandhinagar	23251510	-
8	Control Room -HEALTH - PMCC Ground Floor, Block No.5, Old Sachivalaya, Gandhinagar.	23250818	-
9	DGP, Police Bhavan, G'nagar (State Control) DY.SP (I/C Control Room) 23254343	23246328 23246330/31	23246329
10	Control Room - NEW SACHIVALAYA (HOME) Block No. 2, Ground Floor, New Sachivalaya, G'nagar	23252957 23252958	F-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 Manager (2) Transportation Suptdt.	22801264 (O)	22803057 (F)
15	ISR, Gandhinagar	079-66739000/66739102 M-9727717841	079-66739000
16	Control Room- GWSSB, Ground Floor, Jal-seva Bhavan GWSSB, Sector-10 A, Gandhinagar.	23220859	23225979
17	Member Secretary, GPCB Paryavaran Bhavan, Sector-10A, Gandhinagar. membersecretarygpcb@gmail.com	23222425 23232161	23232152 23222784
18	Control Room - FISHERIES 3rd Floor, Block No.10, Old Sachivalaya, Gandhinagar	23253730 23253740	23253730 23253740

National Level

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

Sr. No.	Name	Designation	Office	Resi.	Mobile
1	Shri Amit Shah	Hon'ble Home Minister	011-23092462 011-23094686 011-23092631 23094221 (F)	23793646 23793626 21410415-F	pstohm@nic.in
2	Shri Govind Mohan-IAS	Home Secretary	011-23092989 011-23093031 23093003 (Fax)	23013658	hshso@nic.in
3	Shri Sanjeev Kumar Jindal	Addl. Secretary (Disaster Management)	011-23438096 23438098-F	-	9910391422 asdm-mha@gov.in
4	Dr. Rajesh Gupta	Joint Secretary (DM)	23438096 (NDCC)	-	jsdm@gov.in
5	Shri. Ashish V. Gawai	Director (DM-I)	23438154	-	av.gawai@nic.in
6	Shri Pawan Kumar	Director (DM-II)	011- 23438123 23438071(Fax)	-	9810970506 mk.pawan65@gov.in
7	Shri Govind Prasad Uniyal	DIG (ICR-ER)	011- 23438252	-	gpuniyal.icr @mha.gov.in
8	Shri R.K. Ahluwalia	Deputy Secretary (DM-III)	011-23438071	-	ravi.ahluwalia@gov.in
9	Shri Avanish Kumar	2 IC (DM)	011-23438122	-	avinash.kumar75@mha.gov.in
10	Shri Vikram Gurjar	DC (DM)	011-23438122	-	vikram.gurjar24@mha.gov.in
11	Shri Sourabh Kumar	Under Secretary (DM-II)	011-23438177	-	Sourabh.kumar@nic.in
12	Shri Gauri Shankar Jha	US. (Disaster Management-III)	011-23438144	-	9868492115 usdm3-mha@nic.in
13	Shri Manoj Kumar Singh	AD (DM)	011-23438059	-	manoj.singh06@nic.in
9	Control Room (MHA)		011-23093054, 23092763, 23093564, 23092923 FAX- 011-23092398	-	iocdm.mha@nic.in
10	National Emergency Response Centre Control room, NDCC-II Building		011-23438252 2343825 F-23438254	-	dresponse-nerc@gov.in

2. National Disaster Management Authority

Designation	Name	Office	Fax	Email Id
Member & HOD	Shri Rajendra Singh	011-26701738	011-26701716	rajendra.59@ndma.gov.in
Member	Lt. Gen Syed Ata Hasnain, PVSM, UYSM, AVSM, SM, VSM & BAR (Retd)	011-26701775	011-26701716	syedata.hasnain@ndma.gov.in
Member	Shri Krishna Vatsa	011-26701785, 211	011-26701716	krishna.vatsa@ndma.gov.in
Advisor-Mitigation	Shri Safi Ahsan Rizvi-IPS	011-26701893	011-26701816	advisor.sar@ndma.gov.in
Financial Advisor	Ms. Sreyasi Chaudhuri	011-26701777	011-26701816	s.chaudhuri@nic.in fa@ndma.gov.in
Vacant Advisor (Policy & Plan)	--	011-26701747	011-26701864	jspp@ndma.gov.in
Advisor (Ops & Communication)	Col. Kirti Pratap Singh	011-26701886	011-26701716	advopscomn@ndma.gov.in
Advisor	Smt. Sumita Singh	011-26701718	-	jsic-cbt@ndma.gov.in
Joint Advisor (IT & Comm)	Shri Nawal Prakash	011-26701719		jaitcomn@ndma.gov.in
Joint Advisor (International Cooperation)	Dr. Pavan Kumar,	011-23445811	-	jaic-ndma@ndma.gov.in
Joint Advisor (RR)	Dr. S.K. Jena	011-23445807	-	jointadvisor.rr@ndma.gov.in
Director (Admin)	Ms. Mrinalini Shrivastava, IPS	011-26701792	011-26701816	director-admin@ndma.gov.in
Director (Finance)	Rakesh Kataria	011-26701833		director-fin@ndma.gov.in
Joint Advisor (CBT)	Lt Col Surya Prakash Pandey	011-26701788	-	ja-cbt@ndma.gov.in
joint Advisor (OPS)	Lt Col Sanjeev Kumar Shahi	011-26701798	-	ja.ops@ndma.gov.in
Deputy Secretary-PP	Ms. Rakhee Saddhu	011-26701714	011-26701816	dspp@ndma.gov.in
Deputy Secretary (PRAG)	Ambuj Bajpai	011-26701879	-	ds-prag@ndma.gov.in
NDMA Control Room		011-26701728/29 9868891801 9868101885	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), Nizam pet (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	Mobile	
Dr. T M Balakrishnan Nair Director, INCOIS director@incois.gov.in bala@incois.gov.in	040-23886000/ 040-23886002	09490191659	040-23895001
Shri. E. Pattabhi Ram Rao Group Director, ODICT, INCOIS pattabhi@incois.gov.in	040-23886008	09490191923	040-23895001
Control Room Tsunami warning centre (Operation Centre)	040-23895011 040-23886064 040-23886034	07075977827	040-23895012 040-23895019

4. National Centre for Seismology (NCS)

National Centre for Seismology,
Ministry of Earth Sciences, Govt. of India,
IMD Campus; ANNEXURE EREC Building;
Lodhi Road, New Delhi 110003

Dr. Om Prakash Mishra

Director, National Centre for Seismology

Ministry of Earth Sciences, Govt. of India,

IMD Campus; ANNEXURE EREC Building; Room No. 1 & 2;

Lodhi Road, New Delhi 110003

Email- director-ncs[at]gov[dot]in
omp[dot]mishra[at]nic[dot]in

Tel.No.- +91-11-24611305
+91-11-2462 2511

5. Army, Air Force and Coast Guard

RAF (Rapid Action Force) Vastral Ahmedabad

No.	Designation		Tel. No.s
1	Control Room		079-29708628
2	Commandant	Shri Ratul Das	(M) 9427308730

CRPF (Central Reserve Police Force) Group Centre Gandhinagar

No.	Designation		Tel. No.s
1	Control Room		079-23200769, 23200241-29750263
2	Range DIG	Dharmendra Bishen	(O) 079-29750406 (O/F) 079-29750313

Army camp (Ahmedabad)

No.	City		(O)
1	Ahmedabad	Army Exchange- Hanuman Camp	22856251 (Exchange)
2	Ahmedabad	Major Abhishek GSO-II (Ops.) Lt.Colonel Randeep Singh Randhava	(O) 2411(Ext.) (R) 2683(Ext.), (Fax) 22856251, 22861902 Mo. 8006406016 9501377175

Army camp (Gandhinagar)

No.	City		(O)
1	Gandhinagar	Army Exchange-Chiloda Road	23240252, 23201507, 23201503, Ext.2198
2	Gandhinagar	Col. Shivcharan Bharadwaj	(O) 23200930, (R) 23201117 (M) 6398111020

Airforce

No.	City		(O)
1	Gandhinagar	HQ SWAC Control Room	23242600, 23242700(Exch.)
2	Gandhinagar	D. Bharat	(M) 9013981053 (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: 7th Floor, Udyog Bhavan, Gandhinagar- OPS- 079-23243264

No.	City	Name	(O)
1	Gandhinagar	D.I.G.-Parag Goswami	(O) 23241717, 23243264 (Fax) 23243283 (M) 9967571979
2	Porbandar	D.I.G. Pankaj Agarwal	(O) 0286-2242450 (Fax) 0286-2210559 (M) 8130791991
3	Okha	D.I.G. V. Krishna kumar Commanding Officer	(O) 2892-262261/60, (F) 02892-263421 (M) 8104854206
4	Veraval	Comdt. (JG) A. S. Amvarish Commanding Officer	(O) 2876-241352, (F) 02876-241353 (M) 9474219801

No.	City	Name	(O)
5	Mundra	Comdt. (JG)Konark Sharma Commanding Officer	(O) 02838-271402/03, (F) 02838-271404 (M) 9633686310
6	Jakhau	Comdt. Sandeep Safaya, T M Ashok Kumar Commanding Officer	(O) 02831-294521, (F) 02831-286432 (M)9869422831 6355458329
7	Vadhinar	Comdt. M M Mark Commanding Officer	(O) 02833-256333, (F) 02833- 256560 (M)8800220497
8	Pipavav	Comdt. Rakesh Kumar	(O) 02894221600 (M) 9727277032

7. India Meteorological Department Delhi/Ahmedabd

No.	Name	Desi.	(O)	(R)	(F)	Email ID
1	Dr. Mrutyunjay Mohapatra	Director General of Meteorology, Mausam Bhavan, Lodhi Road, New Delhi-110003	011-24611842 011-24344253 011-24344225	9868623475 9868733464	011-24611792 24699216	dgm.met@imd.gov.in m.mohapatra@imd.gov.in
2	Dr. J. Rajendra Kumar	Scientist-G ; NWFC, New Delhi	011-24631913 (Ext. 1912)	9971022981		jr43.kumar@imd.gov.in
3	Ms. Shubhangi A Bhute	Scientist-F ; Head R.M.C. MUMBAI	022-22150517	9167751076	022-22150517	rmcmumbai@imd.gov.in sb.bhute@imd.gov.in
4	Dr. (Mrs.) Nair Sushma. K.	Scientist-D ; ACWC, Mumbai	022-22150431 (Ext. 702)	9869044756		Sushma. Nair@imd.gov.in
5	Ms. Nitha. T. S.	Scientist-D ; ACWC, Mumbai	022-22174709 (Ext. 709)	9745304441		nitha.ts@imd.gov.in
5	Ms. Jismy Poulose	Scientist-C ; ACWC Mumbai	022-22174729 (Ext. 729)	9873625615		jismy.poulose@imd.gov.in
6	Dr. Ashok Kumar Das	Scientist-F; Head, M.C. Ahmedabad	079-29705011	9968686423	079-22865165	mcahm@rediffmail.com ashok.das@imd.gov.in
7	Sh. Ramashray Yadav	Scientist-D, M. C. Ahmedabad.	079-29702418	7839102895	079-22865449	ramashray.5329@gmail.com
8	Sh. Pradeep Sharma	Scientist-D, M. C. Ahmedabad		9650336156		pradeepsh70@gmail.com

No.	Name	Desi.	(O)	(R)	(F)	Email ID
9	Sh. Abhimanyu Chauhan	Scientist-C, M. C. Ahmedabad.	079-29702419	9968571910	079-22865449	abhimanyu.imd@gmail.com
10	Duty Officer		079-29601179		079-22865449	

8. Indian Meteorological Department (IMD) Regional Offices in Gujarat

S. No.	Location	Phone
1	CDR Bhuj	02832-297575,297576
2	Veraval	02876-220004
3	Vadodara	0265-2482228
4	Deesa	02744-221178
5	Okha	02892-262129
6	Rajkot	0281-2451296
7	Keshod	02871-299115
8	Porbandar	0286-2220955
9	Dwarka	02892-234437
10	Bhavnagar	0278-2209440
11	Surat	De-function
12	Naliya	02831-222301
13	Kandla	De-function
14	Bhavnagar (Seismo)	0278-2561194 (Circuit-House)

9. National Institute of Ocean Technology (NIOT)

Designation	Office	Fax	E Mail
Prof. Balaji Ramakrishnan Dir- NIOT	(M) 4466783300	044-22460645	director@niot.res.in atma@niot.res.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

10. Western Railway

Security Helpline (Suburban) 1311 (Personnel Department- 079-22202133)

Security Helpline (All India) 182

No.	Division	Designation	Landline/CUG/Fax
1	Ahmedabad	Divisional Railway Manager Shri Sudhir Kumar Sharma PS to DRM-R.B. Solanki-9724093002	(O)079-22204588 (F)22204589 M- 9724093000
2	Ahmedabad	ADRM Shri Lokesh Kumar	(O)22204590 (M) 9724093001
3	Ahmedabad	SR. DOM (Operating Dept.) Shri Pavankumar Sing	(O)22204008 (M)9724093900
4	Ahmedabad	SR.DCM (Commercial Dept.) Shri Ravindra Srivastav	(O)22201990
5	Ahmedabad	Sr. Sharif A. Ibrahim, Senior secy. commissioner/DIG	(O)22205005 (M) 9724093700
6	Ahmedabad	EHM-Shri Vikas Gadwal	(O)22203330 (M) 9724044050
7	Vadodara	Divisional Railway Manager Shri Jitendra Kumar Singh	(O)0265-2638081 (M) 9724091000
8	Bhavnagar	Divisional Railway Manager Shri Ravish Kumar	(O)0278-2445475 (M)9724097000
9	Rajkot	Divisional Railway Manager Shri Ashwini Kumar	(O)0281-2477006 (M) 9724094000
10	Mumbai Central	Divisional Railway Manager	(O)022- 22621450 (M) 9004499000
11	Mumbai Central	Control Room	(O)022-67644615, 9004499936s
12	Mumbai Church gate	Addl. General Manager	(O)022-22079709 (M) 9004490201

Western Railway - Headquarter Office (Mumbai)

Chief Bridge Engineer (Church gate, Mumbai)	(O) 022-22015154
Chief Controller (Church gate, Mumbai)	022-22017420, 022-22084287

I. State Level

1. Gujarat State Disaster Management Authority, (GSDMA)

No.	Name	Designation	(O)	(M)
1	Shri Bhupendra Patel	Chief Minister and Chairman-GSDMA	23250127 23250128 23250129 23250306-Fax	-
2	Shri Anupam Anand-IAS	Chief Executive Officer	23259276	99784 07791
3	Ms. Shivangi Prajapati	PS to CEO	23259276	9081018848
4	ACEO- Vacant	Additional CEO	23259451	-
5	Ms. Ankita Parmar-GAS	Director-GSDMA	-	9925007405
6	Shri I. S. Prajapati-GAS	Director-GSDMA	23259019	9824513580
7	Shri Devang Parikh	Controller of Account	23259278	9825204665

No.	Name	Designation	(O)	(M)
8	Shri B. F. Patel	Director-Finance	23259278	8128598222
9	Shri K. B. Patel	Sector Manager	-	9974332782
10	Shri Y. K. Parmar	Sector Manager	-	8469288345
11	Shri P. B. Makwana	Sector Manager	-	9825498315
12	Shri Sanjay Mall	Sector Manager	-	9173863052
13	Shri Sureshbhai Kanotara	Account Officer-	-	8980797322
Gujarat Institute of Disaster Management (GIDM)				
1	Shri Rajiv Kumar Gupta,(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 Subhash Savaliya - GAS	Director of Relief	23251900 23251509	9099905040
2	Shri Roop Patel-GAS	Dy. Collector-SEOC	23251900 23251611	9998214106
3	Shri G. C. Patel	Mamlatdar	23251908	9979561031
4	Shri M.S. Patel	Mamlatdar	23251908	9265136458
5	-	Mamlatdar	-	-
6	Shri J.B.Vaghela	Deputy Mamlatdar	23251902	9664730031
7	Shri Aneri Modh	Deputy Mamlatdar	23251902	9428984306
8	Shri V.K.Gohil	Deputy Mamlatdar	23251902	7359300667
9	Shri S.S.Divakar	Deputy Mamlatdar	23251902	9426665585
10	Shri	Deputy Mamlatdar	23251902	
11	Shri D.B.Trivedi	Deputy Mamlatdar	23251902	7573812233
E-mail		revcontrol1@gujarat.gov.in / revcontrol2@gujarat.gov.in		
SEOC		(O) 23251900,23251902,23251908		
		(F) 23251912/23251916		
		dor-rev@gujarat.gov.in		

3. 6th Bn, NDRF, Jarod-Vadodara

No.	Designation	Name	Tel. No.
1	Commandant	Shri Surender Singh	(O) 02668-274470,299201 (R)274211 (F)274470 (M) 094288 26445
2	Second In Command	Shri Vikas Singh	(o)02668-274460 M-7006842112
3	Dy. Commandant-Operation	Shri Anupam	(M)9425590652 8779196987
4	Dy. Commandant (Administrative)	Shri Rameshwar Yadav	M-9407612595
5	Control Room		02668-29921 (F)02668-274470, (M)9870006730, 9429199493
6	RRC Gandhinagar (Asst. Commandant)-	Shri Vikram Chaudhri	M-9624425869,8358030424

**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	Dr. Sumer Chopra	Director ISR	66739002	-	9426564038 9910414038
3	Shri Santosh Kumar	Scientist-E	66739023	-	99252 43646
4	Data Centre	-	66739000 (F) 66739028	-	9727717841
5	Shri Dr. K. M. Rao	Scientist-E	66739002	-	9978406331

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	Shri S. K. Hudda	Dir-Admin	23213081	-	9978405803
3	Shri Khalid Ahmed	Addl. Director	23213081	-	9909945010

Information and Communication -

Sr. No.	Name & Designation	Office	Mobile	Fax	Email-ID
1	AIR, Ahmedabad Shri Maulik Munshi, Asst. Dir-Prog. PEx I/C Prog. Head	27540438	9426367348	27540195	ahmedabad@prasarbharati.gov.in
2	CBS, AIR, Ahmedabad Shri Yatin Dave Head of Office Nodal	27541597	9427615362	27541597	vbs079@gmail.com
3	AIR, Rajkot Shri S.K.Mavani, Asstt. Director (P)	0281- 2453503/ 2444603	9427564359	2453503	rajkot@air.org.in
4	AIR,Bhuj Jayesh Rawal Asstt.Director (P)	02832- 250852 222503	9427209390	252251 250852	akashvanibhuj@gmail.com
5	AIR, Surat Paras Kataria Asstt. Director (P)	0261- 2232323 2236209	9825268616	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 Zankhana Munshi Prog. Executive	02672- 241478 241660	9879563110	241478	godhrafm@gmail.com
8	AIR,Ahwa Shri Ravikar Damor Head of Officer	02631- 220295/ 220356	9429836294	026131- 220295	airahwap@gmail.com
9	AIR, Daman Shri Haresh Patel Program Executive	0260- 2242966	9426892895	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. Banshiva Ladva Chief Nautical officer, GMB, Gandhinagar	2822 220435	9638112186 9825412186	23234716	gmbcontrolroom@gmail.com banshiva.ladva@gmail.com
2	Magdalla	Shri Amit Kumar Port Officer, 3 rd Floor, BSNL Bhawan, Falsawadi, Nr. Belgium Tower, Surat-395003	0261-2430533	8377058070	0261-2435645	popbr1@rediffmail.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	Shri amit Kumar Port Officer, GMB Near ST Bus Stand, Bharuch	02642-241772	8377058070	02642-243140	dahejportoffice@gmail.com
5	Bhavnagar	Capt.Rakesh Mishra, Port Officer, GMB, New Port, Bhavnagar	0278-2210558; 0278-2561221	9601254062	0278-2571221	trf.pogmbbvr@gmail.com
6	Alang	CaptRakesh Mishra Port Officer (I/C) GMB, Alang Ship recycling Yard, Tal. Talaja, Dist. Bhavnagar, ALANG	02842-235621	9601254062	02842-235955	alanggmb@yahoo.com pogmbalang@gmail.com
7	Jafrabad	Shri V.F.ChaudhariPort Officer GMB , Jafrabad Port, Dist.Amreli	02794-245443 245165	9925153030	02794-245165	gmbpojfd@gmail.com
8	Veraval	Capt. Kuldeep singh Port Officer, Gujarat Maritime Board Veraval Port, Veraval	02876-221139; 02876-220001	9687089687	02876-243138	poveraval@gmail.com

Sr. No	Name of Port	Port Officer	Office	Mobile	Fax No	E mail id
9	Porbandar	Capt. Arvind Kumar Mishra Port Officer, Gujarat Maritime Board, Vagheswari Plot, Port Colony No-1, Porbandar port, Porbandar.	0286-2242404	9099694747	0286-2253664	gmbporbandar@gmail.com popbr1@rediffmail.com
10	Jamnagar	CAPT. Arvind Kumar Mishra (I.C.) Port Officer, GMB, GMB Complex, Jamnagar	0288-2712307	9099694747	0288-2712815	pojam.gmb@gmail.com
11	Navlakhi (Morbi)	Capt. Banshiva Ladava Pilot officer, Near Rly. Crossing, Char Godown, Morbi	02822-227304	9638112186 9825412186	02822-234465	pfsonavlakhi@gmail.com
12	Okha	CAPT. Rahul Mishra, Port Officer, GMB, Okha Port, OKHA	02892-262109	9831536125	02892-262002	portofficerokp@gmail.com
13	Mandvi	Shri R.C.Patel, Port Officer, Mandvi Port, Mandvi.	02834-222633	9925153083	02834-230033	pomgmb@yahoo.in

2. Telecommunication

No.	Region	Desi.	(O)	(R)
1	Ahmedabad	CGM-Ahmedabad	26481800	-
2	Ahmedabad	General Manager	26481011	-
3	BSNL. Gandhinagar	General Manager	23248555 23229390	-
4	BSNL. Gandhinagar	Divi. Eng. (External)	23249555	-
5	BSNL. Gandhinagar	Commercial Officer	23240999 23220500	-
6	BSNL. Gandhinagar	DGM. BSNL	232229191	23246848
7	BSNL. Ahmedabad	DGM-Admin	26481822	26481420

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
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

1. District Name:- Panchmahal						STD :- 02672
Sr. No.	Designation	Name	Mobile	Landline No.		Email
1	Collector	Shri Ashish Kumar (IAS)	9978406217	242800		collectoer-pan@guajarat.gov.in
2	Municipal commissioner	-	-	-		-
3	DDO	Shri D K Baria(IAS)	9978406242	253377-51		ddo-pan@guajarat.gov.in
4	SP	Dr.Himanshu Solanki(IPS)	9978405077	242200		sp-pan@guajarat.gov.in
5	RAC	Shri J. J. Patel	9978405189	242450		rdc-pan@guajarat.gov.in
6	Dy.DDO	Shri J R Rathwa	9879671354	253360/61		dyddopanchmahal.rev@gmail.com
7	Dy.Conservator of Forest	Dr. Murarilal Mina	7229081287	242210		dcfgodhra@gmail.com
8	Dy. SP (HQ)	Shri B L Desai	9824127141	-		
9	CDHO	Shri Vipul Gamit	7567893600	253367		dpc-panchmahal@yahoo.com
10	Director DRDA	Shri D M Desai	9427619801	253391/92		dr-pan@guajarat.gov.in
11	DSO	Shri Bhargav Dangar	7990162473	242936		dso-pan@guajarat.gov.in
12	Medical Superintendent	Dr.Mona Pandya	8980045312	-		cdmo.godhra@gmail.com
13	CDMO	Dr.Mona Pandya	8980045312	-		cdmo.godhra@gmail.com
14	DEO	Shri K M Patel	9909970209	242240		panchmahaldeo@gmail.com
15	DPEO	Smt.Gaytriben Patel	9909971689	253376		dpeogodhra@gmail.com
16	General manager DIC	Shri R S Patel	75670 20896	247216/ 240871		gm-dic-pan@guajarat.gov.in
17	Dy.Director Information	Shri Harish Parmar	9687609143	249111		ddigodhra@gmail.com
18	Exen. R&B (State)	Shri P R chaudhary	9725664489	243421		rnb-pan@guajarat.gov.in
19	Exen. R&B (Panchayat)	Shri R B Chaudhary	9979508969	253381/82/83		panchmahal-pan-exe@yahoo.com

1. District Name:- Panchmahal						STD :- 02672
Sr. No.	Designation	Name	Mobile	Landline No.	Email	
20	Exen,irrigation (State)	Shri R B Mal	9428216924	241812	xenpidgodhra@gmail.com	
21	Exen.irrigation (Panchayat)	Shri A J Vaghasiya	9825983356	253388	exeirri-ddogms@yahoo.com	
22	Exen.GWSSB	Smt.Mitaben Mevada	9978406633	02672-241941	eegodhra@gmail.com	
23	Sup.Engineer MGVCL	Shri N U Nayak	9925208270	262205	godhraom@gebmail.com	
24	Dy.Dir.Animal Husbandry	Shri N A Patel	9426362862	253389	drdvchaubal@yahoo.co.in	
25	Dist.Agriculture Officer	Shri M G Patel	9106101267	253371	dao.panchmahal@gmail.com	
26	PO- ICDS	Smt. R S Chaudhary	9664783882	253372	po.icds.panchmahas@gmail.com	
27	Dir.Indust.Safety and Health	Shri D B Gamit	9915589839	241870	dydish-god@gujarat.gov.in	
28	DC GSRTC	Shri Mahendrabhai Damor	6359919032	260946	dcgodhara@gmail.com	
29	Superintendent of Fisheries	Shri M I Thaletiya	9824346023	265705	sf-godhara@gujarat.gov.in	
30	Regional officer GPCB	Shri. Pradip Dave	9427710988	245869	gbc-b-pan@gujarat.gov.in	
31	DGM BSNL	Shri C F Patil	9427611222	-		
32	Mamlatdar Disaster Management	Halimaben(i/c)	9998187063	242536	dimgmt-pan@gujarat.gov.in	
33	DPO Disaster Management	Viral A Christian	9510843873		viralchris77@gmail.com	
34	Dy. Mamlatdar Disaster Management	Halimaben Patel	9998187063		dimgmt-pan@gujarat.gov.in	

2. District Name :- Narmada						STD :- 02640
Sr. No	Designation	Name	Mobile	Landline No.	Email	
1	Collector	Ms. Shweta Teotia(IAS)	9978406216	222171	collector-nar@gujarat.gov.in	
2	Municipal commissioner	-				
3	DDO	Shri Ankit Pannu(IAS)	9978406241	224820	ddo-nar@gujarat.gov.in	
4	SP	Shri Prashant Sumbe(IPS)	9978405076	222315	sp-nar@gujarat.gov.in	
5	RAC	Shri C K Undhad	9978405188	222326	rdcnar@gujarat.gov.in	
6	Dy.DDO	Shri Pinakini Bhagora	9537786554	222081	dyddomehkamnar@gmail.com	
7	Dy.Conservator of Forest	Dr K Nirajkumar	7574950071	220013	dcf-nar@gujarat.gov.in	
8	Dy.SP(HQ)	Shri P R Patel	9978408094	222218	hq-nar@gujarat.gov.in	
9	CDHO	Dr Janak Madhak	9727723764	221806	cdho.health.narmada@gmail.com	
10	Director DRDA	Shri J K Jadav	9574055192	221849	drda.nar2@gmail.com	
11	DSO	Shri S D Chaudhary	9825642382	224828	dsonarmada@gmail.com	
12	Medical Superintendent	Dr Arti Sharma	9376218444		cdmo.health.rajpipla@gmail.com	
13	CDMO	Dr Arti Sharma I/C	9376218444	220030	cdmo.health.rajpipla@gmail.com	
14	DEO	Dr Kiranben Patel	9909970226	222603	narmdeo@gmail.com	
15	DPEO	Shri Nishant Dave	9909971686	222920	dpcnarmada@gmail.com	
16	General manager DIC	Shri Jigar Dave	6357150191		gm-dic-nar@gujarat.gov.in	
17	Ass.Director Information	Shri Arvind Machchhar	9925255862	224038	ddinarmada@gmail.com	
18	Exen. R&B (State)	Shri Satish Modi	8980419272	223032	rnbnar@gujarat.gov.in	

2. District Name :- Narmada						STD :- 02640
Sr. No	Designation	Name	Mobile	Landline No.	Email	
19	Exen. R&B (Panchayat)	Shri Anil Patel	9099167871	221949	aernbnar@gmail.com	
20	Exen,irrigation (State)	-				
21	Exen.irrigation (Panchayat)	Shri A S Tadvi	9426335217	222484	ee panirmar@gmail.com	
22	Exen.GWSSB	Shri C L Makawana	9978406611	220008	msdnrajpipla@gmail.com	
23	Sup.Engineer DGVCL	Shri Hemant Prajapati	9879200776	222152	eeraj.dgvcl@gebmil.com	
24	Dy.Dir.Animal Husbandry	Dr J R Dave	9725702475	220081	magarwadiya@gmail.com	
25	Dist.Agriculture Officer	Shri Vinod Patel	9428063677	220080	dao.narmada123@gmail.com	
26	PO- ICDS	Ms. Krishna Kumari Patel	9033621689	222019	po-icds-ddo-nar@gujarat.gov.in	
27	Dir.Indust.Safety and Health	Shri D K Vasava	9825801547	240421	dydishbh@gmail.com	
28	DC GSRTC	Shri R P Shrimali	6359919031	228650	bharuchdc@gmail.com	
29	Superintendent of Fisheries	Shri H G Palanpura	9874705581	222431	s.f.rajiplal1997@gmail.com	
30	Regional officer GPCB	-				
31	DGM BSNL	Shri Vivek Kumar Jayant	224000	9426578576	sberaj2013@gmail.com	
32	Mamlatdar Disaster	Shri I M Saiyad	9898167135	224001	dismgmt-nar@gujarat.gov.in	
33	DPO Disaster	Shri Ankit Parmar (I/C)	9712085585	224001	prmrnk3@gmail.com	
34	Disaster Consultant 115	Shri Ankit Parmar	9712085585	224001	prmrnk3@gmail.com	
35	Dy.Mamlatdar Disaster	Shri D M Sankhat	9426083472	224001	dmsankhat@gmail.com	

3. District Name :- Mahisagar					STD :- 02674	
Sr. No	Designation	Name	Mobile	Landline No.	Email	
1	Collector	Ms. Neha Kumari (IAS)	9978405936	02674-250664	collector-mah@gujarat.gov.in	
2	Municipal commissioner	-	-	-	-	
3	DDO	Shri. Yuvraj Seddharth (IAS)	9978406497	02674-250945	ddo-mahi@gujarat.gov.in	
4	SP	Shri. J D Jadeja	9978408065	02674-254004	sp-lunav-mahi@gujarat.gov.in	
5	RAC	Shri. C.V.Lata	9727763950	02674-250165	addl-collector-mah@gujarat.gov.in	
6	Dy.DDO	Shri Kalpesh Suvera	7984686158	02674-250946	dyddo.mahi.mahekam@gmail.com	
7	Dy.Conservator of Forest	Shri.N.V.Chaudhari	7984863895	02674-251154	dcfmahi@gmail.com	
8	Dy.SP(HQ)	Shri J G Chavada	9925052525	02674-254001	sp-lunav-mahi@gujarat.gov.in	
9	CDHO	Dr. C R Patel	7567895502	02674-252702	cdho.health.mahisagar@gmail.com	
10	Director DRDA	Ms. C N Bhabhor	9428446244	02674-251123	drda.mahisagar@gmail.com	
11	DSO	Shri S.B.Desai (i/c)	7574898793	02674-250722	dso-mahi@gujarat.gov.in	
12	Medical Superintendent	Dr. Bhamini Pandit	7984856329	02674-250008	<u>Sdhlunawada.health.panchmahal@gmail.com</u>	
13	CDMO	-	-	-	-	
14	DEO	Shri.N D Muniya	8511118848	02674-250901	deomahisagar@gmail.com	
15	DPEO	Shri S L Dama (i/c)	7567804983	02674-255590	dpeomahisagar@gmail.com	
16	General manager DIC	Shri. S J Thakor (i/c)	7567528160	-	gm-dic-lun@gujarat.gov.in	
17	Ass.Director Information	Shri M M Parmar	9687609143	02674-254051	<u>mahimahiti254051@gmail.com</u>	

3. District Name :- Mahisagar					STD :- 02674	
Sr. No	Designation	Name	Mobile	Landline No.	Email	
18	Exen. R&B (State)	Shri. Vijay Bhabhor	9979893529	02674-250486	rnlunawada@gmail.com	
19	Exen. R&B (Panchayat)	Shri A N Bhadoriya	8489244188	02674-252123	exn-pan-mahi@gujarat.gov.in	
20	Exen.irrigation (State)	Shri R J Baman	9724203386	02675-237627	eekdl1diwada@yahoo.com	
21	Exen.irrigation (Panchayat)	Shri A R Shah (i/c)	989805551	-	xenpidmahisagar@gmail.com	
22	Exen.GWSSB	Shri.P.P.Pithva	9978406620	02674-250308	eemahisagar1@gmail.com	
23	Sup.Engineer MGVCL	Shri.A A Ganchi	9925213275	02674-250553	Segodhara.mgvcl@gmail.com	
24	Dy.Dir.Animal Husbandry	Shri.M G Chavda	9924439069	026474-250144	dahoahmahisagar@gmail.com	
25	Dist.Agriculture Officer	Shri.J.R.Patel	7226952008	02674-250195	dao.mahisagar@gmail.com	
26	PO- ICDS	Smt.Daxaben Tabiyar	6359923732	02674-252995	po.icdsmahisagar@gmail.com	
27	Dir.Indust.Safety and Health	Shri.B.D.Gamit	8849976845	02682-568986	dydish-khe@gujarat.gov.in	
28	DC GSRTC	Shri Mahendrabhai Damor	6359919032	02672-261913	dcgodhara@gmail.com	
29	Superintendent of Fisheries	Shri D I Sutariya	9265346118	02675-237512	sfkadana512@gmail.com	
30	Regional officer GPCB	Shri. Pradip Dave	9427710988	02672-245869	gbc-b-pan@gujarat.gov.in	
31	DGM BSNL	Shri C F Patil	9427611222	02672-250180	gdhsdotlvd@gmail.com	
32	Mamlatdar Disaster	Ku.J V Pandav	9825831195	02674-252301	disaster-mahi@gujarat.gov.in	
33	DPO Disaster	Shri Jigar I Makwana	9898100757	02674-252300	jigarmakwana@live.com	
34	Dy.Mamlatdar Disaster	Shri. K K Makwana	9016734924	02674-252300	disaster.mahisagar@gmail.com	

4. District Name :- Rajkot						STD :- 0281
Sr. No	Designation	Name	Mobile	Landline No.	Email	
1	Collector	Shri Prabhav Joshi, IAS	9978406220	0281-2473900	collector-raj@gujarat.gov.in	
2	Municipal commissioner	Shri Tushar Sumera	9714503701	(O)02812224133	mc_rmc@rmc.gov.in	
3	DDO	Shri Aanadu Suresh Govind	99784 06245	0281-2477008	ddo-raj@gujarat.gov.in	
4	SP	Shri HimkarSinh	9978405080	28124433444	sp-rural-raj@gujarat.gov.in	
5	RAC	Shri A K Gautam	9978405218	0281-2476374	add-collector-raj@gujarat.gov.in	
6	Dy.DDO	Shri Illaben Gohil	7567017773	0281-2476061	dyddo-vikas-raj@gujarat.gov.in	
7	Dy.Conservator of Forest	Tushar Patel	7490027654	0281-2476497	dfrit@gmail.com	
8	Dy.SP(HQ)	Shri S.S.Raghuvansi	6359625702	2812477317	dysp-hq-raj@gujarat.gov.in	
9	CDHO	Shri R R Fulmali	97277 00031	2812443235	cdho.health.rajkot@gmail.com	
10	Director DRDA	Shri.A.K.Vastani	9978447471	0281 2474305	directordrdaraj@gmail.com	
11	DSO	Mrs. R. K. Wangwani	7567021682	0281-2476891	dso-raj@gujarat.gov.in	
12	Medical Superintendent	Dr Monali Makadiya	93277 55668	0281-2543414	ms.health.rajkotpdu@gmail.com	
13	CDMO	Dr Zala	94080 82419	2812227136	cdmo.health.rajkotpkg@gmail.com	
14	DEO	Shri Kiritsinh Parmar(I/c)	99789 88789	0281- 2223453	rajkotdeo@gmail.com	
15	DPEO	Shri Dikshit Patel	9909971694	0281-2444437	dpeorajkot@gmail.com	
16	General manager DIC	Shri Mitesh Ladani	88799 66892	2812476376	gm-dic-raj@gujarat.gov.in	
17	Ass.Director Information	Shri Prashant Trivedi	91065 75915	0281 2228513	dmo-raj@gujarat.gov.in	
18	Exen. R&B (State)	Shri S R Patel	99798 74582	0281 -2465014	exe3-raj-rnb@gujarat.gov.in	

4. District Name :- Rajkot						STD :- 0281
Sr. No	Designation	Name	Mobile	Landline No.	Email	
19	Exen. R&B (Panchayat)	Shri P P Parmar	98980 98298	0281- 2453127	exep-raj-rnb@gujarat.gov.in	
20	Exen.irrigation (State)	Shri Bhavin Bhimajiyani	79849 85663	0281-2453161	eeripd@gmail.com	
21	Exen.irrigation (Panchayat)	Shri D P Gajera	9737 2 28846	-	exeiri-ddo-raj@gujarat.gov.in	
22	Exen.GWSSB	Shri Ankit Gohel	82007 15265	0281-2563745	wdn1rjt@gmail.com	
23	Sup.Engineer MGVCL	Shri Jatin Upadhayay	0281 2370561	9825603160	serjr.pgvc@gmail.com	
24	Dy.Dir.Animal Husbandry	Dr. K R Katara	94298 02807	2812444782	dydir-ah-raj@gujarat.gov.in	
25	Dist.Agriculture Officer	Shri V P Korat	99799 56814	0281 2482044	dda.ext.rjt@gmail.com	
26	PO- ICDS	Shri Janaksinh Gohil (I/c)	99251 52595	0281- 2447775	dpoicds.rajkot@gmail.com	
27	Dir. Indust.Safety and Health	Shri N R Chaudhari	98259 73316	0281-2443280	jt-dish-raj@gujarat.gov.in	
28	DC GSRTC	J.B.Kalotara	6359919039	0281-2386340	dc_rajkot@yahoo.in	
29	Superintendent of Fisheries	Shri Bharatiben Tank	63525 90464	0281 - 2447864	ad-fisheries-raj@gujarat.gov.in	
30	Regional officer GPCB	Shri B M Makwana	9825622089	0281 - 2474524	ro-gpcb-jetp@gujarat.gov.in	
31	DGM BSNL	Shri Yogesh Kumar Bhashker	9426783783	2378801	yogeshits99@gmail.com	
32	Mamlatdar Disaster	Shri A S Doshi (I/c)	98248 73930	2812471573	disastercellrajkot@gmail.com	
33	DPO Disaster	Pooja J Vaghmore	9558710558	2812471573	disastercellrajkot@gmail.com	
34	Dy.Mamlatdar Disaster	Shri Ajaykumar Mori	97256 20462	2812471573	disastercellrajkot@gmail.com	

5. District Name :- VADODARA					STD :- 0265
Sr. No	Designation	Name	Mobile	Landline No.	Email
1	Collector			Shri Anil Dhameliya (IAS)	9978406224
2	Municipal commissioner	Shri Dilip Kumar Rana (IAS)	6351211111	2433344	commissioner@vmc.gov.in
3	DDO	Mrs. Mamta Hardik Hirpara (IAS)	9978406249	2432027	ddo-vad@gujarat.gov.in
4	SP	Shri Rohan Anand (IPS)	9978406094	2412255	sp-vad@gujarat.gov.in
5	RAC	Shri. B.S. Patel	9978405196	2419700	rdc-vad@gujarat.gov.in
6	Dy. DDO	Shri Bhargavkumar L. Mahala	7567017977	2431770	dyddorevvado@gmail.com
7	Dy. Conservator of Forest	Shri Agneeshwar Ramdass Vyas	9409591779	2431128	dcfsfvadodara@gmail.com / fo-sf-vad@gujarat.gov.in
8	Dy. SP (HQ)	Smt. Chetna Chaudhary	9978407981	2435400	dysp-admin-vad@gujarat.gov.in
9	CDHO	Smt. Minakshiben chauhan	8980039101	2432383	cdho.health.vadodara@gmail.com
10	Director DRDA	Shri Himanshu Parikh		2487432	drdavad@yahoo.com
11	DSO	Mrs. Geetaben N Desai	7567022247	2416190	dso-vad@gujarat.gov.in
12	Medical Superintendent	Dr. Rajiv Daveswar	9825184648	2424848	medsup.ssg@gmail.com
13	CDMO	I/c. Smt. Minakshiben chauhan	8980039118	2416036	cdmo.health.jamnabai@gmail.com
14	DEO	I/c. Shri Mahesh Pandey	6351800762	2461703	vadodeo@gmail.com
15	DPEO	Shri Mahesh Pandey	6351800762	2436411	dpeovadodara@gmail.com
16	General manager DIC	Shri Kevil Mori	9978953656	2423246	gm-dic-vad@gujarat.gov.in

5. District Name :- VADODARA					STD :- 0265
Sr. No	Designation	Name	Mobile	Landline No.	Email
17	Ass. Director Information	Shri Darshan Trivedi	9925493894	2458761	mahitivadodara@gmail.com
18	Exen. R&B (State)	Shri Sahas Patel	9662493656	-	-
19	Exen. R&B (Panchayat)	Shri Vivek Dubey	9510242041	2432643	exnvadodara@yahoo.co.in
20	Exen,irrigation (State)	I/C. A H Liliya	8238807856	-	-
21	Exen.irrigation (Panchayat)	Shri D P Waghela	6351190845	2431075	-
22	Exen.GWSSB	Shri C L Makwana	9978406611	-	-
23	Sup.Engineer MGVCL(Rural)	Shri B A Gohil	9925208258	-	-
24	Dy. Dir. Animal Husbandry	Dr. K. R Dave	9725702475	2426949	
25	Dist.Agriculture Officer	Shri Nitin bhai M Vasava	9586310461	2433641	daovadodara@gmail.com
26	PO- ICDS	Smt. Naynaben Pargi	9227859009	2429333	po.icds.baroda@gmail.com
27	Dir.Indust.Safety and Health	Shri S C Bamaniya	8200283699	2432543	jtdish-vad@gujarat.gov.in
28	DC GSRTC	Shri Vikalp Sharma	6359919030	-	-
29	Superintendent of Fisheries	-	-	-	-
30	Regional officer GPCB	Shri Jitendrasinh Mahida	9825395711	2354850	ro-gpcb-vado@gujarat.gov.in
31	DE BSNL	Shri R.R.Yadav	-	2421800	yadavrrkmar@gmail.com
32	Mamlatdar Disaster	Shri Dushyant Mehta	9712730303	2436662	disast-vad@gujarat.gov.in
33	DPO Disaster	Mrs. B. Chirasmitta	9737478088	2436662	vad.deoc@gmail.com
34	Dy. Mamlatdar Disaster	Shri Vishal B. Parmar	7878530358	2436662	disast-vad@gujarat.gov.in

6. District Name :-Dahod						STD :-02673	
Sr. No	Designation	Name	Mobile	Landline No.	Email		
1	Collector	Shri Yogesh B. Nirgude(IAS)	9978406207	239001	collector-dah@gujarat.gov.in		
2	DDO	Shri Smeet Lodha(IAS)	9978406232	293066	ddo-dah@gujarat.gov.in		
3	SP	Shri R. N Zhala(IPS)	9978405068	222300	sp-dah@gujarat.gov.in		
4	RAC	Shri J.M. Raval (GAS)	9978405179	239111	racdahod@gmail.com		
5	Dy.DDO	Shri R.K.Rathva	9638788278	239150	dyddopandahod@gmail.com		
6	Dy.Conservator of Forest	Shri AmitKumar Nayak	9081040287	266137	dcf.dahod.forest@gmail.com		
7	Dy.SP(HQ)	Shri S D rathod	9978408200	220300	sp-dah-legal@gujarat.gov.in		
8	CDHO	Shri Udaykumar Tilavat	7567895504	239130	cdho.health.dahod@gmail.com		
9	Director DRDA	Shri B M Patel	7567033431	239055	drdadahod1@gmail.com		
10	DSO	Shri G.R.Hardasani i/c	7567022187	239250	dsodahod@gmail.com		
11	Medical Superintebdent	Dr. G G Ramchandani	7567867489		cdmo.health.dahod@gmail.com		
12	CDMO	Dr. G G Ramchandani	7567867489	246548	cdmo.health.dahod@gmail.com		
13	DEO	Shri Surendrasinh Dama	9909970224	239100	deodahod1@gmail.com		
14	DPEO	Shri Aaratsinh Bariya	9909971662	239113	dpeodahod1@gmail.com		
15	General manager DIC	Shri S J Thakaor	7567020896	266086	gm-dic-dah@gujarat.gov.in		
16	Ass.Director Information	Shri Kakulben Dhakiya	9023939974		infordahod@gmail.com		
17	Chirf Fire Officer						

6. District Name :-Dahod						STD :-02673	
Sr. No	Designation	Name	Mobile	Landline No.	Email		
18	Exen. R&B (State)	Sakhinaben Vora	8469834442	266994	rmbdahod@yahoo.com		
19	Exen. R&B (Panchayat)	Shri N.P. Sangada	9909583058	239237			
20	Exen,irrigation (State)	Shri Diptiya Pande	9408874781	224525	exendid@gmail.com		
21	Exen.irrigation (Panchayat)	Shri S M Nayak	9427492003	239240	exeiridhd@gmail.com		
22	Exen.GWSSB	Smt. Kalpnaben Rana	9909974525		eedahodcivil13@gmail.com		
23	Sup.Engineer MGVCCL	Shri C P Baria	9925208142	240918	dahoddmdn.ee@gmail.com		
24	Dy.Dir.Animal Husbandry	Dr. K L Gosai	8141452676	239118	dahoddaho@gmail.com		
25	Dist.Agriculture Officer	Shri P.R Dave	8780754577	239107	daodahod@gmail.com		
26	PO- ICDS	Smt. Iraben Chauhan	9428506120	239221	po.icdsdahod@gmail.com		
27	Dir.Indust.Safety and Health	Shri D B Gamit	9915589839				
28	DC GSRTC	Shri B.R Dindod	6359919032	2672261913			
29	Superintendent of Fisheries	Shri M J Sanghani	9033933207	239037			
30	Regional officer GPCB	Smt. Niharika	9979898407		ro-gpcb-godh@gujarat.gov.in		
31	DGM BSNL	Shri Minesh Talera	9425166789	240350			
32	Mamlatdar Disaster	Shri Bhagirathsinh Vala	9427267320	239277	dismgmt-dah@gujarat.gov.in		
33	DPO Disaster	Shri Atul Parmar	9638287881	239277	dismgmt-dah@gujarat.gov.in		
34	Dy.Mamlatdar Disaster	Shri Mandeepbhai Luhar	9913866788	239277	dismgmt-dah@gujarat.gov.in		

7. District Name :- Surendranagar					STD :- 02752
Sr. No.	Designation	Name	Mobile	Landline No.	Email
1	Collector	Rajendrakumar Patel	9978406223	02752 285200	collector-snr@gujarat.gov.in,
2	D.D.O.	K.S.Yagnik	9978406248	02752 283752	ddo-snr@gujarat.gov.in,
3	D.S.P.	Dr. G. A Pandya	99784 05083	02752 282100	sp-control-sm@gujarat.gov.in
4	Resi. Addl. Collector	R K Oza	99784 05224	02752 285200	rdc-sm@gujarat.gov.in
5	Dy. District Development Officer (Revenue)	Mehulbhai Bharvad	9687638182	02752 285602	dy.ddo-snr@gujarat.gov.in,
6	Deputy Conservator of Forest (Social)	R B Parsana	9173317999	02752 283401	dcfsfsnr@gmail.com
7	Deputy Conservator of Forest	N J Parmar	9924858300	02752 283401	dcfsfsnr@gmail.com
8	Dy. S.P.	H P Doshi	9978407894	02752 282100	dy.sp-control-sm@gujarat.gov.in
9	dy S.P Dhragadhra	J D Purohit	9429665559	02754-282652	
10	Chief District Health Officer	Dr. B.G Gohil (i/c)	9727721376	02752 285383	cdho-srn@gujarat.gov.in
11	Director, DRDA	R.M.Jalandhra	9737587600	02752 284808/284809	drda-snr@gujarat.gov.in,
12	D.S.O.	A.G.Gajjar	6351346404	02752 284351	dso-sm@gujarat.gov.in
13	C.D.M.O.	Dr.Chaitanya Parmar	9879409818	02752 223052 /222553	cdmo-srn@gujarat.gov.in
14	D.E.O.	A M Oza	9909970219	02752 284710	dposnr@gmail.com
15	D.P.E.O.	Dr.Bhadrasinh Vaghela	9909971695	02752 283099	dpeosnr@gmail.com
16	General Manager, DIC	S.B. Parejiya	9924025050	02752 283465	dic-snr@gujarat.gov.in
17	Ass. Director of Information	Subham Malik	8222888127	02752 285650	information-snr@gujarat.gov.in

7. District Name :- Surendranagar						STD :- 02752
Sr. No.	Designation	Name	Mobile	Landline No.	Email	
18	Nagar Palika Fire officer	Devangbhai	90339 59555	02752 282250	surenranagar.nagarpalika@gmail.com	
19	Executive Engineer, R & B (State)	D.R. Patel	9925806429	02752 282252	srmnb@gujarat.gov.in	
20	Executive Engineer, R & B (Panchayat)	B.A.Barot	8866555305	02752 285812		
21	Executive Engineer, irrigation (State)	D.P.Kansagara	9985741142	02752 282920	ghgwd2@gmail.com	
22	Executive Engineer, irrigation Panchayat (DDO Office)	D.R. Patel	9925806429	02752 284902		
23	Executive Engineer GWSSB	M.G. Thakur	9978440394	02752 284598	gwseecsnr0@gmail.com	
24	Superintendent Engineer, PGVCL,	N.N. Amin	9825603180	02752 223450	sesnr.pgvcl@gebmil.com	
25	Dy Director of Animal husbandry (DDO Office)	Dr. B.D.Patel	9638328884	02752 283785		
26	District Agriculture officer (DDO Office)	M.R.Parmar	9898260931	02752 285902		
27	Program Officer ICDS (DDO Office)	Bhavnaben Jidiya	9913319197	02752 283717		
28	Director Industrial Safety and Health	Jatin Adeshara	9825714748	02752 282351	astdish-srn@gujarat.gov.in	
29	DC/ST Manager depot.	Chaudhari	6359918739	02752 221152		
30	Superintendent of Fisher	Ramani	8141789262	02752 283436	asstdir-fish-srn@gujarat.gov.in	
31	Regional officer, GPCB	Falgun Modi	6359961891		ro-gpcb-sure@gujarat.gov.in	
32	Dy. Manager BSNL	R K yadav	9413395588	02752 232000		
33	Mamlatdar Disaster	Mayurbhai Dave (I/C)	9227720740	02752 283400	dismgmt-snr@gujarat.gov.in,	
34	D.P.O. Disaster Managment	Mehul Botadara (I/C)	9624731931	02752 283400	dismgmt-snr@gujarat.gov.in,	
35	Dy. Mamlatdar Disaster	V M Shindhav	9998526096	02752 283400	dismgmt-snr@gujarat.gov.in,	

8. District Name: - Junagadh						STD Code-0285	
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id		
1	Collector	Shri.Anilkumar Ranavasiya (IAS)	9978406211	2630100	collector-jun@gujarat.gov.in		
2	DDO	Shri.Nitin Sangwan (IAS)	9978406236	2635315	ddo-jun@gujarat.gov.in		
3	S P	Shri B.U.Jadeja (IPS)	9978405250	2635633	sp-jun@gujarat.gov.in		
4	Resi. Addl. Collector	Shri.N.F.Chudhari(IAS)	9978405211	2636666	add-collector-jun@gujarat.gov.in		
5	Dy. District Development Officer (Mahesul)	Shri. Meeraben Sompura	70166 25440	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. Alpesh Salvi	99099 81895	2633074	cdho.health.junagadh@gmail.com		
9	Director, DRDA	Shri P.A. Jadeja(GAS)	94081 46800	2633179	drda-jun1@gmail.com		
10	DSO	Shri.K.B.Garsar (IC)	75670 09710	2631480	dso-jun@gujarat.gov.in ,		
11	Medical Superintendent(Civil Hospital)	Shri Pala Lakhnotra	9825237200	2651436			
12	CDMO	Shri Pala Lakhnotra	9825237200	2651436			
13	DEO	Shri.J.Z.Kyada	9909970207	2630151	deo-jun@gujarat.gov.in		
14	DPEO	Shri.Lataben Upadhyay	9909971679	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	Shri.Kuldipsing	9687089687	02878-222001	poveraval@gmail.com		
18	Chief Fire officer	Shri Dipak Jani	96247 53333	2654101	firedepartmentjmc@gmail.com		

8. District Name: - Junagadh					STD Code-0285	
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id	
19	Executive Engineer, R & B (State)	Shri.D.K.Naghera	8320489888	2631628	exe_jun_rnb@yahoo.in	
20	Executive Engineer, R & B (Panchayat)	Shri A.U.Gohil	6355818011	2631628	exernb-ddo-jun@gujarat.gov.in	
21	Executive Engineer, irrigation (State)	Shri.J.N.Bhatu	7874092928	2673252	eejidjnd@gmail.com	
22	Executive Engineer, irrigation (Panchayat)	Shri.M.V.Parmar	9428373881	2622143	pidjnd.ee50@yahoo.in	
23	Executive Engineer GWSSB	Shri.B.C.Nai	9978406626	2629400	ee1jnd@gmail.com	
24	Superintendent Engineer, PGVCL,	Shri.B.D.Parmar	6359976296	2654765	eejcd.pgvcl@gebmil.com	
25	Dy Director of Animal husbandry	Shri.V.B. Ahir	9427955952	2634096	dydir-ah-jun@gujarat.gov.in	
26	District Agriculture officer	Shri.J.J.Bhatt	9426362661	2633046	dao-ddo-jun@gujarat.gov.in/junagaddao@gmail.com	
27	Program Officer ICDS	Shri.Gunvantiben Parmar (IC)	9662448449 9773286775	2631434	icdsjnd@gmail.com	
28	Director Industrial Safety and Health	Shri.J.M. Trivedi	9824190891	2636946	dydish-jun@gujarat.gov.in	
29	DC/ST Manager depot.	Shri M.B.Raval	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	Shri S.V.Parmar	9427312901	2651506	ro-gpcb-juna@gujarat.gov.in	
32	Manager BSNL	Shri.P.K.Joshi	9427218095		Pkjoshi@bsnl.co.in	
33	Mamlatdar Disaster	Shri.P.M.Khristi	95867 77585	2633446	dismgmt-jun@gujarat.gov.in	
34	DPO Disaster	Shri K. S. Trivedi	9426969236	2633447	kratustrivedi@gmail.com	
35	Dy. Mamlatdar Disaster	Shri Parth Chovatiya	9727210856	2633448	dismgmt-jun@gujarat.gov.in	

9. District Name: Morbi						STD Code - 02822	
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id		
1	Collector	Shri K. B. Jhaveri (IAS)	9978405932	240701	collector-mor@gujarat.gov.in		
2	DDO	Shri J. S. Prajapati (IAS)	9978406470	222580	ddo-morbi@gujarat.gov.in		
3	S P	Shri Rahul Tripathi (IPS)	9978405975	243478	sp-morbi@gujarat.gov.in		
4	Resi.Addl. Collector	Shri S.J.Khachar (GAS)	9727759674	241601	addl-collector-mor@gujarat.gov.in		
5	Dy. District Development Officer	Shri S.P.Dudhakiya	9978412752	299100	dyddo.morvi@gmail.com		
6	Deputy Conservator Of Forest	Dr. Chirag Amin	8780817019	241611	forest.dcfshraj@gmail.com		
7	Dy.SP	Shri P.A.Zala	9909462667	-	dysp-hq-morbi@gujarat.gov.in		
8	Chief District Health Officer	Dr.K.J.Dave	9909981695	222707	cdho.health.morbi9@gmail.com		
9	Director, DRDA	Shri N.S.Gadhavi	9978405234	220780	morbidrda@gmail.com		
10	DSO	Shri Sandip Verma	9909910703	242008	dsomorbi@gmail.cmo		
11	Medical Suprintendent(Civil Hospital)	Dr.Dudharejiya	7567876154	230538	cdmo.health.morbi@gmail.com		
12	CDMO	Dr.Dudharejiya	7567876154	230538	cdmo.health.morbi@gmail.com		
13	DEO	Shri Kamlesh Mota	7574812279	222875	morbideonew@gmail.com		
14	DPEO	Shri Namrata Mehta	9723466735	222710	dpeomorbi@hmail.com		
15	General Manager, DIC	Shri K. V. Mori	9227753656	242715	gm-dic-mor@gujarat.gov.in		
16	Ass. Director Of Information	Shri G.R.Pedva	9429199886	241012	informationmorbi@gmail.com		
17	Port Officer, GMB	IC/ Shri B.N.Ladva	9638112186	229101	pilotofficergmb@gmail.com		
18	Chief Fire Officer	Shri Devendrasinh jadeja (Station Fire Officer Morbi)	9979027520	230050	dfs.morbi@gmail.com		
19	Executive Engineer, R&B(State)	Shri D. K. Solanki	8264029757	240524	exe.mor.mrb@gmail.com		

9. District Name: Morbi						STD Code - 02822	
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id		
20	Executive Engineer, R&B (Panchayat)	Shri D. R. Bavarava	9925247333	222840	expmorbmb@gmail.com		
21	Executive Engineer, irrigation (State)	Shri A. J. Rachch	9428466777	240139	eeidnmorbi@gmail.com		
22	Executive Engineer, irrigation (Panchayat)	Shri Jatin Serasiya	9726205595	222848	morbipanchayatirrigation@gmail.com		
23	Executive Engineer, GW/SSB	Shri Y.M. Vankani	9978440633	223839	eephwdmrb@gmail.com		
24	Suprintendent Engineer, PGVCL	Shri S.H.Rathod	9925209959	242291	asmrb.pgvc@gmail.com		
25	Dy Director Of Animal Husbandry	I/C Dr.N.J.Faladu	9825142180	222712	dahomorbi@gmail.com		
26	District Agriculture Officer	Shri H.C. Yusderiya	9712712069	222709	daomorbi@gmail.co		
27	Program Officer ICDS	Shri Mayuriben Upadhyay	9638114124	299120	icds.morbi@gmail.com		
28	Director Industrial Safety and Health	Shri U.J.Raval (Dy Director)	9426217267	242350	dydlabmorbi@gmail.com		
29	DC/ST Manager Depot.	Shri A.N.Padhariya	6359918733	230701/9	dmmrvdepor@gmail.com		
30	Suprintendent Of Fisher	Shri K.V.Ramani	8141789262	243577	fisheries-morbi@gujarat.gov.in		
31	Regional Officer, GPCB	I/C Shri Mahendra Soni	9925309329	228001	ro-gpcb-morb@gujarat.gov.in		
32	DGM/AGM BSNL	I/C Shri Urvik Mehta	9427452333	-	agmmorbi@gmail.com		
33	Mamlatdar Disaster	Shri P. M. Shah	9427652200	243300	dmcmorbi@gmail.com		
34	DPO Disaster	Dr. Dharmik Purohit (I/C)	9033092791	243300	drdharmikpurohit@gmail.com		
35	Disaster Consultant 115	Dr. Dharmik Purohit	9033092791	243300	drdharmikpurohit@gmail.com		
36	Dy. Mamlatdar Disaster	Shri B. S. Patel	9825644952	243300	dmcmorbi@gmail.com		

10 District Name: - Valsad						Std-02632	
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id		
1	Collector	Shri Atirag Chaplot (I/C) (IAS)	9978406225	02632-253613	collector-val@gujarat.gov.in		
2	DDO	Shri Atirag Chaplot (IAS)	9978406250 9878405650	02632-253829	<u>ddo-val@gujarat.gov.in</u>		
3	S P	Shri Karanraj Waghela (IPS)	9978405085 8128997922	02632-254222	<u>sp-val@gujarat.gov.in</u>		
4	Resi. Addl. Collector	Shri A.R.Jha (GAS)	9978405253	02632-244476	<u>add-collector-val@gujarat.gov.in</u>		
5	Dy. District Development Officer (Mehsul)	Shri Ashok Dangi	9727240483	02632-253027	<u>ddo-val@gujarat.gov.in</u>		
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 A.K.Varma	9978499000	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 A.K.Kalsariya	7567043830	02632-254093	<u>drda.val@gmail.com</u>		
10	DSO	Shri D.S.Baria	9909951149	02632-244192	<u>dso-val@gujarat.gov.in</u>		
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 M Bhusara	9909970216	02632-254228	<u>vlsddeo@gmail.com</u>		
14	DPEO	Shri. B.D.Bariya	9909987577	02632-254228	<u>dpeovalsad@gmail.com</u>		
15	General Manager, DIC	Shri M.K. Ladani (I/C)	75670 21207	02632-254283	<u>gm-dic-val@gujarat.gov.in</u>		
16	Ass. Director of Information	Shri Arvind Machhar	9925255862	02632-253817	<u>ddivalsad@gmail.com</u>		

10 District Name: - Valsad						Std-02632	
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id		
17	Port Officer, GMB	Shri Amitkumar	8377058070				
18	Chief Fire officer	Shri Fredi Ichaporiya	9825349977	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 Amish A. Patel	9712618312	02632-242893	exnmbval@gmail.com		
21	Executive Engineer, irrigation (State)	Shri Jatin Patel	9825531789	242897	-		
22	Executive Engineer, irrigation (Panchayat)	Shri A.D.Patel	9913459303	02632-244314			
23	Executive Engineer GWSSB	Shri S.N. Waghela	9978223084	02632-242595	valsad.dwsc2@gmail.com		
24	Superintendent Engineer, DGVCL,	Shri A.K.Patel	9879200798	02632-25396	gebvalsad@gmail.com		
25	Dy Director of Animal husbandry	Shri Dr J.V.Vasava	9429284168	02632-241229	dycdirahdpvalsad@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 M.C.Gohil	8160609491	02632-253612	dydish-val@gujarat.gov.in		
29	DC/ST Manager depot.	Shri A.A.Atara	6359918797	02632-227934			
30	Superintendent of Fisher	Smt Binduben	8320095167	02632-254204	adir-fish-valsad@gujarat.gov.in		
31	Regional officer, GPCB	Shri A.J.Patel	9824110053	02632-2432089	gpcbvapi@gmail.com		
32	Manager BSNL	Shri H.R.Patel	9426000707	02632-244000			
35	Mamlatdar Disaster	Shri H.H.Kakloter	953725978	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	Shri Hardik Togadiya	98988386696	02632-243238	dismgmt-val@gujarat.ov.in		

11 District Name : Arvalli						STD Code :-02774	
Sr. No.	Designation	Name	Mobile No	Landline No	Email ID		
1	Collector	Shri Prashishit Parik (IAS)	9978405935	02774-250200	collectoraravalli@gmail.com		
2	DDO	Shri Dipesh Kediya (IAS)	9978406496	02774-241488	ddo.arvalli@gmail.com		
3	S P	Shri Saifali Barval(IPS)	9978405978	02774-248666	sp-arv@gujarat.gov.in		
4	Resi.Addi.Collector	Shree D. V. Makwana	9727756393	02774-245800	collectoraravalli@gmail.com		
5	Dy.District Development Officer	Shree Krupali G Mistri	9426247583	02774-240744	dyddomhl@gmail.com		
6	Deputy Conservator of Officer (Forest)	Shri S M Damor	9909238205	02774-240271	dfoaravalli@gmail.com		
7	Dy.Sp	shree R.D.Dabhi	8200704867	02774-248666	dysp-hq-arv@gujarat.gov.in		
8	Chief District Health officer	Dr. Jayesh Parmar(I/C)	7575800951	02774-248911	cdho.health.arvalli@gmail.com		
9	Director, DRDA	Shri R. N Kuchara	9925025476	02774-247164	apoarv033@gmail.com		
10	DSO	M.V. Rathod	9725211101	02774-250214	dsoarvmodasa@gmail.com		
11	Medical Superintendent(Civil Hospital)	-	-	-	-		
12	CDMO	Dr. Jayesh Parmar(I/C)	7575800951	02774-248911	cdho.health.arvalli@gmail.com		
13	DEO	Smt.Usha Gamit	7574812280	02774-250190	aravallideo@gmail.com		
14	DPEO	shree Nainesh Dave	9925955271	02774-250190	dpeoarvalli@gmail.com		
15	General Manager DIC	Nidhi Jasval	7878550956	02774-250182	information.arvalli@gmail.com		
16	Ass.Director of Information	Shri Niranj Balat	9724686753	02774-240948	aravallimedia.dmooffice@gmail.com		
17	Port Officer, GMB	-	-	-	-		
18	Chief Fire Officer	Shri Hemrajsinh Vaghela	6354920138	02774-246209	np_modasa@yahoo.co.in		
19	Executive Engineer, R & B (State)	Shree N.V.chaudhari	9925218052	02774-246359	eerbmodasa@gmail.com		

11 District Name : Arvalli			STD Code :-02774		
Sr. No.	Designation	Name	Mobile No	Landline No	Email ID
20	Executive Engineer,R&B (Panchayat)	Shri Manishbhai Solanki	9638386131	02774-246496	arvalli123@gmail.com
21	Executive Engineer,R&B irrigation(State)	Shri Sanskar Bharmbhatt(I/C)	9925637063	02774-246392	ipdn.irr@gmail.com
22	Executive Engineer, irrigation(Panchayat)	Shri N L Parmar	9426536078	-	arvallipanchayat.irri@gmail.com
23	ExecutiveEngineer,GWSSB	Shri Sonalben Vasava	9978406616	02774-247305	gwseecmds1@gmail.com
24	Superintendent Engineer, PGVCL	Shri G.J, Dhannula	8980031181	02774-240262	eerbmodasa@gmail.com
25	Dy. Director of Animal husbandry	Shre V R Parmar (I/C)	9974453754	02774-240760	daoarvalli@gmail.com
26	District Agriculture Officer	Shri P.B. Parmar	7567106205	02774-240760	daoarvalli@gmail.com
27	Programm officer ICDS	Shri Shilpaben Damor	9925443497	-	icds-wcd@gujarat.gov.in
28	Director Industrial Safety and Health	Shri Niranj patel (safety Officer)	9510805773	-	-
29	DC/ST Manager depot.	Shree H R Patel	6359918520	02774-246239	-
30	Superintendent of Fisher	Shri M I Thalotiya	9824346023	02774-250172	-
31	Reginol officer,GPCB	Shri Nehal Ajmera	9898003096	-	-
32	DGM/AGM BSNL	Shri D S Kampavat	9427304600	-	-
33	Malatdar Disaster	Shree Y.P.Gadhavi	8401011211	-	-
34	DPO Disaster	Shri. Brijesh Mahida	8320363808	02774-250221	disaster.arvalli@gmail.com
35	Dy. Mamlatdar Disaster	Harshaben Desai	9327113678	02774-250221	disaster.arvalli@gmail.com

12 District Name : BANASKANTHA						STD CODE :- 02742	
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id		
1	Collector	Shree Mihir Patel	9978406204	02742-257171	collector-ban@gujarat.gov.in		
2	D.D.O	Shree M.J.Dave	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 C.P.Patel	9978405176	02742-254004	rdc-ban@gujarat.gov.in		
5	Dy. District Development Officer (Mehsul) Panchayat Palanpur	Shree B. R. Suryawansh	8866224659	02742-257087	dyddo-vikas-ban@gujarat.gov.in		
6	Deputy Conservator of Forest	Shree P.G.Gardi	9574950068	02742-257065	forestsfbk@gmail.com		
7	Dy. S.P Palanpur	Shree B.M. Parmar	9978408265	02742-252600	--		
8	Chief District Health officer	Shree Dr. Sanjaybhai Solanki	9727630228	02742-250004	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 K. K. Chaudhary	7567021929	02742-254309	dso-ban@gujarat.gov.in		
11	Medical Superintendent(Civil Hospital)	Shree Dr. Sunil Joshi	9824079894	02742-253083	--		
12	C.D.M.O	Shree Dr. Dipal Pranami	94295 28950 8160521610	02742-257339	--		
13	D.E.O	Shree Dr.Hitesh R.Patel	9909970210	02742-257055	bns-deo@gmail.com		
14	D.P.E.O	Shree V.M.Patel	9909971654	02742-257063	dpeobanaskantha@gmail.com		
15	General Manager, D.I.C	Shree S.S. bhardwaj	8460827591	02742-254307	gm-dic-ban@gujarat.gov.in		
16	Dy. Director of Information	Shree Kuladipbhai Parmar	9898463636	02742-252664	cdmo.ban@gmail.com		
17	Port Officer, GMB	--	--	--	--		
18	Chief Fire officer	--	--	--	--		

12 District Name : BANASKANTHA			STD CODE :- 02742		
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
19	Executive Engineer, R & B (State)	Shree Laljibhai Chaudhary	9909826179	02742-262335 252430	exen.rmbpln@gmail.com
20	Executive Engineer, R & B (Panchayat)	Shree M. J. Thakor	8401282708	02742-253195	eeprnbpalanpur@gmail.com
21	Executive Engineer, irrigation (State)	Shree C.S.Gadhavi I/C	9724579837	02742-253503	deesairrigationdivision@gmail.com
22	Executive Engineer, irrigation (Panchayat)	Shree C.S.Gadhavi	9904215810	02742-257279	--
23	Executive Engineer GWSSB	Shree R D Mamtora	9978406679	02742-254255	--
24	Superintendent Engineer, U.G.V.C.L	Shree V.B.Bodat	8980031182	02742-256535	sepln@ugvcl.com
25	Dy Director of Animal husbandry	Shree Dr. M.A.Gami	9998114199	02742-252305	--
26	District Agriculture officer	Shree M.S. Patel I/C	9601632275	02742-252634	--
27	Program Officer ICDS	Shree Ushaben Gajjar	9408020364	02742-253549	--
28	Dy.Director Industrial Safety and Health	Shree J.B.Bodat I/C	9601298852	--	--
29	D.C/S.T depot.	Shree K.S.Chaudhary	6359919038	02742-257285	--
30	Superintendent of Fisher	Shree D N Patel	9904844142	02742-253529	--
31	Regional officer, G.P.C.B	Shree J M Chaudhary	8200026160	02742-251301	--
32	Manager B.S.N.L	Shree K.P.Parnar	9427309870	02742-250500	--
33	Mamlatdar (Disaster)	Shree K.R.Chaudhary I/C	9924332537	02742-250627	dismgmt-ban@gujarat.gov.in
34	D.P.O (Disaster Management)	Shree S.N.Chauhan	9537511458	02742-250627	dpodisasterbk@gmail.com
35	Dy. Mamlatdar (Disaster)	Shree M.K.Babi	9898415055	02742-250627	dismgmt-ban@gujarat.gov.in

13 District -Chhota udepur						STD-	
Sr. No.	Designation	Name	Mobile	Land Line	Email Id		
1	Collector	Ms. Gargi Jain (IAS)	9978405937	02669-233003	collector-cho@gujrat.gov.in		
2	DDO	Mr Sachin Kumar (IAS)	9978406468	02669-296211	ddochhotaudepur@gmail.co		
3	SP	Mr Imtiaz Shaikh (IPS)	9978405977	02669-233077	contril-sp-cpr@gujrat.gov.in		
4	Resi Addl. Collector	Mr S.D Gokalani (GAS)	7574953262	02669-233004	collector-cho@gujrat.gov.in		
5	Dy. District Development Officer	Sejal.G.Sangda	6354807131	233023	daochhotaudepur@gmail.com		
6	Deputy Conservator of Forest	V.M.Desai	7861801824	02669-233032	dcfchhotaudepur@gmail.com		
7	Dy.SP	K.S.Suryavanshi	9099979801	02669-233126			
8	Chief District Health officer	Dr.Bharat Chauhan	8980039127	-	cdho.health.chhotaudepur@gmail.com		
9	Director, DRDA	K.D.Bhagat	9825668196	232655	drdachhotaudepur@gmail.com		
10	DSO	Mr.Anil Halpati	9924998569	233626	dsochhota@gmail.com		
11	Medical Superintendent (Civil Hospital)	Dr. Samir Parikh	9898450765	232066	cdmo.health.chhotaudepur@gmail.com		
12	CDMO	Dr. Samir Parikh	9898450765	232066	cdmo.health.chhotaudepur@gmail.com		
13	DEO	Anand Parmar	9909970387	-	deochhotaudepur@gmail.com		
14	DPEO	J. K. Parmar	9428363584	232137	dpochhotaudepur@gmail.com		
15	General Manager, DIC	S. J. Thakor	9978676598	233640	gm-dic-chh@gujrat.gov.in		
16	Ass. Director of Information	Ms. Margi Rajput	8905886267	-	infochhota@gmail.com		
17	Port Officer, GMB	-	-	-	-		
18	Chief Fire officer	Yuvarajsinh Gohil	7016082728	232059	np.cudepur@yahoo.com		

13 District -Chhota udepur						STD-	
Sr. No.	Designation	Name	Mobile	Land Line	Email Id		
19	Executive Engineer, R & B (State)	Shri.S.R.Rathva	9726580922	-	nssubdivchhotaudepur@gmail.com		
20	Executive Engineer, R & B (Panchayat)	H.V.Vasava	9428694599	-	exnchhotaudepur@gmail.com		
21	Executive Engineer, irrigation (State)	A.R.Patel	9687067441	-			
22	Executive Engineer, irrigation (Panchayat)	A.K.Mishra	7240860701	-			
23	Executive Engineer GWSSB	C.L.Makwana	9978406611	-	deechhotaudepur@gmail.com		
24	Superintendent of Engineer.PGVCL			-			
25	Dy Director of Animal husbandry	Snehal Patel	9825754256	-			
26	District Agriculture officer	Jignesh Panchal	9998573632	-	daoehhotaudepur@gmail.com		
27	Program Officer ICDS	Parul Vasava	9904982232	-	po.icds.chhotaudepur@gmail.com		
28	Director Industrial Safety and Health	Shaktisinh J Thakor	7567528160	-	itdish-vad@gujrat.gov.in		
29	DC/ST Manager depot.	Shri.A.H.Chauhan	9908953086	-			
30	Superintendent of Fisher	Shri A.P.Patel	9978723989	-			
31	Regional officer, GPCB	Shri.R.B.Trivedi	7574827582	0265-2354850	ro-gpcb-vado@gujrat.gov.in		
32	IDGMIAGM BSNL	Dinesh Taral	9427949408	-			
33	Mamlatdar Disaster	R.R.Bhabhor	9426362433	233021-233022	disasterchhotaudepur@gmail.com		
34	DPO Disaster	Dhrupen.H.Patel	9727117711	233021-233022	disastermgmtvad@gmail.com		
35	Dy. Mamlatdar Disaster	S.S.Nadia	9737772083	233021-233012	disasterchhotaudepur@gmail.com		

14 District Name :- Botad						STD :- 364710
Sr. No.	Designation	Name	Mobile	Landline No.	Email	
1	Collector	Dr. Jincy Roy	9978405931	02849 271301	collector-botad@gujarat.gov.in collector.botad@gmail.com	
2	Municipal commissioner					
3	DDO	Akshay Budaniya	9978406493	02849 271371	ddo-botad@gujarat.gov.in	
4	SP	K. F. Baloliya	9978405988	02849 231400	sp-botad@gujarat.gov.in	
5	RAC	Pradipsih L Zankat	9727758035	02849 271307	addl-collector-bot@gujarat.gov.in collector.botad@gmail.com	
6	Dy.DDO	Vijay Sonagara	7096070204	02849 271374	dyddoestbotad@gmail.com	
7	Dy.Conservator of Forest	Aayush varma	7574955044	02849 271318	forest.bvn@gmail.com forestnormalbvn@gmail.com	
8	Dy.SP(HQ)	Manisha Desai	99787 15390	02849 251416	sdpo-botad-bav@gujarat.gov.in	
9	CDHO	Dr. Bharti Dholakiya	9825050604	02849 231534	cdho.health.botad@gmail.com	
10	Director DRDA	B A Patel	7567867698	02849 271611	drda.botad@gmail.com	
11	DSO	G K makavana	9426487271	02849 271324	dso-collector-botad@gmail.com	
12	Medical Superintendent	Dr. Rakesh Avsthi	7698286989	02849 231534	cdmo.health.botad@gmail.com	
13	CDMO	Dr. Rakesh Avsthi	7698286989	02849 231534	cdmo.health.botad@gmail.com	
14	DEO	Bharat Vadher (I/C)	7567803017	02849 253476	botaddeo@gmail.com	
15	DPEO	Bharat Vadher	7567803017	02849 271387	dpeobotad@gmail.com	
16	General manager DIC	Ajay Pathak	7016681800	02849 294290	gm-dic-bot@gujarat.gov.in kutirudhyog20@gmail.com	

14 District Name :- Botad						STD :- 364710
Sr. No.	Designation	Name	Mobile	Landline No.	Email	
17	Ass.Director Information	Ashishkumar Malik	7988857772	-	dio-btd@nic.in	
18	Exen. R&B (State)	J. R. Patel	9924416153	-	eebotad@gmail.com	
19	Exen. R&B (Panchayat)	Bipin Parmar (I/C)	9909557760	-	ex.btd@gmail.com	
20	Exen.irrigation (State)	Y.A.Patel	8780210791	-	eepidbotad@gmail.com	
21	Exen.irrigation (Panchayat)	U.D.Hadvani	9510131311	02849 23513	eepidbotad@gmail.com	
22	Exen.GWSSB	Rajendrakumar parmar	9978406824	02849 251483	eewdnbotad1@gmail.com	
23	Sup.Engineer PGVCL	K.D.Ninama	9978936293	02849 256002	sebtd.pgvcl@gmail.com	
24	Dy.Dir.Animal Husbandry	R.G.Mali	9998583410	-	dr.rameshvala@gmail.com	
25	Dist.Agriculture Officer	U.J.Patel	9712571331	02849 271346	dao.botad.agri@gmail.com	
26	PO- ICDS	Sharadaben Desai	7999848304	02849 271388	pobotad0@gmail.com	
27	Dir.Indust.Safety and Health			-		
28	DC GSRTC	R.D.Pilvaikar	6359919028	-	dc-bhavnagar@grtc.org	
29	Superintendent of Fisheries	K.V.Ramani (I/C)	8141789262	-	supt-fisheries-btd@gujarat.gov.in	
30	Regional officer GPCB	Rahul Kanaujiya	9898166414	-	ro-gpcb-ahmr@gujarat.gov.in	
31	DGM BSNL	Rajendr dhimal	9429905055	02849 251008	bsnl.botad@gmail.com	
32	Mamlatdar Disaster Management	A.G.Vala (I/C)	9898831777	02849 271340	disas-collector-bota@gujarat.gov.in	
33	DPO Disaster Management	Mehul Botadara	9624731931	02849 271340	disas-collector-bota@gujarat.gov.in	
34	Dy.Mamlatdar Disaster Management	H.I.Hirani	9909572484	02849 271340	disas-collector-bota@gujarat.gov.in	

15 District Name:-Dang STD Code:-02631						
Sr. No.	Designation	Name	Mobile	Landline No.	E-mail	
1	Collector	Shri Suthar Raj Rameshchandra (I/C)	9978406208	220201	collector-dan@gujarat.gov.in	
2	D D O	Shri Suthar Raj Rameshchandra	9978406233	220254	ddo-dan@gujarat.gov.in	
3	SP	Shri Yashpal Jaganiya	9978405021	220248	sp-dan@gujarat.gov.in	
4	Resi. Addl. Collector	Shri S D Tabiyar (I/C)	9978447801	220221	rac-dan@gujarat.gov.in	
5	Dy. DDO (Panchayat)	Shri H B Patel	9978412744	220317	dyddo-dan@gujarat.gov.in	
6	Deputy Conservator Officer, North	Shri D R Rabari	998430007	220292	dcfdangnorth16@gmail.com	
	Deputy Conservator Officer, South	Shri Prashadravi Radhakrishna	9821565564	220210	dcfdangsouth16@gmail.com	
7	Dy.SP	Shri S G Patil	8980049567	220904	dysp-dan@gujarat.gov.in	
8	Chief District Health Officer	Dr. Himanshu Gamit	9427119204	220344	adho-dan@gujarat.gov.in	
9	Director-DRDA	Shri S D Tabiyar	9408024048	220217	drda-dan@gujarat.gov.in	
10	District Supply Officer	Smt U V Patel	8200989441	220384	dso-dan@gujarat.gov.in	
11	Medical Superintendent					
12	CDMO	Dr Mitesh Kunbi	9427148549	220205	cdmo.health.dangahwa1@gmail.com	
13	DEO	Shri Jignesh Trivedi	9909970208	220208	dangldeo@gmail.com	
14	DPEO	Shri Vijaybhai Deshmukh	7284889586	220337	dpeo-dan@gujarat.gov.in	
15	General Manager DIC	Shri S R Patel	9427345931	220101	gm-dic-dan@gujarat.gov.in	
16	Dy.Dir. Information	Shri Umesh Gamit	9662257331	220326	adiahwa@gmail.com	
17	Port Officer,GMB	-	-	-	-	
18	Chief Fire Officer	Shri Y S Chaudhari (I/C)	8511541526	220272	mamcls2-ahwa@gujarat.gov.in	

15 District Name:-Dang STD Code:-02631						
Sr. No.	Designation	Name	Mobile	Landline No.	E-mail	
19	Executive Engineer, R&B (State)	Shri K B kukana	9016998554	220228	mbdang@gmail.com	
20	Executive Engineer, R&B (Panchayat)	Shri B M Patel	9662013280	220309	exernb-ddo-dan@gujarat.gov.in	
21	Executive Engineer, Irrigation (State)	-	-	-	-	
22	Executive Engineer, Irrigation (Panchayat)	Shri Vinit Patel (I/C)	7567120680	220368	exeirridangpanch@gmail.com	
23	Executive Engineer, GW/SSB	Shri H B Dhimmar	9978406664	220394	gwssbdangs@gmail.com	
24	Supintendent Engineer, DGVCL	Shri B M Patel (I/C)	9879591178	220079	sdo.ahwa@gebmil.com	
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	Smt Jyotshnaben Patel	9099289252	220318	po-icds-ddo-dan@gujarat.gov.in	
28	Dy Director Industrial Safety And Health	-	-	-	-	
29	DC/ST Manager GSRTC	Shri K A Parmar	6359918785	220308	dmahwagrtc@gmail.com	
30	Superintendent Of Fishries	-	-	-	-	
31	Regional Officer, GPCB	Shri A G Patel	9726944666	02632 2432089	ro-gpcb-vapi@gujarat.gov.in	
32	DGM/AGM BSNL	Shri Bhavesh Patel	9408768886	221060	jtocfaahwa@gmail.com	
33	Mamltar Disaster	Shri S K Chaudhari (I/C)	9427178704	220347	dismgmt-dan@gujarat.gov.in	
34	DPO Disaster Management	Shri Chintan Patel	8866641248	220347	chintucn3@gmail.com	
35	Dy. Mamltar Disaster	Shri J J Chudasama	9824666999	220347	dangdisaster@gmail.com	

16 District Name:- PATAN					STD Code:-02666	
Sr. No.	Designation	Name	Mobile	Landline No.	E-mail	
1	Collector	Shri Arvind Vijayan IAS	9978406218	233301	collector-pat@gujarat.gov.in	
2	D D O	Shri C L Patel IAS	9978406243	232936	ddo-pat@gujarat.gov.in	
3	SP	Shri V K Nai IPS	9978405078	230104	sp-patan@gujarat.gov.in	
4	Resi. Addl. Collector	Shri V.C.Bodana	9978405190	233400	add-collector-pat@gujarat.gov.in	
5	Dy. DDO (Panchayat)	R K Makwana	8980604081	232936	dyddo-dev-pat@gujarat.gov.in	
6	Deputy Conservator Officer	Smt Binduben Patel	9725180015	225850	dydcfpatan25@yahoo.in	
7	Dy.SP	Shri Mahendrasinh B Solanki	9978408249	230103	sp-patan@gujarat.gov.in	
8	Chief District Health Officer	Dr. V A Patel i/c	9727721377	220592	cdho.health.patan@gujarat.gov.in	
9	Director-DRDA	Shri R P Joshi	9978404998	291706	drda.pat@gujarat.gov.in	
10	District Supply Officer	Hemangini R. Gurjar	9824336460	224660	dso-pat@gujarat.gov.in	
11	Medical Superintendent					
12	CDMO					
13	DEO	Shri A N Chaudhari	9909970222	230025	deopatan@gmail.com	
14	DPEO	Shri N B Chavada	9909971692		dpeopatan1981@gmail.com	
15	General Manager DIC	Shri H N Mevada	9978675598	234517	gm-dic-pat@gujarat.gov.in	
16	Dy.Dir. Information	Shri Kuldip Parmar	9898463636	297035	ddinfopatan@gmail.com	
17	Port Officer,GMB	NA	-	-	-	
18	Chief Fire Officer	Shri Snehal Modi	9879316414, 9106865993	101	np_patan@yahoo.co.in	
19	Executive Engineer,R&B (State)	Shri D L Rathod	9427683276	233777	exembptn@gmail.co	

16 District Name:- PATAN						STD Code:-02666	
Sr. No.	Designation	Name	Mobile	Landline No.	E-mail		
20	Executive Engineer, R&B (Panchayat)	Shri D L Rathod i/c	9427683276	230439	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 i/c	8530532521	234240	ex.engr.pld@gmail.com		
23	Executive Engineer, GWSSB	K V Chaudhari	9978407119	226716	gwseecptn1@gmail.com		
24	Suprintendent Engineer, UGVCL	Shri A P Aaghdodia	6359960377	230439	eepatando@ugvc.com		
25	Dy Director Of Animal Husbandry	Shri B M Sargara	7016958348	292299	dydir-an-pat@gujarat.gov.in		
26	District Agriculture Officer	Shri Jignesh Patel	8511171811	224489	dao-ddo-pat@gujarat.gov.in		
27	Program Officer ICDS	Smt Ranjanben Shrimali i/c	9898359795	225816	poicdspot123@gmail.com		
28	Dy Director Industrial Safety And Health	Shri J B Bodat i/c	9601298852	27620231501	adl-dish-msn@gujarat.gov.in		
29	DC/ST Manager GSRTC	Shri Rawal	6359918622	220512	dmpatangsrc@gmail.com		
30	Superintendent Of Fishries	Shri Dinesh Patel	9904844142	-	Mahesana		
31	Regional Officer, GPCB	Shri Tushar	7984139689 9429648135	02742-251301	ro-gpcb-pal@gujarat.gov.in , gpcbpalanpur@gmail.com		
32	Mamltar Disaster	Shri Sanjay Desai (I/C)	9106241443	224830	deocpatan@gmail.com		
33	DPO Disaster Management	Shri K S Patel	8200442665	224830	deocpatan@gmail.com		
34	Dy.Mamltar Disaster	Shri Sanjay Desai	9106241443	224830	deocpatan@gmail.com		

17 District Name: SURAT			STD Code - 0261		
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id
1	Collector	Dr. Saurabh Pardhi	9978406222	0261-2652525	collector-sur@gujarat.gov.in
2	DDO	Ms.Shivani Goyal	9978406247	0261-2422160	ddo-sur@gujarat.gov.in
3	S P	Shri Hitesh Joysar	9978405082	0261-2651832	sp-sur@gujarat.gov.in
4	Resi.Addl.Collector	Shri Vijay Rabari	9978405220	0261-2660011	rdc-sur@gujarat.gov.in
5	Dy.District Development Officer	Shri Dilip Vaghela	7567017817	0261-2425751	dyddo-vikas-sur@gujarat.gov.in
6	Deputy Conservator Of Forest	PRIYANK S PATEL	8980613505	0261-2733824-5	dcfsurat2@gmail.com
7	Dy.SP	I J Patel	9978408074	-	-
8	Chief District Health Officer	Dr. Anil Patel	9727709501	2430780/589	cdho.health.surat3@gmail.com
9	Director,DRDA	Shri M. B. Prajapati	9099925800	0261-2780273 0261-2784329	drda.sur@gmail.com
10	DSO	Shri Darshan D. Shah	9978405223	0261-2655751	dso-sur@gujarat.gov.in
11	Medical Superintendent, Smimer Hospital	Dr. Jitendra R. Darshan	9724345013	0261-2333756	mssmimer@suratmunicipal.gov.in
12	RESIDENT MEDICAL OFFICER CL-1	DR. KETAN R. NAIK	9825327004	0261-2208302	ms.helth.surat2@gmail.com
13	District Education Officer,DEO	E. Cha.Shri Deepak Tailor	9909971697	0261-2662902-3	suratdeo@gmail.com
14	District Primary Education Officer,DPEO	Shri Deepak Tailor	9909971697	0261-2425751	dpeosurat1@gmail.com
15	Deputy Industries Commissioner and General Manager	Shri M K Ladani	8879966892	0261-2465925	gm-dic-sur@gujarat.gov.in
16	Joint Director of Information, South Gujarat Zone	Shri Rajendra Rathore	9978405787	0261-2465541	infosurat2013@gmail.com
17					
18	Chief Fire Officer, Surat Municipal Corporation	Shri Basant Parikh	9724345553		
19	Executive Engineer Shri MaxM Section-1 State City	Shri Prashant Chaudhari	9662027250	0261-2464161-62-63	eesurat1@yahoo.com rt_rmbdiv_2state@yahoo.co.in
20	Executive Engineer Shri MaxM Division-R State Rural	Shri Nilesh Patel	9904179900	0261-2471097	eesurat2@yahoo.com ; exe2-sur@gujarat.gov.in ; srt_rmbdiv_2state@yahoo.co.in

17 District Name: SURAT						STD Code - 0261	
Sr. No.	Designation	Name	Mobile	Landline No.	Email Id		
21	Executive Engineer Shri MaxM Panchayat Division	Shri Kirtesh.K.Patel	9898026578	0261-2472337, 2476894	exenpsurat@yahoo.co.in		
22	Executive Engineer Surat Canal Division	Shri Naiti Gamit	9586251122	0261-2668716	eesuratcanal@gmail.com		
23	Executive Engineer Public Health Mechanical Gu.Pa.Pu. and Municipal Board (Construction)	Shri RG Chowdhury	7567861399 9978406856	0261-2782088	eephsurat@gmail.com ; eec-gwssb-surat@gujarat.gov.in		
24	Superintending Engineer (S. & R.) Dakshin Gujarat Vij Company Ltd. Surat City Circle Office	Shri A.G.Patel	8780051405	0261-2804301-3	sesrt.dgvcl@gebmil.com		
25	Deputy Director of Animal Husbandry, District Panchayat Surat	Dr. MP Bhimani	9033794615	0261-2461319	ddahsurat@gmail.com		
26	District Agriculture Officer Shri,DAO	Shri Satish Gamit	9979468070	0261-2425751	daosurat5@gmail.com		
27	Program Officer Shri ICDS	Shri Komalben H. Thakor	9227858382	0261-2425751	po-icds-srt@gujarat.gov.in		
28	Deputy Director Industrial Safety and Health	Shri K. A. Rawat	6351395434	0261-2653P01 (Fax) 0261-2653502	jt-dish-srt@gujarat.gov.in ; jtdish-sur@gujarat.gov.in		
29	Transport Officer, GSRTC, Surat	Shri OG Surti	6359919040 6359918746	0261-2551431	dtosrt@gsrtc.in		
30	Assistant Director of Fisheries	Shri S. Binduben	83200 95167	0261-2462846 2463946 (O.)	adir-fish-surat@gujarat.gov.in		
31	Regional Officer Shri Gujarat Pollution Control Board (GPCB)	Dr..Jignasha Oza	9825329663	0261-2891696	ro-gpcb-sura@gujarat.gov.in		
32	DGM/AGM BSNL						
33	Mamlatdar Disaster	I.C./ A R NAIK	9978410601	2663200	66.disastersurat@gmail.com		
34	DPO Disaster	Kaushik Poriya	9033920674	2663200	kaushikgsdma@gmail.com		
35	Dy. Mamlatdar Disaster	Sajid Meruzay	9925700732	2663200	66.disastersurat@gmail.com		

18 District Name :- Navsari					STD :- 02637	
Sr. No.	Designation	Name	Mobile	Landline No.	Email	
1	Collector	Ms. Kshipra S. Agre	9978406215	02637-244999	collector.nav@gujarat.gov.in	
2	Municipal Commissioner					
3	DDO	MS PUSHHP LATA	9978406240	02637-244299		
4	SP	Shri Sushil Agrawal (IPS)	9978405075	02637-245333	sp-nav@gujarat.gov.in	
5	RAC	Shri K.P.Joshi	9978405187	02637-246299	add-collector.nav@gujarat.gov.in	
6	Dy.DDO	shree shailesh chavda	7567017683	02637-244399		
7	Dy.Conservator of Forest	sushri bhavna desai	96876773214			
8	Dy.SP(HQ)	shri. V.N.Patel	9978408268	02637-247501	dysp-hq-nav@gujarat.gov.in	
9	CDHO	Dr P.N kannar(I/C)	9727704005	02637-280143	cdho-navsari@gmail.com	
10	Director DRDA	MS PUSHHP LATA	9978406240	02637-244299		
11	DSO	Shree R.C patel	9409419446	02637-248155	dso-nav@gov.in	
12	Medical Superintendent	Arti d parekh		02637-250389		
13	CDMO	civil hospital cdmo	9687685806	02637-2572265		
14	DEO	jayeshkumar c chaudhari	9909970223	02637-232572	navsarideo@gmail.com	
15	DPEO	shri A.M.agraval	9909971688		dpcnavsari@gmail.com	
16	General manager DIC	Shri M K Ladani	7977554602	02637-231894	gm-dic-nav@gujarat.gov.in	
17	Ass.Director Information	Shri Y. M. Gosai	9726034321	02637-244914		

18 District Name :- Navsari					STD :- 02637	
Sr. No.	Designation	Name	Mobile	Landline No.	Email	
18	Exen. R&B (State)	Shir Nilaybhai	9714991071	-	-	
19	Exen. R&B (Panchayat)	Shri Divyeshbhai	9624270734	-	-	
20	Exen,irrigation (State)	-	-	-	-	
21	Exen.irrigation (Panchayat)	Shri A.J PATEL	9825872506		eeidnavsari@gmail.com	
22	Exen.GWSSB	Shri M.P NAI	9978406930			
23	Sup.Engineer MGVCL	Shri D.D.Patel	7567869643	02637-236017		
24	Dy.Dir.Animal Husbandry	DR. M. C .Patel	9426881836	-	dpahnavsari@gmail.com	
25	Dist.Agriculture Officer	Shri Satish Dhimmar	9662532871	-	atmaprojectnavsari@gmail.com	
26	PO- ICDS	Shri Atulbhai Gajerai (I/C)	9998843777	-	dpcicds.navsari@gmail.com	
27	Dir.Indust.Safety and Health	Shri D.k patel	9913774913	02637-230745	astdish.nav@gujarat.gov.in	
28	DC GSRTC	Shri v.h sharma	6359919041	02632-227934		
29	Superintendent of Fisheries	Sushri Tanviben Chaudhari	9825840711	02637-234775	adnavsari02637@gmail.com	
30	Regional officer GPCB	Shri H.M GAVIT	9825155421	02637-230790	nav.ro.gpcb@gmail.com	
31	DGM BSNL	JAYESH PATEL	9427105848	-		
32	Mamlatdar Disaster Management	Shri arjun vasava	9879341575	02637-259401		
33	DPO Disaster Management		9586945273			
34	Dy.Mamlatdar Disaster Management	Sanjaybhai Desai	9023485392	02637/259401		

19 DISTRICT NAME : BHARUCH						STD :-	
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL		
1	COLLECTOR	Tushar Sumera	99784 06205	02642-223701	collector-bha@gujarat.gov.in		
2	CHEIF OFFICER	H. J. AGRAWAL	9574007002	02642-	np_bharuch@yahoo.co.in		
3	DDO	P.R.Joshi	9978406230	240603	ddo-dha@gujarat.gov.in		
4	SP	Mayursinh Chavada	9978405066	2642223633	sp-bha@gujarat.gov.in		
5	RAC	N.R.Dhadhal	99784 05177	02642-222332	add-collector-bha@gujarat.gov.in		
6	Dy.DDO	K.K.Patel	7284930880	02642-252474	dydo-rev-bha@gujarat.gov.in		
7	Dy.CONSERVATOR OF FOREST	U.I.Pajapati	7574950461	02642-269065	dydfbhauch@gmail.com		
8	Dy.SP(HQ)	M.M.Ganguli	9825267488	02642-223433	dysp-hq-bha@gujarat.gov.in		
9	CDHO	Dr.J.S.dulera	9726956500	02642-243660	cdho.health.bharuch@gmail.com		
10	DIRECTOR DRDA	N H PATEL	9879598335				
11	DSO	Mahipatsinh Dodiya	7567021674	02642-241500	dso-bha@gujarat.gov.in		
12	MEDICAL OFFICER	Dr.Abhinavkumar Sharma	9601514070	-	cdho.health.bharuch@gmail.com		
13	CDMO	Dr.Rajesh B Shah	9825142899	-	cdmo.health.bharuch@gmail.com		
14	DEO	K.F. Vasava	9909970211	02642-240424	bharuchdeo@gmail.com		
15	DPEO	Sachin Shah	9909971661	02642-244210	ssabharuch17@gmail.com		
					dpcbharuch@gmail.com		
16	GENERAL MANAGER DIC	Jigar Dave	6357150191	02642-243478	gm-dic-bha@gujarat.gov.in		
17	DY.DIRECTOR INFORMATION	BHAVNA C VASAVA	8980647078	02642-243778	ddi2642@gmail.com		

19 DISTRICT NAME : BHARUCH					STD :-	
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL	
18	EXEN.R&B(STATE)	ANIL V VASAVA	9408070278	02642-261394	r&b_bharuch@yahoo.co.in	
19	EXEN.R&B(PANCHAYAT)	RAVIKUMAR A RAVAL	9898370509	-	ravalravi66@gmail.com	
20	EXEN.IRRIGATION(STATE)	-	-	-	-	
21	EXEN.IRRIGATION(PANCHAYAT)	M G MEHTA	9426831527	-	exeengbch@gmail.com	
22	EXEN.GWSSB	HIRAL B DEVANI	9978406619	02642-265560	bharuchee1@gmail.com	
23	SUP.ENGINEER DGVCL	A.G.SHAH	9879201336	-	dgvcl@gebmail.com	
24	Dy.DIR.ANIMAL HUSBANDRY	R L VASAVA	9427131252	02642-243146	ahdpbharuch@gmail.com	
25	DIST.AGRICULTURE OFFICER	PRAVIN R PANDANI	9825186571	02642-261611	daobah11@gmail.com	
26	PO-ICDS	KASMIRA D SAVANT	9227858758	-	pobharuch.icds@gmail.com	
27	DIR.INDUST.SAFETY AND HEALTH	Dipakkumar Vasava	9825801547	02642-240421	dydishbh@gmail.com	
28	DC GSRTC	P S SARVAIYA	7984587411	-		
29	SUPERITENDENT OF FISHERIES	K U PATEL	9426139204	-	kalpeshpatel@hotmail.com	
30	REGIONAL OFFICER GPCB	Vijaykumar D Rakholiya	9879064867	02646-222933	ro-gpcb-ankl@gujarat.gov.in	
31	DGM BSNL	DINESH CHAUHAN	9426189955	02642-241000	dgmcfbharuch@gmail.com	
32	MAMLATADAR DISASTER MANAGEMENT	-	-	02642-242300	dismgmt-bha@gujarat.gov.in	
33	DPO DISASTER MANAGEMENT	Krunal Goswami	9662042232	02642-242300	<u>krunalgoswami04@gmail.com</u>	
34	Dy.MAMLATDAR DISASTER MANAGEMENT	Ronak Tadvi	96388 73969	-	dismgmt-bha@gujarat.gov.in	

20 DISTRICT NAME:- SABARKANTHA					
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL
1	COLLECTOR	Lalit Narayan Singh Sandhu (IAS)	9978406221	02772/241001 /240600	collector-sabgujarat.gov.in
2	DDO	H.M.Vora(IAS)	9978406246	02772/242350	ddo-sab@gujarat.gov.in
3	SP	Vijay Patel(IPS)	9978405081	02772/247333	sp-sab@gujarat.gov.in
4	RAC	K.A.Vaghela(GAS)	9978405219	02772/246012	add-collector-sab@gujarat.gov.in
5	Dy.DDO	A.B.Parmar	9624377055		dyddosk@gmail.com
6	Dy.CONSERVATOR OF FOREST	S.D.Patel	9574974902		dcfs41766@gmail.com
7	Dy.SP(HQ)	Payalben Somesvar	9638899700	02772/247233	sdpo-him-sab@gujarat.gov.in
8	CDHO	Raj Sutriya	9687679002	02772/246422	cdho-sab@gujarat.gov.in
9	DIRECTOR DRDA	K.P.Patidar	9978407487	02772/24521	drda-sab@gmail.com
10	DSO	Maulik Donga	9978405675	02772/240698	dso-sab@gujarat.gov.in
11	MEDICAL OFFICER	Dr.Baldev Patel	9687633105		cdho-health.himmatanagar@gmail.com
12	CDMO	Dr.Baldev Patel	9687633105		cdmo-sab@gujarat.gov.in
13	DEO	Mitaben Gadhavi	9909970217	02772/240793	deo.sabrkantha@gmail.com
14	DPEO	K.D.Upadhyay	9909971696		
15	GENERAL MANAGER DIC	J.D.Ninama	9925194121		gm-dic-sab@gmail.com
16	DY.DIRECTOR INFORMATION	Devendr Kadiya	9574099942		dmo-sab@gmail.com
17	EXEN STATE	H.J.Soliya	8980608079	02772/241651	eernbhmt@gmail.com

20 DISTRICT NAME:- SABARKANTHA					
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL
18	EXEN.R&B(PANCHAYAT)	K.D.Rathod	9825278854		sabarkantha1@yahoo.com
19	EXEN.IRRIGATION(STATE)	U.K.Patl	9426219895	02772/240771	floodcellhimatnagar@yaahoo.in
20	EXEN.IRRIGATION(PANCHAYAT)	D.P.Rajpoot	9909921926		skjp.ej@gmail.com
21	EXEN.GWSSB	K.K.Bodar	9978406943	02772/245108	gssbeechmt@gmail.com
22	SUPERITENDENT ENGINEER UGVCL	V. S/Katar	9873200758		sehmt@ugvcl.gmail.com
23	Dy.DIR.ANIMAL HUSBANDRY	Dr.N.D.Malvya	9426566098		icos himatnagar@gmail.com
24	DIST.AGRICULTURE OFFICER	B.S Joshi	9898000356		daoskhmt@gmail.com
25	PO-ICDS	Alapaben Solanki	9227858363		poicdssk@gmail.com
26	DIR.INDUST.SAFETY AND HEALTH	J.B.Bodat	9601298852	079-23233231	
27	DC GSRTC	H.R.Patel	6359918508		himatnagardepo@gmail.com
28	SUPERITENDENT OF FISHERIES	T.D.Purohit	9427698507		aaf-hmt@gmail.com
29	REGIONAL OFFICER GPCB	Neha Ajmera	9898003096		ro-gpcb-hmm@gujarat.gov.in
30	DGM BSNL	Rajkumar Rajpal	9414001175		ggmhmr.nbsnl@gmail.com
31	MAMLATADAR DISASTER MANAGEMENT	M.D.Parmar	9904114619	02772-240421	mam-sabar@gujarat.gov.in
32	DPO DISASTER MANAGEMENT	K.K.Solanki	9714856277		kajalmak3112@gmail.com
33	Dy.MAMLATDAR DISASTER MANAGEMENT	G.R.Desai	9409652519		dis.sabar@gmail.com

21 DISTRICT NAME:-GIRSOMNATH					
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL
1	COLLECTOR	D D JADEJA	9978405934	285001	collectorgirsomnath@gmail.com
2	DDO	SNEHAL BHAPKAR	9978406495	285255	ddo.girsomnath@gmail.com
3	SP	MANOHARSINH JADEJA	9978405974	222250	sp-gir@gujarat.gov.in
4	RAC	R J AAL	9824221009	285300	addi-collector-girsomnath@gujarat.gov.in
5	Dy.DDO	S P DUDAKIYA	9428191105	249249	-
6	Dy.CONSERVATOR OF FOREST	JOSHI	9664365479	222292	-
7	Dy.SP(HQ)	KHATANA C	8980046092	-	sp-gir@gujarat.gov.in
8	CDHO	BARUA	7567889923	240051	cdho.health.girsomnath@gmail.com
9	DIRECTOR DRDA	Y P JOSHI		245271	drdagirsomnath@gmail.com
10	DSO	P D VANDA			
11	MEDICAL OFFICER	-	-	-	-
12	CDMO	D K GOVSAMI	9408493308	285051	-
13	DEO	M P BORICHA	7574822584	221095	girsomnathdeo@gmail.com
14	DPEO	A H PATEL	9099098483	244500	girsomnathdpeo@gmail.com
15	GENERAL MANAGER DIC	-	-	-	-
16	DY.DIRECTOR INFORMATION	SUNIL PATEL	-	-	-
17	EXEN STATE	I/C AASUTOSH PATEL	9106752578	220237	rmbgirsomnath@gmail.com
18	EXEN.R&B(PANCHAYAT)	J R SITAPARA	9428709092	249252	panchayatrmbgirsomnath@gmail.com

21 DISTRICT NAME:-GIRSOMNATH						
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL	
19	EXEN.IRRIGATION(STATE)	U V RAKHASIYA	9998277012	222897	ereiripor@gmail.com	
20	EXEN.IRRIGATION(PANCHAYAT)	RATHOD	9978406626	224840	wdn2jnd@gmail.com	
21	EXEN.GWSSB	-	-	-	-	
22	SUPERITENDENT ENGINEER PGVCL	P N GORANIYA	9879200788	220169	peevrs.pgvcl@gebmail.com	
23	Dy.DIR.ANIMAL HUSBANDRY	D M PARMAR	9824363792	249203	manishbarad007@gmail.com	
24	DIST.AGRICULTURE OFFICER	ASHOK CHODHARI	9925018911	285080	dao-agri-gir@gujarat.gov.in	
25	PO-ICDS	H V RAJSHAKHA	9687771309	249200	icdsgirsomnath123@gmail.com	
26	DIR.INDUST.SAFETY AND HEALTH	J M DWIVEDI	9824190891	-	dydish-jun@gujarat.gov.in	
27	DC GSRTC	MADIYA CHANDA	6359918588	-	dmveraval@gmail.com	
28	SUPERITENDENT OF FISHERIES	V K GOHEL	9265625552	-		
29	REGIONAL OFFICER GPCB	H B PARMAR	9427312901	2651506	ro-gpcb-juna@gujarat.gov.in	
30	DGM BSNL	ER JOSHI	7016939061	242855	sdotvrl@gmail.com	
31	MAMLATADAR DISASTER MANAGEMENT	J A JIVANI	9925423645	285063/64	dismgmt-girsomnath@gujarat.gov.in	
32	DPO DISASTER MANAGEMENT	JADAV MUKESH	8849903354	285063/64	jadavmukesh6320@gmail.com	
33	Dy.MAMLATDAR DISASTER MANAGEMENT	R K SOLANKI	9624055810	285063/64	dismgmt-girsomnath@gujarat.gov.in	

22 DISTRICT NAME : Kheda					STD :-	
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL	
1	COLLECTOR	Shri Amit Prakash Yadav IAS	9978406212	0268-2553334	collector-khe@gujarat.gov.in	
2	DDO	Shri Jayant kishor Mankale IAS	9978406237	0268-25572262	ddo-khe@gujarat.gov.in	
2	Municipal commissioner Nadiad	Shri G.H.Solanki,IAS	9978400740	0268-2550217	commissioner-ndmc@gujarat.gov.in	
4	SP	Shri Rajesh Gadhiya IPS	9978405072	0268-2550250	sp-khe@gujarat.gov.in	
5	RAC	Shri J. B.Desai	9978405597	0268-2553336	add-collector-khe@gujarat.gov.in	
6	DIRECTOR DRDA	Shri L.A.Patel	7567036029	0268-2550221	drda.khe@gmail.com	
7	Dy.CONSERVATOR OF FOREST	Shri Abhishek Samariya	7676700438	0268-2550316	dcf.nd.forest@gmail.com	
8	Dy.SP(HQ)	Su ShriDivyaba Jadeja	9978407661	0268-2564350	cr-kheda@gujarat.gov.in	
9	CDHO	Dr. V.S. Druve	7567863213	0268-2556273	cdho.health.kheda@gujarat.gov.in	
11	DSO	Shri Akshay Pargi	7567021405	0268-2553839	dso-khe@gujarat.gov.in	
12	MEDICAL OFFICER	Dr.D R Patel	9099064228	0268-2529074		
13	CDMO	Dr.Kavita Shah	9825654603	0268-2529074	cdmo.health.nadiad@gmail.com	
14	DEO	Shri K H Raval	9909970205	0268-2550003	khedeo@gmail.com	
15	DPEO	Shri P R Vaghela	9909971682	0268-2557452	dpeokheda@gmail.com	
16	GENERAL MANAGER DIC	Shri Z P Zala	9909578681	0268-2555003	gm-dic-khe@gujarat.gov.in	
17	DY.DIRECTOR INFORMATION	Su,Shri Mansi Desai	8140448818	0268-2550903	mahitinadiad@gmail.com	
18	EXEN.R&B(STATE)	Shri Vivek Jam	9825407449	0268-2566404	ec-khe@gujarat.gov.in	

22 DISTRICT NAME : Kheda						STD :-	
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL		
19	EXEN.R&B(PANCHAYAT)	Shri D B Halpati	9426389472	0268-2557640	exepannad@gmail.com		
20	EXEN.IRRIGATION(STATE)	Shri Nirav Chavada	9428735888	0268-2566663	eenid16003@gmail.com		
21	EXEN.IRRIGATION(PANCHAYAT)	Ahri Abhishek Ravat	9687267070	0268-2557230	irripanch-nad@yahoo.co.in		
22	EXEN.GWSSB	Shri J C Dabhi	9978410412	0268-2560996	eenadiad@yahoo.co.in		
23	SUP.ENGINEER MGVCCL	Shri T C Vyas	9925208113		senadiad.mgvcl@gmail.com		
24	Dy.DIR.ANIMAL HUSBANDRY	Dr. V. S, Patel	9427807042	0268-2550591	ipdpnadiad@gmail.com		
25	DIST.AGRICULTURE OFFICER	Shri D H Rabari	9099661777	0268-2557421	daokheda@gmail.com		
26	PO-ICDS	Su Shri Masnishaben Barot	8320773855	0268-2532354	po.icds.khe@gmail.com		
27	DIR.INDUST.SAFETY AND HEALTH	Shri D B Gamit	9915589839	241870	dydish-god@gujarat.gov.in		
28	DC GSRTC	Shri D C Mahajan	6359919037	0268-2566434	denadiad1958@gmail.com		
29	SUPERITENDENT OF FISHERIES	Su Shri Nitaben	9428217444	0268-2569257	sf.nadiad@gmail.com		
30	REGIONAL OFFICER GPCB	Su Shri Vanshriben Panhalkar	9427032745	0268-2551428	ro-gpcb-nadi@gujarat.gov.in		
31	DGM BSNL	Shri Vasave	9429401333	0268-2556680	nadagmop@gmail.com		
32	MAMLATADAR DISASTER MANAGEMENT	S.S.Ninama	9879650648		eoc.kheda@gmail.com		
33	DPO DISASTER MANAGEMENT	Sachee Desai	9725678973	-	sacheedesai@gmail.com		
34	Dy.MAMLATDAR DISASTER MANAGEMENT	J.J.Patel	9624754137	-	eoc.kheda@gmail.com		

23 District Name :-Ahmedabad					STD :-079	
Sr. No.	Designation	Name	Mobile	Landline No.	Email	
1	Collector	Shri Sujeet Kumar (IAS)	9978406201	27551681	collector-ahd@gujarat.gov.in	
2	Municipal commissioner	Shri Banchanidhi Pani (IAS)	9978407676	25351830	mc@ahmedabadcity.gov.in	
3	Police commissioner	Shri G.S Malik	9978406258	25630200	cp-ahd@gujarat.gov.in	
4	DDO	Shri Videh Khare (IAS)	9978406226	25506487	ddo-ahd@gujarat.gov.in	
5	SP	Shri Om prakash Jat	99784 06342	26890440	sp-ahd@gujarat.gov.in	
6	RAC	Shri. B.R.Sagar (GAS)	9978405173	27551682	addl-collector-ahd@gujarat.gov.in	
7	Dy. DDO	Shri Mitul Patel	9978401207	25508141	dyddo.rev.ahd@gmail.com	
8	Dy. Conservator of Forest	Shri Priyanka	9782251239	29701083	dcf.ahd.forest@gmail.com	
9	Dy. SP (HQ)	Shri Aastha Rana				
10	CDHO	Shri Shailesh Parmar	9428901489	25501204	cdho.health.ahmedabad4@gmail.com	
11	Director DRDA	Shri A.M.Desai	9924454003	26643148	drda.ahd@gmail.com	
12	DSO	Shri Dinta B Kathiriya	9978408084	27551691	dsoahmedabadcity001@gmail.com	
13	Medical Superintendent	Shri Jagdish Solanki	9825387497	22680732 22683721	drjagdishsolanki@gmail.com Ms.health.ahmedabad.civil@gmail.com	
14	CDMO	Shri Peena Soni	7567897487	27661526-27	cdmo.health.ahmedabadsola@gmail.com	
15	DEO (City)	Shri R.M.Chaudhary	9909970201	27912966	ahmcdeo@gmail.com	
	DEO (Rural)	Shri Krupa Jha	9909970202	27913264	ahmrdeo@gmail.com	
16	DPEO	Shri Gaurang Vyas	9909971649	25507126	dpeo.ddo.ahd@gmail.com	
17	General manager DIC	Shri R.D.Barhat	9904081057	25502987	gm-dic-ahd@gujarat.gov.in	

23 District Name :-Ahmedabad					STD :-079	
Sr. No.	Designation	Name	Mobile	Landline No.	Email	
17	Dy. Director Information	Shri Himanshu Upadhyay	9978904203	26306737	samacharabd@gmail.com	
18	Exen. R&B (State)	Shri Kaushal Brahmabhatt	9825732782	27910154	rnbahmedabad@gmail.com	
19	Exen. R&B (Panchayat)	Shri I.H. .Patel	7405198343	25511608	rnbahmedabadpanchyat@gmail.com	
20	Exen,irrigation (State)	Shri H.H.Mitra	8866461543	29609266	eeaidn121@gmail.com	
21	Exen.irrigation (Panchayat)	Shri C.R.Suthar	8160961018	25507470	irrigation.ahmedabad@gmail.com	
22	Exen.GWSSB	Shri Pradip Shah	9978406704			
23	Exen.Engineer UGVCL	Shri B.K.Patel	9687662391	27506070	dsbtdo@ugvcl.com	
24	Dy. Dir. Animal Husbandry	Dr.Amit Ramani	9824021784	26585235	lcdpabd@gmail.com	
25	Dist.Agriculture Officer	Shri H.I.Patel	9998976545	2551022	dao.ddo.ahd@gmail.com	
26	PO- ICDS	Shri Parul Nayak	9427546529	25510522	programofficerabd@yahoo.in	
27	Dir.Indust.Safety and Health	Shri C.P.Dholu	9277722777	25502346-47-49-56-64	dish-ahd@gujarat.gov.in	
28	DC GSRTC	Shri J.N.Patel	6359919026	25462552	dcabdgstrtc01@gmail.com	
29	Superintendent of Fisheries	Shri Chinkal Suchak	9898164800		adf-fisher-amd@gujarat.gov.in	
30	Regional officer GPCB	Shri N.D.Ajmera	9712924377		ro-gpcb-amed@gujarat.gov.in	
31	DE BSNL	Shri. D.K Shah		26443143	shahdk123@gmail.com	
32	Mamlatdar Disaster	Shri K.K. Vala	9727523086	27560511	dismgmt-ahd@gujarat.gov.in	
33	DPO Disaster	Ms Kinjal Pandya	9426185224	27560511	dismgmt-ahd@gujarat.gov.in	
34	Dy. Mamlatdar Disaster	Smt K.K.Bhatt	9428697288	27560511	dismgmt-ahd@gujarat.gov.in	

24 DISTRICT NAME : Jamnagar					STD :- 0288	
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL	
1	COLLECTOR	Shri K. B. Thakkar	9978406210	2555869	collector-jam@gujarat.gov.in	
2	MUNICIPAL COMMISSIONER	Shri D. N. Modi	9978402983	2552321	mcjamnagar@gmail.com	
3	CHEIF FIRE OFFICER	Shri K. K. Bishnoi	9879531101	2672208	knbishnoi@gmail.com	
4	DDO	Shri Vikalp Bharadwaj	9978406235	2553901	ddo-jam@gujarat.gov.in	
5	SP	Shri Premeukh Delu	9978405639	2554203	sp-jam@gujarat.gov.in	
6	RAC	Shri Bhavesh N. Kher	9978405210	2550284	addl-collector@gujarat.gov.in	
7	Dy.DDO (REVNUE)	Shri D. H. Kotak	9510822055	2555749	dyddo-rev-jam@gujarat.gov.in	
8	Dy.CONSERVATOR OF FOREST	Shri Suil Kumar Berval	8764186595	2679357	ccf-mnp-jam@gujarat.gov.in	
9	Dy.SP(HQ)	Shri V. K. Pandya	8780577177	2552997	dysp-hq-jam@gujarat.gov.in	
10	CDHO	Dr. Nupur Prasad	7567880001	2671097	cdho.health.jamnagar@gmail.com	
11	DIRECTOR DRDA	Shri S. M. Kathad	7621082386	2753289	drda.jam@gmail.com	
12	District Supply Officer	Shri S. D. Barad	7567022435	2553897	dso-jam@gujarat.gov.in	
13	MEDICAL OFFICER OF HEALTH	Dr. Haresh Gori	82380006510	2550231	moh.health.jamnagar@gmail.com	
14	MEDICAL SUPERINTENDENT	Dr. D. S. Tiwari	9426923307	2660250	ms.health.jamnagar@gmail.com	
15	DEO	Shri V. J. Mehta	9909970206	2553321	jmndeo@gmail.com	
16	DPEO	Shri V. J. Mehta	9909971674	2676532	dpeojamnagar@gmail.com	
17	GENERAL MANAGER DIC	Shri P. B. Patel	6357150195	2670380	gm-dic-jam@gujarat.gov.in	
18	DY.DIRECTOR INFORMATION	Shri S. B. Joshipura (I/C)	8866230075	2557601	informationjam@gmail.com	

24 DISTRICT NAME : Jamnagar					STD :- 0288	
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL	
19	EXEN.R&B(STATE)	Shri V. H. Goswami	7069832770	2662781	rnb-jam@gujarat.gov.in	
20	EXEN.R&B(PANCHAYAT)	Shri K. B. Chaiya	9558888838	2662781	eepdivjmn@gmail.com	
21	EXEN.IRRIGATION(STATE)	Shri S. D. Kansagara	9979743174	2550362	ee-jid-ric-nwrws@gujarat.gov.in	
22	EXEN.IRRIGATION(PANCHAYAT)	Shri R. J. Akbari	9427247132	2550362	ee-nwrws-jam@gujarat.gov.in	
23	EXEN.GWSSB	Shri S. S. Hardaya	9574075716	2674128	eemdijnmr@gmail.com	
24	SUP.ENGINEER PGVCL	Shri H. D. Vyas	9925209912	2678529	pgvcljamnagar@gmail.com	
25	Dy.DIR.ANIMAL HUSBANDRY	Dr. Tejas B. Shukla	9601295016	2678424	dahojamnagar@gmail.com	
26	DIST. DY. AGRICULTURE OFFICER	Shri A. M. Detroja	9978926026	2556119	dydir.bag.jam@gmail.com	
27	PO-ICDS	Shri Binal Suthar (I/C)	9033357298	2550287	dpo.jamnagar@gmail.com	
28	DIR.INDUST.SAFETY AND HEALTH	Shri Y. I. Pental	9879102225	2653502	astdish-jam@gujarat.gov.in	
29	DC GSRTC	Shri K. K. Upadhyay	9586739729	2550270	rto-trans-jmn@gujarat.gov.in	
30	SUPERITENDENT OF FISHERIES	Shri J. P. Toraniya	9879028275	-	adir-fish-jam@gujarat.gov.in	
31	REGIONAL OFFICER GPCB	Shri G. B. Bhatt	9879205044	2752366	ro-gpcb-jamn@gujarat.gov.in	
32	DGM BSNL	Shri A. M. Parmar	9427214505	2750028	amparnar@bsnl.co.in	
33	MAMLATADAR DISASTER MANAGEMENT	Shri Mahendra Chavda(I/C)	9824468468	2553404	dismgmt-jam@gujarat.gov.in	
34	DPO DISASTER MANAGEMENT	Shri Thakkar Param	8141350500	2553404	dismgmt-jam@gujarat.gov.in	
35	Dy.MAMLATDAR DISASTER MANAGEMENT	Shri Virbhadrasingh Rathod	9978918964	2553404	dismgmt-jam@gujarat.gov.in	

25 District Name:- Gandhinagar						
Sr. No.	Designation	Name	Mobile	Landline No.	E-mail	
1	Collector	Shree Mehul. K. Dave	9978406209	079-23259029	collector-gnr@gujarat.gov.in	
2	D D O	Shree B. J. Patel	9978406234	079-23222658	ddo-gnr@gujarat.gov.in	
3	SP	Ravi Teja Vashmshetti	9978405070	079-23210108, 079-23210914	sp-gnr@gujarat.gov.in	
4	Resi. Addl. Collector	Shree Digant. K. Brahambhatt	9978405181	079-23259035	rdc-gnr@gujarat.gov.in	
5	Dy. DDO (Revenue)	Shree Hardik Satishia	6357072245	079-23222658	ddo-gnr@gujarat.gov.in	
6	Deputy Conservator Officer (DCO)	Shree Dr.Chandresh Shenendra	7574950464	079-23221260	dcfgnr001@gmail.com	
7	Dy.SP	R.I.Desai	9978406063	079-23210108, 079-23210914	dcf-gnr@gujarat.gov.in	
8	Chief District Health Officer	Dr. A.J. Vaishnav	9687679256	079-23246276	cdho.health.gandhinagar@gmail.com	
9	Director-DRDA	J.M Vegda	7567035216	-	drda-gnr@gujarat.gov.in	
10	District Supply Officer	Shweta Pandya	9099939631	-	dso-gnr@guarar.gov.in	
11	Medical Superintendent	Dr.Niyati Lakhani	9978405056	079 23221931	cdmo.health.gandhinagar@gmail.com	
12	CDMO	Dr.Kinjal Modi	9427309440	9927805056	cdmo.health.gandhinagar@gmail.com	
13	DEO	Shree H.K.Prajapati	8141308546	-	gandhideo@gmail.com	
14	DPEO	Shree Piyush Patel	9909971673	-	dpeo.gandhinagar@gmail.com	
15	General Manager DIC	Shree Shakti Thakor	7567528160	-	gm-dic-gnr@gujarat.gov.in	
16	Dy.Dir. Information	ParulBen Maniayr	9904530670	-	infoddgandhinagar2005@gmail.com	
17	Fire Station Officer	Shree Raju Patel	9714554586	079 23222742	gmc18fireoff@gmail.com	

25 District Name:- Gandhinagar					
Sr. No.	Designation	Name	Mobile	Landline No.	E-mail
18	Executive Engineer,R&B (State)	Shree V.B.Shaha	9601551026	-	execpz-rmb@gujarat.gov.in
19	Executive Engineer,R&B (Panchayat)	Shree Tejash Magukiya	7383456828	079-23221459	execpz-rmb@gujarat.gov.in
20	Executive Engineer,Irrigation (State)	Shree N.L.Parmar	9426536078	079-23221459	-
21	Executive Engineer,Irrigation (Panchayat)	Shree Tejash Magukiya	7383456828	079-23221459	execpz-rmb@gujarat.gov.in
22	Executive Engineer,GWSSB	Shree Jatin Patel	9879209698	-	gwseecgnr0@gmail.com
23	Dy Director of Animal Husbandry	Dr. S.I Patel	7984363318	-	dahogandhi@gmail.com
24	District Agriculture Officer	Shree J.S Patel	9426597370	-	daognr17@gmail.com
25	Program Officer ICDS	Kinajl Dave	9898735080	-	-
26	Dy Director Industrial Safety And Health	Shree J.Bodat	9601298852	-	-
27	DC/ST Manager GSRTC	Shree H.P Raval	6359918291	-	-
28	Regional Officer,GPCB	Shree Sanjay Malsatar	9426931820	-	gpcbchairman@gmail.com
29	Mamltar Disaster	Rajeshree Parmar	9979246021	079-23252558	dismgmt-gnr@gujarat.gov.in
30	DPO Disaster Management	Maulik P Pandya	721124455-9724354455	079-23252558	mppandyaamsw@gmial.com
31	Dy.Mamltar Disaster	Bhavna Sukala	9825685138	079-23256720	dismgmt-gnr@gujarat.gov.in

26 District Name:- Tapi						(STD Code: 02626)		
Sr. No.	Designation	Name	Mobile No.	Office No.	E-Mail ID			
1	Collector	Dr. Vipin Garg	9978405364	224460	collector-tapi@gujarat.gov.in			
2	DDO	Shri Ram Nivas Bugaliya	9978405263	222141	ddo-tapi@gujarat.gov.in			
3	SP	Shri Rahul Patel	9978405488	222700	sp-tapi@gujarat.gov.in			
4	RAC	Shri R.R.Borad	9978405415	224450	addcollector-tapi @gujarat.gov.in			
5	DFO	Shri Sachin Gupta	6377425428	222019	dcfvyara1@gmail.com			
6	DRDA	Mrs. Khyati Patel	9978370476	223232	drda.tap@gmail.com			
7	DSO	Shri Sagar Movaliya	9737756697	224401	Inc-dso-tapi@gujarat.gov.in			
8	Dy. SP (divisional)	Shri P G Narvade	9978408077	224193				
9	CDMO	Dr D.C.Gamit	9687303447	220053	ghvyara@gmail.com			
10	Dy. DDO	Shri B.R.Chavda	8866739434	220405	ddo-tapi@gujarat.gov.in			
11	District Planning Officer	Shri K V Patel	9428383112	222669	dpotapi37@gmail.com			
12	CDHO	Dr Anil Vasava	9727702154	220376	cdho.health.tapi@gmail.com			
13	DEO	smt Dharaben Patel	9512894291	221624	tapideo@gmail.com			
14	DPEO	Smt Varsha vasava	8141241444	222057	tapidpc@gmail.com			
15	General Manager DIC	Shri D.D.Solanki	9974171249	221840	gm-dic-tap@gujarat.gov.in			
16	Dy.Dir.Info	Shri Yagnesh Gosai	9726034321	222980	tapiadi932@gmail.com			
17	Ex.Engg.R&B (State)	Shri M.N.Patel	9978405672	220419	rmbtapi@yahoo.co.in			
18	Ex.Engg.R&B (Panchayat)	Shri D.A.Patel	9979353215	220058	exepan_rnb_tapi@yahoo.in			
19	Ex. Engg. GWSSB	Shri Ankit Garasiya	9978406649	220338	eephvyara3@gmail.com			
20	Fire Officer	Shri Digvijay Gadhvi	9974335667	221015	vyaranagar@yahoo.co.in			
21	Supri. Engg.DGVCL	Shri B.P.Gohil	9879200771	220165	do.vyara@gebmil.com			
22	Director of Animal Husbandry	Dr. R.S.Gavit	9427154641	220679	a.h.d.tapi@gmail.com			
23	District Agriculture Officer	C.C.Garasiya	9909971329	220365	agri.tapi@gmail.com			
24	Program Officer ICDS	Tanvi patel i/c	9662493153	224577	dpc.icds.tapi1@gmail.com			
25	Supri.of Fisher	Shri Jigneshbhi Gohel	9825452992	233556	fisheriesdepartment.ukai@gmail.com			
26	Regional officer GPCB	Shri B.A.Chauhan	9601269125	2653501	Jtdish-sur@gujarat.gov.in			
27	DGM/AGM/BSNL	Shri Sapna Gangvar	9429408330	-	-			
28	Mamlatdar Disaster	Shri S.L.Jadav(I/C)	9913207725	223332	Disatapi26@gmail.com			
29	DPO Disaster	Shri K.K.Gamit	9825920032	223332	Dpo.gsdma.tapi@gmail.com			
30	Dy.Mamlatdar Disaster	Shri S.L.Jadav(I/C)	9913207725	223332	Disatapi26@gmail.com			

27 District Name:- Anand						(STD Code: 02692)	
Sr. No.	Designation	Name	Mobile No.	Office No.	E-Mail ID		
1	Collector	Shri praven chodhary	9978406203	262271	collector-anand@gujarat.gov.in		
2	DDO	shri devahuti	9978406228	264110	ddo-anand@gujarat.gov.in		
3	SP	Shri Rahul Patel	9978405488	222700	sp-anand@gujarat.gov.in		
4	RAC	Shri ruturaj desai	9978405175	224450	addcollector-anand @gujarat.gov.in		
5	DFO	Shri namrtaben italiya	9067786406	262751	defanad@gmail.com		
6	DRDA	Mrs. J.v.deasi	9099955929	223232	drda.tap@gmail.com		
7	DSO	Shri j.s.patel	7567010458	263620	dso-anand@gujarat.gov.in		
8	Dy. SP (divisional)	Shri j.n.panchal	9978428879	240515			
9	CDMO	Dr piyush r patel	7567870001	263277	ghanand@gmail.com		
10	Dy. DDO	Shri kinjal desai	9512585606	266319	ddo-anand@gujarat.gov.in		
11	District Planing officer	Shri Arpan shah	9725956594	261318	dpoanand37@gmail.com		
12	CDHO	Dr Amar pandya	9427597596	262751	ghanand@gmail.com		
13	DEO	smt kamini Trivedi	9909970231	264753	ananddeo@gmail.com		
14	DPEO	Smt archnaben.v.prajapati	9909971653	263205	ananddpc@gmail.com		
15	General Manager DIC	Shri j.p.zala	9909578681	264394	gm-dic-tap@gujarat.gov.in		
16	Dy.Dir.Info	Shri hetalbhai dave	9825599149	264994	anandadi932@gmail.com		
17	Ex.Engg.R&B (State)	Shri Hitesh gadhvi	9879650171	260455	rnbanand@yahoo.co.in		
18	Ex.Engg.R&B (Panchayat)	Shri Hitesh gadhvi	9879650171	261597	exepan_rnb_anand@yahoo.in		
19	Ex. Engg. GWSSB	Shri piyush deshmunh	9725739767	262044	eephanand3@gmail.com		
20	Fire Officer	Shri dharmesh gor	9375026058	221015	anandnagar@yahoo.co.in		
21	Supri. Engg.DGVCL	Shri B.P.Gohil	9879200771	220165	do.anand@gebmil.com		
22	Director of Animal Husbandry	Dr. R.S.Gavit	9427154641	220679	a.h.d.anand@gmail.com		
23	District Agriculture Officer	C.C.Garasiya	9909971329	220365	agri.anand@gmail.com		
24	Program Officer ICDS	Shri tejai goshwami	9723784464	224577	dpc.icds.anandI@gmail.com		
25	Supri.of Fisher	Shri r.p.sakherliya	8980254359	262023	fisheriesdepartment.and@gmail.com		
26	Regional officer GPCB	Shri m.u.patel	9825645297	263205	gpcb.and@gujarat.gov.in		
27	DGM/AGM/BSNL	Shri dharam shah	9427316400	-	-		
28	Mamlatdar Disaster	Shri jayesh vasav(I/C)	9428076304	269788	dismgmt-and@gujarat.gov.in		
29	DPO Disaster	Dr. Aanjala Gamadia	9898283817	269788	angelchrist90@gmail.com		
30	Dy.Mamlatdar Disaster	Shri jayesh vasav(I/C)	9428076304	269788	dismgmt-and@gujarat.gov.in		

28 District :- AMRELI					
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL
1	COLLECTOR	Shri Ajay Dahiya	9978406202	02792-222307	collector-amr@gujarat.gov.in
2	DDO	shri P . B. Pandya	9978406227	02792-222313	ddo-amr@gujarat.gov.in
3	SP	Shri Sanjay Kharat	9978405063	02792-222333	sp-amr@gujarat.gov.in
4	RAC	shri D. M. Gohil	9409390773	02792-228903	add-collector-amr@gujarat.gov.in
5	Dy.DDO(Rev.)	Shri D.A. Gohil (i/c)	9328535005	02792-223546	dyddo-rev-amr@gujarat.gov.in
6	Dy.DDO(Pan.)	Shri Arpan Chavada	7383939867	02792-223546	dyddo-pan-amr@gujarat.gov.in
7	Dy.CONSERVATOR OF FOREST	shri Vikas Yadav (IFS)	9978405130	02792-226984	dcfamr@gmail.com
8	Dy.SP(HQ)	shri Chirag Desai	9978407973	02792-222132	sdpo-amr@gujarat.gov.in
9	CDHO	Dr. R.M. Joshi	9687642244	02792-232344	dso.health.amreli@gmail.com
10	DIRECTOR DRDA	shri K.A. Jadeja	7567031983	02792-223563	drdaamreli@yahoo.com
11	DSO	shri P B Kumbhani	9879836437	02792-231322	dso-amr@gujarat.gov.in
12	MEDICAL OFFICER	Dr. Dhara Joshi	9427284600	02792-222587	cdmo.health.amreli@gmail.com
13	CDMO	Dr. Dhara Joshi	9427284600	02792-222587	cdmo.health.amreli@gmail.com
14	DEO	shri M.B. Gohil	9909970203	02792-222936	amrelideo@gmail.com
15	DPEO	shri K V Miyani	9909971652	02792-222109	adpeoamr@gmail.com
16	GENERAL MANAGER DIC	shri J.D. Ninama	9925194121	02792-222529	gm-dic-amr@gujarat.gov.in
17	DY.DIRECTOR INFORMATION	Smt Divyaben Chantbar	8980784382	02792-223404	amrelisse@gmail.com
18	EXEN STATE	shri H J Dholavala	9099885607	02792-223100	exe-amr-rnb@gujarat.gov.in

28 District :- AMRELI					
Sr. No.	DESIGNATION	NAME	MOBILE	LANDLINE NO.	EMAIL
19	EXEN.R&B(PANCHAYAT)	shri Smit Chaudhari	9879261664	bandh che	eeprnbamreli@gmail.com
20	EXEN.IRRIGATION(STATE)	shri H.C. Vaza	9978881177	2792222009	eeaidamr@gmail.com
21	EXEN.IRRIGATION(PANCHAYAT)	shri S R Katariya (i/c)	9429976476	02792-222164	amrpil@yahoo.co.in
22	EXEN.GWSSB	shri P.J. Vaghasiya	9998978475	02792-	eegwssbamreli@gmail.com
23	SUPERITENDENT ENGINEER PGVCL	shri P.G. Parikh	9825603179	02792-223836	seamr.pgvc1@gujarat.gov.in
24	Dy.DIR.ANIMAL HUSBANDRY	Dr. S B Kunadiya	9712275101	02792-223058	dydir_ah_amr@gujarat.gov.in
25	DIST.AGRICULTURE OFFICER	shri Jignesh Kanani	9913215747	02792-223324	dao2-amr@gujarat.gov.in
26	PO-ICDS	shri Dakshaben Bhatta (i.c.)	7817002606	02792-231326	po.icds.amreli@gmail.com
27	DIR.INDUST.SAFETY AND HEALTH	J.M. Dvivedi	9824190891	2852636946	dydish-jun@gujarat.gov.in
28	DC GSRTC	shri A. J. Solanki	6359919027	02792-240450	dcgsrtcaml@gmail.com
29	ASSI. DIR OF FISHERIES	shri K M Shikotar	8866646675	bandh che	adf_fish_jfd@gujarat.gov.in
30	REGIONAL OFFICER GPCB	shri A J Rathod	8140944711	0278-2566108	ro-gpcb-bhav@gujarat.gov.in
31	DGM BSNL	shri M G Bhadru	9427110211	2792231600	bhadrumansukh5@gmail.com
32	MAMLATADAR DISASTER MANAGEMENT	A.R. Gosai (i/c)	9428341183	02792-230735	dismgmt-amr@gujarat.gov.in
33	DPO DISASTER MANAGEMENT	Shri Shailesh U Parmar	9913486219	02792-230735	dismgmt-amr@gujarat.gov.in
34	Dy. MAMLATDAR DISASTER MANAGEMENT	A.R. Gosai (i/c)	9428341183	02792-230735	dismgmt-amr@gujarat.gov.in

29. DISTRICT NAME:- Mehsana					
Sr. No	Designation	Name	Mobile No.	Landline No.	Email
1	Collector	Shri S.K. Prajapati	9978406214	02762-222200	collector-meh@gujarat.gov.in
2	DDO (District Development Officer)	Hasart Jasamin	9978406239	02762-222328	-
3	SP (Superintendent of Police)	Dr. Tarun Duggal	9978405074	-	-
4	RAC (Resident Additional Collector)	Shri J.K. Jegoda	9978405213	02762-222203	addi-collector-meh@gujarat.gov.in
5	Dy. DDO (Deputy District Development Officer)	Ms. Harshmidhi Shah	9998436041	02762-222328	dyddovikas98@gmail.com
6	Dy. Conservator of Forests	Deputy Forest Conservator, Mehsana	7574950444	02762-221125	ecfsfmehsana@gmail.com
7	Dy. SP (HQ)	-	-	-	-
8	CDHO (Chief District Health Officer)	Dr. B.B. Solanki	9099064816	02762-222324	cdho.health.mehsana@gmail.com
9	Director DRDA	Ms. Harshmidhi Shah	9998436041	02762-222328	Drda.meh2@gmail.com
10	DSO (District Supply Officer)	Shri Biren Patel	7567022373	02762-222208	dso-meh@gujarat.gov.in
11	Medical Officer	-	-	-	-
12	CDMO (Chief District Medical Officer)	Dr. B.B. Solanki	9099064816	02762-222324	cdho.health.mehsana@gmail.com
13	DEO (District Education Officer)	Shri B.N. Patel	9909970213	-	-
14	DPEO (District Primary Education Officer)	Shri Sharad K. Trivedi	9909971684	02762-222320	dpomehsana@gmail.com
15	General Manager DIC	Shri H.N. Mevada	9978675598	-	-
16	Dy. Director of Information	Shri Devendra Kadiya	9574099942	02762-221888	dmo-meh@gujarat.gov.in
17	Executive Engineer (State)	Shri V.N. Vadhela	9979402530, 9429232939	-	-
18	Executive Engineer R&B (Panchayat)	Shri J.A. Chaudhary	9687892610	02762-222308	-

29. DISTRICT NAME:- Mehsana					
Sr. No	Designation	Name	Mobile No.	Landline No.	Email
19	Executive Engineer Irrigation (State)	Shri R.B. Makwana	9974160582	02762-222308	exeiri-ddo-meh@gujarat.gov.in
20	Executive Engineer Irrigation (Panchayat)	Shri R.B. Makwana	9974160582	02762-222313	exeiri-ddo-meh@gujarat.gov.in
21	Executive Engineer GWSSB	Shri Kailas Mevada	9978406762	-	-
22	Superintendent Engineer UGVCL	Shri K.A. Modi	9925212231	-	-
23	Dy. Director Animal Husbandry	Dr. Bhamesh Kumar D. Amin	9428357723	02762-222481	ahdpmehsana@gmail.com
24	District Agriculture Officer	Shri Anishbhai Bhatt	02762-222316, 02762-222317	-	dao-ddo-meh@gujarat.gov.in
25	PO-ICDS (Program Officer - Integrated Child Development Services)	Mrs. Chaitaliben Chaudhary	9427683983	02762-222410	-
26	Director, Industrial Safety & Health	Dr. Bhamesh Kumar D. Amin	9428357723	02762-222481	ahdpmehsana@gmail.com
27	DC GSRTC (Divisional Controller, Gujarat State Road Transport Corporation)	Shri G.H. Goswami	6359919036	02762-2223437	-
28	Superintendent of Fisheries	Shri D.N. Patel	9904844142	-	-
29	Regional Officer GPCB (Gujarat Pollution Control Board)	Shri K.J. Nayak	7990289213	-	-
30	DGM BSNL	-	-	-	-
31	Mamlatdar, Disaster Management	Shri J.C. Chauhan	9737879695	-	dismgmt-meh@guj.gov.in
32	DPO, Disaster Management	Shri K.B. Prajapati	7096992296	02762-222220	-
33	Dy. Mamlatdar, Disaster Management	Priyanka Vihol	8347562785	02762-222220	dismgmt-meh@guj.gov.in

30 .DISTRICT NAME:-Devbhumi Dwarka					
Sr. No	Designation	Name	Mobile No.	Landline No.	Email
1	Shri R. M. Tanna (IAS)	Collector	02833-232803	9978405933	collector-devbdwarka@gujarat.gov.in
2	Shri B. M. Jotania	Resident Deputy Collector	02833-232620	9727763794	addl-collector-dev@gujarat.gov.in
3	Shri B. M. Jotania (E.Ch.)	CEA, Khambhaliya Area Dev. Authority	02833-235970		cea.khada.2011@gmail.com
4	Shri J.D. Patel	Deputy District Election Officer	02833-234003	9978405950	eo-devbdwarka@gujarat.gov.in
5	Ms. K.B. Solanki	District Supply Officer	02833-235990	9879671561	supp-devbdwarka@gujarat.gov.in
6	Ms. Rigghiben Rajyaguru	Deputy Collector - 1		7405861112	
7	Mr. M. B. Desai	Deputy Collector - 2		9978408213	
8	Mr. K. Krant	Provincial Officer, Khambhaliya	02833-234577	9978405354	sdm-kham-jam@gujarat.gov.in
9	Mr. Amol Swate, IS	Provincial Officer, Gwarka	02892-235733/53	7567001052	dwarkaprant@gmail.com
10	Mr. Himanshu Chauhan	Administrator, Shri Dwarkadhish Temple, Gwarka		9925912311	dwarkadhish temple@dwarkadhish.org
14	Mr. Vishal Patel	Mamlatdar, Disaster	02833-232125	9374666888	disa-devbdwarka@gujarat.gov.in
15	Mr. J.M. Mehta	Mamlatdar, Dwarka	02892-234541	7567002769	mam-okhamandal@gujarat.gov.in

30 .DISTRICT NAME:-Devbhumi Dwarka					
Sr. No	Designation	Name	Mobile No.	Landline No.	Email
16	Mr. V.R. Varu	Mamlatdar, Khambhalia	02833-234788	8141184120	mam-khambhalia@gujarat.gov.in
17	Mr. R.H. Suva	Mamlatdar, Kalyanpur	02891-286227	7567099970	mam-kalyanpur@gujarat.gov.in
18	Mr. A.P. Chavda	Mamlatdar, Bhanvad	02896-232113, 232116	7567002729	mam-bhanvad@gujarat.gov.in
19	Mr. K. V. Sherthiya	Taluka Development Officer, Khambhalia	02833- 234792/99	9427240250	tdo-khambhalia@gujarat.gov.in
20	Mr. N.L. Bedyavdara	Taluka Development Officer, Bhanvad	02896-232024	9979394409	tdo-bhanvad@gujarat.gov.in
21	Mr. Gaurav A. Parmar	Taluka Development Officer, Kalyanpur	02891-286223	7567018989	tdo-kalyanpur@gujarat.gov.in
23	Mr. Uday R. Naseet	Chief Officer, Dwarka Municipality	02892-234919, 234449	7016848701	dwarkanagarpalika@gmail.com
24	Mr. Rahul B. Karmoor	Chief Officer, Khambhaliya Municipality	02833-234712	7046465432	np_khambhaliya@yahoo.co.in
25	Mr. Amit A. Pandya	Chief Officer, Salaya Municipality	02833-285448	9106894100	np_salaya@yahoo.co.in
26	Mr. Bhavesh Bantwa	Chief Officer, Bhanvad Municipality	02896-232159	7602061643	np_bhanvad@yahoo.co.in
27	Mr. K.P. Shukla	Chief Officer, Okha Municipality	02892-262035	9978920988	np_okha@yahoo.co.in
28	Mr. B.K. Parmar	Chief Officer, Rawal Municipality	02891-228249	9974010397	np_jamraval@yahoo.co.in

31. District Name :- Kutch				STD :- 02832		
Sr. No	Designation	Name	Mobile	Landline No.	Email	
1	Collector	Shri Anand Patel	9978406213	250020	collector-kut@gujarat.gov.in	
2	D.D.O.	Shri Utshav Gautam	9978406238	250080	ddo.kachchh@gmail.com	
3	D.S.P.(EAST-WEST)	Shri Vikash Suda(East) Shri Sagar Baghmar (West)	9978405073 9978405690	02832 02836	sp-east-kut@gujarat.gov.in sp-west-kut@gujarat.gov.in	
4	Resi. Addl. Collector	Shri D.P. Chauhan	9978405212	250650	collector-kut@gujarat.gov.in	
5	Dy. District Development Officer (Development)	Shri Vijayaben Prajapati	9429629183	222103	ddo.kachchh@gmail.com	
6	Dy. District Development Officer (Mehsul)	Shri C.R. Prajapati	9537798345	251150	ddo.kachchh@gmail.com	
7	Deputy Conservator of Forest (Social)	Shri Haresh Makavana	9998232577	250851	dcfwest@gmail.com	
8	Deputy Conservator of Forest	Shri Haresh Makavana	9998232577	250851	dcfwest@gmail.com	
11	Chief District Health officer	Shri N.M. Bhandari	9727700033	252207	cdho.health.kutch@gmail.com	
12	Director, DRDA	Shri Nikunj Parikh	6355003531	231577	drda.kut@gmail.com	
13	D.S.O.	Shri aarshi hashmi	8905038799	221453	DSO-KUT@gujarat.gov.in	
14	C.D.M.O.	Shri K.K. Roy	9537981308		cdmo.health.bhuj@gmail.com	
15	D.E.O.	Shri Sanjay Parmar	9909970204	250156	deo-kut@gujarat.gov.in	
16	D.P.E.O.	Shri B.M. Vaghela	9909971683	221103	deo-kut@gujarat.gov.in	
17	General Manager, DIC	Shri S.B. Parejija	6357150193	250501	gm-dic-kut@gujarat.gov.in	
18	Ass. Director of Information	Shri Ghanshyam Pedava	9429199886	224859	dio-kch@nic.in	
19	Nagar Palika Chi Fire officer	Shri Sachin.B. Parmar	9925428576	247030	np_bhuj@yahoo.co.in	
20	Executive Engineer, R & B (State)	Shri Kalpesh Nayi	9925871740	251450	rnb.kut@gmail.com	

31. District Name :- Kutch				STD :- 02832		
Sr. No	Designation	Name	Mobile	Landline No.	Email	
21	Executive Engineer, R & B (Panchayat)	Shri Topivala Sir	9825388575	250834	rnb.kut@gmail.com	
22	Executive Engineer, irrigation (State)	Shri D.V. Parmar	9978407103	250214	deekbcsdn23g@gmail.com	
23	Executive Engineer, irrigation (DDO Office)	Shri S.T. Chaudhri	7984981220	251879	President.kutch.panchayat@gmail.com	
24	Executive Engineer GWSSB	Shri Manoj Gurur	6351134578	221806		
25	Superintendent Engineer, PGVCL,	Shri B.S. Rathod	9979867510	253550	sebhj.pgvc@gmail.com	
26	Dy Director of Animal husbandry (DDO Office)	Dr.R.D. Patel	9825260173	22165		
27	District Agriculture officer (DDO Office)	Shri K.O. Vaghela	7096062781	221155	kutchdao@gmail.com	
28	Program Officer ICDS (DDO Office)	Shri Dashrath Pandya	7990759914 9409394558	221904	po.icds.kutchhh@gmail.com	
29	Director Industrial Safety and Health	Shri R.H. Solanki	8980029190	260020	dvdish-kutch@gujarat.gov.in	
30	DC/ST Manager depot.	Shri Y.K. Patel	6359919029	221602	-	
31	Superintendent of Fisheries	Shri Sangita Bharaliya	9662546241	-	adf-fisheries-bhuj@gujarat.gov.in	
32	Regional officer, GPCB	Shri Naresh Chaudhri	8980024227	250620	ro-gpcb-kutw@gujarat.gov.in	
33	Dy. Manager BSNL	Shri manojkumar	9868130344	-	gmtdbhuijsnl@gmail.com	
34	Mamlatdar Disaster	Shri C.R. Nimavat	8306794193	252347	dismgmtkut@gmail.com	
35	D.P.O. Disaster	Shri N.R. Dayama	8160304982	252347	dismgmtkut@gmail.com	
36	Dy. Mamlatdar Disaster	shre D.K. Chaudhry	9898599487	252347	dismgmtkut@gmail.com	

32. District Name:- Bhavnagar						STD :- 0278	
Sr. No	Designation	Name	Mobile	Landline No.	Email		
1	Collector	Shri D.M.Solanki (I/C)	9978406206	2428822	collector-bav@gujarat.gov.in		
2	Municipal Commissioner	Shri Hanul Chaudhari (I/C)	9978404500	2439900	comm-bmc@gujarat.gov.in		
3	DDO	Shri Hanul Chaudhari	9978406231	2426810	ddo-bav@gujarat.gov.in		
4	RCMO	Shri D.M.Solanki	9978404035	2520600	rcm-bav@gujarat.gov.in		
5	SP	Shri Harshad Patel	9978405067	2520050	sp-bav@gujarat.gov.in		
6	DCF	Shri Sadik Mujavar	7567861778	2428644	dcf-bav@gujarat.gov.in		
7	RAC	Shri N.D. Govani	9978405178	2421881	add-collector-bav@gujarat.gov.in		
8	Dy.DDO(Revenue)	Shri Dhiren Sonara	9428360190	2428864	dyddo-rev-bav@gujarat.gov.in		
9	Dy.SP(HQ)	Shri R.R.Singhal	9978407983	2518091	dysp-bav@gujrat.gov.in		
10	CDHO	Dr.Chandramanikumar	9727779661	2423665	cdho.health.bhavnagar@gmail.com		
11	Director-DRDA	Shri J.N. Jaru	7567032839	2427535	drda.bav@gmail.com		
12	DSO	Shri C.M. Prajapati	7567010346	2428908	dso-bav@gujarat.gov.in		
13	Superintendent-Civil Hospital	Dr. Chinmay Shah	9328938008	2427524	ms.health.bhavnagar@gmail.com		
14	Medical Officer of Health-BMC	Dr. R.K. Sinha	9727776890	2430249	moh.health.bhavnagar@gmail.com		
15	DEO	Shri H.D. Padheriya	9909970212	2426629	deo-bav@gujart.gov.in		
16	DPEO	Shri K.A.Patel	9909970212	2523582	dpeobhavnagar@gmail.com		
17	General Manager-DIC	Shri S.B. Bhatiya	7203027889	2422225	gm-dic-bav@gujarat.gov.in		
18	Dy.Director-Information	Shri R.S. Chauhan	9978894289	2424994	mahitibhavnagar@gmail.com		

32. District Name:- Bhavnagar						STD :- 0278	
Sr. No	Designation	Name	Mobile	Landline No.	Email		
19	Exen. R&B (State)	Shri D.L. Mer	9825819776	2423383	eebhavnagar@gmail.com		
20	Exen. R&B (Panchayat)	Shri A.G. Sarvaiya	7016606240	2422548	gj-bhv@nic.in		
21	Exen.irrigation (State)	Shri Ashish Baladhiya	9428967153	2430155	ee.bidbvn@gmail.com		
22	Exen.irrigation (Panchayat)	Shri Prakashsinh Chauhan	9913331633	2430155	bvnpid@yahoo.co.in		
23	Exen.GWSSB	Shri P.G. Makwana	9978406870	2425849	gwssb-bav@gujarat.gov.in		
24	Sup.Engineer-PGVCL	Shri Y.R. Jadeja	9879203840	2524924	sebvnp.gvcl@gmail.com		
25	Dy. Director-Animal Husbandry	Dr. K.H. Baraiya	9427511553	2524376	dydir-ah-bav@gujarat.gov.in		
26	District Agriculture Officer	Shri A.M. Patel	9427632297	2439931	dao-ddo-bav@gujarat.gov.in		
27	PO- ICDS	Shri Ramesh Jakhariya	9924527074	2519411	pobhavnagar@gmail.com		
28	Assistant Director-DISH	Shri Mitesh Menat	9427508476	2428473	astdish-bav@gujarat.gov.in		
29	DC-GSRTC	Shri R.D.Pilvaykar	6359919028	2428264	dc_bvn@yahoo.in		
30	Assi.Director-Fisheries	Shri J.L. Gohil	9825452992	2427567	asscheccommi-bav@gujarat.gov.in		
31	Regional Officer-GPCB	Shri A.J. Rathod	8140944711	2524108	ro-gpcb-bhav@gujarat.gov.in		
32	DGM-BSNL	Shri Faruk Rathod	9426201007	2434000	gm_bvn_guj@bsnl.co.in		
33	Mamlatdar-Disaster Management	Shri A.D.Kubavat (I/C)	9426902111	2521555	dismgmt-bav@gujarat.gov.in		
34	DPO-Disaster Management	Shri Dimpal Teraiya	9824438275	2521554	teraiya.dimpal.89@gmail.com		
35	Dy.Mamlatdar-Disaster Management	Shri Hardev Chauhan (I/C)	9429646276	2521555	dismgmt-bav@gujarat.gov.in		

33. District Name:- Porbandar					STD :- 0278	
Sr. No.	Designation	Name	Mobile	Landline No.	Email	
1	Collector	Shri S.D.Dhanani	9978406219	2221800	collector-por@gujarat.gov.in	
2	DSP	Shri B.U.Jadeja	9978405079	2211222	sp-por@gujarat.gov.in	
3	DDO	Sheri B.B.CHAUDHARI	9978406244	2243803	ddo-por@gujarat.gov.in	
4	Resident Additional Collector	Shri J.B.VADAR	9978405191	2221085	add-collector-por@gujarat.gov.in	
5	Director, DRDA	Shri Rekhaba Sarvaiya	9925017584	2213736	drda.por@gmail.com	
6	DSO	Shri H.P.Joshi	9428522300	2220070	dso-por@gujarat.gov.in	
7	Dy. DDO (Revenue)	Shri P.L. Vaghani	8128953600	2252806	ddo-por@gujarat.gov.in	
8	CDHO	Shri Dr.D.B.Maheta	9909987301	2241134	cdho.health.porbandar@gmail.com	
9	DEO	Shri V.K.Parmar	9909970225	2251350	porbandardeo@gmail.com	
10	DPEO	Shri V.K.Parmar	9909970225	2252808	dpeoporbandar@gmail.com	
11	General Manager DIC	Shri D.R.Parmar	7096958566	2222168	gm-dic-por@gujarat.gov.in	
12	Asst. Director of Information	Shri Naresh Mehta	9825263775	2222470	informationpor@gmail.com	
13	Fire Officer	Shri Rahul Gohil	9558989101	2249850	copbr2008@gmail.com	
14	Disaster Mamlatdar	Shri M.H.Jani	9664591210	2220800	dismgmt-por@gujarat.gov.in	
15	Disaster Dy.Mamlatdar	Shri D.A.Patel	9904035840	2220800	dismgmt-por@gujarat.gov.in	
16	DPO(GSDMA)	Shri Gautam Vala	8000256651	2220801	dpodisasterpbr@gmail.com	
17	EME 108	Shri Jayeshgiri Meghnathi	9510887108	-		

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	https://rsmcnewdelhi.imd.gov.in/ , https://mausam.imd.gov.in/ , https://mausam.imd.gov.in/ahmedabad/
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 Amit Dongre	9154097796	Ms. Megha Rabari	8160439782
		Shri Om Jadeja	7069013706			Mr. Himanshu Solanki	79849599534
2	Vadodara	Shri Manoj Kumar Patil	9825492607	Shri Yuvrajdan Gadvi	7359866733	Chirasmitha Barik	9737478088
3	Gandhidham-Kutch	Shri Sachin Parmar	9925428576	Shri Narendra Bhai Gadhavi	9687660749	Niravsinh Rajput	8160304982
4	Surat	Shri Basant Pareek	9724345553	Shri Jagdish Patel	9724345684	Nital Doshi	8780656017
						Kaushik Kumar	9033920674
5	Rajkot	Shri Amitbhai Dave	9714504346	Shri Rahim Joban	9824297867	Bhaskar Hasmukh Pooja Waghmore	7984161037 9558710558

Annexure 3 (Ref Page 50)

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:

Building Name: _____

Address: _____

Contact: _____ Phone: _____

Survey No.: _____

Final Plot No.: _____

Sub Plot No.: _____

Town Planning Scheme No.: _____

Brief Details:

Number of stones above ground: _____

below ground: _____

Parking Floor: ☐ Ground Level

☐ Basement Level

Approx. Footprint area (sqm): _____

No. of residential units: _____

No. of residential units: _____

not habitable

(To be collected from Competent Authority)

Type of Construction:

☐ Timber Construction

☐ Masonry Construction

☐ Kiln burnt bricks

☐ Unburnt bricks

☐ Random Rubble Uncoarsed

☐ Random Rubble Coarsed

☐ Hollow Concrete Blocks

☐ Steel Structure

☐ Other: _____

☐ Reinforced Masonry

☐ Kiln burnt bricks

☐ Hollow Concrete Blocks

☐ Concrete Frame

☐ Concrete Shear Wall

☐ Dual System

☐ Precast Concrete Construction

☐ Composite Structure

Primary Occupancy:

☐ Individual House

☐ Offices

☐ Government

☐ Semi Government

☐ Emergency Services

☐ Hospital

☐ Commercial

☐ Restaurant

☐ Hotel

☐ Industrial

☐ Cinema House, Auditoriums, Assembly Halls

☐ Other: _____

☐ Educational

☐ School

☐ College

☐ University

☐ Group Housing

☐ Tenements

☐ Flats

☐ Historic

☐ Fire Stations

D. Assessment:

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

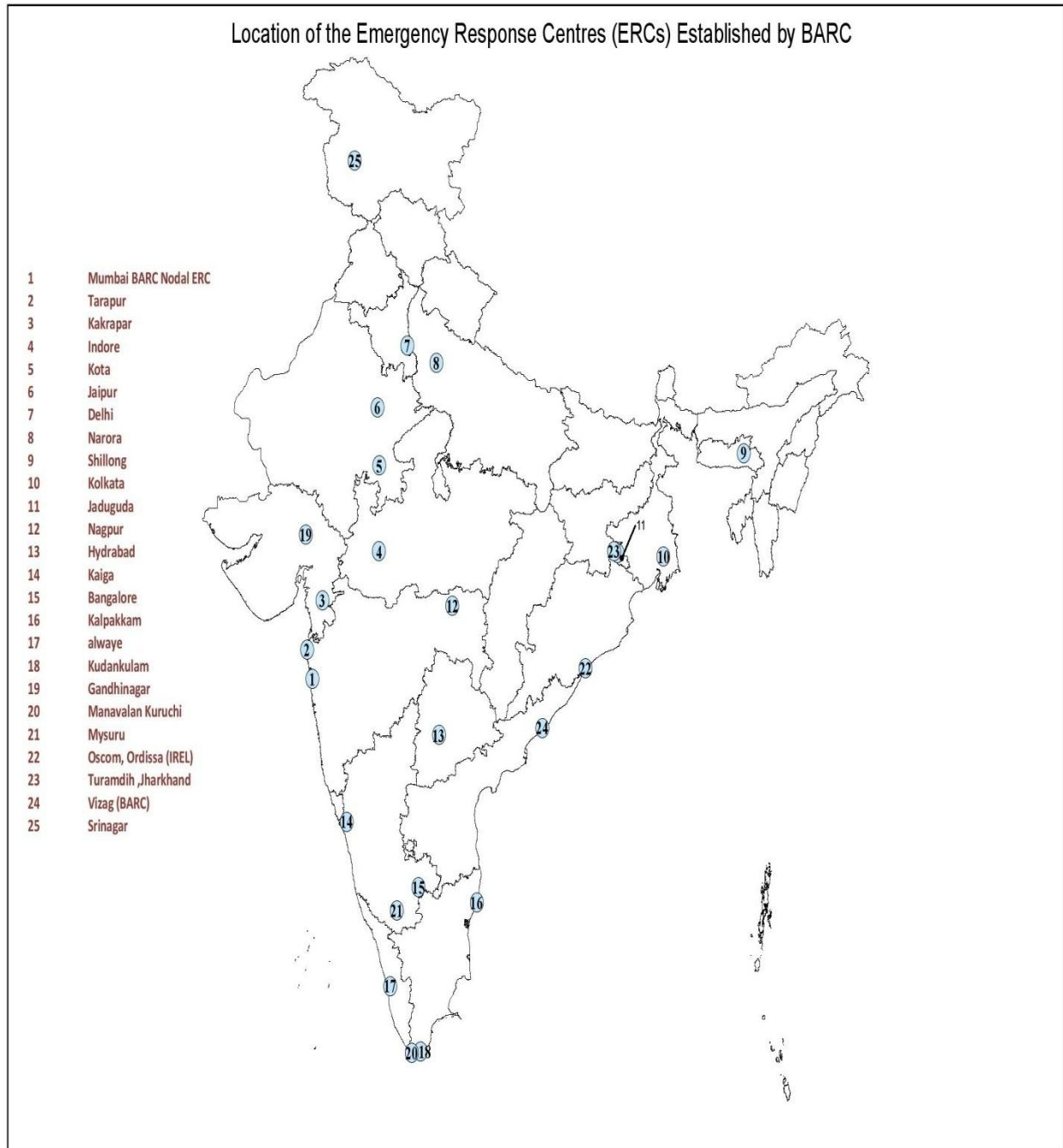
Observed Conditions	None	Minor	Moderate	Severe
● Collapse, partial collapse, or subsidence or uneven settlement of foundations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Building or story leaning	<input type="checkbox"/>	<input type="checkbox"/>	<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 (Ref Page 110)

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



Annexure 5 (Ref Page 111)

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 (Ref Page 112)

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 114)

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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