



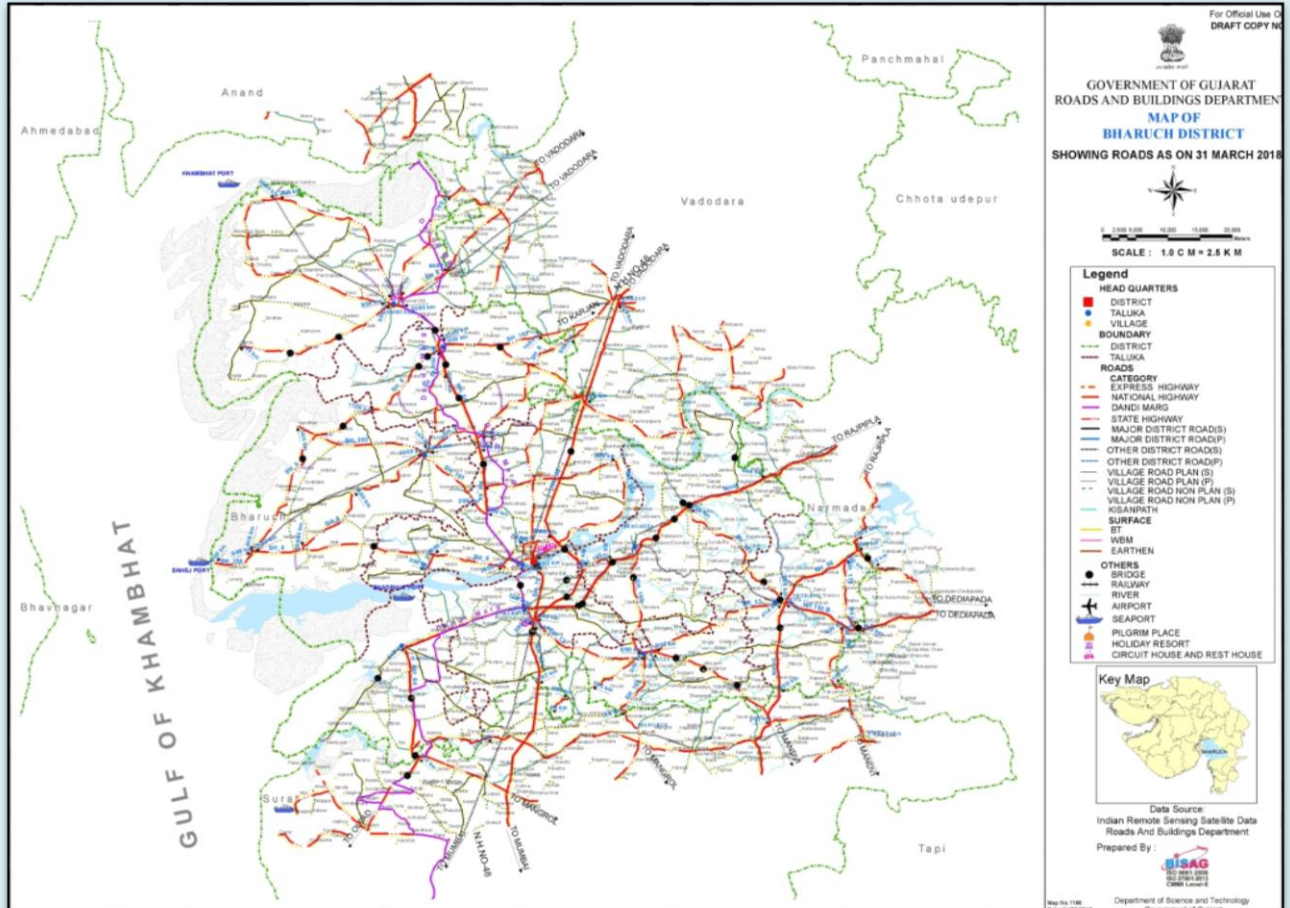
सत्यमेव जयते  
Government of India

# Bharuch District

## Disaster Management Plan 2021-2022



સત્યમેવ જયતે  
ગુજરાત સરકાર



Collector Office - Bharuch

&

Gujarat State Disaster Management Authority



**BHARUCH DISTRICT DISASTER  
MANAGEMENT PLAN**

**Name of the District : - Bharuch**

**Date (Plan Last Submitted) : - May 2020**

**Date (Plan Last Updated) :- May 2021**

**Signature of District Collector :-**

**Emergency Operation Center, Collector Office, Bharuch**

**&**

**Gujarat State Disaster Management Authority**

**May 2021**



**Dr. M. D. Modiya (IAS)**

## PREFACE

The district disaster management plan is part of multi- level planning advocated by the Disaster Risk Management Programme an initiative of the government of Gujarat Preparedness of such a plan for Bharuch assumes significance given multi hazards scenario of the district i.e. natural and Disaster includes flood, cyclone, and storm surge and man-made includes industrial- chemical, fire, building collapse, communal right are main hazards of the district. Several efforts have been made over the years to address all these hazards by the district administration. However there remained several gaps which needed urgent plugging in.

The Multi –Hazards District Disaster Management Plan of Bharuch District is basically action plan for various hazards, which envisages an Incident Response System with a clear line of command but also provide garter role clarity with delegation of specific power and responsibility to each staff in the structure

**This is a comprehensive document covering all possible hazards, with a systematic analysis of risk & vulnerability, elements at risk and level of compact through scientific and experience developed by the team of district administration.**

I appreciate the work carried out by Mr. Saibal Sarkar, District Project Officer of GSDMA and Bharuch district who has been taken lead for developing and compiling DDMP for the year 2021-2022. I also appreciate support from Disaster Management Team members. I hope that each and every administrative unit of the district, industrial stake holders and Mutual Aid Members will use this action plan in the true spirit. I wish that no disasters ever occur, but in case of their occurrence, this action plan indication preparedness of macro to micro level will be very helpful to the people of the district and state as a whole. Hope for safe world.

I think this plan will useful to the entire department to understand the IRS, District Hazard, Risk, and Vulnerability assessment of the district.

**Dr. M.D Modiya (IAS)  
Collector & District Magistrate  
Bharuch**

## **CHECKLIST**

Given below is the general list of important actions / items required in a Disaster. Please check out the items pertaining to your area / function.

- District Collector is the chief custodian of this plan document and also ensures that this plan document is reviewed and updated regularly.
- The Collector shall submit a copy of district disaster management plan and of any amendment thereto to the GSDMA and the State Relief Commissioner as well.
- Each govt. department shall prepare a disaster management plan for the district and Collector shall ensure that such plans are integrated into the district disaster management plan.
- The departmental heads of the district shall ensure that all employees have gone through this document and aware of their roles and responsibilities.
- Each department shall identify a disaster coordinator who will be responsible to coordinate with different taskforces.
- Each taskforce leader shall ensure, their SOPs are prepared and all the members have gone through the Plan/SOPs and clear about their role and responsibilities.
- During your absence/leave period, please keep key members informed.
- Make sure that you have identified an Alternate Member from your department who would function in your place in case of emergency.
- Each taskforce shall identify a Communication Coordinator from the taskforce members.
- Make sure, the facilities available at District Control Room (DCR) and Taluka control rooms are intact and are in good condition.
- Check that all Communication facilities like Telephones, Cell Phones, Radios, and Base Stations etc. under your control are in good operating condition and fully charged.
- Ensure that you have the latest revised list of Emergency Contact Numbers and addresses.
- Ensure availability and operability of all resources under your control and at identified resource locations in neighboring districts for quick mobilization to emergency site.
- Maintain the records of area-wise population, shelter centers in your area for effective emergency evacuation.
- Check that the updated list of blood donors is available.
- Ensure adequate inventory of critical equipment/spares/medicines is available
- Make sure that all Fire Protection systems, rescue equipment, PPEs and other emergency equipment are in good state of repair

## Abbreviation

AAI	Airport Authority of India
ACWCs	Area Cyclone Warning Centres
AERB	Atomic Energy Regulatory Board
BARC	Bhabha Atomic Research Centre
BIS	Bureau of Indian Standard
BISAG	Bhaskaracharya Institute for Space Applications and Geo-Informatics
BOOT	Build Own Operate and Transfer
BPL	Below Poverty Line
CBOs	Community Based Organizations
CBRN	Chemical, Biological, Radiological and Nuclear
CCG	Central Crisis Management Group
CDMA	Code Division Multiple Access
CDO	Central Design Organization
CEO	Chief Executive Officer
CFO	Chief Fire Officer
CMG	Crisis Management Group
CoH	Commissioner of Health
COR	Commissioner of Relief
CP	Commissioner of Police
CWC	Central Water Commission
CWCs	Cyclone Warning Centers
CWCS	Cyclone Warning Dissemination System
DAE	Department of Atomic Energy
DCG	District Crisis Management Group
DCR	District Control Room
DDO	District Development Officer
DEOCs	District Emergency Operation Centres
DG	Director General
DGHS	Directorate General of the Health Services
DGP	Director General of Police
DIG	Deputy Inspector General
DSO	District Supply Officer
DSP	District Superintendent of Police
DISH	Director Industrial Safety & Health
DM	Disaster Management
DoR	Director of Relief
DP&S	Directorate of Purchase and Stores
DPR	Detailed Project Report
DRM	Disaster Risk Management DRM
DRMP	Disaster Risk Management Programme
EFC	Expenditure Finance Committee
EMS	Emergency Medical Services
EOC	Emergency Operation Centre
ERCs	Emergency Response Centres
ERTs	Emergency Response Teams
ERU	Emergency Response Unit
F&ES	Fire and Emergency Services
GAD	General Administration Department
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
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
GSWAN	Gujarat state Wide Area Network
GUVNL	Gujarat Urja Vikas Nigam Limited
GWSSB	Gujarat Water Supply & Sewerage board
HAZCHEM	Hazardous Chemicals
HF/VHF	High Frequency/VeryHigh Frequency
HoD	Head of Department
HRVA	Hazard, Risk and Vulnerability Assessment
HWB	Heavy Water Board
IDRN	India Disaster Resource Network
IEC	Information Education Communication
IMD	Indian Meteorology Department
INCOIS	Indian National Centre for Ocean Information Services
INSAT	Indian National Satellite System
IRC	Indian Road Congress
IRIS	Incorporated Research Institute for Seismology
ISR	Institute of Seismological Research
ISRO	Indian Space Research Organisation
ITC	Information and Communication Technology
ITCS	Information Communications Technology System
KAPS	Kakrapar Atomic Power Station
LCG	Local Crisis Management Group
MAH	Major Accident Hazard
MFRs	Medical First Responders
MHA	Ministry of Home Affairs
MoA	Ministry of Agriculture
MoC & F	Ministry of Chemicals and Fertilizers
MoC & I	Ministry of Commerce and Industry
MoD	Ministry of Defence
MoEF	Ministry of Environment & Forests
MoF	Ministry of Finance
MoLE	Ministry of Labour and Employment
MoP & NG	Ministry of Petroleum and Natural Gas
MoSRT&H	Ministry of Shipping, Road Transport and Highways
MSDS	Material Safety Data Sheet
MSZ	Makran Subduction Zone
NCC	National Cadet Corps
NCMC	National Crisis Management Committee
NDRF	National Disaster Response Force
NEC	National Executive Committee
NEIC	National Earthquake Information Centre
NGO	Non Government Organization
NGRI	National Geophysical Research Institute

NIDM	National institute of Disaster Management
NIOT	National Institute of Ocean Technology
NPCIL	Nuclear Power Corporation of India Ltd.
NSRA	Nevada Seismic Research Affiliates
NWRWS	Narmada Water Resouces Water Supply
PESO	Petroleum and Explosive Safety Organization
PPE	Personal Protective Equipments
PFZ	Potential Fishing Zones
PGA	Peak Ground Acceleration
PMO	Prime Minister's Office
PMS	Probable Maximum Surge
PPP	Public private Partnership
PS	Principal Secretary
QCI	Quality Council of India
QRMT	Quick Reaction Medical Team
R & B Dept.	Roads & buildings Department
R & R	Rehabilitation & Reconstruction
RDD	Radiological Dispersal Device
RED	Radiation Exposure Device
RESECO	Remote Sensing and Communication Centre
RSO	Radiological Safety Officer
SAR	Search and Rescue
SCG	State Crisis Management Group
SCMC	State Crisis Management Committee
SDMA	State disaster Management Authority
SDMP	State Disaster Management Plan
SDRF	State Disaster Response Force
SDRN	State Disaster response Network
SED	Site Emergency Director
SEOC	State Emergency Operation Centre
SMS	Short Messaging Service
SOG	Standard Operations Guide
SOP	Standard Operation Procedure
SRPF	State Reserve Police Force
SSNNL	Sardar Sarovar Narmada Nigam Limited
SST	Sea Surface Temperature
SWP	Single Wire Protocol
TEOCs	Taluka Emergency Operation Centers
UD & UHD	Urban Development & Urban Housing Development
UNDP	United Nations Development Programme
UTs	Union Territories
WALMI	Water and Land Management Institute
WAN	Wide Area Network
WSEAC	World Scientific and Engineering Academy and Society

<b>Index</b>		
<b>Section</b>	<b>Description</b>	<b>Page no.</b>
	List of abbreviations/acronyms	<b>5</b>
<b>1</b>	Introduction	<b>14</b>
	1.1 Objective	<b>14</b>
	1.2 Bharuch district profile	<b>17</b>
	1.3 Taluka level information:	<b>18</b>
	1.4 Climate	<b>18</b>
	1.5 River, dam & rainfall information	<b>18</b>
	1.6 Rainfall data of Bharuch district (2009 to 2019)	<b>19</b>
	1.7 Coastal areas, ports & fisheries	<b>19</b>
	1.8 Salt works	<b>20</b>
	1.9 Livestock	<b>20</b>
	1.10 Industries	<b>21</b>
	1.11 Roads & Railway	<b>21</b>
	1.12 Health facilities.	<b>21</b>
<b>1.1.</b>	1.1.1 Plan considerations	<b>21</b>
	1.1.2 Organization of plan	<b>22</b>
	1.1.3 Authority and responsibilities	<b>23</b>
	1.1.4 Concept of disaster management	<b>23</b>
	1.1.5 Approach to disaster management	<b>23</b>
<b>1.2</b>	Policy and responsibilities	<b>24</b>
	1.2.1 Warning, relief and recovery	<b>24</b>
	1.2.2 Mitigation, preparedness and prevention	<b>24</b>
	1.2.3 Finance	<b>25</b>
<b>1.3</b>	Preparation and revision of the plan	<b>25</b>
	1.3.1 Legal Backup	<b>25</b>
<b>2</b>	Hazards, Vulnerability and Risk Assessment	<b>27</b>
<b>2.1</b>	Multi-hazard profile of Bharuch	<b>28</b>
<b>2.2</b>	Flood hazard identification and risk assessment	<b>30</b>
	2.2.1 Flood related information	<b>31</b>
	2.2.2 Areas affected by Dhadhar River	<b>34</b>
	2.2.3 Areas affected by dam-site	<b>34</b>
<b>2.3</b>	Cyclone hazard & risk assessment	<b>35</b>
	2.3.1 Areas affected near the coastal belt:	<b>37</b>
<b>2.4</b>	Earthquake hazard & risk assessment	<b>37</b>
	2.4.1 Details of earthquake hazard-prone zone area, reason, effect in the district	<b>38</b>
	2.4.2 Oil & Natural gas pipeline details	<b>39</b>
	2.4.3 Details of Past Incident Surrounding Pipelines and Measure undertaken	<b>41</b>
<b>2.5</b>	Chemical hazard & Risk Assessment	<b>41</b>
	2.5.1 Details of type of risk, sources, resultant emergency and effect at large from the industries/factories:	<b>43</b>
<b>2.6</b>	Capacity analysis	<b>44</b>
<b>3</b>	Institutional Arrangement	<b>46</b>
	3.1 State disaster response structure- Gujarat	<b>47</b>
	3.2 District level structure	<b>48</b>



	<b>3.3</b>	<b>Taluka level structure</b>	<b>48</b>
	<b>3.4</b>	<b>SEOC, DEOC, TEOC and other control rooms.</b>	<b>49</b>
	<b>3.5</b>	<b>Early Warning System &amp; Post disaster Advisories</b>	<b>50</b>
	<b>3.6</b>	<b>Information Sharing</b>	<b>50</b>
	<b>3.7</b>	<b>Early Warning action plan</b>	<b>50</b>
	<b>3.8</b>	<b>VIP Involvement and protocol</b>	<b>52</b>
	<b>3.9</b>	<b>Media management</b>	<b>52</b>
	<b>3.10</b>	<b>Role of Emergency Organization</b>	<b>53</b>
<b>3.2</b>		<b>Hazard specific action plan...</b>	<b>68</b>
	<b>3.2.1</b>	<b>Flood hazard action plan:</b>	<b>68</b>
	<b>3.2.2</b>	<b>Cyclone hazard action plan:</b>	<b>69</b>
	<b>3.2.3</b>	<b>Earthquake action plan:</b>	<b>71</b>
	<b>3.2.4</b>	<b>Industrial disasters, fires and chemical accidents action plan</b>	<b>72</b>
	<b>3.2.4.1</b>	<b>Local response to chemical emergency - emergency organization structure</b>	<b>72</b>
	<b>3.2.4.2</b>	<b>Key response agencies</b>	<b>73</b>
	<b>3.2.4.3</b>	<b>Response to hazchem transportation emergencies</b>	<b>74</b>
<b>3.3</b>		<b>Responsibility Matrix for response functions (for the disasters where EW is available)</b>	<b>74</b>
	<b>3.3.1</b>	<b>Cyclone Disaster Responsibility</b>	<b>74</b>
	<b>3.3.2</b>	<b>Chemical Disaster (Off-site ) Chemical Plan</b>	<b>82</b>
	<b>3.3.3</b>	<b>Earthquake Responsibility</b>	<b>86</b>
	<b>3.3.4</b>	<b>Flood Role &amp; Responsibility</b>	<b>90</b>
<b>4</b>		<b>Preparedness , Prevention and Mitigation Measures</b>	<b>91</b>
<b>4.1</b>		<b>Details of Bharuch district drains</b>	<b>92</b>
<b>4.2</b>		<b>Capacity Building</b>	<b>95</b>
<b>4.3</b>		<b>DRM Programme</b>	<b>95</b>
	<b>4.3.1</b>	<b>DRM Programme level Specific Process</b>	<b>97</b>
	<b>4.3.2</b>	<b>State disaster resource network: (SDRN)</b>	<b>99</b>
	<b>4.3.3</b>	<b>India disaster resource network : (IDRN)</b>	<b>99</b>
	<b>4.3.4</b>	<b>Automated weather system</b>	<b>100</b>
	<b>4.3.5</b>	<b>Disaster Alert and Resource Management by Application of Technology (DARMAT)</b>	<b>101</b>
	<b>4.3.6</b>	<b>Technological Preparedness Measures for Chemical and Industrial Disasters: CAMEO</b>	<b>102</b>
	<b>4.3.7</b>	<b>National Cyclone Risk Mitigation Project</b>	<b>102</b>
<b>4.4</b>		<b>Prevention and Mitigation Plan</b>	<b>103</b>
	<b>4.4.1</b>	<b>Mitigation Measures</b>	<b>104</b>
	<b>4.4.2</b>	<b>Mainstreaming Disaster Risk Reduction (DRR) in Development Context</b>	<b>109</b>
	<b>4.4.3</b>	<b>Risk transfer / risk distribution</b>	<b>110</b>
<b>5</b>		<b>Recovery measures</b>	<b>112</b>
<b>5.1</b>		<b>Immediate and Short Term Recovery Details damage and loss assessment</b>	<b>113</b>
	<b>5.1.1</b>	<b>Restoration of Basic Infrastructure</b>	<b>114</b>
	<b>5.1.2</b>	<b>Reconstruction and repair</b>	<b>116</b>
	<b>5.1.3</b>	<b>Restoration of Essential Services and Infrastructure</b>	<b>117</b>
	<b>5.1.4</b>	<b>Restoration of Livelihood</b>	<b>120</b>
<b>6</b>		<b>Financial arrangement</b>	<b>122</b>

6.1		<b>Source of funds</b>	<b>123</b>
7		<b>Maintenance of Plan</b>	<b>126</b>
7.1		<b>Introoduction</b>	<b>127</b>
7.2		<b>Plan Testing</b>	<b>127</b>
7.4		<b>Debrief and Evaluation- Mock Drills</b>	<b>128</b>
7.5		<b>Review /Updation of Plan</b>	<b>128</b>
8		<b>Past incidents - experience</b>	<b>130</b>
8.1		<b>Flood situation</b>	<b>130</b>
8.2		<b>Experience sharing: flood situation (28/8/2020 to 05/9/2020)</b>	<b>131</b>
<b>Annexure</b>			
<b>A</b>		<b>Narmada River Flood Affected Details</b>	<b>133</b>
	A1	Ankleshvar Taluka Flood Affected Villages	<b>133</b>
	A2	Bharuch Taluka Flood Affected Villages	<b>134</b>
	A2	Jhagadia Taluka Flood Affected Villages	<b>135</b>
<b>B</b>		<b>Dhadhar River Affected Details</b>	<b>136</b>
	B1	Jambusar Taluka Dhadhar River Affected Villages	<b>136</b>
	B2	Amod Taluka Dhadhar River Affected Villages	<b>138</b>
<b>C</b>		<b>Bhukhi Khadi Affected Villages</b>	<b>139</b>
	C1	Bharuch Taluka Bhukhi Khadi Affected Villages	<b>139</b>
	C2	Vagra Taluka Bhukhi Khadi Affected Villages	<b>140</b>
<b>D</b>		<b>Dam Affected Details</b>	<b>141</b>
	D1	Baldeva Dam Affected Villages Netrang Taluka	<b>141</b>
	D2	Baldeva Dam Affected Villages Valia Taluka	<b>141</b>
	D3	Pignut Dam Affected Villages Valia Taluka	<b>142</b>
	D4	Pignut Dam Affected Villages Netrang Taluka	<b>143</b>
	D5	Dholi Dam Affected Villages Jhagadia Taluka	<b>143</b>
<b>E</b>		<b>Low Lying Affected Villages Details</b>	<b>144</b>
	E1	Low Lying Affected Villages Amod Taluka	<b>144</b>
	E2	Low Lying Affected Villages Bharuch Taluka	<b>146</b>
	E3	Low Lying Affected Villages Vagra Taluka	<b>148</b>
	E4	Low Lying Affected Villages Hansot Taluka	<b>149</b>
<b>F</b>		<b>Cyclone Affected Villages Details</b>	<b>150</b>
	F1	Cyclone Affected Villages Vagra Taluka	<b>150</b>
	F2	Cyclone Affected Villages Jambusar Taluka	<b>151</b>
	F3	Cyclone Affected Villages Hansot Taluka	<b>152</b>
<b>G</b>		<b>Industrial Estate Covered Villages Details</b>	<b>153</b>
	G1	Vagra Taluka Covered Villages	<b>154</b>
	G2	Bharuch Taluka Covered Villages	<b>155</b>
	G3	Jhagadia Taluka Covered Villages	<b>156</b>
	G4	Ankleshvar Taluka Covered Villages	<b>156</b>
<b>H</b>		<b>District Control Room Contact Numbers</b>	<b>157</b>
	H1	District Disaster Management Committee Members Contact List	<b>158</b>
	H2	District Level other Officers	<b>160</b>
	H3	Contact Details of Liaisons Officers	<b>161</b>
	H4	Contact Details of SDM, Mamlatdar, & TDOs & Chief Officers.	<b>162</b>
	H5	Contact Details of Chief Officer	<b>163</b>
	H6	Contact Details of District Panchyat President & Wise President Numbers.	<b>163</b>

	H7	Contact Details of District Police Station Numbers	163
	H8	Contact Details of Health Dept & Block Health Officers.	164
	H9	Contact Numbers of State & Govt of India.	166
	H10	Contact Details of Relief Commissioner Office & SEOC	166
	H11	Contact Details of Gujarat State Disaster Management Authority	167
	H 12	Contact Details of Army, Air Force And Coast Guard	167
	H 13	Contact Details of Air Force Gandhinagar	167
	H14	Contact Details of Bhaskaracharya Institute of Space Application & Geo informatics (BISAG)	167
	H15	Contact Details of India Meteorological Department And Observatories	168
	H16	Contact Details of Institute of Seismological Research	168
	H17	Contact Details BN, NDRF, Chiloda Road, Gandhinagar	168
	H18	List of Other District Recourse NDRF,AMC Ahmadabad, SMC Surat Co-operation	169
	H19	Contact Details of State EOC Iridium Contact Number (District Wise)	170
	H20	Bharuch District Crossing Pipeline Operators Details	171
	H21	List of District Industries Association	172
<b>I</b>		<b>List Of Dahej By Pass Road &amp; Link Road Society Area President</b>	<b>173</b>
<b>J</b>		<b>List Of Resources</b>	<b>173</b>
	J1	List of Tractor	175
	J2	List of Trolley:-	176
	J3	List Truck	177
	J4	List of Dumper	178
	J5	List of JCB	178
	J6	List of Loader	180
	J7	List of Crain	180
	J8	List of Bulldozer	180
	J9	List of Inflatable Light Tower In District:-	181
	J10	List of Generator Govt & Private	182
	J11	List of Fire Tender:-	183
	J12	List of Ambulance	185
	J13	List of Rescue Equipments Like Life Jacket, Fiber Ring, Life Boys, Rope, Generator Set, Dewatering Pump ,FRP & Inflatable Rubber Boat	186
	J14	List of Dewatering	187
	J15	List of Machine Boats Information	189
	J16	List of Simple Boat	191
<b>K</b>		<b>List of Swimmers</b>	<b>192</b>
<b>L</b>		<b>List Trained man Power</b>	<b>194</b>
<b>M</b>		<b>List of Major Hospital</b>	<b>202</b>
	M1	List other District Major Hospitals	203
	M2	List of Blood Banks	201
<b>N</b>		Bharuch District NGO Contact List	204
<b>O</b>		FCI & Civil Supply God Owns In The Bharuch District	206
<b>P</b>		List of Panjrapol	207
<b>Q</b>		List of Helipad	208
<b>R</b>		List of MAH Units Details	211

<b>S</b>		Industrial And Chemicals Disaster Trained Personnel At Taluka Level & Chemicals Experts / Technicians	<b>225</b>
<b>T</b>		List of Doctors In MAH Industries	<b>226</b>
<b>U</b>		<b>Industrial And Chemicals Disaster Antidotes Details</b>	<b>231</b>
	U1	Capacity Against Industrial And Chemicals Disaster Antidotes Details	<b>231</b>
	U2	Details of Chemicals Properties, Fire Fighting Agents, Antidotes, First Aid & Medical Treatment	<b>241</b>
	U3	Emergency Resources – Antidote Suppliers	<b>254</b>
<b>V</b>		<b>List of Sheltering</b>	<b>256</b>
<b>W</b>		<b>Route Information of Overtopping Roads of Bharuch R &amp; B Department (State) Under The Heavy Rain</b>	<b>261</b>
	W1	Route Information of Overtopping Roads Of Bharuch R & B Department (Panchyat) Under The Heavy Rain	<b>261</b>
<b>X</b>		<b>Government Resolution &amp; Guideline</b>	<b>263</b>
<b>Y</b>		<b>Cyclone Warning Systems Symbol</b>	<b>277</b>
<b>Z</b>		<b>Bharuch district Taluka map</b>	<b>278</b>
	Z1	Bharuch Taluka	<b>279</b>
	Z2	Anklesvar Taluka	<b>280</b>
	Z3	Amod Taluka	<b>281</b>
	Z4	Hansot Taluka	<b>282</b>
	Z5	Jambusar Taluka	<b>283</b>
	Z6	Jhagadia Taluka	<b>284</b>
	Z7	Valia Taluka	<b>285</b>
	Z8	Vagra Taluka	<b>286</b>
	Z9	Netrang Taluka	<b>287</b>
	Z10	Industrial Disaster-A Case Study	<b>288</b>



# Chapter 1

## INTRODUCTION



# Chapter 1

## INTRODUCTION

Disaster threatens sustainable economic development worldwide. In the past twenty years, earthquakes, floods, tropical storms, droughts and other calamities have killed millions of people, inflicted injury, disease and caused homelessness and misery to around one billion others in the world. These have caused damage to infrastructure worth millions of rupees. Disaster destroys decades of human effort and investments, thereby, placing new demands on society for reconstruction and rehabilitation. Disaster management thus requires a multi-disciplinary and proactive approach. The community, civil society organizations, media and the proverbial man on the street, everyone has to play a role in case such exigency occurs. The various prevention and mitigation measures outlined below are aimed at building up capabilities as also how to deal with disasters.

### **1.1 OBJECTIVE**

The objective of a Disaster management plan is to localize a Disaster and contain its effect to the greatest extent so as to minimize its impact on life, environment and property. Response to any disaster, in the absence of a well-defined plan, would be arbitrary, leading to overemphasis of some actions and absence of other critical actions. A formal plan for Managing Disaster is therefore necessary. This Disaster management plan has a strong preparedness focus which aims at reducing our vulnerability to disasters and at the same time, it includes a plan of action/response mechanism for dealing with earthquakes, floods, cyclones, epidemics, industrial and chemical accidents, road accidents and fires.

This document provides basic information required for the management of disasters in Bharuch District by:

- Defining the Risks and Vulnerabilities of citizens of the district to different disasters;
- Identifying private and public sector stakeholders with prime and supporting responsibilities to reduce or negate these vulnerabilities
- Defines actions to be taken by these parties to avoid or mitigate the impact of possible disasters in the district.

Subsidiary plans are developed at the:

At the Village and Taluka level;

- For major industrial sites located in the district (Off-site Emergency plan for Industrial Accidents available with DISH);
- Through Standard Operating Procedures (SOPs) of Line Departments detailing how specific disaster response actions will be accomplished.

Developing and maintaining SOPs<sup>1</sup> are the responsibility of parties with designated prime or supporting tasks assigned by this plan.

---

<sup>1</sup> Standard operating procedure simply sets out the steps normally and routinely taken to accomplish a specific task. The basic SOP starts with a statement as to when or under what conditions it should be used, followed by the exact sequence of actions to be taken. The user is not expected to make any choices in following the SOP.

Keeping in view all the possible aspects of the aforesaid problem in mind and to keep the Administration prepared in all possible ways to respond properly to various Disaster situations with minimum delay, possible Disaster situations have been identified and the component plans have also been identified & mentioned in detail in this document.

**(A) Natural Calamities**

- \* Floods
- \* Cyclone
- \* Biological Disaster or Epidemic of Human/livestock/crops
- \* Earthquake
- \* Fire

**(B) Man Made Calamities**

- \* Industrial Disaster
- \* Accidents
- \* Road
- \* Building Collapse
- \* Stampede at crowded Places
- \* Radiological Disaster
- \* Railways
- \* Air
- \* Bomb Blast (Terrorist Activities)
- \* Food Poisoning

The mode, degree and extent of response to fight out any Disaster depend upon the nature, degree and extent of Disaster, but some points are common to all kinds of situations. For example, first and foremost, appropriate and adequate steps for preventing the disaster should be undertaken. Secondly, preparedness is required to contain the damages and casualties resulting from the Disaster. Thirdly, steps for rehabilitation and restoration of community life within a reasonable time should be focused on.

Hence, some necessary and common steps are as below:

1. Establishment of Central Control Rooms and capacity enhancement of Emergency Operation Centers.
2. District Disaster Management Committee to meet post early warning or immediately post disaster occurrence.
3. A general line of action and some special duties to various officers and departments will have to be assigned, keeping in mind a timeline for finishing specific tasks.
4. Voluntary Organizations may have to be involved and their role will have to be clearly specified and coordinated.
5. Media may have to be briefed to suppress all kinds of rumors.
6. Information regarding resource inventory of Health Services, Transport Services, Evacuation & Rehabilitation Centers and Food etc. needs to be kept handy so that resources can be deployed where required.
7. Consistent follow-up of relief operations and constant reporting of pre and post disaster work.

Broad guidelines have been given in the following pages and "Standard Procedure" has been formulated which is to be adhered to by all concerned. Once the Disaster take place and the authorities are informed of the same, they will take the necessary action with the help of the individual Disaster management plans prepared for the respective Disaster/situations.

The main objectives of various preparedness measures are:

- 1) Minimizing the loss of human lives.
- 2) Minimizing the loss of livestock. Minimizing the loss to property and infrastructure.
- 3) Minimizing ill effects on the health of the affected population.
- 4) Bringing the human activities in the locality to normal soon after.

## Chapter 1

# INTRODUCTION

To achieve the above objectives, different tasks have to be performed by Government Departments and other agencies before, during and after the Disaster. Each Department's role and responsibilities have to be clearly identified and an action plan needs to be drawn up by each department. For close cooperation between the various Department and Agencies, close coordination is required between the Collector at the District Headquarters and Prant Officers (SDM) at the Sub-division or taluka level. The responsibility to manage any type of Disaster in the district rests with the **District Disaster Management Committee** headed by the Collector Bharuch, who may, depending upon the gravity of the situation, seek the help of **State Disaster Management Committee** and the **National Disaster Management Committee**. This tiered and hierarchical structure ensures that the best possible response is accorded to any disaster situation, depending upon the severity of damage. For operational expediency, the level of Disasters have been categorized and classified as under:

### Level of Disasters

**L** concept has been developed to define different levels of disasters in order to facilitate the responses and assistances to States and Districts.

**L0 level** denotes normal times which will be utilized for close monitoring, documentation, prevention and preparatory activities. Training on search and rescue, rehearsals, evaluation and inventory updation for response activities will be carried out during this time.

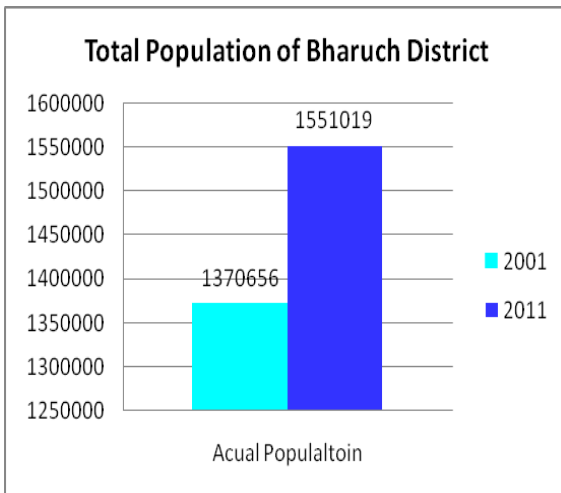
**L1 level** specifies disaster that can be managed at the District level, however, the State and centre will remain in readiness to provide assistance if needed.

**L2 level** disaster situations are those, which require assistance and active participation of the state, mobilization of its resources for management of disasters.

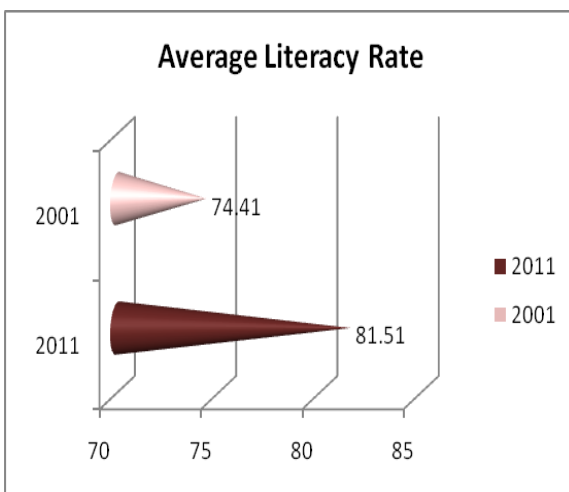
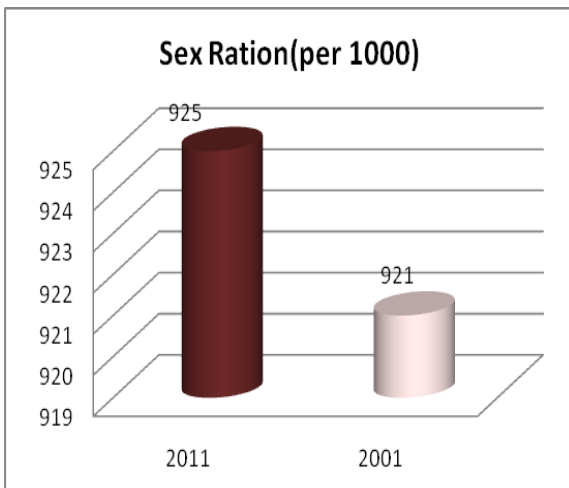
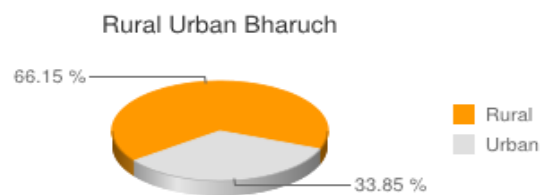
**L3 level** disaster situation is in case of large scale disaster where the State and District authorities have been overwhelmed and require assistance from the Central Government for reinstating the State and District machinery as well as for rescue, relief, other response and recovery measures. In most cases, the scale and intensity of the disaster as determined by the concerned technical agency like IMD are sufficient for the declaration of L3 disaster.



## 1.2 Bharuch District Profile



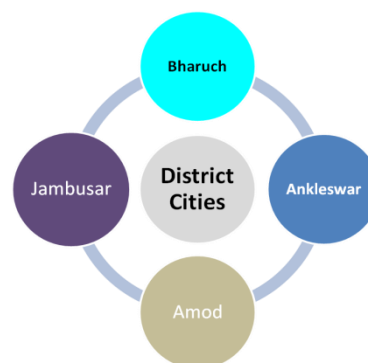
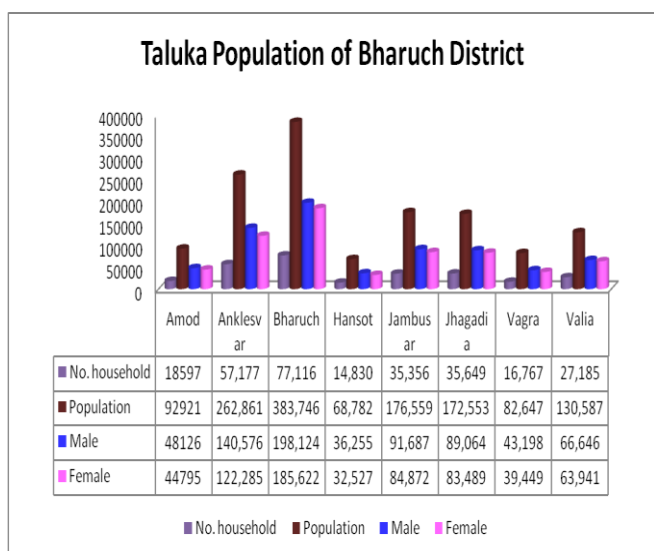
Bharuch is Located in the Southern part of Gujarat State. Its mainland extends between 21-degree - 41 min and 21 degrees - 50-min north latitude and between 72 degree 59 Min and 72 degree - 40-min longitude. It is bounded by Vadodara district in the North, Surat district in the South, Narmada district in the east and Arabian Sea in the west. Its coastline is 286 km long and the district lies in an area of 5254 Sq.Km.



Description	2011	2001
Actual Population	1551019	1370656
Male	805707	713676
Female	745312	656980
Population Growth	13.16%	19.37%
Area Sq.Km	6509	6509
Density/km <sup>2</sup>	238	210
Proportion to Gujarat Pop.	2.57%	2.71%
Sex Ratio (per 1000)	925	921
Child Sex Ratio(0-6yrs)	920	918
Average Literacy (%)	81.51	74.41
Male Literacy (%)	87.45	82.98
Female Literacy (%)	75.09	65.11
Total Child Pop(0-6yrs)	179103	194025
Male(0-6yrs)	93265	101176
Female(0-6yrs)	85838	92849
Literate Population	1118276	875519
Male Literates	623047	508240
Female Literates	495229	367279
Child Proportion(0-6yrs)	11.55%	14.16%
Boys Prop(0-6yrs)	11.58%	14.18%
Girls Prop(0-6yrs)	11.52%	14.13%

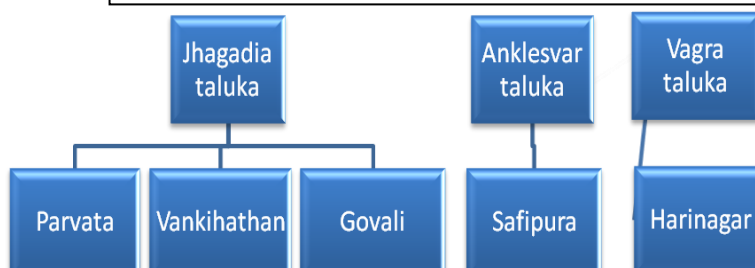
# Chapter 1 INTRODUCTION

## 1.3 Taluka level Information:



Taluka	North Latitude	East Longitude	Total Villages
Jambusar	22'-00'	72'- 45'	82
Amod	21'- 45'	72'- 45'	54
Vagra	21'- 45'	72'- 45'	68
Bharuch	21'- 70'	72'- 99'	100
Ankleshvar	21'- 30'	73'- 00'	60
Hansot	21'- 30'	72'- 45'	46
Jhagadia	21'- 45'	73'- 00'	125
Valia	21'- 30'	73'- 15'	59
Netrang	21'- 64'	73'- 35'	78
<b>Total</b>			<b>672</b>

### 5 Uninhabited villages of Bharuch district



## 1.4 Climate:

The temperature at Bharuch District Headquarters ranges from **42.0** degree centigrade (highest) in summer and **10.2** degree centigrade (lowest) in winter. The air is humid owing to a long Coastal belt.

## 1.5 River, Dam & Rainfall Information

The average annual rainfall is 640 mm. The soil found in the District is largely black soil, except for the coastal areas where the soils characterized as alkaline.

The District has one major river i.e. the Narmada and seasonal rivers Dhadhar & Kim. These rivers flow towards the Gulf of Khambhat in the west. The District has no Major Dam; however, it has 3 check dams controlled by the Minor Irrigation Department.

## Chapter 1 INTRODUCTION

### 1.6 RAINFALL DATA OF BHARUCH DISTRICT (2010 to 2020)

The average annual rainfall is 640 mm

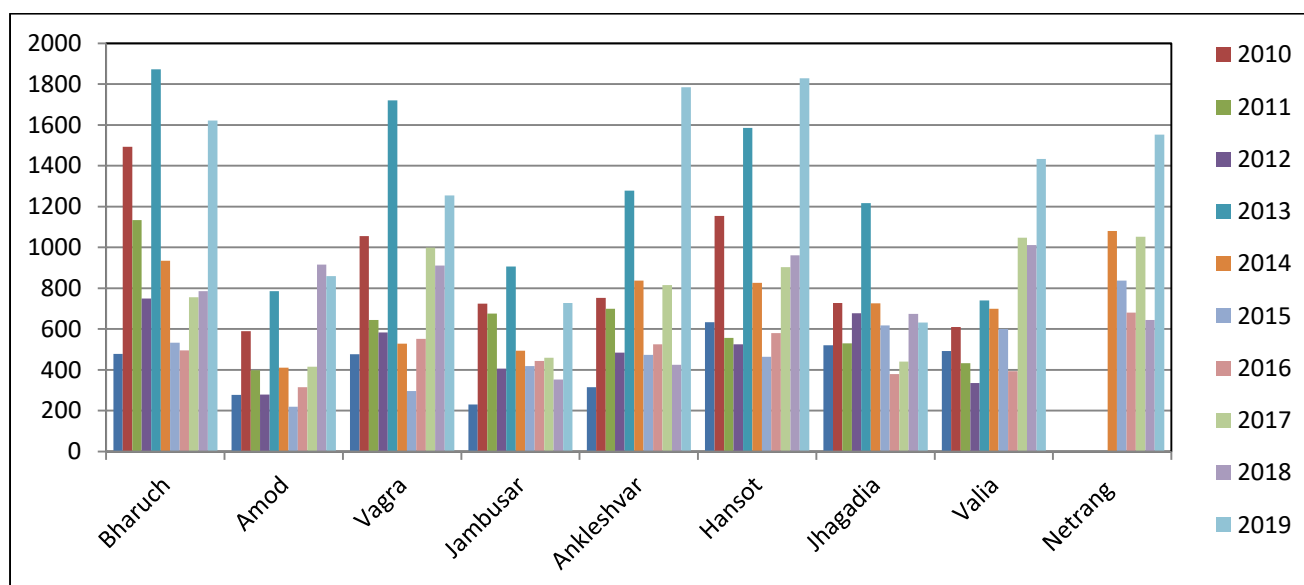


Table: Taluka-wise Rainfall Data of Bharuch District between 2010-2020

Sr.	Taluka	2010	2011	2012	2013	2014	2015	2016	2017	2018	20f19	2020
1	Bharuch	1493	1134	750	1873	935	533	496	756	911	1610	1194
2	Amod	590	398	279	786	411	219	315	415	353	856	729
3	Vagra	1056	644	583	1720	529	296	552	999	674	1230	1050
4	Jambusar	724	676	406	906	494	418	444	459	425	723	633
5	Ankleshvar	753	700	484	1278	837	474	525	815	916	1744	1312
6	Hansot	1154	557	526	1585	826	464	580	904	786	1804	1115
7	Jhagadia	728	530	677	1217	726	618	380	441	564	625	732
8	Valia	610	433	336	740	700	601	393	1047	1011	1418	1399
9	Netrang	-	-	-	-	1081	837	681	1053	962	1541	1764

### 1.7 Coastal Areas, Ports & Fisheries:-

S. No.	Taluka	Number of Villages	Population
1	Jambusar	15	31177
2	Vagra	17	33453
3	Amod	2	2,075
4	Hansot	6	5000
	<b>TOTAL</b>	<b>40</b>	<b>71,705</b>

Out of the 1600 km long **coastline** of Gujarat, Bharuch District accounts for **286 km** in the northwest.

## Chapter 1 INTRODUCTION

There are 2 ports in Bharuch District, i.e. Dahej, a cargo port and Bhadbhut (Bharuch) a fisheries port.

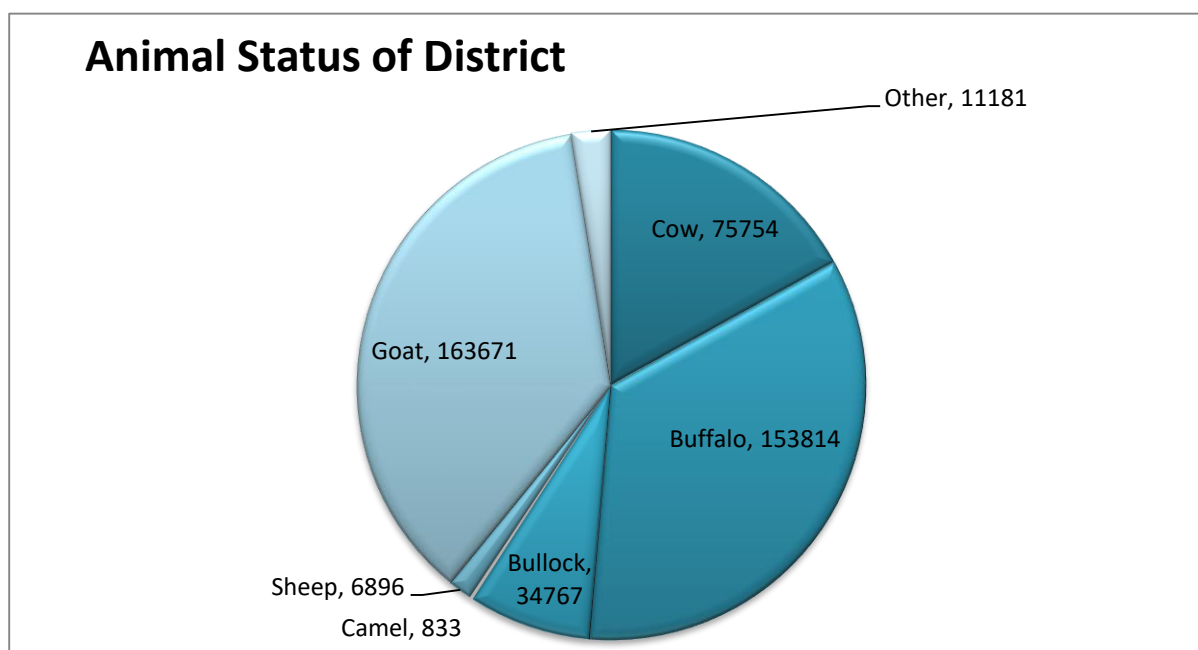
There are **74 fishing villages** in Bharuch District. There are 7723 fishermen out of which **6391 are active fishermen**. 711 mechanical boats of different capacities and 731 non-mechanical boats are available. The entire coastal belt is active in fishing and 7192 million tons of fish per year are caught and marketed. A total of 19 fishing societies have been registered in this district and all are active. (**Annexure – J15,16**)

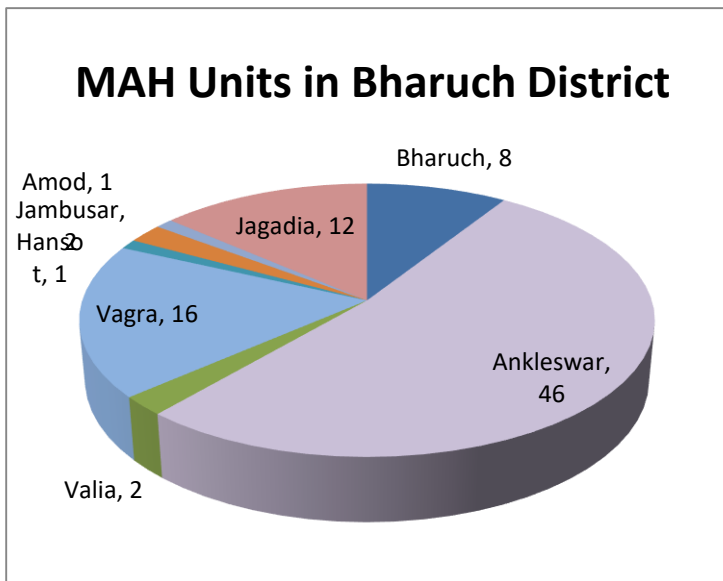
### **1.8 Salt works:-**

Due to a large area with the seashore in the District, Salt Industries has developed very well. There are **101 Salt factories** in the district occupying 49831 acres of land. The annual production of Industrial and Table Salt is approximately 10.23 lakh tons.

S r . N o	Name of Taluka	Numbers of Salt Industries	Villages of Salt Industries	Number of Salt worker
1	Vagra	37	Dahej, Gandhar, Kaladra, Koliyad, Aladar, Paniyadra. Muler	302
2	Jambu sar	43	Devala, Aasarsa, Nada, Malpor, Khanpur Deh, Kapuriya, Sarod, Valipur, I smailpur, Doliya	382
3	Amod	4	Denava, Mangrol	300
4	Hansot	6	Aakalva, Ilav, Vamlesvar, Samni, Pardi	155

### **1.9 Livestock:**





### **1.10 Industries:-**

Out of 491 Major Accident Hazards (MAH) units in the state, 88 are located in Bharuch District. Of these, GIDC Bharuch has 8, Anklesvar has 46, Valia has 2, Vagra has 16, Hansot has 1, Jambusar has 2, Amod has 1 and Jagadia has 12 MAH Units (Annexure-Q). As is evident from the pie diagram, Ankleshwar has the maximum number of MAH units in the district. Total 71 villages falls in Industrial area. With Bharuch Estate, Palej Estate, Panoli Estate, Ankleswar Estate,

Jagadia Estate, Sayakha & Vilayat Estate, PCPIR, Dahej Estate (Annexure-R)

### **1.11 Roads & Railway:-**

The district has 2838 km of pukka roads connecting all villages/towns in the district. Out of the total 665 inhabited villages, all villages are connected by State Road Transport facilities. The total length of Railway Track is 168 km in the District, of which Broad Gauge is 50 km and the remaining is narrow gauge.

### **1.12 Health Facilities.**

#### **Health:**

The district has 14 Hospitals, 37 PHCs and 7 CHCs in the District to cater to the needs of people. The major hospitals are Civil Hospital, GNFC Dispensary, Bombay Patel Welfare Hospital, Sevashram, Govardhan Hospital (all in Bharuch) and JayabenModi Hospital in Anklesvar. All PHC & CHC run in direct supervision of BHO (block health officer) & district officer (Annexure – H8, M)

#### **1.1.1 Plan Considerations**

The previous disaster management plans of Bharuch district are mainly disaster-specific contingency plans. A careful and impartial study reveals the following facts:

- i) The Plan document is too voluminous to be easily understood by users.
- ii) The command and control of relief efforts is not optimal
- iii) Integration of response is not effective
- iv) The mitigation, prevention and preparedness aspects are not addressed adequately
- v) There is no GIS-based database of key vulnerabilities and resources.

Secondly, separate plans for each disaster have produced multiple documents with considerable duplication, which would work against potential users understanding their roles with clarity.

Recognizing the fact that most tasks and actions before and following a disaster are common at the district level, the Bharuch district administration has used **multi-disaster approach** (all disasters covered by one plan) while developing disaster management plan for the district.

The present plan is not intended to provide comprehensive explanations and background information about a disaster, or serve as a training manual on how to respond to a disaster or conduct a disaster related task. The approach taken is that plans and SOPs should be limited to the extent of sufficient information need to respond to a specific disaster or undertake a disaster related task. Steps to address disaster specific requirements can be covered in procedures related to actions. This approach does require that task forces develop disaster specific procedures where appropriate.

In other words, this plan is intended for use by persons who are technically competent in the tasks or responsibilities set out in each plan. The SOPs are intended to be used by persons who are unfamiliar with disaster management topics but are intended to be task specific and not as replacements for full plans.(SOPs can be refer in chapter 4)

### 1.1.2 Organization of Plan

The present Multi-hazard Management Plan for Bharuch District is actually a Multi-hazard Contingency Plan. The mitigation, prevention and preparedness plan of the district does not find place in it.

In addition, specific plans for some disasters could also be attached. The present plan document identifies the roles and responsibilities of the organizations in key identified sectors. Taskforces have been constituted for taking response measures in specific sectors. Each task force consists of a lead organization/department supported by other organizations/ departments. Action plan has been prepared for each taskforce which covers their roles and responsibilities in different phases of disaster.

It is expected that **each Department/taskforce shall develop the standard operating procedures for disasters**, which is included in the plan. The Plans/SOPs prepared are tested and subsequently validated/updated through periodic drills, simulation or full scale **exercises**. In addition, district collector to ensure that all the

members acquires knowledge and skills to perform their assigned role through regular refresher trainings.

The present Multi-hazard Plan is divided into eight main sections and twenty four Annexure.

The main sections cover:

- Introduction, Concepts and Policies
- Hazard Vulnerability and Risk Analysis
- **Preparedness, Prevention & Mitigation Measures**
- Institutional Arrangement & Multi Hazard Response Measures
- Recovery Measures
- Financial Arrangements
- Maintenance of Plan
- Past Incidents – Experience.

The terms used in this plan are consistent with terms as defined and used in the Gujarat Disaster Management Act of 2003.

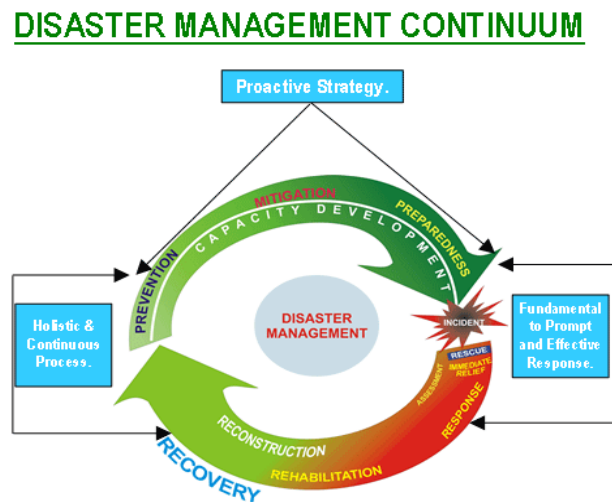
The requirement for district and subsidiary plans is set by the Gujarat State Disaster Management Authority (GSDMA) under the authority of the Gujarat State Disaster Management Act of 2003. The Act authorizes the collector to secure cooperation and assistance from other parties in efforts to avoid or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

The Collector (Specifically) and Government authorities (generally) are responsible for managing hazards and disasters that affect a district, with support from GSDMA, the Relief Commissioner and other public and private parties as may be needed. The roles, responsibilities and obligations of the Collector and other key parties are set out in detail in the Act and are considered as part of this plan.

## 1.1.4 Concept of Disaster Management

Disaster Management is a continuous and integrated process of:

- Planning and implementing measures towards mitigating or reducing the risk of disasters
- Mitigating the severity of consequences of disaster
- Preparedness for emergencies and disasters
- Assessing the effects of disasters
- Providing emergency relief and rescue and post-disaster rehabilitation and reconstruction, and
- Building capacities to these ends.



The district and subsidiary plans seek to reduce vulnerability and reinforce the resilience of communities in the face of

hazards and disasters. Addressing vulnerability aspects generally takes place before a disaster occurs; this is done to reduce the opportunities for the disasters to occur. Reinforcing resilience requires actions to reduce the scale or potential impact of a disaster, and building capacities and systems that facilitate (shorten and make less costly) the recovery process.

## 1.1.5 Approach to Disaster Management

The Government of Gujarat takes a comprehensive approach to disaster management. Disaster impact reduction is divided into two broad areas:

- Warning, Relief and Recovery, focusing on plans and actions necessary to reduce the impact of quick-onset disasters or speed the response to slow-onset disaster, and
- Mitigation, Preparedness and Prevention, focusing on plans and actions to avoid or eliminate the causes or impacts of hazards or threatened disasters.

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

- Accurate risk and Vulnerability assessment
- Planning and efficient allocation of resources,
- Capacity building and training
- Provision of adequate resources
- The assignment of disaster management roles and responsibilities which correspond to normal roles and responsibilities (if possible) and,
- Use of diverse legal and operational mechanisms to accomplish disaster management objectives.

## 1.2. Policy and Responsibilities

### 1.2.1 Institutional Framework

The Institutional framework for operationalisation of the DM plan at the District level is conceived in terms of integration of both rural and urban areas and by recognizing the inter-dependence between line departments, district and state level authorities. The constitution of the District Disaster Management Committee will be as per the Gujarat Disaster Management Act 2003. **Details with Functions of DDMC members of Bharuch District (chapter 4 response measure)**

### 1.2.1 Warning, Relief and Recovery

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

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

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

### 1.2.2 Mitigation, Preparedness and Prevention

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



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

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

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

### 1.2.3 Finance

#### 1.3 Preparation and Revision of the Plan

The District Collector is responsible for the preparation and revision of the District Disaster Management Plan in collaboration with the line departments and other organizations in the district.

The plan should be reviewed annually and updated:

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

The revised plan should be submitted to GSDMA and the Relief Commissioner.

#### 1.3.1 Legal Backup

Preparation of Disaster Management Plan is one of the mandatory provisions under The Gujarat State Disaster Management Act-2003 and The National Disaster Management Act-2005. In respect to above, National Disaster Management Authority has issued guidelines for preparation of State Disaster Management Plan.

- I. As per The GUJARAT STATE DISASTER MANAGEMENT ACT, 2003 under CLAUSE 15. Sub section (1), (2) & (3) Of CHAPTER VI FUNCTIONS OF THE AUTHORITY, the authority shall develop or cause to be developed guidelines for the preparation of disaster management plans and strategies.
- II. Under the provision of the DISASTER MANAGEMENT ACT, 2005,

- a. Section 18 subsection (1), (2) & (3) subject to provisions of this Act, a State Authority shall have the responsibility for laying down policies and plans for disaster management in the State.

The DDMC will follow the techno-legal regime set up by the SDMA and other government Acts and Policies. It shall periodically review the extent of compliance to some of the key regulative provisions.

**Trigger mechanism for putting the plan into action**

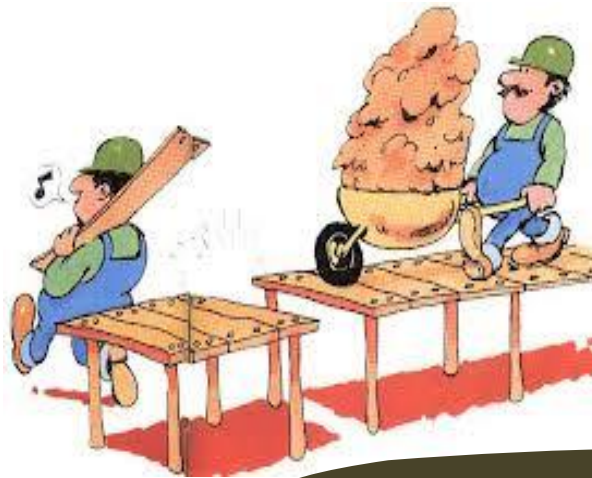
Chapter XIII, Section 32 of Gujarat Disaster Management Act 2003 clearly defines the process of declaring an area as disaster affected or disaster prone, which acts a trigger mechanism for putting relevant DM plan into action. These provisions are:

Where there is threat of an impending disaster or where a disaster has occurred-

- (a) In an area spread over more than one district; the Commissioner, and
- (b) In an area restricted to a district, the Collector –may immediately make a report to that effect to the State Government.

If the State Government is of the opinion that there is a threat of an impending disaster or that a disaster has occurred in an area of the State and that it is expedient, for the purposes of preventing such disaster or of coping with its effects, it 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 prone area or disaster affected area. The respective authorities (including State authority, Commissioner, Collector, Departments and other agencies) shall perform the duties of Disaster Management in accordance to the act until the time period of declaration. This period can be extended, if required by the competent authority. The Authority, the Commissioner, the Collector and all other agencies, shall cease to perform their functions in the affected area, on the expiry of the period.

**Refere: Detailed DM Act – 2003 Website: [www.gsdma.org](http://www.gsdma.org)**



## Chapter 2

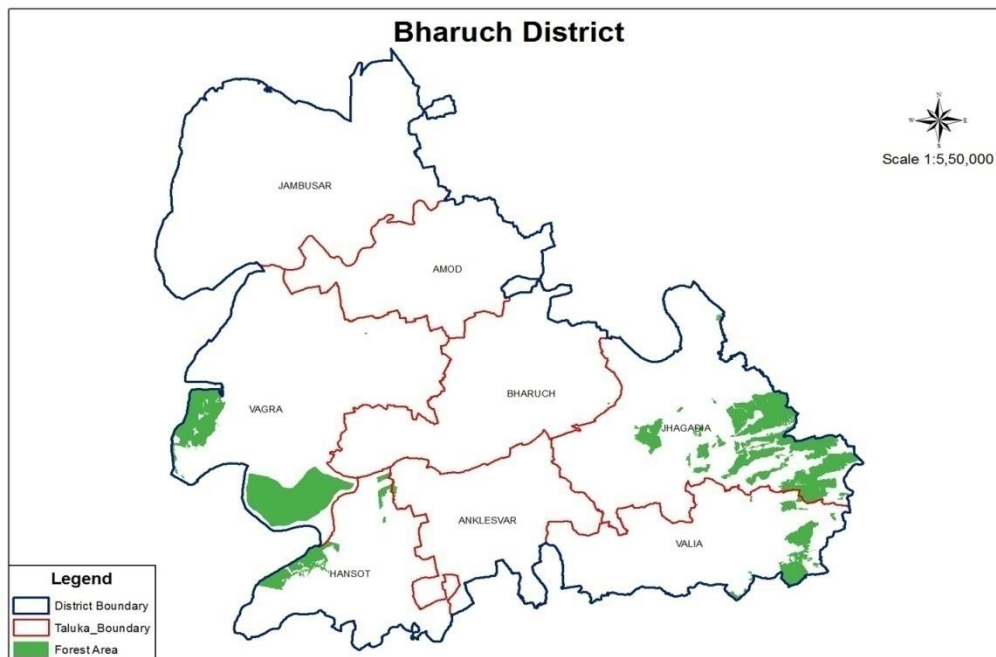
# HAZARD, VULNERABILITY AND RISK ASSESSMENT



## Chapter 2

# HAZARD, VULNERABILITY AND RISK ASSESSMENT

BHARUCH district faces a number of hazards, which pose the threat of disaster. The threat (risk) and possible impact (vulnerability) which can be actualized from these hazards ranges from minor impacts affecting one village to events impacting larger than the state alone.



HRVC analysis includes comprehensive, well-linked risk assessment and vulnerability identification for various hazards. This information is useful to analyze, it gives us information about the aspects and infrastructure at risk, the population at risk and elements that are more capable of withstanding hazards. Vulnerability assessment deals with socio-economic vulnerability, housing vulnerability and environmental vulnerability. HRVC analysis includes resource inventory/capacity analysis, assessment of preparedness measures in terms of communication systems, public distribution systems, storage facilities, transportation facilities, medical facilities, fire stations, hazard resistant shelters with their capacity, presence of NGOs and other volunteers etc. to enable quick and prompt response.

### 2.1 Multi-Hazard Profile of Bharuch *(Based on discussions with different departments)*

Hazard	Taluka under severe risk	Taluka under moderate risk
Flood	Jhagadia, Bharuch, Anklesvar	Amod, Vagra, Valia, Hansot, Jambusar, Netrang
Cyclone	Jambusar, Hansot, Vagra	Jambusar, Hansot, Vagra
Earthquake	All taluka in Zone III	
Drought	----	Vagra, Jambusar
Industrial/Chemical	Ankleshvar, Vagra, Jhagadia, Bharuch, Valia, Amod, Hansot, Jambusar	
Tsunami	Jambusar, Hansot, Vagra	

**(Annexure –A to G)**

## Chapter 2 HAZARD, VULNERABILITY AND RISK ASSESSMENT

### Criteria for Classification of Risk by Taluka

Hazard	Taluka are at severe risk	Taluka are at moderate risk
<b>Flood</b>	Talukas which are affected by flood for more than 5 years in last ten years	Talukas which are affected by flood for at least 3 years in last ten years
<b>Cyclone</b>	Talukas that fall between 0 to 7 Km distance from the sea	Talukas that fall between 7 to 15 km distance from the sea
<b>Earthquake</b>	Talukas falling under the Seismic Zone IV and V	Talukas falling under Seismic Zone II and III
<b>Drought</b>	Talukas facing scarcity of drinking water for more than 5 years in last ten years	Taluka facing scarcity of drinking water for at least 3 years in the last ten years
<b>Industrial/Chemical</b>	Talukas lying within vicinity of 5 Km from MAH units and/or vital industrial/ chemical/nuclear installations	Talukas lying within vicinity of 5-15 Km from MAH units and/or vital industrial installations
<b>Tsunami</b>	Talukas that lie between 0 to 7 Km distance from the sea	Talukas that lie between 7 to 15 km distance from the sea

The above table summarizes the results of an analysis of hazard, risk and disaster impact in Bharuch. This analysis indicates that disaster planning at the Bharuch district typical responses to these disaster events can apply to floods, the industrial and chemical hazards, hail storms, dam failure, fire, failure of critical infrastructure and building collapse and Road Accidents.

### Inference from HRVC

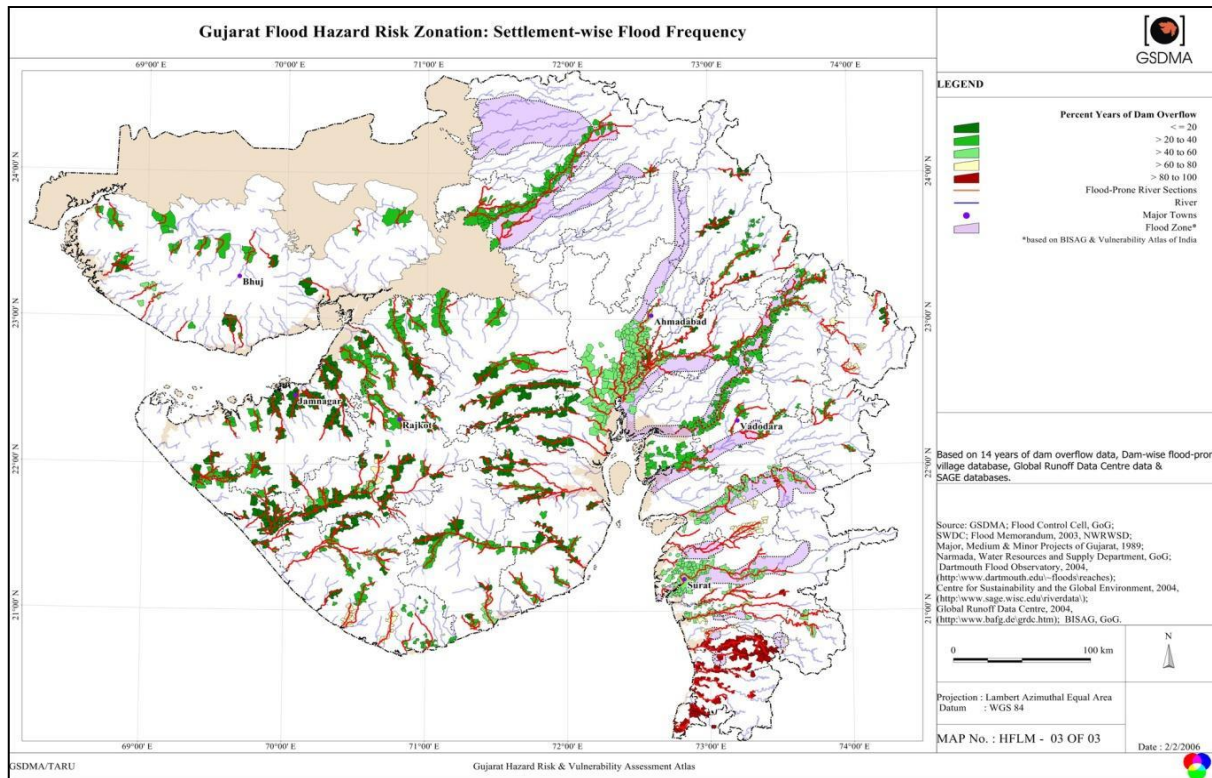
As Bharuch District is in close proximity to the sea and a perennial large river like the Narmada, the area is prone to cyclone and flood risk. There is moderate risk of earthquake and drought too. With increased industrialization and presence of Ankleswar, Dahej, Jagadia and Vilayat Industrial estate, the risks associated with industries and industrial development have also enhanced. Stress on natural resources lead to ground water depletion, reduced land resources and environmental hazards (land, water and air pollution), which ultimately affects livelihoods of communities dependant on agriculture, animal husbandry and natural resources in the region. Moreover, other phenomenon like sea water intrusion and increased ground and water salinity has also adversely affected the lives and livelihood of people here.

### Hazchem and Hazmat transportation risk:

Hazmat risk: There is extensive risk of fire during transportation of hazardous chemicals and coal on roads and railways. Moreover, there is risk of spillage of chemicals during transportation through waterways. There is low awareness on the part of general public on hazards and safety during transportation of hazardous chemicals, which travel frequently and in large volumes through the National Highway and the Bharuch - Dahej state highway. Villages on the railway route of Mumbai line and also the Bharuch – Vagra – Dahej line are at risk due to transportation of hazardous material.

## Chapter 2 HAZARD, VULNERABILITY AND RISK ASSESSMENT

### 2.2 Flood Hazard Identification and Risk Assessment



Sr. No.	Year	Danger Level Crossed Details
		Foot
1	1970	41.500
2	1973	37.070
3	1979	31.500
4	1984	35.000
5	1990	37.010
6	1994	39.540
7	2006	32.000
8	2013	35.750
9	2015	22.300
10	2020	35.160

Disasters arising out of natural calamities like floods are a real and serious threat in Bharuch district due to the presence of river Narmada, **Dhadhar and Kim** as well as **check dams like Pingot on tokarikhadi and Baldewa on kaverikhadi in Valia & Netrang taluka and Dholi on Madhumatikhadi in Jhagadia taluka.**

The flooding may occur as a result of heavy monsoons or even cyclones. In the past, the areas of Bharuch and

Ankleshwar talukas have been regularly and severely affected by flooding of the Narmada River. In the year 1994, certain low-level areas of even Valia taluka had been affected by Kim River.

The adjoining table cites the past years in which the water level of river Narmada at the Golden Bridge has reached truly catastrophic limits.

Thus, flood can cause damage to human lives and property in Valia, Jhagadia, Bharuch, Ankleshvar, Amod, Vagra, Hansot and Jambusar & Netrang taluka as well as the low-lying areas of Bharuch District. The high water levels can arise due to floods, high rainfall, cyclones, high tides in the sea, etc. and consequent choking of the drainage system can cause serious effects. Possible consequent damages in industrial areas can cause fire, explosion, toxic release and poisoning hazard and harm human lives and property. The shanty houses in the low-level area can be severely affected by flood.

The details of rivers, check dams, areas, warning level and possible affected families, persons and cattle are as follows:

### 2.2.1 Flood Related Information

#### Flood Related Information

	Golden Bridge	Garudeshvar
Warning Level	22 feet (6.705 meters)	99.68 feet ( 30.378 meters)
Danger Level	24 feet (7.315 meters)	102.00 feet ( 31.089 meters)
Conversion Ratio	1 feet = 0.3048 meter	1 meter = 3.281 feet

Feet	Meter	Instruction											
		Alert				Ready for Evacuation				Immediate Evacuation			
		Taluka				Taluka				Taluka			
		Bharuch	Ankleshwar	Jhagadia	Hansot	Bharuch	Ankleshwar	Jhagadia	Hansot	Bharuch	Ankleshwar	Jhagadia	Hansot
22	6.71	Bharuch City	Khalpiya, Sarfuddin										
23	7.01					Bharuch City	Khalpiya, Sarfuddin						
24	7.32									Bharuch City	Khalpiya, Sarfuddin		
25	7.62		Juna Kansia										
26	7.93	Dasan Bet, Kabirvad Bet	Juna Chapara, Koayai, Dhaturiya, Tariya Bavali				Juna Kansia						
27	8.23					Dasan Bet, Kabirvad Bet	Juna Chapara, Koayai, Dhaturiya, Tariya Bavali				Juna Kasiya		
28	8.54			Ore, Patar, Juni Tarsali, Juna Tothidra, Juna Pora						Dasan Bet, Kabirvad Bet	Juna Chapara, Koayai, Dhaturiya, Tariya Bavali		

Feet	Meter	Instruction											
		Alert				Ready for Evacuation				Immediate Evacuation			
		Taluka				Taluka				Taluka			
		Bharuch	Ankleshwar	Jhagadia	Hansot	Bharuch	Ankleshwar	Jhagadia	Hansot	Bharuch	Ankleshwar	Jhagadia	Hansot
29	8.84	Sukaltirth, Kadod	Juna Haripura				Ore,Patar, Juni Tarsali, Juna Tothidra, Juna Pora						
30	9.15	Tavara Bet	Borbhatha (bet), Juna Borbhatha	Indor,Juni Jarsad, Mota vasasa		Sukaltirth, Kadod	Juna Haripura					Ore,Patar, Juni Tarsali, Juna Tothidra, Juna Pora	
31	9.45					Tavara Bet	Borbhatha (bet), Juna Borbhatha	Indor,Juni Jarsad,Mo ta vasasa		Sukaltirth, Kadod	Juna Haripura		
32	9.76		Ankleshwar	Nana Vasana						Tavara Bet	Borbhatha (bet), Juna Borbhatha	Indor,Juni Jarsad,Mo ta vasasa	
33	10.1		Sakkarpura, Pungam, Divi,Divi				Ankleshwar	Nana Vasana					
34	10.4						Sakkarpura, Pungam,Divi, Divi				Ankleshwar	Nana Vasana	
35	10.7			Bhalod, limodra	Hansot						Sakkarpura, Pungam,Divi, Divi		
36	11							Bhalod, limodra	Hansot				
37	11.3	Nikora, Dashan		Vadhvana								Bhalod, limodra	Hansot
38	11.6	Jhanor, Mangeles hvar		Velugam		Nikora, Dashan		Vadhvana					



Feet	Meter	Instruction											
		Alert				Ready for Evacuation				Immediate Evacuation			
		Taluka				Taluka				Taluka			
		Bharuch	Ankleshwar	Jhagadia	Hansot	Bharuch	Ankleshwar	Jhagadia	Hansot	Bharuch	Ankleshwar	Jhagadia	Hansot
39	11.9	Sindhot				Jhanor, Mangelesh var		Velugam		Nikora, Dashan		Vadhvan a	
40	12.2	Vadva	Sajod	Vanakpor, Panetha, Kakalpor, Sarsad		Sindhot				Jhanor, Mangeles hvar		Velugam	
41	12.5			Uchediya, Krushnapuri		Vadva	Sajod	Vanakpor, Panetha, Kakalpor, Sarsad		Sindhot			
42	12.8							Uchediya, Krushnapu ri		Vadva	Sajod	Vanakpo r, Panetha, Kakalpor , Sarsad	
43	13.1	Karjan										Uchediy a, Krushna puri	
44	13.4	Jhadeshwar				Karjan							
45	13.7					Jhadeshwar				Karjan			
46	14									Jhadeshw ar			

Source: Flood Memorandum, 2020

**Chapter 2**  
**HAZARD, VULNERABILITY AND RISK ASSESSMENT**

**2.2.2 Areas Affected By Dhadhar River**

<b><u>Amod Taluka</u></b>	<b><u>Jambusar Taluka</u></b>
<b>Warning Level 99.00 feet</b>	<b>98.00 feet</b>
<b>Danger Level 101 feet</b>	

Amod Taluka Villages	Jambusar Taluka Villages
Vasana, Manjola, Kankaria, Ikhar, Danda, Sarbhan, Nodhana, Dadapur, Kobla, Amod, Pursha	Valia, Asaroi, Kundal, Bojedara, Nada, Devla, Bhadkodra, Sigam, Muradpur, Kavi, Jantran, Medafar-Neja, Tankari, Khanpur, Mahapura, Magnad, Jambusar, Koteshvar, Nobar, Uber, Nondhana, Jafarpura, Kupriya, Malpur, Vad, Kora, Kava, Umara, Ankhi, Vahelam

**(Annexure - B)**

*Source: Flood Warning Arrangement, 2020*

**2.2.3 Areas Affected By Dam-site**

Sr.No	Dam Name	Warning Level (in meters)	Danger Level (In Meters)	Taluka	Affected Villages
1.	<b>Dholi Dam</b>	<b>136.00</b>	<b>137.41</b>	Jhagadia	Dholi,Razalwada,MotaSorva,Rajpardi, Bilwada,Katol,Sarsa,Kapat, Vanakpor
2.	<b>Pignuts Dam</b>	<b>139.70</b>	<b>141.34</b>	Valia	Gundiya,Kamaliya,Rajpara,Jambujam, Vandariya,Chor- Amala,U margam,Sodgam,Sinoda,
3.	<b>Baldeva Dam</b>	<b>141.50</b>	<b>143.20</b>	Valia	Seer , Dolatpur , Desad, Kesar Gam , Singala, Pithor
4	<b>Pingut Dam</b>	<b>139.70</b>	<b>141.34</b>	Netrang	Moza , Chikhali , Navapara
5	<b>Baldeva Dam</b>	<b>141.50</b>	<b>143.20</b>	Netrang	Kambodia, Baldeva, Panchsim, Zarna, Borkhadi, Chaswad, ,

**(Annexure - D)**

*Source Flood Memorandum 2020*

## Chapter 2 HAZARD, VULNERABILITY AND RISK ASSESSMENT

### Risk and Vulnerability Assessment (Current Year Projection) Physical Vulnerability

Hazard	No. of Villages	No. of People	No. of Live stock	No. of Kucha Houses	No. of Pucca Houses	Area under Agriculture (Hectare)
Flood	216	584865	115556	59104	44711	129584
Cyclone	60	104296	32272	9934	10979	35754
Industrial and Chemical	71	139156	37366	16586	10763	30125
Tsunami	43	104296	32272	9934	10979	35754

(Annexure – A to G)

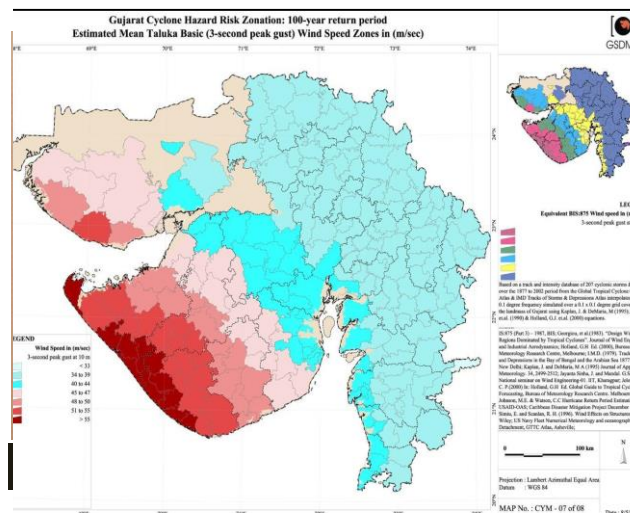
### Health Infrastructure at risk

Hazard	Sub Centre (no.)	PHC (no.)	CHC (no.)
Flood	24	14	2
Cyclone	35	7	3
Earthquake	200	37	7
Industrial and Chemical	26	8	3
Tsunami	35	7	3

### 2.3. Cyclone Hazard & Risk Assessment

The possibility of a storm cyclone is 62, 68 & 34 % respectively in the month of October, November and December. Bharuch has experienced storm cyclones in October 1975, October 1993 and November 1996. During a cyclone, there is high-velocity wind sometimes accompanied by heavy rainfall.

Looking to the geographical location of the District, Hansot, Vagra, Amod and Jambusar, i.e. west-facing talukas are situated nearer to the seafront of the Arabian Sea where the highest vulnerability of cyclone lies.



## Chapter 2 HAZARD, VULNERABILITY AND RISK ASSESSMENT

Cyclones can occur due to sudden pressure drop as a result of formation of low-pressure zone over a certain area. The identification of the low-pressure situation as per meteorological department and world meteorological organization are as follows:

Sr. No.	Type of Storm	Rotational Wind Velocit (in degree)
1.	Low pressure area	17 to 27
2.	Deep & sump	28 to 33
3.	Storm cyclone	34 to 47
4.	Dangerous storm cyclone	48 to 67
5.	Dangerous storm cyclone with heavy wind	68 and more

(1 knot = 1.85 km/hr)

The creation of low-pressure zone in atmosphere causes high velocity wind known as cyclone. Cyclone velocity is classified by the Director, Meteorological Dept. Ahmedabad as follows:

Sr. No.	Name	Wind Velocity (in km/hr)
1.	Eye of storm cyclone	30
2.	Eye val. of cyclone	100
3.	Inside wig of cyclone	100 to 150
4.	Outer wig of cyclone	150 to more

### The effect of high velocity wind cyclone is as follows:-

Sr. No.	Type of Storm	Wind Velocity (in km/hr)	Damage Effect
1.	Cyclone	60 to 90	Tree branches fall
2.	Dangerous cyclone	90 to 120	Small trees fall
3.	Dangerous cyclone with storm wind	120 or more	Big trees fall&houses, structures are damaged.

There are villages and salt manufacturer industries situated at the seafront areas of the Hansot, Vagra, and Amod & Jambusar talukas. Industrial factories are situated nearer to the seafront in the District.

Wind velocity of 120 km/hr or more can cause damage to human beings living in the vicinity of the seafront and workers working in Dahej GIDC factories as well as salt manufacturing industries. There could be situations such as sudden collapse of buildings, houses, structures and/or possibility of fire, explosion, toxic release, poisoning effect from the chemical factories, water flooding in low-lying areas. The details of possible effects on family, population, cattle, kachha houses and building are shown in the table below.

Severe cyclones with extremely high wind velocity & very high rainfall can cause damage to human lives in highly populated Municipalities such as Jambusar, Bharuch and Ankleswar, other villages and GIDC area of Dahej Panoli, Ankleshwar, Jhagadia, Bharuch and Palej and other areas where MAH factories or other chemical factories are situated. Many a time, it becomes difficult to predict the severity of a disaster, even when an early warning of the disaster has been obtained. **(Annexure - R)**

**2.3.1 Areas affected near the Coastal Belt:**

Name the Taluka likely to be affected	Name and Number of Villages likely to be affected				
	Severe (0-7 Kms)	Population	Moderate (7-15 Kms)	Population	Low (15-30 Kms)
Vagra & GIDC Area Dahej	Dahej Lakhigam Luwara Jageshvar Ambheta Rahiyad Suwa Koliyad Kaladra	6846 3357 1393 1465 1330 1353 1664 535 1383	Vagnai Gandhar Aladra Paniyadra Padariya Narwani Goladra	675 1527 730 330 569 569 939	
Hansot	Samali Kantiyazal Vamleshvar Katpor	734 1177 885 2219	Ambheta Pardi Hansot	1159 544 10739	
Jambusar	Sarod Kamboi Malpour Zamadi Neja Dewala Nada Asrsa Kapuriya Esmilpura Tankari Doliya Khanpur deh	7417 555 2287 913 511 4090 2672 735 480 1146 3660 623	Sardarpura Mahapura Kudhal Bojadra Jafarpura Magnad Karali Vedach.	270 427 355 1492 579 3476 5431 6461	

**(Annexure - F)**

**National Cyclone Risk Mitigation Project (NCRMP)**

The Government of India has initiated the National Cyclone Risk Mitigation Project (NCRMP) with a view to address cyclone risks in the country. The overall objective of the project is to undertake suitable structural and non-structural measures to mitigate the effects of cyclones in the coastal states and UTs of India.

National Disaster Management Authority (NDMA) under the aegis of Ministry of Home Affairs (MHA) will implement the Project in coordination with GSDMA in Gujarat state. The Project has identified Bharuch as a cyclone prone district, with varying levels of vulnerability.

5 Multi-Purpose Cyclone Shelters (“MPCS”) are being constructed in the district of Bharuch under this project in different villages.

### **List of MPCS sites in Bharuch:-**

<b>Sr.No.</b>	<b>District</b>	<b>Taluka</b>	<b>Village</b>	<b>Status</b>
1.	Bharuch	Hansot	Katpor	Completed
2.	Bharuch	Vagra	Rahiad	Completed
3.	Bharuch	Vagra	Suva	Completed
4.	Bharuch	Vagra	Kaladara	Construction is ongoing
5.	Bharuch	Jambusar	Khanpor Deh	Construction is ongoing

### **Project Objective:-**

The Project development objective of the NCRMP is to reduce vulnerability of coastal communities to cyclone and other hydro meteorological hazards through

- 1) Improved early warning dissemination systems
- 2) Enhanced capacity of local communities to respond to disasters
- 3) improved access to emergency shelter, evacuation, and protection against wind storms, flooding, and storm surge in high areas
- 4) strengthening DRM capacity at central, state and local levels in order to enable mainstreaming of risk mitigation measures into the overall development agenda **2.4**

### **Earthquake Hazard & Risk Assessment**

Earthquake is a natural phenomenon, which occurs due to uncertain movement of semisolid mass and plate of soil condition below 3000 km in earth. The nature of geological formation of the bedrock in the earth's crust reveals regions characterized by structural features, such as dislocation, distortion, faults, folding, thrusts, and volcanoes with their age of formation. These are directly involved in the earth movement or quake resulting in the above consequences.

Earthquakes cause random motion of ground, which can be resolved in any three mutually perpendicular directions. This motion causes the structure to vibrate. The vibration intensity of ground expected at any location depends upon the magnitude of earthquake, the depth of focus, distance from the epicenter and the strata on which the structure stands. The response of the structure to the ground vibration is a function of the nature of foundation soil, materials, form, size and mode of construction of the structure and the duration and the intensity of ground motion. Attention is particularly drawn to the fact that the intensity of shock due to an earthquake could greatly vary locally at any given place due to variation in the soil conditions.

Earthquakes can cause damage not only on account of the shaking of the ground but also due to related chain effects like landslides, floods, fire, explosion and disruption to communication etc. Himalayan – Nagalushai region, Indo Gangetic Plain, Western India, Kutch and Kathiawar regions are geologically unstable in the country and some devastating earthquakes of the world have occurred here.

Bharuch District is covered as a Zone –III earthquake-prone area. Bharuch city in the District had suffered an earthquake in the year 1970 and recently on 26<sup>th</sup>Jan 2001, Kutch, Rajkot, Surendranagar, Junagadh, Ahmedabad, Vadodara, Surat, Valsad district had experienced an earthquake of intensity 6.9 on the Richter scale. This had caused large damage to human lives, massive property, and affected the entire communication, water, and power networks as well.

#### 2.4.1 Details of earthquake hazard-prone zone area, reason, effect in the district

Sr.	Hazard Prone Zone	Reason	Effect
1.	Bharuch, Ankleswar, Jambusar and Amod Municipality area in respectively taluka	Highly dense population, Municipality area	Damage to human being & property
2.	Bharuch, Vagra, Amod, Jambusar, Ankleshwar, Hansot, Jhagadia, Valia, Netrang Taluka	Dense population Taluka place of district	----- As above -----
3.	Dahej, Panoli, Ankleswar, Jhagadia, Bharuch and Palej GIDC area	High number of chemical factories, MAH chemical factories, other industries, high number of employees and ancillary business establishment & persons	Producing chemical hazard such as fire, explosion, toxic release, poisoning etc. as a result of rupture of tank & collapse of buildings. This can cause damage to human beings.
4.	Udchaad – Ankhi in Jambusar taluka, Dora, Rozatankaria in Amod taluka, Zanor, Paguthan, Chavaj, Narmadanagar in Bharuch taluka, Gandhar in Vagra taluka, Pungam in Ankleshwar taluka, Kondh in Valia taluka, Kharach in Hansot taluka	MAH Chemical factories, Ankleshwar, Hansot, Vagra taluka and the places of availability of oil and Natural gas	Fire, explosion, toxic release etc. from certain MAH factories as well as fire, explosion in oil well, which can damage to human beings and property
5.	Underground passing pipeline area	Water, oil, chemical to a strong pipeline in district	Fire & explosion, which can cause damage to human beings & property. Interruption in industrial activity.
6.	Three port trust at Dahej	Storing & transferring chemicals & other products.	Fire, explosion & toxic release from respectively port trust interruption in industries activity.
7.	Road, railway and bridge area	National highway, other taluka road, western railway; Narmada & other bridge	Traffic in interruption, shortage occur in essential commodity in district as well as state
8.	Dams, water storage area	Very near to district Narmada dam, three check dams in Valia& Jhagadia taluka, GIDC water storages; industries reservoirs	Low lying areas will be flooded with water. There is shortage of drinking & industrial water. Thus can cause harm to humans & interruption in industrial activity.

It is not possible for mankind to predict earthquakes in early year, month, day, hours & minutes. After occurrence of earthquake; certain rays like peweess came early to the surface of earth. Mankind can measure these peweess. But after only the minute, the intensity of earthquake so increases very highly and cause damage to mankind & property.

In a ward, people can get only one minute time by detection peweess, before severe tremendous effect of earthquake occur.

**2.4.2 Oil & natural Gas Pipeline Details**

## District profile: Oil & Natural Gas pipelines

**Gas Pipelines**

**Oil Pipelines**

Map Source: GSDMA Website

**Legend for Gas Pipelines:**

- Gujarat Gas Distribution
- GSPL
- GAIL North South
- Reliance

**Legend for Oil Pipelines:**

- INDIANOIL
- ONGC ANKLESHWAR

- There are total **7 pipeline operators** in the district
- 2 of these operate **Oil pipelines (IOCL and ONGC)**
- 5 operate **gas pipelines (RIL, RGTEL, GSPL, GAIL, Gujarat Gas)** of which Gujarat Gas is a city gas distribution network.

**Route Details of Pipelines crossing River Narmada at Bhadbhut Village**

Sr.	Company	Pipeline Detail	Oil/Gas
1	GAIL	Dahej – Uran – 30”	Natural Gas
		Hajira-Vijaypur-Jagdishpur – 36”	
2	RIL Ind.	Hazira to Dahej 26”	Gas
		Hazira to Dahej 24”	
3	RIL Gas Transportation Ltd.	Kakinada(A.P.) to Bhadbhut 48”	Natural Gas
4	GSPL	Ankleswar to Dahej 24”	Natural Gas
5	ONGC	Ankleswar to Gandhar 8”	Oil
6	IOCL	Amod to Hazira 12.75”	Oil
7	OPAL(Proposed Pipeline)		Neptha

(Annexure – H20 )



## Vulnerable Villages



- **Villages Immediately abutting pipelines:**
  - *Bhadbhut (3835), Dhanturiya (4717).*
- **Downstream Villages in case of oil Leakage:**
  - *Bharuch: Kasava (1336), Mahegam (1235),*
  - *Vagra: Kaladra (1663), Suva (1920), Ambetha (1552), Jageshwar (1571), Rahiad (1694), Lakhigam (4938).*
- **Total vulnerable population: 24,661.**

*(Population figures of villages stated in brackets)*

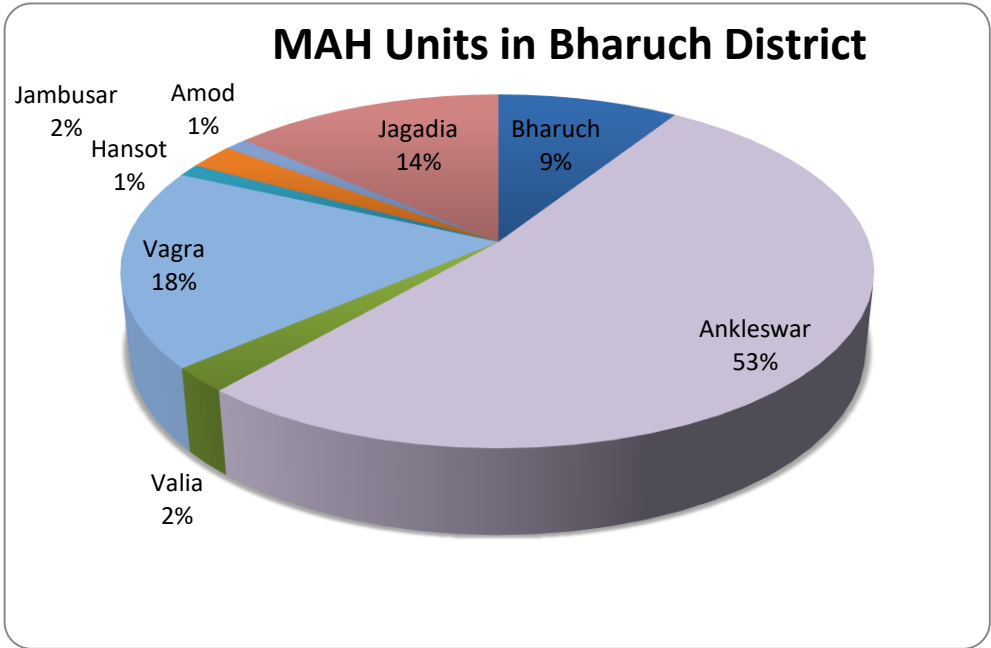
### **2.4.3 Past Incidents Surrounding Pipelines and Measures Undertaken:**

- On 25<sup>th</sup> August 2013, there was explosion in the DUPL natural gas pipeline of GAIL and breakage in the 26” gas pipeline of RIL. This was followed by incident of oil leakage in the ONGC pipeline on 28<sup>th</sup> August 2013.
- District Administration issued an order of immediate shutdown of all pipelines in Bharuch District. District Crisis Group (DCG) Meeting was called on 26<sup>th</sup> August 2013; all pipeline operators were asked to verify structural safety of their pipelines and submit safety undertakings.
- On 31<sup>st</sup> August 2013, a show-cause notice was issued to ONGC by the District Administration for non-compliance of safety conditions and failing to give notice of incident. GPCB also issued notices to GAIL, RIL for failing to intimate the concerned authorities about the incident and lapses in safety procedures.
- On 1<sup>st</sup> September 2013, an Independent High-Level Technical team, i.e. M/S CEIL, Mumbai appointed by Energy & Petrochemical Department. Crude oil trapped in river section was displaced by ONGC. ONGC also conducted churning of oil in affected area by boats up to 13<sup>th</sup> Sept 2013

- Review and policy meeting was organized by GSDMA on 22<sup>nd</sup> November 2013 to discuss policy vacuum and multiplicity of laws and agencies granting ROU to pipeline operators.
- On 13-12-2016 about 16:45 a traveling boat having passenger 18 women & 28 men rescued with four private boats from sea.
- On 31-01-2017, Chemical fire destroyed the sterling Auxiliaries Pvt. Ltd. At Ambheta, Dahej, ta: vagra.

**2.5 Chemical Hazard & Risk Assessment**

Chemical industries are engaged in storing, handling, manufacturing, transporting and using

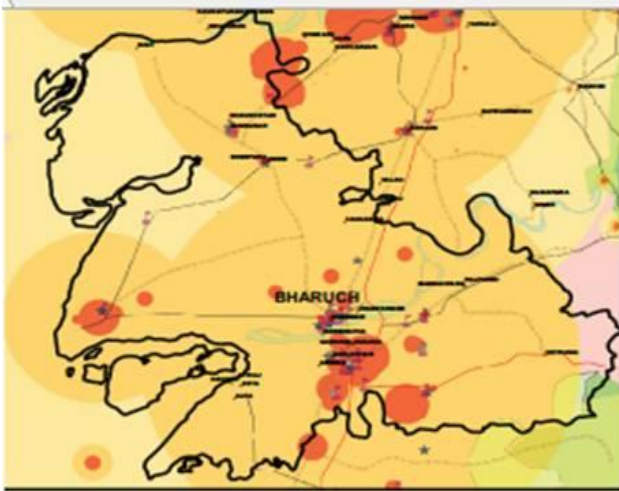


large and bulk quantities of various hazardous chemicals. Many of these chemicals are toxic, highly reactive, explosive, flammable, or poisonous or have a combination of these

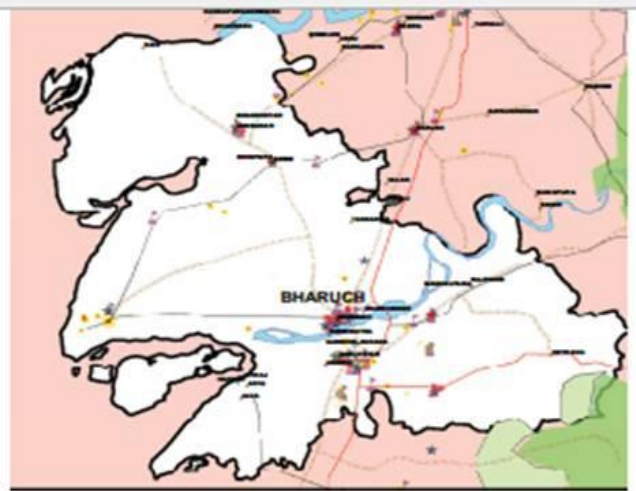
characteristics. Due to these properties and impact of disasters such as nature of natural calamity as well as manmade, they have the potential to cause harm to human beings, other living creatures, plant, property and the environment in general as resulting emergencies of fire, explosion, toxic release, radioactive, poisoning. **(Annexure – R & T)**

Any or a combination of fire, explosion, and toxic release poisoning or radioactive hazard are possible in chemical industries of the district due to following types of disasters / emergencies:

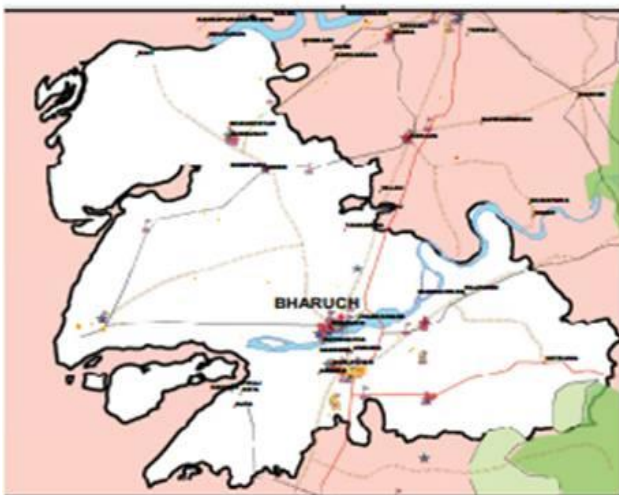
1. Natural calamities: Earthquake, Cyclone or Flood
2. Manmade Disasters: Civil disturbance, War, Riot or Industrial Accidents



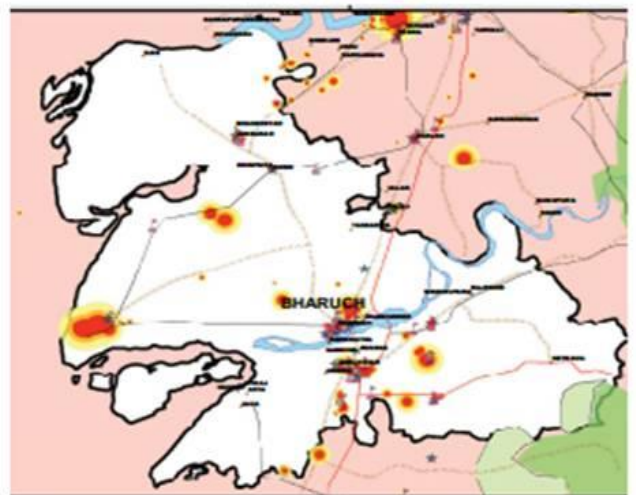
*Vulnerability Areas in Bharuch for a Toxic Leak Scenario*



*Vulnerability Areas in Bharuch for a Flash Fire Scenario*



*Vulnerability Areas in Bharuch for Vapour Cloud*



*Vulnerability Areas in Bharuch for BLEVE Explosion*

**Chapter 2**  
**HAZARD, VULNERABILITY AND RISK ASSESSMENT**

**2.5.1 Details of type of risk, sources, resultant emergency and effect at large from the industries/factories:**

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

**Refer: Taluka wise Details covered in (Annexure A to G)**

## 2.6 Capacity Analysis

### Traditional Coping Capacity

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

Hazard	Early Warning	Preparedness	Early Response
Flood	Monitoring of water courses through community	Identified high elevation places and rescue teams	Evacuation, search and rescue and first aid support
Cyclone	Information through fisher folks	Locate to safe place	Search and rescue and first aid support
Earthquake		Identification of safe places,	search and rescue and first aid support
Drought	Own assessment mechanism	Fodder storage, food storage at individual level	Panjrapol
Industrial/Chemical Hazard	Local Administration	CAMEO/	Local response Teams
Tsunami		Locate to safe place	search and rescue and first aid support

### Summary of Capacity against flood, cyclone and Tsunami

Details	No.
Villages at risk	259
Swimmer and rescuers	1214
Emergency / Rescue Shelters	259
Govt Tanker water suppliers	2
Pvt Tanker water suppliers	8
Govt medical practitioners	32
Nurses	162
Vet Doctors	15
Para vets	8
Cattle shed (Panjrapol)	3
Machine boats	65
Simple Boats	32
Boat Operators	93
Life Jackets	545
Rings	545

(Annexure J, K, L & O)

## Chapter 2 HAZARD, VULNERABILITY AND RISK ASSESSMENT

### Summary of Capacity against earthquake

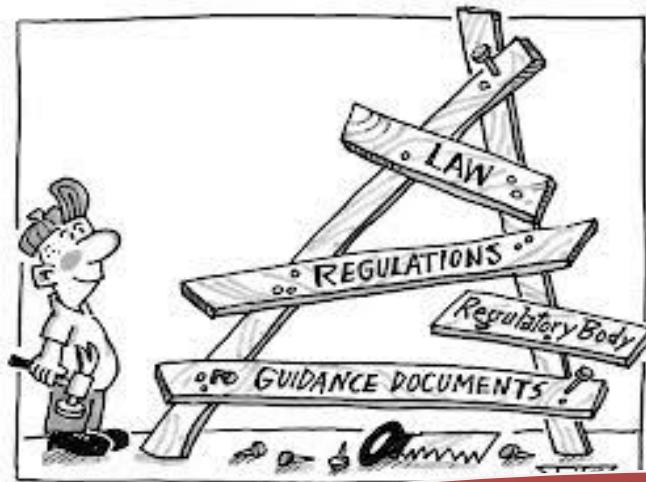
Details	No.
Earthquake prone villages	660
Emergency / Rescue Shelters	660
Govt Tanker water suppliers	2
Pvt Tanker water suppliers	8
Govt Doctors	32
Nurses	162
Earth Movers ( Private)	155
Dumpers ( Private)	57
Gas Cutters ( Private)	38

(Annexure A to G, J, K,M)

### Capacity against industrial and chemical disaster

Particular	Unit (no.)
Special Response Teams (SRTs) readily available for Industries	Yes
Trained personnel at District level	9
Fire Fighters (Private) & (Govt)	52
Lab Technician	13
Govt doctors	32
Para medical staff	200
Antidotes	1. Yes details covered in Annexure
	2.
	3.

(Annexure R, J11, M, T)



## Chapter 3 Institutionalisation and Multihazard Response Measures

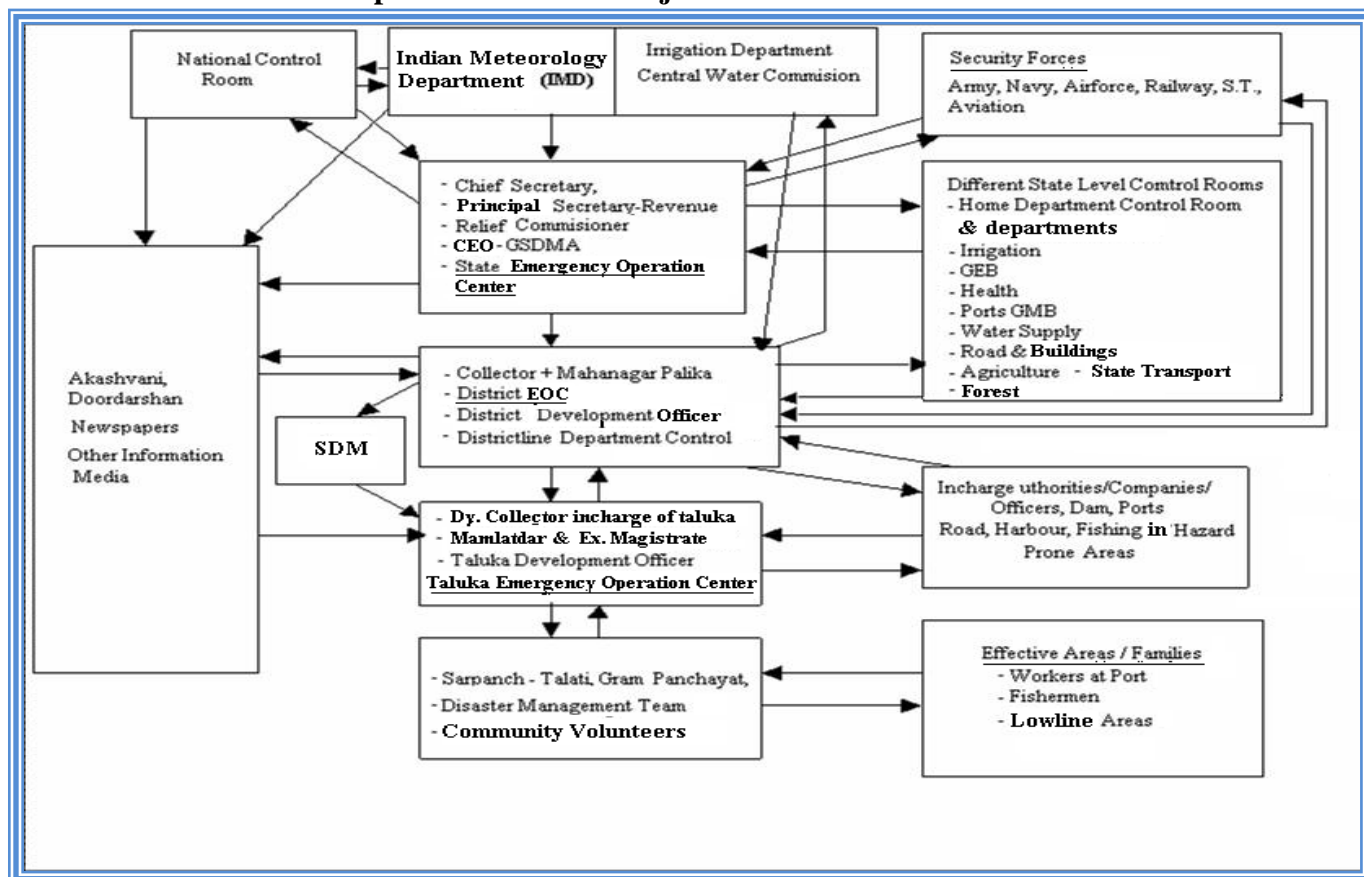


## Chapter 3 Institutionalisation and Multihazard Response Measures

At the district level, the District Magistrate will be the focal point for coordinating all activities relating to prevention, mitigation and preparedness apart from his existing responsibilities pertaining to response and relief. The District Coordination and Relief Committee is being reconstituted/re-designated into Disaster Management Committees with officers from relevant departments being added as members. Because of its enhanced mandate of mitigation and prevention, the district heads and departments engaged in development will now be added to the Committee so that mitigation and prevention is mainstreamed into the district plan. The existing system of drawing up preparedness and response plans will continue. There will, however, also be a long term mitigation plan. District Disaster Management Committees have already been constituted in Bharuch districts.

The model bye-laws, DM Policy, Act and model health sector plan have also been included. Education and Training includes material for capacity building and upgradation of skills of policy makers, administrators, trainers, engineers etc. in planning for and mitigating against natural disasters. Basic and detailed training modules in disaster preparedness have been incorporated along with training methodologies for trainers, for community preparedness and manuals for training at district, block, panchayat and village levels. For creating a disaster-resistant building environment, the Construction Toolkit addresses the issue of seismic resistant construction and retrofitting of existing buildings. BIS Codes, manuals and guidelines for RCC, Masonry and other construction methodologies as also for repair and retrofitting of masonry and low-rise buildings have been included.

### 3.1 State Disaster Response Structure - Gujarat

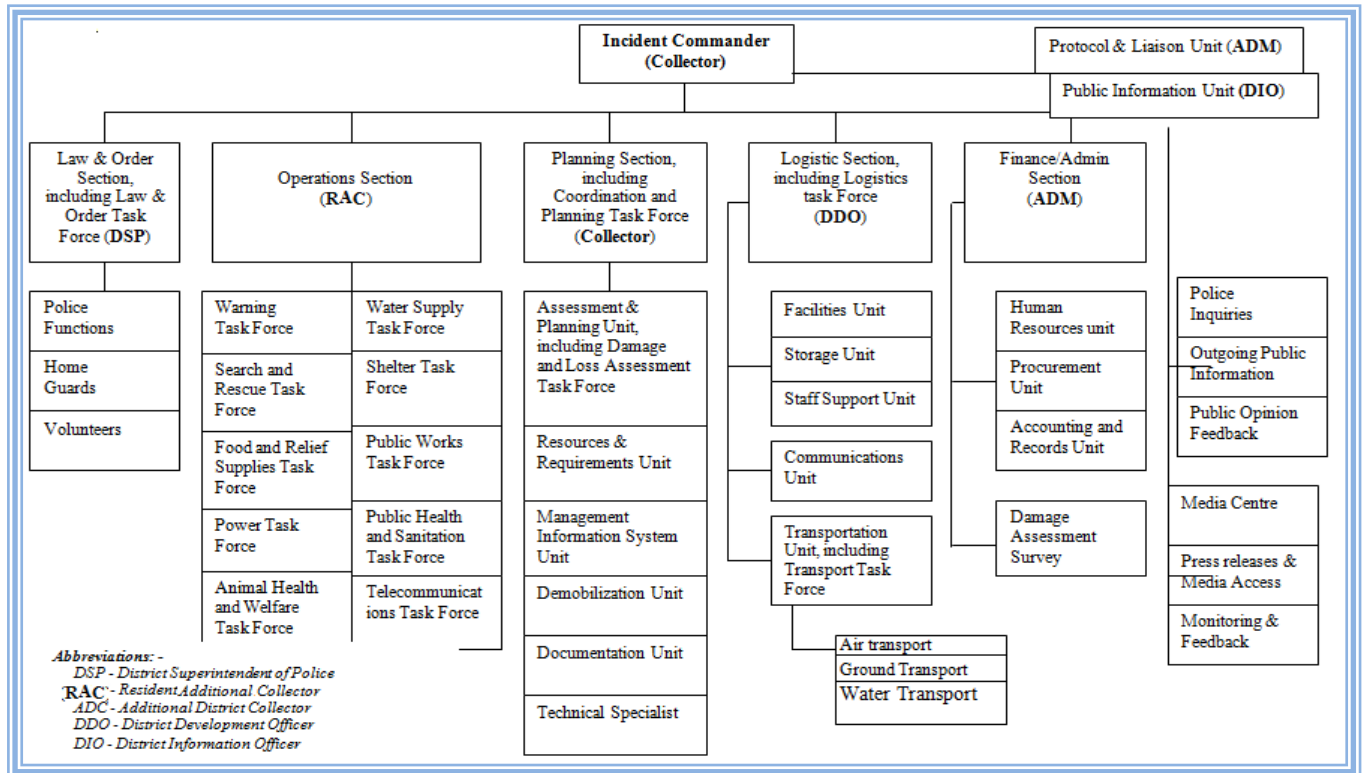




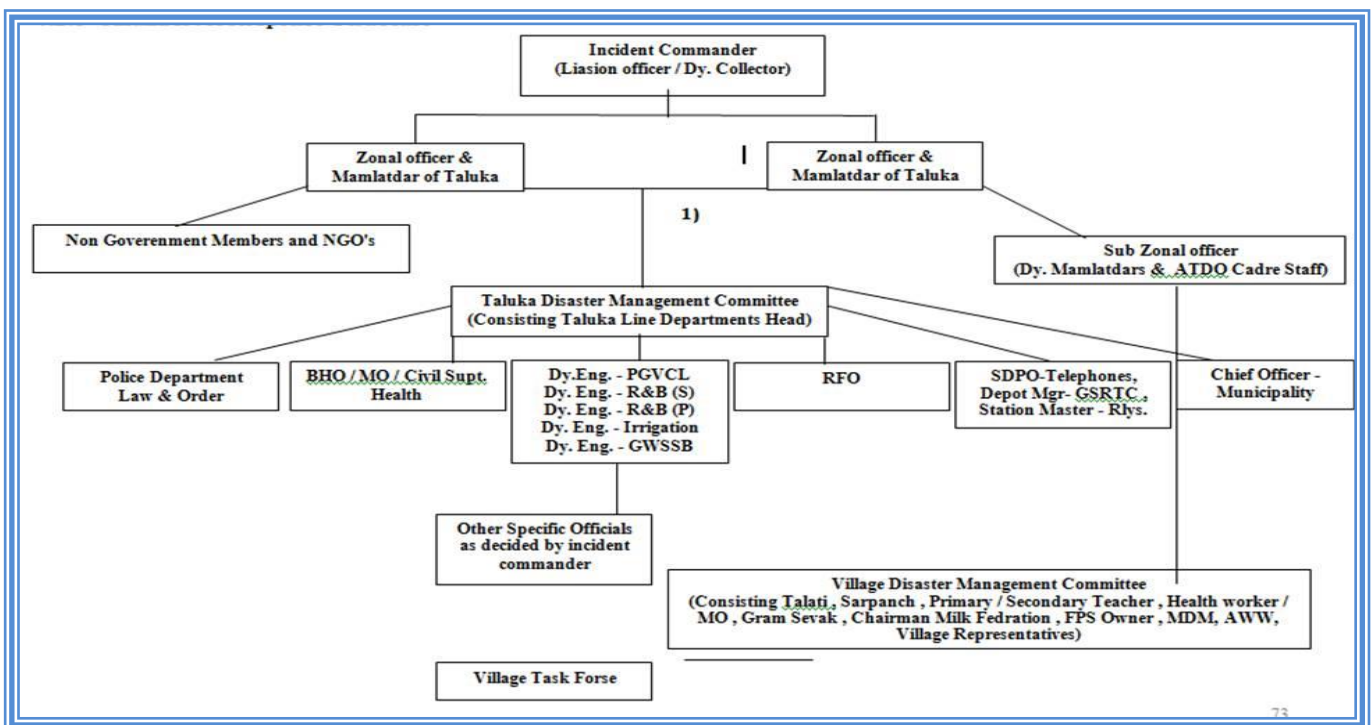
# Chapter 3 Institutionalisation and Multihazard Response Measures

For effective response the Incident Command System (ICS), need to be put into place with clear responsibility. The commander for each tasks force need to be trained on the specific tasks. Incident Commander (IC) at block level instructs head of task forces to carryout emergency functions according to SOPs. Head of each task force reports to IC on progress (and any obstacles faced) until he/she is further instructed by IC.

### 3.2 District Level Structure



### 3.3 Taluka Level Structure



**3.4 SEOC-DEOC-TEOC and Other Control Rooms.**

**Emergency Operation Centers/Control Rooms**

- **District Emergency Operation Center(DEOC)**

- The District Emergency Operation Center (DEOC) is located at District Collector's Office. It is also the central point for information gathering, processing and decision making more specifically to combat the disaster. Most of the strategic decisions are taken in this control room with regard to the management of disaster based on the information gathered and processed. The Incident Commander takes charge at the District Control Room and commands the emergency operations as per the Incident Command System organizational chart.

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

- **Facilities at District Control Room**

The District Control Room shall be equipped with but not limited to the following items:

- Hotline directly connected to State EOC/Control room
  - Telephones
  - Satellite Telephone
  - Satellite Iridium
  - One PC with e-mail, Internet and web site facilities
  - Marker board - 2 Nos. with adequate markers
  - Conference table with Chairs
  - A copy of Disaster Management Plan
  - Other relevant documents, if any
  - Wireless set
  - Walki Talki
- **Task Force Control Room (TFCR)**  
Individual Task Force function shall activate & operate their respective control rooms in their office managed by a competent person who is proficient in communication and technically capable of coordinating with Taluka Level Control Room and District Control Room and mobilize requisite resources to the disaster site.
- **Taluka Level Control Room (TLCR)**  
The Taluka Level Control Room shall be located at the Office of Mamlatdar. The Liaison Officers of the respective Talukas shall take charge of the Control Room. The respective liaison Officers shall coordinate between the task group members working at disaster sites and TFCR for mobilization of resources and dissemination of instructions received from TFCR/DEOC.

- **Facilities at Taluka Level Control Rooms (TLCR)**

The following facilities are maintained inside TFCR:

- Telephones
- Marker board (1)
- A copy each of Disaster Management Plan and Taluka Level Plan
- Other relevant documents, if any

Responsibility of up keeping and maintenance of all the above items / facilities in the respective Control rooms is given as below.

DCR	:	District Collector or any person nominated
TFCR	:	Respective Task Force Leader
TLCR	:	Respective Taluka Liaison Officer

The above responsible Depts./ personnel shall carryout periodic inspection of such facilities in their respective control rooms at the frequency set by them and maintain records on the same.

Response defines provision for assistance/ intervention during and after emergency. Response plan includes clear Incident Command System (ICS) operated through emergency operation centers (EOCs) with effective 3C (Command, Control and Communication) mechanism. ICS covers early warning, search and rescue, humanitarian assistance, medical response, relief, temporary shelter, water and sanitation, law and order, animal care, public grievance, recovery and rehabilitation.

#### **3.5 Early Warning System (EWS) and Post Disaster Advisories**

It is often observed that communities living in remote and isolated locations do not receive timely and reliable warnings of impending disasters. Hence, it is necessary to have robust and effective early warning systems, which can play crucial role in saving lives and limiting the extent of damage to assets and services. Outreach and reliability of warnings are key factors for planning and implementing response measures. Post disaster advisories like information on rescue, relief and other services are important to ensure law, order, and safety of citizens.

#### **3.6 Information Dissemination**

The dissemination of information is the most critical function in order to give early warning to the community. It has to be fast in order to give reasonable amount of time for communities to prepare for any eventuality. Due consideration has to be given to the points mentioned below before sending across the information.

- Information dissemination will be done to all the important stakeholders (as given below in the information dissemination format) at the Panchayat level in rural areas and Nagarpalika level in urban areas for early warning communication.
- Making use of the fastest means to communicate the message in the most lucid manner so as to prevent spread of rumor and panic among the masses.

***Bulk Voice SMS Service is the best means of communication to large masses without any effort and within no time. A voice recorded message from the District Magistrate from official number shall be sent to the database of numbers identified for information dissemination with the help of Mobile service providers & Telephone department.***

#### **3.7 Early Warning Action Plan**

The availability of early warning system is a must before early warning message could be disseminate to the people till the last mile. Thus for every type of disaster

## Chapter 3 Institutionalisation and Multihazard Response Measures

there is an agency designated with the responsibility of keeping track of developments in respect of specific hazards and inform the designated authorities/agencies at the district

level about the impending disaster. Nodal agencies for early warning of different natural hazards are:

Type of Action	Flood	Cyclone	Chemical and industrial accidents	Tsunami
Existing EWS	Irrigation department /dam authority/ IMD ↓ Collector ↓ Mamlatdar/TDO ↓ Villages	IMD ↓ Collector ↓ Mamlatdar/TDO ↓ Villages	Industrial Association/industries ↓ DCG ↓ LCG ↓ Mamlatdar	IMD ↓ Collector ↓ Mamlatdar/TDO ↓ Villages
Responsible Agency for warning dissemination	Mamlatdar office/TDO	Mamlatdar office/TDO	Mamlatdar office/TDO	Mamlatdar office/TDO
Trained personnel and operators available (Y/N)	Yes	Yes	No (Team to be formed and trained )	No (Team to be formed and trained )
Villages covered	All risk prone villages			
Villages/habitation not covered or difficult to access	Communities in remote locations ( fisher folk, salt pan workers, maldharis etc)			
Measures required to improve timeliness and outreach (For example, voice enabled SMS)	Contact of communities in remote locations (fisherfolk, saltpan workers, Maldharis etc)			

### During and Post Disaster Advisory Action Plan

Type of Hazard	Flood	Cyclone	Earthquake	Drought	Chemical and industrial accidents	Tsunami
Responsible Agency	Revenue & Panchyat offices					
Villages covered	All risk prone villages					
Villages/habitation not covered or difficult to access	communities in remote locations ( fisher folk, salt pan workers, Maldharis etc)					
Measures required for outreach	Contact of communities in remote locations ( fisher folk, salt pan workers, Maldharis etc)					

### **3.8 VIP involvement and protocol**

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

chaos during the disaster. Visits by VIPs can lift the morale of those affected by the disaster as well as those who are involved in the response. Care should be taken that VIP visits do not interrupt rescue and life saving work. Security of VIPs will be additional responsibility of local police and Special Forces. It would be desirable to restrict media coverage of such visits, in which case the police & taluka liaison officer will liaise with the government press officer to keep their number to minimum.

### **3.9 Media Management**

The role of media, both print and electronic, in informing the people and the authorities during emergencies becomes critical, especially the ways in which media can play a vital role in public awareness and preparedness through educating the public about disasters; warning of hazards; gathering and transmitting information about affected areas; alerting government officials, helping relief organizations and the public towards specific needs; and even in facilitating discussions about disaster preparedness and response. During any emergency, people seek up-to-date, reliable and detailed information.

Bharuch Collectorate office has established an effective system of collaborating with the media during emergencies. Both print and electronic media is regularly briefed at predetermined time intervals about the events as they occur and the prevailing situation on ground. A similar set up is also active at the Taluka Control room (i.e. Mamlatdar office)

### **3.10 Role of Emergency Organization**

The District Collector shall be the Overall Incident Command Officer of emergency operations as the District Bharuch Emergency Authority and S/he shall provide suitable instruction to the District Crisis Group.

- The Collector shall seek help from Chief Secretary, Chairman, State Crisis Group, Gujarat State depending upon the state of emergency. For this he shall be in touch with State Control Room, Gandhinagar or Chief Secretary, Gujarat State for progress of emergency.

Roles and Responsibilities of Different Key Departments	Before Emergency	During Emergency	After Emergency
<b>Collector &amp; DM</b>	<ul style="list-style-type: none"> <li>• Training and Rehearsals</li> <li>• Develop disaster management plans at all levels down to the village level. (DDMC)</li> <li>• Hold regular meetings on disaster management including government, NGOs and private sectors. (DDMC)</li> <li>• Check warning, communications and other systems (DDMC), is including the use of drills.</li> <li>• Mobilize task forces at all levels (District, Taluka, village depending on disaster) (DDMC, Telecommunications, Media Task Forces).</li> <li>• Assign/guide district departments for preparedness task as &amp; when required.</li> </ul>	<ul style="list-style-type: none"> <li>• Shall provide suitable instruction to the District Crisis Group, Local Crisis Group of Bharuch, Vagra, Ankleshwar and Jhagadia Panoli, Control Room.</li> <li>• Provide reinforcement and support for emergency response from the district resources, Such as technical expert opinion combating fire fighting.</li> <li>• Evacuation of people, rescue operation to save the life of people incase of disaster.</li> <li>• Effective working of communication system, traffic control, evacuated property security, maintain law and order and cordon of area, environment monitoring, disease control, demolition and reconstruction of structure, transport facility for evacuation,</li> <li>• Provide relief &amp; shelter after/ during emergency, damage assessment &amp; funeral process.</li> <li>• Shall asked help from Chief Secretary, Chairman, State Crisis Group, Gujarat State depending upon the status of emergency.</li> <li>• Shall Instruct Superintendent of railway to stop train in case of any emergency.</li> <li>• Establish regular liaison with State Control Room.</li> <li>• Assign/guide district departments for relief &amp; rescue work as &amp; when required.</li> </ul>	<ul style="list-style-type: none"> <li>• Start Rehabilitation activities. (DDMC)</li> <li>• Conduct detailed survey of damage and needs. (DDMC and Damage Assessment Task Force)</li> <li>• Restore all public and private sector services. (DDMC)</li> <li>• Final Report/Case Study (DDMC)</li> <li>• Lessons Learned meeting. (DDMC and others)</li> <li>• Assign/guide district departments for relief &amp; rehabilitation work as &amp; when required.</li> </ul>

Roles and Responsibilities of Different Key Departments	Before Emergency	During Emergency	After Emergency
<b>Resident Additional Collector(RAC)</b>	<ul style="list-style-type: none"> <li>• Training and Rehearsals</li> <li>• Develop disaster management plans at all levels down to the village level. (DDMC)</li> <li>• Hold regular meetings on disaster management including government, NGOs and private sectors. (DDMC)</li> <li>• Check warning, communications and other systems (DDMC), is including the use of drills.</li> <li>• Mobilize task forces at all levels (District, Taluka, village depending on disaster) (DDMC, Telecommunications, Media Task Forces).</li> <li>• Assign/guide district departments for preparedness task as &amp; when required.</li> </ul>	<ul style="list-style-type: none"> <li>• Shall provide suitable instruction to the District Crisis Group, Local Crisis Group of Bharuch, Vagra, Ankleshwar and Jhagadia Panoli, Control Room.</li> <li>• Provide reinforcement and support for emergency response from the district resources, Such as technical expert opinion combating fire fighting.</li> <li>• Evacuation of people, rescue operation to save the life of people incase of disaster.</li> <li>• Effective working of communication system, traffic control, evacuated property security, maintain law and order and cordon of area, environment monitoring, disease control, demolition and reconstruction of structure, transport facility for evacuation,</li> <li>• Provide relief &amp; shelter after/ during emergency, damage assessment &amp; funeral process.</li> <li>• Shall asked Superintendent of railway to stop train in case of any emergency.</li> <li>• Establish regular liaison with State Control Room.</li> <li>• Assign/guide district departments for relief &amp; rescue work as &amp; when required.</li> <li>• He will perform general roll during emergency as stated in District.</li> </ul>	<ul style="list-style-type: none"> <li>• Start Rehabilitation activities. (DDMC)</li> <li>• Conduct detailed survey of damage and needs. (DDMC and Damage Assessment Task Force)</li> <li>• Restore all public and private sector services. (DDMC)</li> <li>• Final Report/Case Study (DDMC)</li> <li>• Lessons Learned meeting. (DDMC and others) and reporting to State office.</li> <li>• Assign/guide district departments for relief &amp; rehabilitation work as &amp; when required.</li> <li>• Effective working of communication system, traffic control, evacuated property security, maintain law and order and cordon of area, environment monitoring, disease control, demolition and reconstruction of structure, transport facility for evacuation</li> </ul>

Roles and Responsibilities of Different Key Departments	Before Emergency	During Emergency	After Emergency
<b>Superintendent of Police</b>	<ul style="list-style-type: none"> <li>S/He will keep their wireless set, public address system in working condition to warn public about disaster.</li> <li>As per instruction of district collector or message of possible emergency received from other source to or feel him/her self for possible emergency, He/she will do operation such as Evacuation public warning, traffic control, cordon of area etc. required in possible affected areas of the district.</li> <li>Prepare departmental Disaster Management Plan and submit copy to collector.</li> </ul>	<ul style="list-style-type: none"> <li>S/He will perform general roll during emergency as stated in District.</li> <li>S/He will keep their wireless set, public address system in working condition to inform public.</li> <li>As per instruction of district collector or message received from other source, He will do operation of Evacuation &amp; Rescue, Public warning, Communication Control, Traffic Control, Security law &amp; order, cordon of area, Funeral etc. required in affected area of the district.</li> </ul>	<ul style="list-style-type: none"> <li>S/He will arrange funeral process of human body.</li> <li>S/He will provide security to protect properties in effected area.</li> <li>S/He will perform general roll after emergency as stated in District</li> <li>S/He will assess the human death.</li> <li>S/He will lodging of FIR &amp; doing of the panchanama if required in the affected area.</li> </ul>
<b>District Development Officer</b>	<ul style="list-style-type: none"> <li>Before disaster/emergency, he/she will prepare plan of district for Relief and shelter work &amp; damage assessment</li> <li>With the help of village level worker; he will circulate intimation of the emergency.</li> <li>He/she will keep the panchayat staff ready for possible relief and damage assessment.</li> <li>Prepare departmental Disaster Management Plan and submit copy to the collector.</li> </ul>	<ul style="list-style-type: none"> <li>As per instruction of a District collector or message, DDO will do operation of relief and shelter with their staff, group members &amp; their staff and NGOs with their equipment and facilities.</li> <li>He/she will look after the duty performs by their staff member's i.e TDMC, VDMC as per disaster management plan.</li> <li>He/she will arrange for relief and shelter camps in the rural areas.</li> <li>He/she ensure ground staff at headquarter during disaster.</li> </ul>	<ul style="list-style-type: none"> <li>Starts Rehabilitation operation with staff, group members &amp; NGOs as required with their equipment as facilities under guidance of Collector.</li> <li>He/she will provide cash dolls, shanty house/ building relief, house grocery relief, death relief, food, water, clothes, utensils etc.</li> <li>He/she will assess the damage occurred due to disaster / emergency with staff &amp; Group members.</li> </ul>
<b>SDM &amp; Deputy Collector</b>	<ul style="list-style-type: none"> <li>Liaison Officer will conduct meeting of Taluka flood relief co-ordination committee and will do proper planning for mitigation of effect incase of flood, cyclone, and heavy rain fall.</li> <li>District supply officer will keep at least three month of stock of essential commodity such as grain, sugar, kerosene, petrol, diesel etc.in interior area likely to be effected.</li> <li>Monitor Preparatory work at Taluka level</li> </ul>	<ul style="list-style-type: none"> <li>He will assist the Collector in the relief and rescue operation along with his staff.</li> <li>Take necessary step as per DDMP plan of the district collector</li> <li>District supply officer supply will look after constant watch for providing essential commodity such as grain, sugar, kerosene, petrol, diesel etc. in case of disaster /emergency.</li> </ul>	<ul style="list-style-type: none"> <li>District supply officer will arrange for distribution of essential commodity to the affected areas through Gujarat State civil supply corporation &amp; NGO's.</li> <li>Final Report/Case Study (DDMC)</li> <li>Lessons Learned meeting. (DDMC and others)</li> </ul>



Roles and Responsibilities of Different Key Departments	Before Emergency	During Emergency	After Emergency
<p><b>Mamlatdar</b></p>	<ul style="list-style-type: none"> <li>• Incase of flood, cyclone, war, earth-quack, Industrial, transport, water &amp; air pollution, pipeline etc. disaster / emergency and for mitigation of effect, he will prepare plan for incident control group of DCG &amp; LCG.</li> <li>• S/He will perform general roll before emergency as stated in district off site emergency plan.</li> <li>• S/He as vice chairman of incident control group of DCG &amp; Chairman of incident control group of LCG will look out overall all the function at incident place through their members and team.</li> <li>• S/He will keep office open with staff as control room in case of disaster / emergency i.e. flood, cyclone etc. will provide to and for information to disaster control room / district authority.</li> </ul>	<ul style="list-style-type: none"> <li>• As per instruction of District Collector or SDM or message received from other source of flood, cyclone, war, earth-quack, industrial, transport, water and Air pollution, pipeline etc. disaster / emergency s/he will send respective member of to combat and to mitigate effect at incident place. He will proceed towards incident place and will look out overall function i.e. <ul style="list-style-type: none"> <li>○Evacuation and rescue operation</li> <li>○Fire / Toxic control and toxic monitoring</li> <li>○Public warning and communication</li> <li>○Traffic control, security, law &amp; order, cordon of area</li> <li>○Medical treatment at first aid center, causality center</li> <li>○Disease control</li> <li>○Demolition, Reconstruction and rehabilitation</li> <li>○Transport</li> <li>○Public relation and mass media communication</li> <li>○Relief and shelter</li> </ul> </li> <li>• S/he will perform general roll during emergency as stated in IC group of district off site emergency plan and chairman of IC team of LCG plan.</li> <li>• S/He will inform progress report of emergency to SDM of district authority from incident place.</li> </ul>	<ul style="list-style-type: none"> <li>• S/He will look out overall the function of incident place <ul style="list-style-type: none"> <li>○ Rescue</li> <li>○ Health &amp; Medical treatment of victims</li> <li>○ Traffic security law and order</li> <li>○ Toxic and disease control</li> <li>○ Rehabilitation</li> <li>○ Relief and Shelter</li> </ul> </li> <li>• S/He will perform general roll after emergency as stated in IC group of district off site emergency plan and chairman of IC team of LCG plan.</li> <li>• S/He will provide cash dolls, shanty house, building relief, house grocery relief, and death relief.</li> <li>• S/He will asses the damage occurred in city area due to disaster emergency</li> </ul>

Roles and Responsibilities of Different Key Departments	Before Emergency	During Emergency	After Emergency
<b>Taluka Development Officer – TDO</b>	<ul style="list-style-type: none"> <li>• With the village level team warning disseminate to the community</li> <li>• Keep staff ready for relief and damage assessment.</li> <li>• To update VDMP &amp; TDMP in coordination of Mamlatdar and other line department.</li> <li>• To coordinate &amp; collect information of resources &amp; equipments from line departments, stakeholders &amp; village.</li> </ul>	<ul style="list-style-type: none"> <li>• Taluka Development Officer will provide their staff e.g. VDMC team for public information and evacuation operation to DSP/SDM in case of flood, cyclone, heavy rainfall or other disaster/emergency.</li> <li>• To coordinate &amp; support with stakeholders for resources &amp; equipments to avail for relief &amp; rescue teams.</li> </ul>	<ul style="list-style-type: none"> <li>• He will arrange for relief and safe shelter camps in the rural areas based on VDMP</li> <li>• He/she will provide cash dolls, shanty house/building relief, house grocery relief, death relief, food, water, clothes, utensils etc.</li> <li>• He/she will assess the damage occurred due to disaster/emergency with staff &amp; Group members.</li> </ul>
<b>District municipal officer &amp; CO nagarpalika</b>	<ul style="list-style-type: none"> <li>• Nagarpalika operated hospitals keep ready state with Operation Theatre, equipments and medical facilities in working condition Nagarpalika shall keep approach road of water sources, pumps in working condition, water leakage will be prevented through pipe, pipe joints and valve. Water storage tank will keep clean and will keep water without unwanted impurities</li> <li>• Nagarpalika shall maintain good fire fighting facility and rescue equipments.</li> <li>• Nagarpalika will provide bus, mini bus, trucks, and trigger, earth moving machinery for evacuation and rescue operation and transferring people from nagarpalika area.</li> <li>• Nagarpalika will keep their mobile public address system in working condition to give information to public.</li> <li>• Nagarpalika will keep drainage system in working condition.</li> <li>• Prepare City Disaster Management Plan and submit copy to the collector.</li> </ul>	<ul style="list-style-type: none"> <li>• Nagarpalika shall do rescue operation with well equipped equipment and trained staff.</li> <li>• Nagarpalika shall provide good medical treatment to victims in case of emergency in their hospital.</li> <li>• Nagarpalika shall provide fire tender for firefighting operating.</li> </ul>	<ul style="list-style-type: none"> <li>• Nagarpalika will restore drainage system in affected area.</li> <li>• Nagarpalika will restore pure drinking water in affected area.</li> <li>• Whenever possible, he will arrange for transportation of dead body through special vehicles.</li> <li>• Immediate start Sanitation work and give update work progress report to collector.</li> <li>• Coordinate with mamlatdar and lision officer of the taluka.</li> </ul>

Roles and Responsibilities of Different Key Departments	Before Emergency	During Emergency	After Emergency
<b>Dy. Director Industrial Safety &amp; Health(DISH)</b>	<ul style="list-style-type: none"> <li>Deputy Director Safety &amp; Health will conduct meeting of District Crisis Group / Local Crisis Group and will do proper planning for mitigation of effect in case of chemical accident.</li> <li>He will prepare offsite emergency plan under guidance of collector.</li> <li>He will ensure disaster preparedness in factories and safety aspect in industries during inspection and regular visit.</li> <li>Prepare updated Chemical database from Industries to face any chemical disaster and submit to the collector.</li> </ul>	<ul style="list-style-type: none"> <li>S/He shall reach to the site and will assist &amp; guide for incidence control in case of chemical/ industrial disaster.</li> <li>will ensure the closer of supply lines of harmful chemical immediate in the affected area incase of fire or chemical disaster</li> </ul>	<ul style="list-style-type: none"> <li>S/He will investigate regarding accident of fire, toxic release etc.</li> <li>Submit incident/situation report to collector.</li> <li>Incase of Natural disaster, submit safety assurance report of industrial area to the collector</li> </ul>
<b>Regional Transport Officer ARTO</b>	<ul style="list-style-type: none"> <li>He will keep up to date list of available vehicles i.e. buses, minibus, trucks, earth moving machineries, cranes etc.</li> <li>Prepare departmental disaster management plan and submit copy to the collector.</li> </ul>	<ul style="list-style-type: none"> <li>He will arrange to provide available vehicles i.e. buses, minibus, trucks, earthmoving machineries, cranes etc. to respective authority if needed in case of emergency</li> <li>He will perform duties during emergency as directed by collector.</li> </ul>	<ul style="list-style-type: none"> <li>Arrange and provide Vehicles for relief &amp; rehabilitation work under guidance of collector.</li> </ul>
<b>CDHO And Civil Surgon</b>	<ul style="list-style-type: none"> <li>In case of disaster/ emergency he/she will prepare plan for health &amp; medical treatment and toxicity &amp; disease control monitoring and submit to the collector.</li> <li>He will keep adequate quantity of medicines and maintain Operation Theater, equipments, medical facilities in working condition</li> <li>He will keep list of hospitals, available doctors &amp; paramedical staff, available medical faculties, list of medical stores, list of medical stockiest in the district.</li> </ul>	<ul style="list-style-type: none"> <li>As per instruction of District collector or message received from other sources disaster / emergency he will do operation of Health &amp; Medical treatment &amp; Toxicity &amp; Disease control / monitoring etc. required in affected areas of the district with their staff group members &amp; their staff as requires with available equipment &amp; facilities.</li> <li>He will perform health &amp; medical control as well as toxicity &amp; disease controlling &amp; monitoring.</li> <li>He will arrange providing vaccine, antidotes &amp;</li> </ul>	<ul style="list-style-type: none"> <li>He will provide lime, bleaching powder, vaccine to avoid spreading diseases.</li> <li>Will send medical team to the affected areas for treating the victims of the emergency.</li> <li>Will take all possible steps to prevent the spread of disease, toxicity and epidemic.</li> <li>Will arrange to educate the affected population about the health related aspects.</li> </ul>

	<ul style="list-style-type: none"> <li>• He will keep list of all chemical antidotes and about their quick availability in small &amp; large quantities of them in district, country or abroad.</li> <li>• Will keep medical team ready along with the required drugs i.e. chlorine tablets, ORS powder etc. for possible affected areas.</li> <li>• He will maintain Ambulance in working condition with updated location list.</li> <li>• Prepare trained medical team for chemical disaster.</li> </ul>	<p>medical treatment to victims.</p> <ul style="list-style-type: none"> <li>• He will ask more help from state, central Govt. through district authority in disaster/emergency.</li> <li>• Will take all possible steps to prevent the spread of disease, toxicity and epidemic.</li> </ul>	
<b>Executive Engineer R &amp; B Panchayat &amp; State</b>	<ul style="list-style-type: none"> <li>• He will prepare plan for operations like Demolition, Reconstruction &amp; Rehabilitation and also arrange the rehearsal of plan for such activities.</li> <li>• He will keep the list of available vehicle in the district as well as outside district i.e. trucks, triggers, crane, dumper, bulldozer, truck, JCB etc as required in case of disaster/ emergency and also ensure that it's in working condition</li> <li>• He will keep the list of available movable diesel generator set in the district as well as outside district.</li> <li>• Based on past Experience prepare list of cut off roads and alternate route.</li> </ul>	<ul style="list-style-type: none"> <li>• As per instruction of district collector or message received from other source for disaster/ emergency he will do operation of Demolition, Reconstruction and Rehabilitation required in affected area, with their equipments and facilities.</li> <li>• He will arrange to provide vehicle for demolition &amp; reconstruction.</li> <li>• He will perform general roll during emergency as stated in district emergency plan</li> <li>• If required more help, he will ask from state &amp; central Govt. through district Authority</li> </ul>	<ul style="list-style-type: none"> <li>• He will assess the damage to govt. property and will submit the report to district authority. He will immediately restore damage road for traffic movement.</li> <li>• He will restore government building for use i.e. hospitals, .</li> <li>• He will work in coordination of line departments for restoring power, drinking water, telephone and communication system, and essential services.</li> </ul>
<b>Executive Engineer GWSSB</b>	<ul style="list-style-type: none"> <li>• Will keep water resources, pumps in good working condition, water leakage will be prevented through pipes, pipe joints and valve. Water storage tank will keep clean and will keep water without unwanted impurities.</li> <li>• Prepare departmental disaster management plan and submit copy to the collector.</li> </ul>	<ul style="list-style-type: none"> <li>• Will keep drainage system in working condition.</li> <li>• Will provide pure drinking water.</li> <li>• Will provide dewatering pump in case of flood emergency.</li> <li>• Coordinate distribution of water and storage and provision of information on safe water use.</li> </ul>	<ul style="list-style-type: none"> <li>• Assess status and damage to water systems.</li> <li>• will restore pure drinking water system in affected areas</li> <li>• Will conduct lessons learned meeting and submit report to the collector.</li> <li>• Prepare &amp; implement long term mitigation project in Bharuch district.</li> </ul>

Roles and Responsibilities of Different Key Departments	Before Emergency	During Emergency	After Emergency
<b>Executive Engineer Electricity Department</b>	<ul style="list-style-type: none"> <li>• All safety arrangements should check.</li> <li>• He will keep surplus stock of equipments and arrangement for testing equipments urgently in case of emergency.</li> <li>• Similarly he will continue system of stopping electricity in flooded area and electricity while area becomes non-flooded.</li> <li>• Prepare departmental disaster management plan and submit copy to the collector.</li> </ul>	<ul style="list-style-type: none"> <li>• Will arrange to provided generator as and when require by District Collector.</li> <li>• Will keep electricity flow continuous and if required, stop electricity for safety purpose.</li> </ul>	<ul style="list-style-type: none"> <li>• Restore power supply in affected area.</li> <li>• Assess damage of Electricity property in case of disaster / emergency.</li> <li>• Coordination with govt. &amp; private Electricity companies for rehabilitation work and report to the collector.</li> </ul>
<b>Executive Engineer Irrigation</b>	<ul style="list-style-type: none"> <li>• Prepare departmental disaster management plan and submit copy to the collector.</li> <li>• Department will keep their wireless set always in working condition to inform govt. department/public in case of emergency.</li> <li>• Irrigation Department will maintain and monitor check dam level at safe limit and give updated details to district disaster control room, Collector &amp; concern officers.</li> </ul>	<ul style="list-style-type: none"> <li>• Constant monitor Progress of dams/check dam level and inform to district collector control room.</li> <li>• Constant monitor water flow of river and upper catchment areas rain and update information for further course of action during disaster.</li> </ul>	<ul style="list-style-type: none"> <li>• Assess the damage of check dams prepare plan for restoration and submit to the collector.</li> <li>• Will conduct lessons learned meeting and submit report to the collector.</li> <li>• Will do detail study if river change its traditional flow route, prepare study report and submit to the collector and state authority.</li> </ul>

Roles and Responsibilities of Different Key Departments	Task to be performed before/during /after disaster or emergencies
<b>GPCB(Gujarat Pollution Control Board)</b>	GPCB will ensure environment monitoring equipment in working condition and also perform the decontamination activity in affected area. GPCB will also solve the emergency due to water pollution.
<b>District Supply Officer</b>	District supply officer will keep at least three month of stock of essential commodity such as grain, sugar, kerosene, petrol; diesel etc. in interior area likely to be effected and during emergency will look after constant sock and proper distribution through NGOs.
<b>District Agriculture Officer</b>	District Agriculture Officer wills continuously monitoring food crop & other plant regarding poisoning effect. He will also destroy food crop & other plant incase of poisoning effect. He will assess the damage of agriculture crop & land.
<b>Fisheries Officer</b>	Asst. Fisheries Officer will inform to fishermen / Public in case of probable cyclone emergency as well as keep the updated list of swimmers and availability of boat and provide during emergencies.
<b>Animal Husbandry Officer</b>	The Animal Husbandry Officer will keep adequate quantity of vaccine / medicine in case of decease occurs due to dead animal.The dead animal will be disposed in a scientific way also treat the injured animals.
<b>Divisional controller GSRTC</b>	He will inform public through his control, also he will arrange buses if required for evacuation incase of disaster/emergency. He will prepare alternate route for cut off roads and submit to the collector.
<b>Superintendent of railway</b>	Superintendent of Railways will stop railway as per instruction pass by District Collector or SDM in case any emergency & will provide railway train – goods train for public transfer and emergency work distribution.
<b>Port officer</b>	The Port Officer will inform to fisherman / Public in case of disasters / emergency of cyclone. He will inform and do evacuation of Port workers in case of cyclone or other emergency. He will ensure the safety of ships and ports.
<b>Civil defence</b>	Civil Defence Inspector will conduct meeting and will do proper planning for mitigation of effect in case of war. He will also train the large amount of people to mitigate the effect of war. He will provide staff and trained person for rescue operation.
<b>Home Guard Commandant</b>	The District Home Commander will assist D.S.P. for Public Information and evacuation through their Home guards in case of emergency. He shall make available the required number of home guard as and when inform by the Collector /Superintendent of Police as well as keep the updated list of swimmers for rescue work

ESF No.	ESF Name	Function Lead and Department	Support Departments/Agencies	Functions during Emergency
ESF 01	Communication	EOC / Dept. of Science and Technology	<ul style="list-style-type: none"> <li>• BSNL and other service providers</li> <li>• All India Radio/Television</li> <li>• Satellite</li> <li>• Mobile</li> <li>• Ham Radio</li> <li>• Police Wireless (POLNET)</li> </ul>	<ul style="list-style-type: none"> <li>• To restore communication facilities after disaster.</li> <li>• To provide emergency communication linking for EOCs.</li> <li>• To ensure early warning communication to identified stakeholders at community level.</li> <li>• To ensure communication facilities to support state and district actions</li> <li>• To coordinate the temporary communication requirements</li> </ul>
ESF 02	Search and Rescue	S.P., Police	<ul style="list-style-type: none"> <li>• Fire Officer, Fire Services</li> <li>• Home Guard</li> <li>• Gram Raksha Dal</li> <li>• NSS / NCC / NYKS</li> <li>• SEOC</li> <li>• Paramilitary Forces – CRPF and SRP</li> <li>• NDRF</li> <li>• Air Force / Army</li> </ul>	<ul style="list-style-type: none"> <li>• To check the evacuation tools and equipment</li> <li>• To work out evacuation Plan</li> <li>• To establish linkages and coordination with camp office</li> <li>• To carry drinking water and packed food, emergency medicine etc. for the victims.</li> <li>• To priorities evacuation of children, women, old, disabled etc.</li> <li>• To avoid overloading</li> </ul>
ESF 03	Relief and Shelter	RAC/Additional Collector District Nodal Officer (Disaster Management)	<ul style="list-style-type: none"> <li>• Panchyat</li> <li>• Food and Civil Supply(DSO)</li> <li>• Home Guards</li> <li>• Education</li> <li>• ICDS</li> <li>• R &amp; B</li> <li>• Red Cross Society</li> <li>• Industries / CBOs</li> <li>• NCC/NSS/NYKS</li> </ul>	<ul style="list-style-type: none"> <li>• To carry cooked dry, fast food materials in properly packaged form for immediate distribution.</li> <li>• To organize the supply of drinking water</li> <li>• To setup Shelter camps, Kitchen camps, mobilize volunteers for cooking, serving, washing etc.</li> <li>• To organize Supply of food grains and vegetables</li> <li>• To line up teams of local youths to carry those rescued to relief and shelter camps.</li> <li>• To maintain record of names, villages, Panchyat and Talukas to which the victims belong</li> <li>• To setup latrine and bathrooms</li> <li>• To take special care of children, women, old and disabled, especially those separated from families.</li> <li>• To setup disaster relief centre to receive, collect, sort out and distribute relief materials</li> <li>• To organize proper supply chain to reach the same to victims.</li> </ul>

ESF along with appointed officials from the primary and secondary agencies with Functions				
ESF No.	ESF Name	Function Lead and Department	Support Departments/Agencies	Functions during Emergency
ESF 04	Health and Sanitation	Civil Surgeon, Health Department	<ul style="list-style-type: none"> <li>• Hospitals</li> <li>• Nagarpalika/Municipal Corporation</li> <li>• Red Cross Society</li> <li>• Civil Defence</li> </ul>	<ul style="list-style-type: none"> <li>• To check the equipments and stock of medicines</li> <li>• To teams formation of medical personnel</li> <li>• To organize first aid providing team in larger number</li> <li>• Public health advice and warnings to participating agencies and the community</li> <li>• To organize mobile medical van to attend to emergency needs</li> <li>• To carry medical camp setting facilities</li> <li>• To keep an eye on the possibilities of outbreak of epidemics.</li> <li>• To include locally available medical staff in health check up exercise.</li> <li>• To keep record of patients treated.</li> </ul>
ESF 05	Livestock Shelter and Fodder	Dept. of Animal Husbandry	<ul style="list-style-type: none"> <li>• Veterinary Hospitals</li> <li>• Fodder Suppliers</li> <li>• Panjarapol</li> </ul>	<ul style="list-style-type: none"> <li>• To setup feeding camp for animals at some distance from shelter for human beings.</li> <li>• To vaccinate the animal if not vaccinated earlier.</li> <li>• To organize disposal of garbage.</li> <li>• To mobilize veterinary team locally.</li> </ul>
ESF 06	Drinking Water and Supplies	GWSSB, Water Supply	<ul style="list-style-type: none"> <li>• Minor Water Resources</li> <li>• DRDA</li> <li>• Electricity Department</li> <li>• Corporate Support</li> <li>• NGOs</li> </ul>	<ul style="list-style-type: none"> <li>• To identify the sources to provide drinking water and restore supply.</li> <li>• Restoration of well.</li> <li>• To install hand pumps.</li> <li>• To provide Chlorine tablets.</li> <li>• To distribute mineral water bottles of available in large stock.</li> </ul>



ESF along with appointed officials from the primary and secondary agencies with Functions				
ESF No.	ESF Name	Function Lead and Department	Support Departments/Agencies	Functions during Emergency
ESF 07	Power	Executive Engineer, MGVCL/DGVCL	<ul style="list-style-type: none"> <li>Genset Suppliers</li> <li>Other Power generation providers</li> </ul>	<ul style="list-style-type: none"> <li>To carry repair and maintenance kits for generator sets and other devices.</li> <li>To check electricity supply line and restore supply.</li> <li>To organize alternative source to provide electricity.</li> <li>To carry replacement generator set where need be.</li> <li>To organize and ensure power supply to hospitals, shelter camps, kitchen, onsite EOCs and other important institutions.</li> </ul>
ESF 08	Transport	RTO	<ul style="list-style-type: none"> <li>ST(state transport)</li> <li>Private Transport Carriers</li> <li>Private Boat Owners</li> <li>Ambulance Service</li> <li>Railways</li> <li>Air Force</li> </ul>	<ul style="list-style-type: none"> <li>To know loading and unloading point nearest to the incident site.</li> <li>To coordinate the transport requirements of the emergency support forces.</li> <li>To arrange transportation of relief and rescue materials.</li> <li>To coordinate and provide transport facilities to all support agencies.</li> <li>To regulate the movement of traffic onsite</li> </ul>
ESF 09	Public Works	R & B , Nagarpalika	<ul style="list-style-type: none"> <li>Panchyat</li> <li>Health</li> <li>Education</li> <li>ICDS</li> <li>Police</li> <li>Water Supply</li> </ul>	<ul style="list-style-type: none"> <li>To restore the road connectivity.</li> <li>To construct temporary bridges where required</li> <li>To organize repairing of health centre, schools, important buildings</li> <li>To undertake supervision and surveillance of construction works</li> </ul>
ESF 10	Removal and Clearances	R & B , Nagarpalika	<ul style="list-style-type: none"> <li>Revenue</li> <li>Civil Surgeon, Health Department</li> <li>R &amp; B</li> <li>Home Guards</li> <li>Police</li> <li>Community</li> <li>NCC / NSS / NYKS</li> </ul>	<ul style="list-style-type: none"> <li>To organize voluntaries for removal of dead bodies both human and animal.</li> <li>To organize local force for clearing debris of building, bridges, road etc. for reconstruction</li> <li>To organize local for chopping and removing of fallen trees etc.</li> <li>To organize burning or burying of the dead bodies</li> </ul>

ESF along with appointed officials from the primary and secondary agencies with Functions				
ESF No.	ESF Name	Function Lead and Department	Support Departments/Agencies	Functions during Emergency
ESF 11	<b>Information Dissemination and Helpline</b>	Information Dept.	<ul style="list-style-type: none"> <li>• Revenue</li> <li>• Panchayat</li> <li>• Police</li> <li>• Media</li> <li>• Colleges and Universitie</li> <li>• NCC / NSS / NYKS</li> </ul>	<ul style="list-style-type: none"> <li>• To gather correct information from authorities onsite.</li> <li>• To keep the list of persons recued with full details.</li> <li>• To keep the list of persons missing.</li> <li>• To keep the no. of dead bodies and the locations they have been put.</li> <li>• To keep a track of which team is positioned with location.</li> <li>• To make use of the public address system to call any body</li> <li>• To schedule working in short duration Evacuation &amp; Shalter.</li> </ul>
ESF 12	<b>Damage Assessment</b>	DDO	<ul style="list-style-type: none"> <li>• Dept. of Agriculture</li> <li>• DRDA</li> <li>• Nagarpalika</li> <li>• Civil Surgeon, Health Dept.</li> <li>• Animal Husbandry</li> <li>• Water Supply</li> <li>• DGVCL</li> <li>• Line Departments for departmental loss</li> </ul>	<ul style="list-style-type: none"> <li>• To conduct damage assessment using the format during and immediately after the disaster.</li> <li>• Taluka and Panchayats affected, Affected Population Size, Human lives lost, Livestock lost, Resources damaged Infrastructure damaged Roads, Bridges Schools, Hospitals, Anganwadis, Panchayat Bhawan, Houses, Govt. Buildings, Electric Supply, Water Supply, Crops/ Agricultural Land</li> </ul>
ESF 13	<b>Relief Material Management</b>	RAC/Additional Collector ((District Nodal Officer) Disaster Management	<ul style="list-style-type: none"> <li>• District Warehouses</li> <li>• NCC / NSS / NYKS</li> <li>• NGOs / CBOs</li> <li>• Merchant Association</li> <li>• Industrial Association</li> <li>• Hotel Association</li> </ul>	<ul style="list-style-type: none"> <li>• To set up Relief Material management camp onsite to create three centres: Fund, Relief, Services.</li> <li>• To carry receipts Stamps etc. for cash / cheque / draft</li> <li>• To identify storage centre for receiving relief materials for storing, packing and proper distribution of the same.</li> <li>• To keep records of supplies sent, with whom and when.</li> <li>• To depute volunteers required, and take care of their basic needs as well reliever teams i.e. Food and Rest etc.</li> </ul>

ESF along with appointed officials from the primary and secondary agencies with Functions				
ESF No.	ESF Name	Function Lead and Department	Support Departments/Agencies	Functions during Emergency
ESF 14	Media	Information Dept.	<ul style="list-style-type: none"> <li>Disaster Management Dept.</li> </ul>	<ul style="list-style-type: none"> <li>Organize media briefing by senior officer in-charge.</li> <li>Provide graphic and statistical details to the extent possible.</li> <li>Organize visit to shelter, relief and various activity camps.</li> <li>Organize briefing on daily basis preferably in evening.</li> <li>Make the media men interact with other Emergency Functionaries if possible.</li> </ul>
ESF 15	Law and Order	Superintendent of Police, Police Dept.	<ul style="list-style-type: none"> <li>Revenue</li> <li>Home Guards Commandant</li> <li>Para-military (CRPF, SRP)</li> <li>Armed Forces</li> </ul>	<ul style="list-style-type: none"> <li>Posting of Police Home Guard, Civil Defence forces in strategic places.</li> <li>Preservation of peace and good order (Particularly in case of</li> <li>Riots/Accidents/Fire).</li> <li>Prevention of crime.</li> <li>Security of any site as a possible crime scene (Particularly in case of Riots/Accidents/Fire)</li> <li>Investigation of the criminal aspect of any event.</li> <li>Traffic control, including assistance with road closures and maintenance of road blocks.</li> <li>Crowd management/public safety.</li> <li>Coordination of search and rescue.</li> <li>Security of evacuated areas</li> </ul>

## Chapter 3 Institutionalisation and Multihazard Response Measures

### 3.2 Hazard Specific Action Plan...

#### 3.2.1 Flood Hazard Action Plan:

##### Before Emergency / Disaster: Relaying Information to Public

In case of flood and or heavy rainfall, following authorities will inform the District Collector or District Control Room.

Sr. No.	Description	Authorities
1.	Flood	Central Water Commission Bharuch / Surat
2.	Heavy rainfall & cyclone	Gujarat State Control Room, Gandhinagar and teorological Department, Ahmedabad.
3.	For rivers & check dams	Executive Engineer Irrigation Planning Dn.No 5 Rajpipla
4.	Bharuch Golden Bridge	Executive Engineer Tapi Division.
	Garudeshwar Bridge	--Above-- & C.W.C Surat (R.G)
	Dholi Dam,	Executive Engineer Irrigation Planning Dn.No 5 Rajpipla
	Beldeva Dam	Executive Engineer Irrigation Planning Dn.No 5 Rajpipla
	Pingut Dam	Executive Engineer Irrigation Planning Dn.No 5 Rajpipla
5.	Dhhadhhar river (Ajwa (w.s.))	Collector Vadodara and Vadodara Irrigation Control Room.

[\(Annexure – H\)](#)

B. As soon as information is received by the District Collector, Bharuch or District Control Room, the following authorities will be directed to inform the possible affected public through telephone, police wireless, irrigation department wireless, GEB wireless or forest department wireless:-

- Liaison Officer of Taluka (Chairman of Taluka& City flood relief co-ordination committee of flood contingency plan and member of incident control committee of District Disaster Management Plan.)
- Mamlatdar & TDO for Jhagadia, Bharuch, Ankleshwar and Hansot (For Narmada River), Jambusar, Amod and Vagra (For Dhhadhhar river and BhukhiKhadi),Hansot (For Kim river), Jhagadia and Valiataluka for Dholi, Beldeva and Pingut Dam.
- Bharuch, Ankleshvar, Amod and Jambusar Mamlatdar and Chief Officer
- DDO.
- DSP & Taluka PSI.
- District level Concerned Department.

C. After information received from the District Collector or Control Room, the Public will be informed by the Taluka Disaster Management Committee, City Disaster Management Committee, Mamlatdar office staff & Village Disaster Management Committee, where telephone / wireless facilities are available in villages. In particular,

- Taluka Mamlatdar & TDO will inform the public by telephone and also by sending a team through vehicle on pre-decided village routes.
- Nagarpalika will inform their respective area inhabitants by siren or PA system through mobile vehicle.

## Chapter 3

### Institutionalisation and Multihazard Response Measures

#### **During Emergency: Evacuation, Search and Rescue Operations**

The District Collector will be given direction to the Liaison Officers, Dy. Collector and all concerned departments for evacuation & rescue operations based on situation. This will be carried out by the Revenue department, Local police & District Panchayat department.

- In cases where the approach road is clear, people will be evacuated by local tractor/trolley, ST bus & other big vehicles. The people trapped in areas surrounded by water will be rescued by the Mamlatdar, local police & local swimmers through boats.
- Members of the Transport Committee will be directed to arrange a supply vehicle for evacuation & rescue operation.
- Members of the Fire Control Committee will be informed about combating fire, if the need arises.

**After Emergency:** Focus will lie on **Medical Treatment, Disease Control, Poison control, Reconstruction & Rehabilitation, Floodwater Removal, and Providing Relief**—Clothing, Shelter, etc. to affected people, **Damage Assessment, Funeral processes.**

The following Members of Committees will be informed by District Collector or District Control Room:

1. Member of Health / Medical Control Committee.
2. Member of Toxicity & Disease Control Committee.
3. Member of Demolition, Reconstruction & Rehabilitation Committee.
4. Member of Traffic Control, Law & Order, Security Cordon of Area Committee.
5. Member of Damage Assessment Committee.
6. Member of Relief & Shelter Committee.
7. Member of Funeral Committee.

After receiving message from District Collector or District Control Room, Member of above committees will perform their function as per the roles assigned in the District Crisis Emergency Organization.

#### **3.2.2. Cyclone Hazard Action Plan:**

During a cyclone, a high velocity of wind is experienced accompanied sometimes by heavy rainfall. This can, at first instance, affect the villages of Hansot, Vagra, Amod & Jambusar Talukas, salt work industries as well as industries of Dahej GIDC. Sometimes, highly populated Nagarpalikas such as Jambusar, Bharuch and Ankleshwar can also be affected, as can other villages and GIDC area of Panoli, Ankleshwar, Jhagadia, Bharuch & Palej, and areas with MAH units or other chemical factories.

As a result of cyclone, building houses structures may collapse people & animals maybe buried under the debris. In addition, fire, toxic release, explosion, poisoning may also occur in chemical factories, and low-lying areas may be flooded with water & people animals may be severely affected.

Thus, the response mechanism may involve the following plans:

1. District Disaster Management Plan (governed by Disaster Management Cell, Collector Office, and Bharuch).
2. District Crisis Group off Site Emergency Plan or Bharuch District Contingency Plan (governed by District Collector).

## Chapter 3

### Institutionalisation and Multihazard Response Measures

3. Local Crisis Group off Site Emergency Plan (governed by SDM & Dy. Collector, Bharuch, Vagara, Jagadia & Ankleshwar).

#### **Before Emergency / Disaster: Relay of Information to the Public**

- A. After information of cyclone situation is received; the District Collector, Bharuch or District Control Room, Bharuch will direct the following authorities to inform the public through Fax, telephone, wireless, Way2way SMS System, DARMAT, SMS alert system and automatic weather alert system in emergency Situation by person:

- Taluka Control Room - Taluka Mamlatdar & TDO.
- Assistant Fisheries Director, Bharuch.
- Port Officer, Bharuch.
- Member of Site Main Control Committee.
- Member of Incident Control Committee.
- Member of Public Warning & Communication Control Committee.

- B. Upon receipt of information from the District Collector or District Control Room, the following steps will be taken:

- The Taluka Control Room, Assistant Fisheries Director, Bharuch & Port officer, Bharuch will caution fisherman that they not go into the sea.
- The Talati will publish notice regarding precaution to be taken by public in case of cyclone.
- The Industries Officer, Salt Commission Office, President of the Salt Manufacturers Association will evacuate workers from salt factories to safe shelters.
- Other authority will perform their duty as per flood / cyclone contingency plan of Bharuch district (Disaster Management Cell, District Collector Office, and Bharuch).

**After Emergency:** Focus will lie on **Medical Treatment, Disease Control, Poison control, Reconstruction & Rehabilitation, Floodwater Removal and Providing Relief**—Clothing, Shelter, etc. to affected people, **Damage Assessment, Funeral processes.**

The following Members of Committees will be informed by District Collector or District Control Room:

1. Member of Health / Medical Control Committee.
2. Member of Toxicity & Disease Control Committee.
3. Member of Demolition, Reconstruction & Rehabilitation Committee.
4. Member of Traffic Control, Law & Order, Security Cordon of Area Committee.
5. Member of Damage Assessment Committee.
6. Member of Relief & Shelter Committee. After receiving message from District Collector or District Control Room, Member of above committees will perform their function as per the roles assigned in the District Crisis Emergency Organization.

## Chapter 3

### Institutionalisation and Multihazard Response Measures

#### **3.2.3 Earthquake Action Plan:**

Earthquakes cause random motion of ground. This motion causes built structures to vibrate as a result of which they may collapse, depending upon the severity of the earthquake and distance from the epicenter. Earthquake can cause damage not only on account of the shaking but also due to other chain effects like landslides, floods, fire, explosion, toxic release, poisoning and disruption to communication, power, water etc.

#### **Before Emergency: Preventive Measures**

It is not possible for mankind to predict earthquake in years, months, days, hours, and minutes. But by installing 'P' waves detector, one can predict minutes before the occurrence only. This time is almost negligible to avoid massive damage to mankind and property. So, it is best to take **preventive measures** as shown below:-

1. Buildings, houses, structures, must be constructed as per National Building Code for earthquakes.
2. Old buildings, house, structures must be checked by structural engineer and as per their advice, they should be demolished or properly repaired to withstand earthquakes.
3. Industries must construct essential infrastructure such as chemical storage tanks & their foundations, fire facility buildings, occupational health center, hospital, chemical manufacturing building / structures, power generation plant buildings, transformer rooms, water storage tanks, DG set rooms etc. as per National Building Code for earthquake.
4. Essential national, state, district, taluka buildings such as hospitals, communication buildings, fire service buildings, control rooms, district collector building, bridges, dams, check dams, highway, road, water, reservoir, electricity substation & rooms, schools, colleges etc. must be constructed as per National Building Code of earthquake.
5. Essential equipment for rescue & Trained rescue persons must be kept ready. The list of such organization & their E-mail address should be regularly updated.
6. Public awareness and training activities must be regularly conducted.
7. Rehearsal of DDMP must be carried out periodically.

#### **After Emergency**

As a result of earthquake, the following massive effects may be occurred if proper preventive step will not taken as early stated.

Communication failure, power failure, water failure, building, houses, structures collapsed people buried under them, non-availability of food, drinking water, medicine, cloths, medical treatments, shelters, road, bridges destroyed or damaged, chemical disaster result of fire, explosion, toxic release, poisoning, dams & check dams & water reservoirs damaged result of flood or low level area will be flooded etc.

**Actions**

1. In case of subsequent effect of chemical disaster in the chemical factories, chemical transfer pipelines, chemical transport vehicle and produce general environmental pollution, then for combating & mitigation effect of fire, explosion, toxic release, poisoning etc. the District Collector and Dy. Collector will immediately activate District & Local Crisis Group Off Site Emergency Plan.
2. Similarly, in case of subsequent effect of flood, to save human life, animal & property. District Collector will immediately activate DDMP.
3. District Disaster Management Committee perform duty as per plan:
  - Informing to public in case of chemical disaster, flood as per guidance of expert committee.
  - Evacuation & rescue operation in case of chemical disaster, flood & earthquake with the help of transport committee.
  - To combat fire.
  - Toxicity controlling in case of chemical disaster.
  - Medical treatment to affected people.
  - Traffic control, maintaining law & order, security to evacuee area, cordon of area.
  - Disease & poisoning control.
  - Reconstruction & rehabilitation of communication system, electricity, water, check dams, repairing, road, bridge, construction & repairing, tents construction, shelter construction etc.
  - Relief work such as food, water, clothes, utensil, cash dolls etc.
  - Funeral process of dead bodies.
  - Informing through mass media communication.
  - District Collector will plan & implement for long cleanup rehabilitation programme.
  - District Collector will ask help from state government, central government, other countries, NGO & independence helping agencies.
  -

**3.2.4 INDUSTRIAL DISASTERS, FIRES AND CHEMICAL ACCIDENTS ACTION PLAN**

**3.2.4.1 LOCAL RESPONSE TO CHEMICAL EMERGENCY - EMERGENCY ORGANISATION STRUCTURE**

The response to a chemical disaster is always local with resources segmented from district and state levels. Under MSIHC Rules, the LCG is the lowest level of group available at the industrial cluster level the DCG is the next level of response. In the case the LCG is not available; the DCG is the lowest level of response

As per the DM Act 2005, the local authorities and Panchayati Raj Institutions can plan for preparation and response to emergencies. Therefore, Taluka or block level administration can prepare for and co-ordinate the response to chemical emergencies, provided Taluka level CDMPs are prepared including management of Chemical Disasters, although such plans are not currently available. At the State level, agencies such the



## Chapter 3

### Institutionalisation and Multihazard Response Measures

and Police are entrusted with providing chemical emergency response. Similarly at the district level the DDMA, DCG and LCG are responsible for planning and management and DEOC, Fire services, Emergency medical services and Police are entrusted with chemical emergency response intended coordination in the SCG-DCG-LCG mechanism under the MSIHC rule and the SDMA-DDMA mechanism under the DM Act is automatically achieved at the district level because the district collector is the head of both. It is clear that the SCG, DCG, and LCG are not response agencies themselves but include members that are response agencies. Similarly the GSDMA and DDMA are not response agencies but include member departments that provide a response. However, the NDMA guidelines provide for emergency organizations where different departments, agencies and even private resources (e.g. industries) temporarily align their priorities with the emergency response objective under a unified command. This system is called Incident Response System (IRS) and discussed in detail in the text. It is important to recognize that organization under the IRS and the existing structures of the LCG and DCG are not in conflict although there can be differences in terminologies for some positions in the emergency organization. The IRS gives an emergency organization structure called Incident Response Teams (IRTs) that are pre-designated as per the identified emergency scenarios. While there is a general structure, IRTs are not prescriptive about who must fulfill what position or role instead the decision rests with the local or district level authorities. Therefore the organizations and people that are given specific roles as per existing LCG and DCG structure can be given similar roles or positions in the IRT structure and a coordination between IRTs as per IRS and those as per existing LCG/DCG structures is achieved. The IRS provides additional advantages of being scalable by including additional and higher levels of response in the same unified command structure being flexible by transferring command and other sections of IRS to qualified people as scale and nature of emergency changes, and with a unified command so that there is one authorized, and accountable (technically qualified) incident commander and the command can be transferred up as the scale of emergency increases. The IRS also requires documentation of decisions, actions, and learning so that not only continuous improvement can be achieved but also accountability is fixed.

The response plan detailed out in this report establishes a concept of operations and assigns specific functional responsibility to departments, agencies, and organizations within Bharuch for chemical and industrial disasters. Chemical disasters can be classified per their scales as: Minor, Moderate, Major and Catastrophic. Verifiable and measurable criteria are developed to define these scales so that available and required resources can be assessed against these scales.

#### **3.2.4.2 KEY RESPONSE AGENCIES**

The key agencies required for chemical emergency response have been identified with their roles and responsibilities. It is important that the roles and responsibilities not be thrust on line departments and agencies but discussed in DCG/DDMA meetings and mutually agreed to. The following are the key agencies:

- District Disaster Management Authority
- Police department
- Fire Services
- Department of Revenue/Relief Commissioner /Collector's Office
- Department of Labour and Employment / Director of Industrial Safety and Health (DISH)
- Gujarat Pollution Control Board
- RTO
- Department of Animal Husbandry

## Chapter 3 Institutionalisation and Multihazard Response Measures

- Public Information Officer
- Public Works Department

### **3.2.4.3 RESPONSE TO HAZCHEM TRANSPORTATION EMERGENCIES**

The organization structure for response, concept of emergency operations, and roles and responsibility of key stakeholders remains almost the same in case of emergencies involving the transportation of hazardous chemicals. The special considerations while responding to transportation emergencies are:

**Pipeline Transportation** - In case of pipeline transportation the initial notification may be done by the occupier/owner of the pipeline or by the local community or by the contractor who caused the damage to the pipeline. Therefore, it is important that all pipelines nodes and routes clearly display the emergency contact information in case of any accident with the pipeline. Once the initial notification of an accident is obtained the response operations are similar to other chemical accidents.

**Road Transportation** -In case of an emergency involving a road tanker carrying hazardous chemical, the driver of the tanker is expected to be well-trained to handle emergency situations and have up-to-date contact information. The notification will be done by the driver by calling DEOC(# 1077)and Local Police Station.The consigner and consignee may also make these calls. The tanker must display the emergency information panel and driver should carry the Transport Emergency Card or TREMCARD which has detailed instructions on response actions for fire, spillage or leakage. The driver should take the first protection actions by stopping traffic and general citizens from approaching the accident site until police arrive for help. The driver can try to stop the leak (if any) only if he is adequately trained and equipped to do so. The police officer on site will most likely be the first IC until a more qualified response team arrives. The most important action by the police is to cordon off the site of the accident, divert and regulate traffic, and evacuate/shelter in place citizens in close proximity on a priority basis. The ERG (2012), which has been developed primarily for response to chemical emergencies during road transport, should be followed. It is also important that untrained and unequipped first responders should not try to stop the leak or enter the hot zone and should instead wait for a qualified response.

### **3.3 Responsibility Matrix for response functions (for the disasters where EW is available):**

#### **3.3.1 Cyclone Disaster Responsibility**

Time Frame	Sr . No	Task	Department/Agency	Activity
Time = 0-72 Hrs	1	Warning receipt and dissemination	IMD, COR, Collector	Report the generation of Cyclone in Arabian Sea/ Indian Ocean after getting information from IMD to following officials: COR/DOR <ul style="list-style-type: none"> <li>- COR/DOR</li> <li>- Chief Executive Officer, GSDMA</li> <li>- Members of Crisis Management Group</li> <li>- Incharge Minister(Prabhari mantra)</li> <li>- Hon. Minister – Disaster Mangement</li> <li>- All concerned district collectors as well as control rooms of the districts,talukas likely to be affected as per preliminary warning of IMD.</li> <li>- Alert all response teams in the district for deployment.</li> <li>- Remain in constant touch with control rooms at taluka &amp; state level</li> <li>-</li> </ul>

				- Instruct and alert all heads of departments of the keyline departments to activate their departmental plan and SOPs for response.
	2.	Interdepartmental Coordination	Collector, all line department	<ul style="list-style-type: none"> <li>Instruct all government officers and employees in the district 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 collector)</li> <li>Alert the District Collectors of districts not likely to be affected to be prepared for providing. <ul style="list-style-type: none"> <li><b>Additional manpower</b></li> <li><b>Additional resources</b></li> <li><b>Machinery &amp; Equipment</b></li> <li><b>Relief material to the districts likely to be affected.</b></li> </ul> </li> </ul>
	3	Establishment of lines of communication	COR, Collector	<ul style="list-style-type: none"> <li>Activate alternative communication equipments i.e. satellite phones, HF/VHF sets, Hamradio, VSAT in EOC &amp; ERCs, District, City &amp; Taluka control rooms.</li> <li>Establish communication links with ERCs and Search &amp; Rescue Teams in all Nagarpalika, Police department and alert them to be in stage of readiness.</li> <li>Establish communication links with villages likely to be affected as per the contact details available in SDRN.</li> </ul>
<b>Time = 0 – 48 Hrs</b>	1	Review of situation and reporting	Collector	<ul style="list-style-type: none"> <li>Establish contact with IMD, CWC, ACWC, ISRO and the defense ministry of GoI for aerial / satellite imageries of the latest Cyclone threat.</li> <li>Get the latest weather report from IMD/other international Web Sites to know the exact location of Cyclone and the likely area where landfall will take place.</li> <li>After reviewing the weather report and satellite images issue instructions and orders for emergency response to areas likely to be affected.</li> </ul>
	2	Management of EOC, ERCs and Cyclone Response	Revenue Dept., Collector	<ul style="list-style-type: none"> <li>Take over full command of District EOC and ERCs.</li> <li>Instruct line departments to depute representatives at the District &amp; Taluka EOCs.</li> <li>Hold a meeting with leaders of task forces and entrust them their tasks.</li> <li>Ensure that Cyclone information is disseminated to all who are at danger</li> <li>Arrange emergency meeting with District Crisis Management Group to devise a plan of action.</li> </ul>
			Collector	<ul style="list-style-type: none"> <li>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.</li> </ul>
			RTO	<ul style="list-style-type: none"> <li>Impose restriction on all transport activities heading towards coastal areas that are likely to be affected by Cyclone. .</li> </ul>
Collector	<ul style="list-style-type: none"> <li>Alert following teams to remain in readiness: <ul style="list-style-type: none"> <li>o Evacuation</li> <li>o Emergency Medical Services</li> <li>o Search and Rescue</li> </ul> </li> <li>Alert following emergency response forces to remain in readiness: <ul style="list-style-type: none"> <li>o Fire &amp; Emergency Services</li> <li>o NDRF</li> <li>o Village Disaster Management Teams</li> </ul> </li> </ul>			

				<ul style="list-style-type: none"> <li>o Police, Home Guards</li> <li>o State Reserve Police Force</li> <li>o Army (if required)</li> <li>o Air Force (if required)</li> </ul>
	<b>3</b>	Cyclone response to coastal areas (likely to be affected)	Dist. Collector, Transport Dept. and, Chief Officer	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Village wise data of safe sheltering for evacuation available on SDRN should be referred and the dist. Lision officers/Taluka level officers/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.</li> <li>• Make transport arrangement for mobilization of all emergency response teams.</li> </ul>
			Ports & Fisheries Dept., GMB, Revenue Dept.,	<ul style="list-style-type: none"> <li>• Ensure arrangements are in place to evacuate fishermen, Industries workers and salt workers if needed.</li> </ul>
			Tourism Dept.	<ul style="list-style-type: none"> <li>• Ensure safety of tourists visiting beaches along the coastline.</li> </ul>
			Collectors, Police Dept., Dist.	<ul style="list-style-type: none"> <li>• Cordoning off coastal areas for restricting entries of rail or road traffic.</li> <li>• Ensure law and order is maintained in areas likely to be affected.</li> </ul>
			Line Depts	<ul style="list-style-type: none"> <li>• Ensure that all critical activities (mainly industrial production) in areas likely to be affected are shutdown.</li> </ul>
			Education Dept.	<ul style="list-style-type: none"> <li>• Ensure that the schools and colleges are closed in areas likely to be affected by Cyclone and associated hazards.</li> </ul>
			Dist. Collector, Chief officer, Information Dept.	<ul style="list-style-type: none"> <li>• Ensure dissemination of information to remote areas by local means.</li> <li>• Ensure that local help lines are opened and effectively managed for public information, guidance and rumor control.</li> <li>• Ensure that the information to public and media about the progress of Cyclone at periodic intervals is released.</li> </ul>
			Dist. Collector, Chief officer, Line Dept.	<ul style="list-style-type: none"> <li>• Make arrangements for logistic support to all emergency response teams.</li> </ul>
			Health Dept.	<ul style="list-style-type: none"> <li>• Health Department to activate their Departmental Cyclone Disaster Management Plan and Departmental SOPs for Management of casualties.</li> </ul>
<b>Time = 0 - 24 hrs</b>	<b>1</b>	Review of situation and reporting	Collector	<ul style="list-style-type: none"> <li>• Establish contact with IMD, CWC, ISRO and the defense ministry of GoI for aerial /satellites imageries of the latest Cyclone threat.</li> <li>• After reviewing the weather report and satellite images issue instructions and orders for emergency response to areas likely to be affected areas.</li> </ul>
			Collector and Information Department	<ul style="list-style-type: none"> <li>• Review and monitor following activities: <ul style="list-style-type: none"> <li>o Evacuation of people from coastal areas likely to be affected.</li> <li>o Positioning of Search and Rescue Teams</li> <li>o Positioning of mobile communication units</li> <li>o Positioning of quick medical response teams</li> <li>o Mobilization of restoration teams of respective departments</li> </ul> </li> </ul>

				<ul style="list-style-type: none"> <li>○ Requirement of armed forces in rescue and relief operations</li> <li>○ Dissemination of information to the vulnerable areas</li> <li>○ All preparedness measures to be taken by various authorities</li> <li>○ Keep in touch with State, District, and Taluka Control Rooms.</li> <li>○ Release information at appropriate time to media and public regarding response measures organized by the Government</li> </ul>
	2	Emergency Response Management	Collector	<ul style="list-style-type: none"> <li>● If reports regarding striking of Cyclone are confirmed by IMD and other sources, start the emergency response and relief operations.</li> </ul>
			Collector	<ul style="list-style-type: none"> <li>● Divert the emergency services to areas likely to be affected as per the warning issued by IMD.</li> </ul>
			Collector, Chief officer Police Dept.	<ul style="list-style-type: none"> <li>● Inform the public residing in areas likely to be affected to evacuate through various means such as SMS, AIR, FM Radio, Doordarshan, etc.</li> <li>● Start evacuation from the likely affected areas through Police support, if necessary</li> </ul>
			GMB, DIC	<ul style="list-style-type: none"> <li>● To account for the exact number of fishermen in the sea and fishermen that have already reached the shore</li> </ul>
	3	Emergency Relief Management	Collector/DDO	<ul style="list-style-type: none"> <li>● Ensure that the Relief Management work planned in the areas likely to be affected by the Cyclone are well organized.</li> </ul>
			Revenue Dept. & Collector, Civil Supply Dept, Chief officer Water supply Dept., GEB, Health Dept	<ul style="list-style-type: none"> <li>● 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"> <li>○ Drinking water</li> <li>○ Food</li> <li>○ Clothing</li> <li>○ Sanitation and hygiene,</li> <li>○ Lighting</li> <li>○ Medicines and other Health Care</li> </ul> </li> </ul>
			Collector	<ul style="list-style-type: none"> <li>● Inform following agencies to be in a state of readiness for assisting in the Cyclone response measures (if required): <ul style="list-style-type: none"> <li>○ Public sector agencies</li> <li>○ Private sector agencies</li> <li>○ NGOs</li> <li>○ CBOs</li> <li>○ Volunteer Organizations</li> </ul> </li> </ul>
			Collector	<ul style="list-style-type: none"> <li>● Request for help (if needed) to State EOC/Gujarat State Disaster Management Authority(GSDMA)</li> </ul>
			Information Department	<ul style="list-style-type: none"> <li>● Make necessary arrangements for public information/guidance, public opinion and rumor control.</li> </ul>
			RTO,Collector, Chief officer	<ul style="list-style-type: none"> <li>● Restriction may be imposed for transportation in threatened areas.</li> </ul>
<b>Time = 0 Hrs</b>	1	Disaster Declaration	Collector	<ul style="list-style-type: none"> <li>● 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)</li> </ul>
	2	Preliminary assessment, deployment of emergency response teams and information dissemination	Collector, Chief officer, Mamlatdar	<ul style="list-style-type: none"> <li>● Collector should send teams to the affected areas to take stalk of the effects of Cyclone and associated rain.</li> <li>● District Collector/s should send sector wise situation reports to: State EOC/COR, GSDMA</li> </ul>
			Collector, DDO, Mamlatdar,	<ul style="list-style-type: none"> <li>● Deployment of following teams to Cyclone affected areas: <ul style="list-style-type: none"> <li>○ Emergency Communication Teams</li> </ul> </li> </ul>

			Chief officer	<ul style="list-style-type: none"> <li>o Emergency Medical Services Teams</li> <li>o Search and Rescue Teams (With Equipments)</li> <li>o Preliminary damage Assessment Teams</li> <li>o Need Assessment Teams</li> </ul>
			Collector, Information Dept.	<ul style="list-style-type: none"> <li>• Establish communication link with affected districts by activating alternate communication equipments such as Satellite Phones, HF/VHF Sets, Ham Radio, V Set etc., in District EOC and Taluka Control Rooms.</li> <li>• Arrange dissemination of information about occurrence of Cyclone and areas that are affected by it to Media &amp; Public.</li> </ul>
<b>Time = 0 + 24 Hrs</b>	<b>1</b>	Mobilization and Deployment	Collector, Chief officer, Key line Dept	<ul style="list-style-type: none"> <li>• Remain in constant touch with IMD for updates on weather forecast for the coming hours and plan accordingly.</li> <li>• Immediate mobilization of following units/teams to areas affected by Cyclone and associated rains. <ul style="list-style-type: none"> <li>o S &amp; R Teams of Fire and Emergency Services</li> <li>o Quick Medical Response Teams</li> <li>o Quick Damage &amp; Loss Assessment Teams</li> <li>o Quick Need Assessment Teams</li> <li>o Road Clearance Teams</li> <li>o Teams for disposal of dead bodies</li> <li>o Teams for disposal of carcasses</li> <li>o Teams for debris clearance (if any)</li> <li>o Teams for maintaining Law &amp; Order in the affected areas.</li> <li>o Arrange for S &amp; R teams of Air Force (If required).</li> </ul> </li> </ul>
	<b>2</b>	Measures for quick and organized response	Collector, Chief officer, Key line Dept	<ul style="list-style-type: none"> <li>• District EOC, ERCs, the Lision Officers of the affected District, taluka/city/s Should ensure that the following response activities are carried out immediately (a to f)</li> </ul>
	<b>A.</b>	Clearance of access roads to reach at the sites of affected areas.	R & B Dept. Transport Dept., Railways,	<ul style="list-style-type: none"> <li>• To survey the access roads/routes leading to the affected areas and manage traffic for mobilization of equipments, machinery and volunteers.</li> <li>• Identify alternate roads/routes for evacuation.</li> <li>• Undertake repairing/restoration of damaged roads leading to the affected areas.</li> <li>• Identify and declare unsafe buildings/structures in Cyclone affected areas.</li> <li>• Evacuate people from unsafe buildings/structures and shift them to relief camps/sites.</li> <li>• Divert/stop transport activities (Rail + Road) heading towards Cyclone affected areas.</li> </ul>
	<b>B.</b>	Necessary Arrangements at evacuation/ relief centres	Revenue Dept., Civil Supply Dept., Collectors, Chief officer, Water Supply Dept., Health Dept., GEB, GWSSB & Local Authorities, Police dept.	<ul style="list-style-type: none"> <li>• To ensure that necessary arrangements at evacuation/relief centers is made with sufficient availability of: <ol style="list-style-type: none"> <li>a. Food,</li> <li>b. Water,</li> <li>c. Blankets/Clothing</li> <li>d. Medicines</li> <li>e. Lighting</li> <li>f. Sanitation and hygiene etc.</li> </ol> </li> <li>• To ensure necessary security arrangements for the personals (Emergency responders/relief teams)</li> <li>• Who are working at Relief Centers and involved in distribution of Relief Materials.</li> <li>• To ensure that law and order is maintained at evacuation/relief centers and in the affected areas as well.</li> </ul>
	<b>C</b>	Safety of Industrial workers, fishermen	Collector, Port and Fisheries	<ul style="list-style-type: none"> <li>• Immediate actions to be taken for safety of Inustrial workers, fishermen, salt workers and visitors at Cyclone affected coastal</li> </ul>

		and salt workers	Dept., Tourism Dept., Industrial Dept., GMB, DIC	areas. <ul style="list-style-type: none"> <li>• 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.</li> </ul>
	<b>D</b>	Ensure immediate health and minimization of outbreak of disease	Health Dept., Transport Dept.	<ul style="list-style-type: none"> <li>• To establish camp hospitals near the affected areas.</li> <li>• To make transportation arrangements to shift seriously injured persons to nearest Camp Hospitals, Taluka and District Hospitals, Regional and State Hospitals</li> <li>• Ensure that the Hospitals are well prepared to deal with seriously injured persons.</li> <li>• 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.</li> <li>• Take sanitation and epidemic control measures for preventing any water borne disease.</li> <li>• Keep adequate stock of essential medicines, firstaid etc. at taluka/district hospitals</li> <li>• Take steps to purify drinking water sources</li> <li>• If required, take the help of doctors/paramedics from the list of doctors/paramedics available at the taluka/district level for immediate medical assistance.</li> </ul>
			Animal Husbandry Dept	<ul style="list-style-type: none"> <li>• Assess need for fodder if required.</li> <li>• Keep ready teams for carcass disposal (if required).</li> </ul>
	<b>E</b>	Information to public and media	Information Dept., collector	<ul style="list-style-type: none"> <li>• Establish Media/Press Centre for media management and information dissemination</li> <li>• Ensure that the information to media/general public about the response of the State Government is released in an organized manner.</li> <li>• Organize media briefing twice a day at predetermined intervals.</li> </ul>
	<b>F</b>	Other important work related to immediate response	Collector	<ul style="list-style-type: none"> <li>• Prepare quick need assessment report for planning of relief operation.</li> <li>• Additional assistance may be asked for emergency response/relief from State EOC - GSDMA(If needed).</li> </ul>
			Collector	<ul style="list-style-type: none"> <li>• Prepare situation report and circulate it twice a day in the morning and evening to key Government functionaries.</li> <li>• Maintain constant touch with National, District and Taluka EOCs and other control rooms.</li> <li>• Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly.</li> <li>• Conduct Aerial survey of affected areas for taking a stalk of the situation.</li> </ul>
			Revenue Dept. Collector,	<ul style="list-style-type: none"> <li>• Activate evacuation &amp; relief centers according to needs/situation.</li> <li>• Maintain record of persons admitted at evacuation/relief centres.</li> </ul>

## Chapter 3

### Institutionalisation and Multihazard Response Measures

<b>Time = 0 + 24 to 48 Hrs</b>	1	Review of situation and Reporting	Collector	<ul style="list-style-type: none"> <li>Establish contact with IMD, CWC, ISRO and the defense ministry of Gol for aerial / satellites imageries about further weather condition and plan accordingly.</li> </ul>
	2	Restoration of critical infrastructure/essential services	Collector, Line Depts., Chief officer	<ul style="list-style-type: none"> <li>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.</li> <li>Ensure that key administrative and lifeline buildings are brought back to operation quickly.</li> <li>Designate and deploy senior officers (as per the need) to worst affected area/s to oversee rescue/relief operation.</li> <li>Ensure following primary necessities are restored               <ul style="list-style-type: none"> <li>Power</li> <li>Water</li> <li>Telecommunication</li> <li>Roads</li> <li>Bridges</li> </ul> </li> </ul>
	3	Disposal of Dead bodies	Revenue Dept., Collector, Chief officer Police Dept., Health Dept., Local Authorities	<ul style="list-style-type: none"> <li>Ensure following procedure is followed before disposal/handing over of dead bodies:               <ul style="list-style-type: none"> <li>Photographs of the dead bodies are taken,</li> <li>Identification of the dead bodies is done,</li> <li>Post Mortem where ever necessary and possible is carried out,</li> <li>Handing over dead bodies of persons known/identified to their relatives,</li> <li>Disposal of unclaimed and unidentified dead bodies.</li> </ul> </li> </ul>
			Animah Husbandry Dept., Local Authorities, health dept.	<ul style="list-style-type: none"> <li>Animal Husbandry Department to ensure medical aid to cattles is injured.</li> <li>Disposal of animal carcasses with the help of local bodies/health dept.</li> </ul>
	4	Public Information and Media Management	Collector Information Dept., Chief officer	<ul style="list-style-type: none"> <li>Ensure that the information about progress of rescue and relief is provided to media/public in an organized manner at least twice a day.</li> <li>Establish help lines for facilitating communication between the victims and their relatives residing outside the affected area/s.</li> <li>Establish Information Centers at strategic locations for providing information about persons evacuated to the relief centres/hospitals.</li> </ul>
	5	Miscellaneous rescue and relief Works	Collector, Chief officer	<ul style="list-style-type: none"> <li>Assess the situation and take appropriate action to accelerate the Search &amp; Rescue Operations.</li> <li>Depute additional officers and supporting staff to Cyclone affected areas from non-affected areas (if required) to accelerate the rescue and relief operations.</li> </ul>
			Collector, Civil Supply Dept.	<ul style="list-style-type: none"> <li>Ensure that the relief assistance received from outside is centrally received, stored and sent for distribution to Cyclone affected areas according to their need and proper accounts are maintained about both receipt and distribution.</li> </ul>
			Revenue Dept, Civil Supply Dept.,	<ul style="list-style-type: none"> <li>District Collector may oversee the functioning of relief centres and ensure adequate supply of relief materials.</li> </ul>



## Chapter 3 Institutionalisation and Multihazard Response Measures

<b>Time = 0 + 48 to 96 Hrs</b>	1		Collectors, Civil Supply Dept.	<ul style="list-style-type: none"> <li>• Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly.</li> <li>• Arrange for procurement of additional relief material required for relief operations (on the basis of need assessment).</li> <li>• Mobilize additional relief material required for relief operations.</li> <li>• Maintain constant touch with State &amp; Districts EOCs.</li> </ul>
	2		Revenue Dept., Health Dept. and Transport Dept	<ul style="list-style-type: none"> <li>• Arrangement for transportation of injured from field hospital to base hospital</li> <li>• Arrangement for transport of dead bodies to their native places.</li> </ul>
	3		Line Depts., Collector,	<ul style="list-style-type: none"> <li>• Ensure maintenance of record, timely reporting and information management.</li> <li>• Ensure maintenance of record and information database.</li> </ul>
<b>Time = 0 + 96 to 168 Hrs</b>	1		Collector	<ul style="list-style-type: none"> <li>• Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly.</li> <li>• Review the restoration of all the public and essential in Cyclone affected areas.</li> <li>• Review and follow-up all necessary arrangements for emergency response &amp; relief in the affected area/s.</li> </ul>
	2		Collector, IMD	<ul style="list-style-type: none"> <li>• On receiving the message from IMD about degradation of Cyclone, inform the concern officers.</li> </ul>
	3		Collectors, Chief officer, R & B Dept	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
	4		Collector, DSP	<ul style="list-style-type: none"> <li>• After receiving the message of de-warning, ensure that people are moved back safely to their houses.</li> </ul>
	5		Revenue Dept.	<ul style="list-style-type: none"> <li>• Ensure relief disbursement, allotment of funds and grants to line department and district collectors for organizing emergency response, relief and evacuation arrangements</li> </ul>

## Chapter 3 Institutionalisation and Multihazard Response Measures

### 3.3.2 Response to Off-Site emergency (Chemical Plan)

S.No	Time	Task	Responsibility Department/ Agency	Activity
1		Disaster declaration And Plan Activation	Collector / DCG	<ul style="list-style-type: none"> <li>• Declare an off-site emergency in consultation with DCG and activate an off-site emergency plan.</li> <li>• Activate DCG.</li> <li>• Establish immediate communication with LCG, DCG, DEOC, SEOC, GSDMA</li> </ul>
2		Mobilization & Deployment	Collector, DISH, DCG, Police Dept, Health Dept, Industry/Industrial Association,	<ul style="list-style-type: none"> <li>• Arrange an immediate deployment of various ERTs in affected sector(s). (Police, Fire, S&amp;R, Medical etc.)</li> <li>• Based on the emergency monitoring teams from offsite areas initiate countermeasures (such as sheltering and medical help).</li> <li>• Arrange an evacuation of the affected/likely to be affected workers and Population to safer places.</li> <li>• Activate systems of the District 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. Deploy QRMTs/MFRs consisting of physicians, triage officer, nurses and paramedical staff.</li> </ul>
			Collector , Civil Supply Dept, Chief officer DISH, Water Supply Dept, health Dept, GEB, Power & Energy Dept, GWSSB & Local Authorities, Police Dept.	<ul style="list-style-type: none"> <li>• To ensure that necessary arrangements at evacuation/relief centers is made with sufficient availability of: <ul style="list-style-type: none"> <li>○ Food,</li> <li>○ Water,</li> <li>○ Blankets/Clothing</li> <li>○ Medicines</li> <li>○ Lighting</li> <li>○ Sanitation and hygiene etc.</li> </ul> </li> <li>• 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.</li> <li>• To ensure that law and order is maintained at evacuation/ relief centers and in the affected areas as well.</li> </ul>
3		Addressing Health related issues	Health Dept.	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Ensure that the Hospitals are well prepared to deal with seriously injured persons.</li> <li>• Keep adequate stock of essential medicines, Antidotes, first-aid etc. at Taluka /district hospitals.</li> <li>• If required, take the help of doctors/ paramedics</li> </ul>

				from the list of doctors/ paramedics available at the taluka/district level for immediate medical assistance.
4		Information to public and media	Collector, DISH, Information Officer, Chief officer	<ul style="list-style-type: none"> <li>• Make an arrangement for providing useful, timely, correct, consistent, and appropriate information to the public and media in the event of a chemical Attack /disaster.</li> <li>• Ensure that the information to media/general public about the coordinated response is released in an organized manner.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Roles and Responsibility of some of the First Responders during chemical attack/emergency;</b></li> </ul>				
1		Police	Police Department	<ul style="list-style-type: none"> <li>• Control and divert the traffic near the affected areas.</li> <li>• Ensure law and order at the incident site during chemical emergency/disaster and at Evacuation centers to Provide security in evacuated areas</li> <li>• <u>As per GSDM Act 2003, Give warning, carry out S &amp; R Operation and carry out relief &amp; rehabilitation operation too. In case of Chemical attack;</u></li> <li>• DCP will direct the participation of police in the emergency response Police will constitute an integrated command.</li> <li>• The DSP will establish contact with the District Police Control Room immediately. He will get a situation estimate and assess the operational requirements for the police.</li> <li>• The DSP 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 DSP will ensure that the police forces required for traffic management, evacuation and law and order are available with the District administration.</li> <li>• The DSP will review the dissemination of warning and the need for evacuation. He will help the Fire &amp; 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.</li> <li>• The DSP will ensure that the police force will not enter the area under disaster without the permission of the Fire &amp; Emergency Services and Health officer.</li> <li>• In case of big explosion and fire, the DSP will assess the situation and suggest a Plan of Action based on his assessment of the immediate causation.</li> <li>• The DSP will order deployment of the police</li> </ul>

				<p>force for evacuation of the people from the zone of the danger.</p> <ul style="list-style-type: none"> <li>• The DSP will send instructions for the cordoning off of the area. People should not be allowed access anywhere close to the site of the disaster.</li> <li>• The DSP will review the traffic management in the area. The primary aim would be to ensure the transport of the injured to the hospital, easy access for emergency responders and safe evacuation of the people from the danger zone.</li> <li>• The DSP will also issue directives that all the Private and Public Transport (trains and buses) be diverted from the disaster area.</li> <li>• The DSP will contact the DIG and ask him to organize the deployment of police force from other Districts, based on the need assessment.</li> <li>• The DSP will also contact the State Industrial Security Forces and other paramilitary forces to seek their deployment, if needed.</li> <li>• The DSP 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.</li> </ul>
2		Fire and S & R	Fire And Emergency Services (F&ES), Nagarpalika, DMC DAHEJ/ DPMC ANK GIDC	<ul style="list-style-type: none"> <li>• Reach at the site soonest possible and assess the situation. (information about the chemical leak/spill, the action taken and current status)</li> <li>• In case of fire, start fire fighting with suitable media and also take care of surrounding storages/tanks to be over heated so that reduce the chances of “domino effect”.</li> <li>• In case of chemical leak, try to plugging/stopping of leak with the use of proper PPE</li> <li>• Secretary, Industries will coordinate redeployment of GIDC Fire Tenders from other places, as required.</li> <li>• Secretary, Industries will also coordinate with the Private and Public Sector industries for deployment of their Fire Brigades to the site of the Disaster.</li> <li>• The DCG, in consultation with the District Collector and other local officials will ensure that CFO Fire Services, Dy. Director Industrial Safety and Health, Officer in charge Police and Health Personnel all work closely with full coordination.</li> <li>• Ahmadabad, Vadodara, Valsad, Surat, Rajkot, and Jamnagar are the main Providers of Fire Services in the state. The DCR will decide upon the deployment of Fire Services, based on Distance and Accessibility.</li> <li>• Search and identify the risk and nullify the sources of leak / toxic release. If any unclear or unidentified substance or source is identified or</li> </ul>

				<p>detected, the team should send them immediately to the laboratory for further investigation / analysis</p> <ul style="list-style-type: none"> <li>• To search and evacuate the affected population from the site of the incident.</li> </ul>
3		Medical Services	Dept. of Health and Family Welfare	<ul style="list-style-type: none"> <li>• CDMO / CDHO emergency medicine experts will provide the necessary expertise and specialized services to the DCG.</li> <li>• The DCG 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.</li> <li>• Based on the information upon the level and extent of contamination, the DCG 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.</li> <li>• The DCG 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.</li> <li>• The DCG will alert major hospitals in the area, and ask them to be in readiness for receiving patients.</li> <li>• In case the nature of contamination requires much greater intervention, the DCG will inform the SCG and ask for the necessary medical assistance of experts, doctors and equipments. The relevant agency for emergency medicine in the Government of Gujarat 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.</li> <li>• The DCG 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.</li> <li>• The DCG will review the administrative support required for the situation, which includes communications, transport of the victims and of the personnel, feeding of the personnel and patients, and supplies.</li> <li>• The DCG will collect information on the number of deaths and persons injured; the nature of injuries and the likely long-term consequences.</li> </ul>

				<ul style="list-style-type: none"> <li>The DCG 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 DCG must also make financial provision for spending on long-term treatment.</li> </ul>
--	--	--	--	--

### **3.3.3 Earthquake Responsibility**

Time Frame	Sr.No	Task	Responsibility
0 + 15 Minutes	1	Report the occurrence of earthquake to Collector, Resident Additional Collector Heads of all line departments, State EOC.	Mamlatdar / (DEOC)
0 + 30 Minutes	2	Establish communication link by activating alternate communication equipment i.e. satellite phone, HF / VHF set, HAM Radio, VSAT etc. in District EOC /TalukEOCs	DSP, RAC Mamlatdar (DEOC)
	3	Instruct deployment of Mobile Emergency communication Units to affected areas for establishing communication link	Collector
	4	Verify the authenticity of the incident from agencies like IMD, ISR, SSNNL and also from District / Taluka control rooms, Police and Fire Brigade control rooms	RAC, Mamlatdar (DEOC)
	5	In case of L-2 level event, overall management of DEOC shall be taken over by Collector	Collector
	6	Instruct duty officers of line departments to report in DEOC	Collector
	7	Hold first meeting with duty officers	Collector
	8	Contact the Heads of all line departments including the Information Department to reach DEOC	Collector
	9	Alert ERUs and ERCs for quick mobilization to affected areas	Collector
	10	Request for the services of NDRF and Armed forces, if required through designated representative	Collector & COR
	0 + 1 Hour	11	Instruct both regular and emergency staff of DEOC to report for duty
12		Dispatch of Search & Rescue teams to the affected areas	Collector
13		Instruct Quick Assessment Task Force to submit preliminary need and loss assessment report of the affected areas	Collector
14		Alert Quick Medical Response Teams to the affected areas	Collector
15		Make arrangements for aerial survey of the affected areas	Collector
16		Instruct local administration to evacuate victims to safer sites	Collector
17		Contact District In charge Secretary for deciding on time and venue for holding Crisis Management Group (DCG) meeting at the earliest	Collector
18		Inform all DCG members to attend DCG meeting in designated venue to assess situation and review emergency measures	Collector
19		Instruct concerned authorities or Agencies to shut down critical operations	Collector
20		Contact BISAG, NSRA, ISRO and COR for aerial / satellite imageries of the affected areas	Collector

0 + 2 Hours	21	Inform all line department head to report for emergency duties within half an hour	Collector
	22	DCG to assess situation, delegate responsibilities for organizing rescue and relief operations	Chairman, DCG
	23	Senior District level officers to be deputed to the affected areas	Chairman, DCG
	24	Activate Operations Section of ICS for Emergency Response Operation	Collector
	25	Assess the conditions of road, rail and air communication link for quick mobilization of Emergency Teams and resources to affected areas and take follow up actions	Collector & Head of Transport, R & B, Railway Department.
	26	Dy. Director, Information to establish media management / information cell for public information, guidance and rumor control	Collector
	27	Request may be made for assistance from State Government , GSDMA if required	Collector
	28	Request the nearest headquarters of the SRP Force/Nagarpalika/co-operation to render assistance in emergency search, rescue and relief operations	Collector
	29	Contact private / public sector agencies in the District to assist in emergency rescue and relief operations.	Collector
	30	Inform Line Department & COR to provide necessary logistics support to emergency operation task forces.	Collector
	31	If necessary, assistance may be asked from neighboring District and outside agencies	Collector
	32	Set up separate desks for each operation task force and NGO coordination desk in the DEOC for coordinating emergency operations	Collector
	33	Provide security in affected areas and maintain law and order situation	DSP
	34	Mobilize Medical First Response Teams to affected areas	CDHO & Civil Surgeon
	35	Mobilize SAR Teams and search & rescue equipment and machinery to affected areas	DSP,Civil defense, Nagarpalika & R&B Departments,
	36	Instruct district Dy. information officers to establish information centre near affected areas to provide guidance to volunteers and aid agencies	Collector

## Chapter 3 Institutionalisation and Multihazard Response Measures

0 + 3 Hours	37	Make suitable transportation arrangement for mobilization of quick response teams to the affected areas	Collector , DSP, ARTO
	38	Maintain constant touch with the State / District and Taluka EOCs	Collector / DEOC
	39	Establish Press / Media Centre for media management and information dissemination	Dy. Director Information
	40	Arrange for press / media release for rum our control and public information and guidance	Collector, Dy. Director Information
	41	Alert all major hospitals to make necessary arrangement for treatment of injured	CDHO, Civil Surgeon
0+ 6 Hours	42	Establish relief coordination centre at the airport, railway station, etc. for arrival of Search & Rescue and Medical Teams coming for humanitarian aid	Collector
	43	Establish State relief coordination centre nearer to District Head Quarter	Collector
	44	Instruct to cordon affected areas and setting up of check posts to control entry and exit	DSP
	45	Open access routes and manage traffic for mobilization of equipment, machinery and volunteers to the affected areas	DSP , ARTO Transport and R & B
	46	Conduct aerial survey and also mobilize quick assessment teams to affected areas	Collector / Leader of quick sssessment Task Force
	47	Establish information centers at the arrival and departure points especially at the airports, railway stations and interstate bus terminus	R & B Department
0 + 12 Hours	48	Mobilize relief materials i.e. tents, food materials, water, essential medicines, blankets, etc. to the affected taluka, Nagarpalika area and villages	Collector / DDO / Line Departments
	49	Arrange to shift evacuated persons to temporary shelters and ensure provision of food, water facilities, blankets and storage of relief materials	Collector / DDO
	50	Arrange road, rail and air transport at District / Taluka headquarters for dispatch of relief arterials' to the affected areas	ARTO
	51	Set up field hospitals near the affected areas	CDHO, Civil Surgeon
	52	Arrange to shift injured persons to field hospitals	CDHO,Civil Surgeon
	53	Instruct Liaison & DSO to establish relief coordination centre and godowns near affected area and provide full security cover as well	Collector / DSO / DSP
	54	Prepare quick need assessment report for planning of relief	Collector / DDO /



		operation and mobilization of resources to the affected areas	RAC
0 + 24 Hours	55	Instruct to set up Coordination Centers at the Taluka / City area in as well	RAC
	56	Hold review meetings with Duty Officers in every 12 hours	Collector
	57	Prepare and circulate the situation report	RAC (DEOC)
	58	Prepare press notes twice a day	RAC & Dy. Director Information
	59	Depute additional officers and supporting staff to affected areas from non-affected areas	Collector / COR
	60	Restore essential services i.e. power, water supply, telecommunication facilities of DEOC, headquarter, AIR, Doordarshan, Concern officers & all line department	DGVCL/GETCO, GWSSB, DOT, Collector
	61	Coordinate with Emergency Operation Task Forces mobilized to the affected areas	Collector / DDO / RAC (DEOC)
0 + 48 Hours	62	Ensure safety and security of personnel deputed in affected areas for emergency response operation	DSP
	63	Earmark storage point for medical supplies at affected sites	CDHO, Civil surgeon
	64	Arrange for identification, photograph, post mortem and maintenance of records for disposal of dead bodies	DSP, CDHO, Civil surgeon
	65	Arrange information centre at shelter site for maintaining records of victims and to provide guidance to relatives, NGOs, etc	Collector, DDO, DSO
	66	Arrange for complaints regarding missing persons and initiate search in shelters, hospitals and police records	Collector, DSP, DDO
	67	Arrange for Executive Magistrate empowerment for waiving off post mortem of dead bodies	Collector
	68	Arrange for additional manpower if necessary for disposal of dead bodies	Collector
	69	Arrange for transportation of dead bodies to their native places if so required	ARTO, CDHO, Civil surgeon
0 + 72 Hours	70	Arrange for disposal of unidentified and unclaimed dead bodies	Collector, DSP
	71	Arrange for transportation of injured from field hospitals to base hospitals	ARTO, CDHO, Civil surgeon
	72	Activate short and interim relief measures	Collector / Line Dept.
	73	Arrange for distribution of cash doles to the victims	Collector, DDO

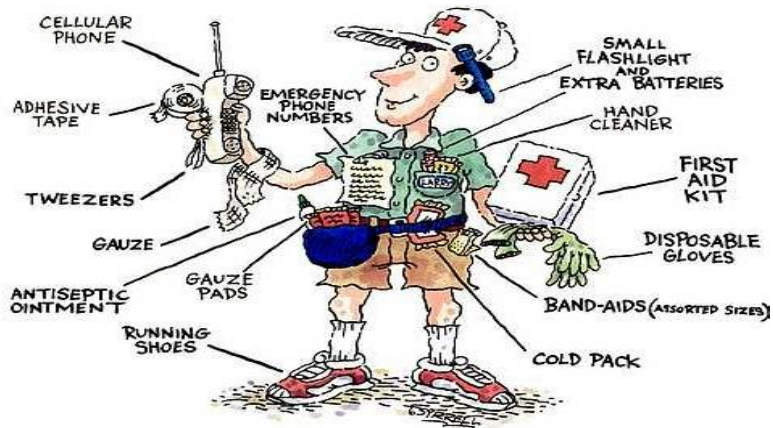
## Chapter 3 Institutionalisation and Multihazard Response Measures

### 3.3.4 Flood Role & Responsibility

S.No	Response to be Taken	Responsible Department
1	Reporting the occurrence of flood to Collector, GSDMA, Heads of line departments,	Resident Additional Collector
2	Establish communication links by alternate communication equipments like phone, radio etc. in District /Taluka EOC and Village level	District Emergency Operation Center,(DEOC)
3	Deployment of Mobile Emergency Communication Units to affected areas for establishing communication links.	District Collector
4	Verifying authenticity of flood from agencies like IMD, CWC Tapi Division, and SSNL and also from Districts/Taluka control rooms.	District Emergency Operation Center,(DEOC)
5	Hold first meeting with Duty Officers	Collector
6	Contact the Heads of all the line departments to reach Taluka EOC	Collector
7	Dispatch of Search & Rescue teams to the affected areas.	Collector
8	Make arrangements for the aerial survey of affected areas.	Collector
9	Instruct local administration to evacuate victims to safer Sites	Collector
10	Assess the condition of road and rail network for quick Mobilization of Emergency teams and resources to affected areas and take follow up steps.	ARTO, R & B Dept, Collector
11	Maintain constant touch with State /District and Taluka EOCs	Collector

Distribution of activities among various district agencies in District during Relief:-

No.	Response To be Taken	Responsible Department
1	Providing temporary shelters to evacuated persons	District Panchyat, Revenue dept, R &B
2	Providing food materials to the victims	Revenue Civil Supplies
3	Providing safe drinking water to the victims	Water supply Dept.
4	Provision of hygienic sanitation facilities	Health Dept, NGO, Community groups
5	Provision of health assistance	Health Dept.
6	Clothing and utensils	Civil Supplies
7	Relief camps	R & B, Revenue Dept. District Panchyat
8	Providing transport services to shelter sites	Revenue Dept, Transport Dept.



# Chapter 4

## Preparedness, Prevention & Mitigation Measures



## Chapter 4 Preparedness, Prevention & Mitigation Measures

Personal preparedness focuses on preparing equipment and procedures to use when a disaster occurs, i.e., planning. Preparedness measures can take many forms including the construction of shelters, implementation of an emergency communication system, installation of warning devices, creation of back-up life-line services (e.g., power, water, sewage), and rehearsing evacuation plans. Proper Preparation can save time, money and lives. Planning for all different types of events to magnitudes in at utmost importance for disaster. Proper planning is instrumental during times of chaos to make situations less stressful. With proper planning duties will be pre-assigned to different agencies, so that when disaster does occur responders can jump right into action.

Two simple measures can help to prepare the individuals for either sitting out the event or evacuating, as necessary. For evacuation, disaster supplies kit may be prepared and for sheltering purposes a stockpile of supplies may be created...



In Bharuch district, disaster management and risk reduction have become a permanent agenda of District Coordination Meeting. Now the emergency preparedness level of the district has been reviewed by the District Collector while meeting the line departments every month. Similarly, the issue has got the appropriate institutional back up for reinforcement at the district and sub-district level with disaster management becoming a permanent agenda item of Revenue and Panchayat department's monthly review meeting. **Water logging situation arise during monsoon in Bharuch, to avoid water logging Issue Following Drain should**

**be clean before monsoon:**

(Annexure H)

### 4.1 Details of Drain in Bharuch District.

Sr .N .	Drain Area/Route	Name of Taluka	Implementing Department
1	Garamiya Drain From Umaraj and Sherpura to manubar, Kanthariya to Vansi approx 7 to 13 km	Bharuch	Dy.Engineer MIP, Anklesvar
2	Shravan Chowkdi Gail colony to Garamiya approx 2 km.	Bharuch	Dy. Engineer MIP, Anklesvar
3	Bhukhi Khadi Netional highway to parkhet Village	Bharuch	Dy. Engineer MIP, Anklesvar
4	Parkhet Bhukhi Khadi	Bharuch	Dy. Engineer MIP, Anklesvar
5	Behind Hotel Nyay mandir's Drain	Bharuch	Dy. Engineer MIP, Anklesvar

6	Linda khadi to Kothi gam to Tralsi village	Bharuch	Dy. Engineer MIP, Anklesvar
7	Sherpura Cricket ground to Garamiya kans	Bharuch	Dy. Engineer MIP, Anklesvar
8	Matariay Talav to Sherpura Kabrastan	Bharuch	Dy. Engineer MIP, Anklesvar
9	Haldarva to Luvara drain	Bharuch	Dy. Engineer MIP, Anklesvar
10	Haldarva to Vaddala drain	Bharuch	Dy. Engineer MIP, Anklesvar
11	Dabhali to Samlod drain	Bharuch	Dy. Engineer MIP, Anklesvar
12	Tham to Derol drain	Bharuch	Dy. Engineer MIP, Anklesvar
13	Haldar to Kuvadar drain	Bharuch	Dy. Engineer MIP, Anklesvar
14	Daredi khadi to Kargat Borikothi	Bharuch	Dy. Engineer MIP, Anklesvar
15	Sukwal –Maljipura-Mitamora to Dharoli Drain	Jhagadia	Dy. Engineer MIP, Anklesvar
16	Panwad –Talodara & Zarpaniya to Talodara	Jhagadia	Dy. Engineer MIP, Anklesvar
17	Kharchi to Bhilwada to National Highway N-8 Mandava	Jhagadia	Dy. Engineer MIP, Anklesvar
18	Vali to Dhabha & valad Drain	Jhagadia	Dy. Engineer MIP, Anklesvar
19	Karena to Vehlam Khadi Drain	Amod	Dy. Engineer MIP, Anklesvar
20	Telod to Suthadara Drain	Amod	Dy. Engineer MIP, Anklesvar
21	Ochen Drain	Amod	Dy. Engineer MIP, Anklesvar
22	Ochan to Karena Drain	Amod	Dy. Engineer MIP, Anklesvar
23	Advala to Dhadhar drain	Amod	Dy. Engineer MIP, Anklesvar
24	Soanama to nahiye drain	Amod	Dy. Engineer MIP, Anklesvar
25	Tanacha to Anor drain	Amod	Dy. Engineer MIP, Anklesvar
26	Anor local drain	Amod	Dy. Engineer MIP, Anklesvar
27	Ranada to Anor drain	Amod	Dy. Engineer MIP, Anklesvar
28	Vahiyal to Ochal drain	Vagra	Dy. Engineer MIP, Anklesvar
29	Ambhel to pakhajan drain	Vagra	Dy. Engineer MIP, Anklesvar
30	Narnavi to kathodara, Ambhel to Pakahajan Pahaj ora to Vicchyad drain Vahiyal local drain	Vagra	Dy. Engineer MIP, Anklesvar
31	Limadi to Pakhajan drain	Vagra	Dy. Engineer MIP, Anklesvar
32	Rahad Kelod drain vagra , Local drain vagra, Pisad drain Rahad Vastikhandali drain	Vagra	Dy. Engineer MIP, Anklesvar
33	Vagra local drain	Vagra	Dy. Engineer MIP, Anklesvar
34	Mosam Local drain	Vagra	Dy. Engineer MIP, Anklesvar
35	Saladara Saykha drain	Vagra	Dy. Engineer MIP, Anklesvar
36	Nahar Rupeshvar temple drain RHS/LHS drain	Jambusar	Dy. Engineer MIP, Anklesvar
37	Nahar Kangam drain	Jambusar	Dy. Engineer MIP, Anklesvar
38	Nahar Kavali drain	Jambusar	Dy. Engineer MIP, Anklesvar
39	Kavi kora Joining Nobar drain	Jambusar	Dy. Engineer MIP, Anklesvar
40	Kora –Panchakada & madafar drain	Jambusar	Dy. Engineer MIP, Anklesvar
41	Panchakada Sambha drain	Jambusar	Dy. Engineer MIP, Anklesvar
42	Panchakada navi nagri drain	Jambusar	Dy. Engineer MIP, Anklesvar
43	Sambha kora drain	Jambusar	Dy. Engineer MIP, Anklesvar
44	Sambha Branch drain	Jambusar	Dy. Engineer MIP, Anklesvar
45	Sigam Galantec & Zamdi drain	Jambusar	Dy. Engineer MIP, Anklesvar
46	Neja Adrakha drain	Jambusar	Dy. Engineer MIP, Anklesvar
47	Chidra Bhadkodarta drain	Jambusar	Dy. Engineer MIP, Anklesvar

48	Nada Kapuriya drain	Jambusar	Dy. Engineer MIP, Anklesvar
49	Widening & Deepening of Vadadala, Rahadpor, Umraj to Garamiya	Bharuch	GNFC
50	Narmada Chowkdi to vishvas clolony to Shital circle highway(old NH8)	Bharuchcity	Dy. Engineer R&B (State)
51	Ashray society to Ayodhyanagar to Matariay Talav Drain	Bharuchcity	Nagarpalika, Bharuch
52	Back part of Angan Apartments	Bharuchcity	Nagarpalika, Bharuch
53	Fata Talav to Varagi Vad	Bharuchcity	Nagarpalika, Bharuch
54	Id-Gha to Kharudinvava area	Bharuchcity	Nagarpalika, Bharuch
55	Link Road to Ayodhyanagar	Bharuchcity	Nagarpalika, Bharuch
56	Dungri Three well to Ankhari manzil	Bharuchcity	Nagarpalika, Bharuch
57	Godi Road, Rajnigandha Society to near Railway	Bharuchcity	Nagarpalika, Bharuch
58	Furja Pahaj to Dattmandir	Bharuchcity	Nagarpalika, Bharuch
59	JB Modi park to ahead Sabugath area	Bharuchcity	Nagarpalika, Bharuch
60	Bahucharaji navinagari to animal hospital way	Amod city	Nagarpalika, Amod
61	Animal hospital to Jalaram nagar area	Amod city	Nagarpalika, Amod
62	Bhimpura road to Mahmadi mosque	Amod city	Nagarpalika, Amod
63	Taluka Panchyat Navi nagari to Malla talavadi	Amod city	Nagarpalika, Amod
64	Vanta Rothodvas to Bharuch Jambusar road	Amod city	Nagarpalika, Amod
65	GEB Sub Station to Big lake area	Amod city	Nagarpalika, Amod
66	GangSahid to Ankhi Bhogal to Manak Temple	Jambusar City	Nagarpalika, Jambusar
67	Nr mamlatdar office	Jambusar City	Nagarpalika, Jambusar
68	Tanakri Bhagol to Swastiknagar Society	Jambusar City	Nagarpalika, Jambusar
69	Parixishit girl hostel to Savgan Society	Jambusar City	Nagarpalika, Jambusar
70	Swaminarayan temple to kava road railway crossing	Jambusar City	Nagarpalika, Jambusar
71	Khanpuri Bhagol rain drain after railway crossing	Jambusar City	Nagarpalika, Jambusar
72	Patel society to local board office	Jambusar City	Nagarpalika, Jambusar
73	Bala Nagar society to Talawdi	Jambusar City	Nagarpalika, Jambusar
74	Referal Hospital Gate 2 to Citizen society after railway crossing.	Jambusar City	Nagarpalika, Jambusar
75	Baroda road to Godoown firdosnagar society	Jambusar City	Nagarpalika, Jambusar
76	Milatnagar Society to Dabha Four way road.	Jambusar City	Nagarpalika, Jambusar
77	Near Red Sahid mosque to National Park railway crossing	Jambusar City	Nagarpalika, Jambusar
78	In front of Gamvadi vaghela to abed beg farm	Jambusar	Nagarpalika, Jambusar

		City	
79	NH-8 to Luvara to Haldarva, Vaddala to Zadeshwar Chokdi Drainage	Bharuch	National Highway Authority
80	NH-8 to Palej to Bhukhikhadi Drainage	Bharuch	National Highway Authority
81	Palej(GEB) To Sansrod Narmada canal to Bhukhi khadi	Bharuch	Exe. Engineer Narmada Yojana & National Highway Authority
82	Palej kolyadroad to National Highway Drainage to Matroj Drain(towards Baroda) NH -8	Bharuch	National Highway Authority

#### **4.2 Capacity Building:**

- **Soft skill (Trainings & Awareness)**
- **Physical Strengthening (Equipments & Buildings)**

**Bharuch district had taken the preparedness measures from village level to District level.**

- Bharuch district administration conduct Pre monsoon meeting which is one of the fundamental function of district and taluka administration for premonsoon activities of each & every department to prepare plan and start work with aspect to preparedness. Such As Nagarpalika prepared city plan according to vulnerability of the area, Mamlatdar office prepared TDMP including the Resource Material. And every line department start work with aspect to preparedness in their respective jurisdiction.
- Village Task forces formed & trained.
- Disaster Management plans like VDMPs, TDMPs, and CDMPs & DDMPs prepared & updated.
- District level officers reviewed village level disaster preparedness & interacted with the Village level Disaster Management team members.
- In Pre-monsoon meeting departmental, and stake holder's SOP were discussed & finalised, for any kind emergencies.
- For capacity building several Search & Rescue and First aid trainings organized in those trainings disaster management teams and committees members trained at village, city, and taluka and district level.
- Bharuch District administration also identified several stake holders from line departments, corporate sectors, NGOs and involved volunteers in disaster risk management activities; Control room Staff training, Students, teachers, home guards, police personnel, NCC and NSS students were also trained and mock drill realized. In most hazards flood prone area like Jhagadia, Ankleshvar, Bharuch and Hansot, Cyclone Prone area like Hansot, Vagra, Amod and Jambusar and other more important is Chemical Disaster in Whole district officers and peoples are more Orientation so that their services can be taken at the time of any emergency.

**4.3 DRM (Disaster Risk Management) Programme is implementing by district administration Under the Community based Disaster Management.** DRM (Disaster Risk Management Programme) is one of the major initiatives of Gujarat State Disaster Management Authority to build/strengthen capacity of various stakeholders for an effective response during disasters. The DRM Programme is formulated with a goal of sustainable reduction in disaster risk in most hazard prone districts in Gujarat state. The programme activities are designed in a way which supports capacity building to institutionalise the system, undertake environment building, education, awareness programmes on different facets of disaster management including strengthening of human capacity at all levels in disaster risk management and sustainable recovery.

The DRM Programme is aiming at strengthening of response, preparedness and mitigation measures through a variety of activities at various administrative levels. Considering the impact of DRM Programme activities, GSDMA included DRMP as a new scheme and made financial provision in state budget since 2007-08 considering implementation of exit strategy of UNDP in the year 2008. GSDMA started utilising state government resources and made necessary arrangements to maintain flow of DRM Programme activities across the state.

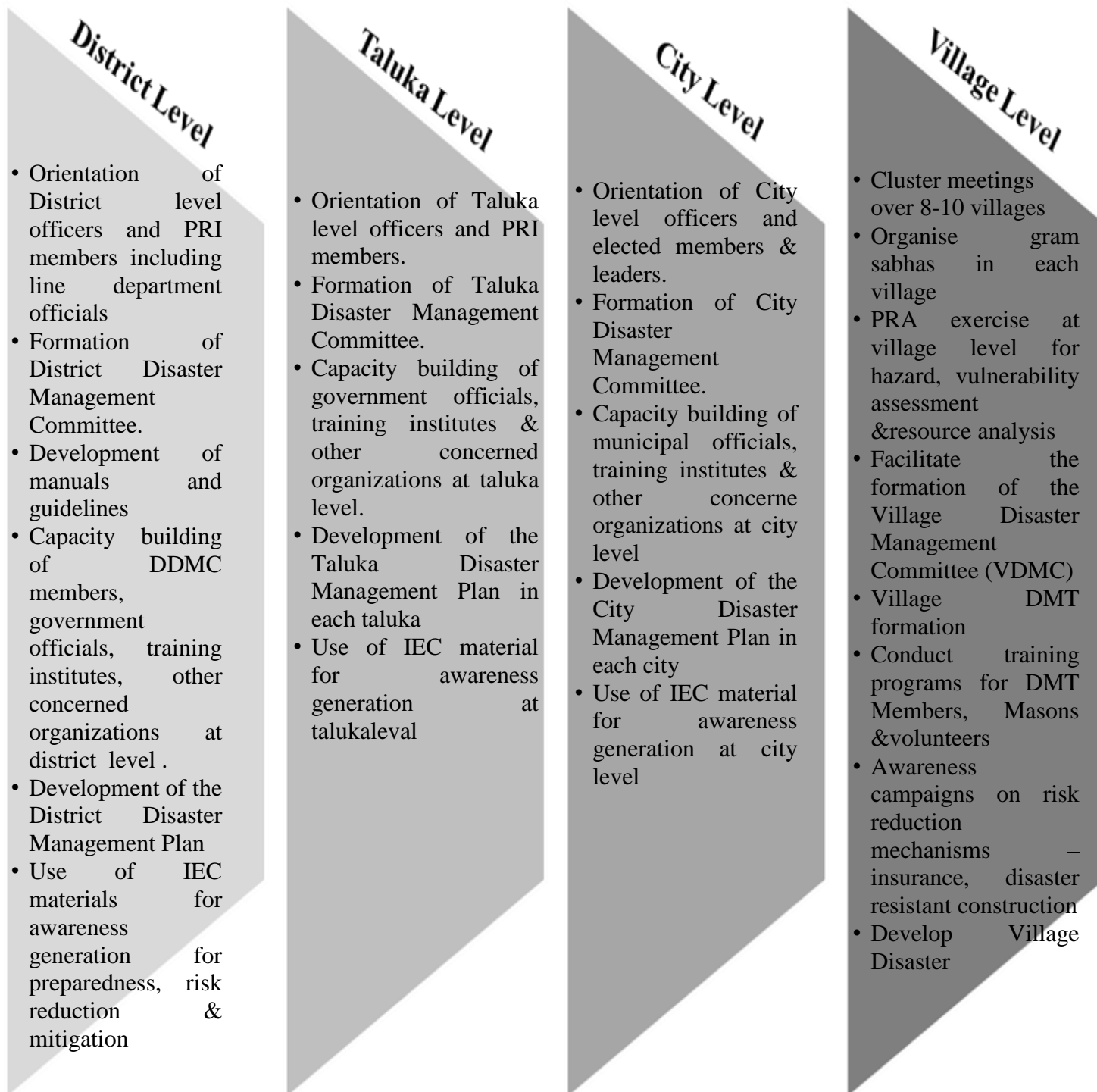
GSDMA focuses on disaster prone districts of the state for strengthening of response, preparedness and mitigation measures. In order to ensure effective implementation of programme activities, GSDMA has appointed District Project Officers (DPOs) at district level who is working under the direct supervision of the respective District Collector. The DRM Programme initiative includes:

1. Development of disaster risk reduction and response plan at each administrative level – Village, Municipality, Taluka and District.
2. Creation of Disaster Management Teams and Committees at various levels and their institutional capacity building through training and hardware resources.
3. Capacity Building for various stakeholders in different subject areas.
4. Updation of national and state level online database i.e. IDRN & State Disaster Resource Network respectively for disaster preparedness and management.
5. IEC materials development for awareness generation programmes as well as training and capacity building.
6. Manual development for trainers and practitioners at different levels.
7. Integration of disaster management plans in to the development plans of local self-governments.



## Chapter 4 Preparedness, Prevention & Mitigation Measures

### 4.3.1 Disaster Risk Management (DRM) PROGRAMME Level Specific Process:



## Chapter 4 Preparedness, Prevention & Mitigation Measures



The training manuals for **Glimpses of DRM Programme in Bharuch District**

preparation of DM plans, including database formats for all the levels have been prepared in the local language and field tested. In Gujarat, model DDMP, TDMP, CDM, VDMP and WDM have been developed to help with the preparation of plans along with Standard Operation Procedure (SOPs). SOPs and manuals for first aid, Search & Rescue, CPR and first-aid pocket size booklets and handbooks have been developed for distribution to different DM teams. A series of twelve posters have been developed as training aids for S & R and F & A training programmes.



➤ Hazard Manuals for Earthquake, cyclone, flood and industrial accidents have been developed and distributed to all the taluka/village/city officials in the Bharuch district. In addition, leaflets and do's and don'ts along with safety tips addressing fire, tsunami, flood, cyclone, flood, and industrial and chemical hazards have been developed which are extensively used during orientation and training programmes..

# Chapter 4 Preparedness, Prevention & Mitigation Measures



### 4.3.2 State Disaster Resource Network: (SDRN)

SDRN is Web base data base system/portal and can be utilised for the DM related resource details/ information of Taluka, City and Village of whole Bharuch district. SDRN consist contacts related as well as resources related both types of details of the Gujarat State. This portal can be utilised from Taluka, District and from state level where GSWAN connectivity and through Internate is there. For utilisation of the same one can use with link.

[www.gsdma.org](http://www.gsdma.org)

### 4.3.3 India Disaster Resource Network : (IDRN)

IDRN is nationwide data base portal and utilised through district and from state and national level .IDRN consist online data base of equipments, skilled men power and critical supplies of whole nation.Thidata base can be utilised at the time of crisis; the hard copy of updated equipment related details is having with DEOC separately.For utilisation of the same one can use with link. Bharuch District stands second rank in India for



[www.idrn.gov.in](http://www.idrn.gov.in)



#### 4.3.4 Automated Weather System

The Automated Weather System is a wireless GSM / GPRS enabled station, and is useful for collection of weather data based on certain parameters. Along with collection of data, it automatically transmits this data to the internet, making real-time information available at your finger tips. This is a lowest energy consumption system, helps it run for days without charging.

##### **The Parameters measured Include:**

1. Temperature(Range- 40 to 123.8 ° C)
2. Relative Humidity(Range 0 to 100% )
3. Wind speed(Range 0 - 250 K mph )
4. Wind Direction(Range 0 to 359 ° )
5. Rainfall(Range -100mm / hour )

One can set trigger levels for these parameters and as soon as these trigger levels are breached, automatic smses can be sent to a pre-decided list of people, informing them about the possibility of a natural disaster. As per pre-defined preparatory roles of these people, preventive measures like evacuation, etc. can be undertaken promptly, to reduce loss of human lives and other damage.

Hence, as a part of comprehensive upgradation of preparedness measures undertaken by the District Administration, Bharuch, process has been started to establish these weather stations in each of the 9 Talukas of the District as well as the river sites of Narmada and Dhadar Rivers. This will go a long way in reducing response time to emergencies that arise.

#### 4.3.5 Disaster Alert and Resource Management by Application of Technology (DARMAT)

The large-scale DDMP updation exercise being carried out in Bharuch is a way to improve its preparedness measures. One of the most important parts of this updation exercise is the building of a GIS-based databank, which reflects the key vulnerabilities and resources of the district in a layered and multi-tiered format, and

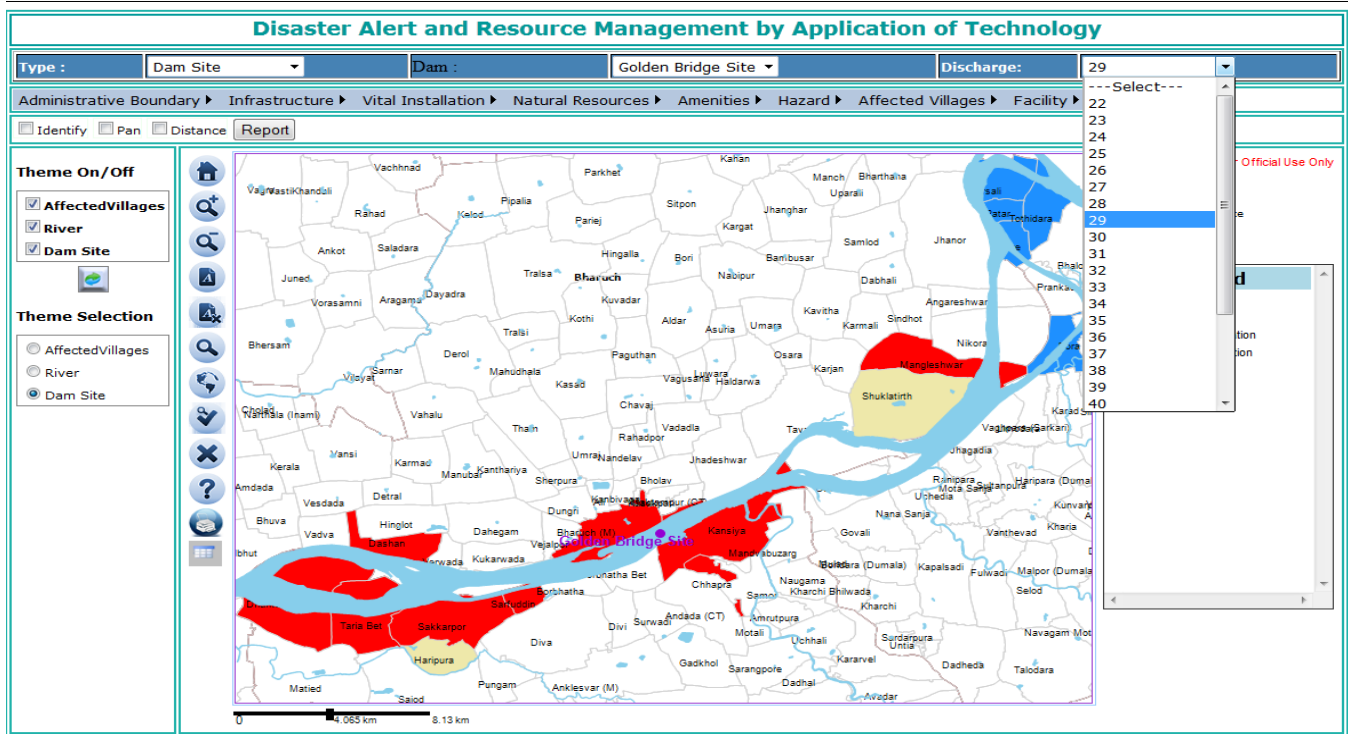


develops an SMS-based early warning system at the same time. Technology partner BISAG (Bhaskaracharya Institute for Space Applications and Geo-informatics) is instrumental in developing a software program called DARMAT (Disaster Alert and Resource Management by Application of Technology) as it has previously done in Rajkot district.

The software is a query-based platform, and one can enter the water level in a drop-down menu, and obtain the areas flooded and vulnerable villages as highlighted on a map. These areas are identified according to proximity with the river and vulnerability to flooding and this allows the District Administration to reduce delays in response and planning. Alongside, additional layers highlight the relief shelters, schools, hospitals, Primary Health Centres and other vital installations falling within these areas or in safe regions, allowing us to formulate strategies for evacuation and relief well in time.

# Chapter 4

## Preparedness, Prevention & Mitigation Measures



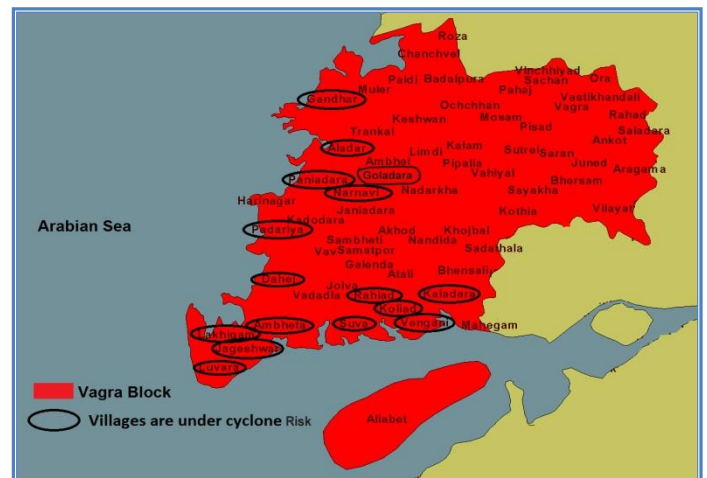
### 4.3.6 Technological Preparedness Measures for Chemical and Industrial Disasters: CAMEO

Other technological innovations are setting up of a GIS-based system for Chemical and Industrial Disaster Management through open source software called CAMEO, MARPLOT and ALOHA. CAMEO means Computer Aided Management of Emergency Operations. This is computer software used for emergency planning, emergency response and managing chemical inventory at the concerned facility. This software stores all necessary information about chemical industries in a district, their location, category and quantity of stored chemicals, on-site emergency plans, safe routes for evacuation, details of safety officers and nodal people working in different factories, etc. Whereas MARPLOT locates the site where the emergency has arisen, ALOHA estimates the distance and direction of chemical dispersion and its concentration within this area.

### 4.3.7 National Cyclone Risk Mitigation Project

The National Cyclone Risk Mitigation Project seeks to minimize vulnerability in the cyclone hazard prone states and Union Territories of India and make people and infrastructure disaster resilient, in harmony with conservation of coastal ecosystems.

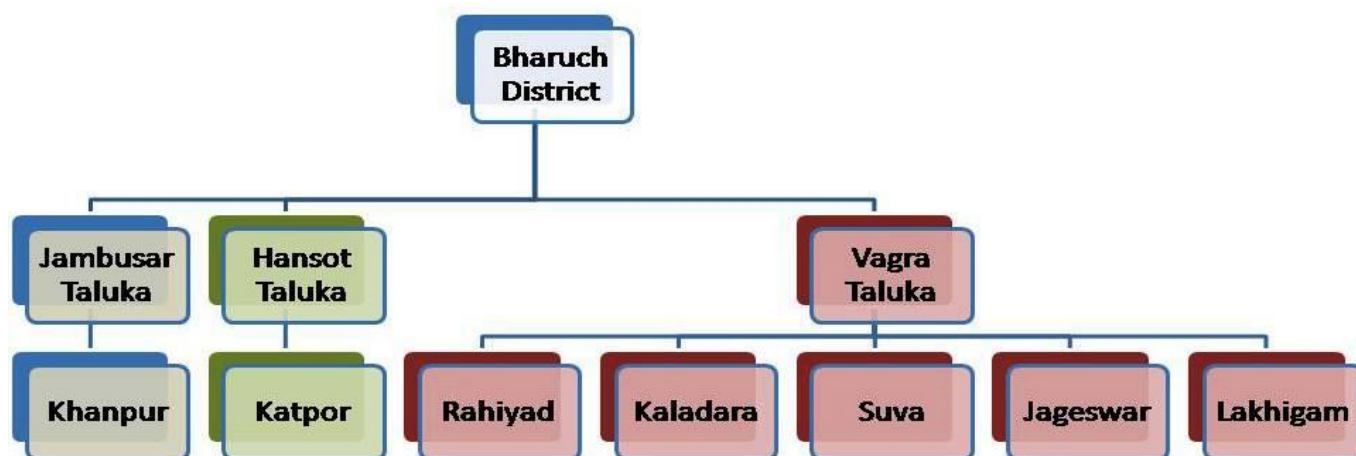
Gujarat being prone to cyclones, it is the top most priority of the State Government to reduce the effect of cyclone and minimize the loss of properties and lives in the coastal regions of the State through creation of suitable infrastructure. Gujarat has been included in the NCRMP initiated by the National Disaster Management Authority and funded by the



## Chapter 4

### Preparedness, Prevention & Mitigation Measures

- **Two important components**
  - Construction of Multi Purpose Cyclone Shelters (MPCS)
  - Construction and repair of missing roads will be implemented as part of NCRMP.



#### In Bharuch District total 7 villages Identified for Cyclone Shelter

Except Lakhigam all village land has been identified and worked in progress , as Lakhigam has no govt.

#### 4.4 Prevention and Mitigation Plan

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

Mitigation measures can be divided in two categories:

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

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

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

## Chapter 4 Preparedness, Prevention & Mitigation Measures

### 4.4.1 Mitigation Measures

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

Probable Mitigation Measures	Identified Locations and Villages	Implementing Departments	Convergence with Scheme/ Program	Time Frame
Desilting and deepening of water chanel (kaans)	1.Dahej Rly crossing to Bhukhikhadi 2.Pakhajan to Kaladara 3.Galenda to Jolva, 4.Ora to Kharkhandali to Vichiyad to Badalpura	Irrigation and Rural Development	Departmental program & MGNREGS	2016-17
Construction of embankments/ protection wall	On coastal belt to reduce land erosion by sea water	Rural Development, Forest	Departmental program & MGNREGS, watershed	2016-17
Repair of embankments/ protection wall	Kaladara, Vengani, Suva, Koliyad, Rahiyad, Ambheta, Jageshwar, Dahej, Luvara	Rural Development, R & B	Departmental program & MGNREGS	Regularly
Repair and maintenance of Flood Channels, canals, natural drainage, storm water lines	Divert water from Bhukhi to Narmada from Karjan to Dabhoi	Irrigation department	Departmental or special plan	2016-17
Construction of Safe Shelters (new construction through Indira Awas, SardarAwas and AmbedkarAwas)	Respective villages	Rural Development	Housing Scheme	Regularly
Protection wall and mangroves and vegetative cover against sea level intrusion and land erosion	Kaladara, Vengani, Suva, Koliyad, Rahiyad, Ambheta, Dakeshwar, Dahej, Luvara	Forest and Rural development department	Department schemes, MGNREGS, IWMP	2016-17
Desilting of water bodies like river and	Village ponds and Bhukhi river stream	Irrigation TDO Rural Development	MGNREGA and Land Development	2016-17



Probable Mitigation Measures	Identified Locations and Villages	Implementing Departments	Convergence with Scheme/ Program	Time Frame
ponds				

#### Non-Structural Mitigation Measures for Flood

Non-Structural measures	Locations/ coverage area	Implementing Departments	Convergence with agency/program	Time Frame
Safety audit of existing and proposed housing stock in risk prone areas	Flood risk prone villages	TDO, Rural development	IAY, SardarAwaas and other rural housing schemes	Regularly
Promotion of Traditional, local and innovative practices like bamboo/plastic bottle rafts etc	Flood risk prone 17 villages	TDMC, SHGs and youth groups, NGOs	Training and capacity building plan for disaster management	2016-17
Capacity building of volunteers and technicians	Flood risk prone 17 villages	TDMC	Training and capacity building plan for disaster management	2015-16
Awareness generation on health and safety of livestock	Flood risk prone 17villages	Block veterinary officer, rural development	Departmental Scheme	Regularly

#### Structural Mitigation Measures for Cyclone

Structural measures	Identified Locations and Villages	Implementing Departments	Convergence with Scheme/Program	Time Frame
Plantations (mangroves) and Shelter Belt in the Coastal Area	Cyclone prone 43 villages	Forest department, Port Authority, DIC, TDO,Rural development department	Departmental schemes, MGNREGS	2016-17
Identification and repair/ retrofitting of houses and buildings unsafe for cyclone		R&B (ZilaPanchayat)	Departmental Scheme	Regularly

Note: Jageshwar, Rahiyad, Suva, Kaladara, Khanpur&Katopar have been taken up in National Cyclone Risk Mitigation Program. (NCRMP) (Land allotted for Cyclone Shelter)

#### Non-Structural Mitigation Measures for Cyclone

Non-Structural measures	Location/ coverage area	Implementing Departments	Convergence with agency/ program	Time Frame
-------------------------	-------------------------	--------------------------	----------------------------------	------------

<b>Non-Structural measures</b>	<b>Location/ coverage area</b>	<b>Implementing Departments</b>	<b>Convergence with agency/ program</b>	<b>Time Frame</b>
Strengthening of Early warning mechanisms	Cyclone prone 43 villages	DDMC, TDMC		Regularly
Training and awareness generation for use of safety jackets/rings/buoys/rope etc for fisher folks		DDMC, TDMC, VDMC	TDMP	2016-17
Enforcing strict compliance to coastal regulation zone		Department of Environment & Forest		2016-17
Registration of fishing boats		Fisheries Department		2016-17
Regulate and issue orders for poor quality hoardings/buildings or any other objects		R&B Department		2016-17

### **Structural Mitigation Measures for Earthquake**

<b>Structural measures</b>	<b>Identified Locations and Villages</b>	<b>Implementing Departments</b>	<b>Convergence with Scheme/ Program</b>	<b>Time Frame</b>
Retrofitting (if required) of public utility buildings like offices, schools/ banks/ markets etc	Whole District	R & B (State and Panchayat), Panchyat, Rural department		2016-17
Retrofitting of unsafe rural houses		DDMC, DDO	Rural housing schemes and departmental programs	2016-17
Identifying and safely dismantling unsafe structures		R & B department		2016-17

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

<b>Non-Structural measures</b>	<b>Location/ coverage area</b>	<b>Implementing Departments</b>	<b>Convergence with agency/progra m</b>	<b>Time Frame</b>
Capacity building of architects, engineers and masons on earthquake resistant features	Whole district	R & B (State and Panchayat), DDMC		2016-17
Registration of trained and certified mason		R & B (State and Panchayat), DDMC		2016-17
Strict enforcement of guideline pertaining to seismic safety for government rural housing		DDO	Rural housing schemes	2016-17
Mock-drills for Schools, Hospitals and , Public Buildings and trainings for mason, engineers and architects		DDMC, Schools		2016-17

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

<b>Structural measures</b>	<b>Activities</b>	<b>Implementing Departments</b>	<b>Convergence with agency/ program</b>	<b>Time Frame</b>
Monitoring impact of industries on NRM (land, water and air)	Data collection of impact on natural resources (ground water monitoring wells, air quality test, etc)	DDMC, TDMC, LCG , GPCB		Regular interval
Safety assessment	Carry out structural safety inspection/audit	DISH, DCG, LCG ( Dy. Industrial safety and health)		Regular interval

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

<b>Non tructural Measures</b>	<b>Activities</b>	<b>Implementing Departments</b>	<b>Convergence Agencies</b>	<b>Time Frame</b>
Planning	Prepare an onsite and offsite emergency plan	Occupier, DISH		2016-17
	Conduct mock drills as per the regulations	DCG, DISH and LCG		regular interval
	Update the plan as per the requirement	Occupier, DISH		regular interval
	Monitor similar activities	DISH and LCG		regular interval

Non structural Measures	Activities	Implementing Departments	Convergence Agencies	Time Frame
	in all the factories/ industries			
Capacity Building	Develop IEC material for Publication & Distribution	DDMC, TDMC		2016-17
	Awareness generation to general public and medical professional residing near MAH factories for immediate steps	DDMC, TDMC, LCG		2016-17
	Organize training programmes, seminars and workshops (e.g. for drivers of HAZMAT transport, line departments officers, Mamlatdar etc)	DDMC, TDMC, LCG		2016-17
	List of experts/ resource person/ subject specialist (District emergency Off site plan)	DDMC, TDMC, LCG		2016-17
	Encourage disaster insurance	Labour & employment department		2016-17
Medical	Listing of hazardous chemicals and gases.	Occupier, DCG, LCG, DISH, BHO		2016-17
	Keep check on availability and validity of relevant antidotes for chemical hazards prevalent in District	Occupier, DCG, LCG, DISH, BHO		2016-17
	Workshops and trainings for medical professionals to handle potential chemical and industrial hazard	BHO, DCG, Occupier, LCG, DISH		Regularly
Compliance	Environmental Protection Act, Factory Act, Mutual Aid SOPs	DISH, GPCB		Regular interval
	Any other			

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

which includes District Collector, SDM and Dy. Collector, DDO, Dy. Director – Industrial Safety & Health, DSP, PI, Fire Superintendent of the City Corporations or important Municipalities, Chief District Health Officer, Civil Surgeon, SE, Chief Officer, Dy. Chief Controller of Explosives, Commandant – SRPF, Group-I, Dy. Director – Information, Manager DMC Dahej & Ankleswar and to name a few. At Taluka level Local Crisis Management Group (LCG) is formed for coordination of activities and execution of operations.

#### 4.4.2 Mainstreaming Disaster Risk Reduction (DRR) in Development Context

Mainstreaming DRR concerns in development planning can guide the allocation of resources towards the protection of life and assets, restoration of productive systems and livelihoods, regaining market access, rebuilding social and human capital and physical and psychological health. Development plans therefore take on a critical role in disaster risk management. The process of mainstreaming DRR into development planning needs to have appropriate tools and methodologies along with political commitment, public understanding, scientific knowledge and expertise.

National and state level development schemes play a crucial role for the socio-economic development of the community. These schemes target huge population every year with large amount of funds for their implementation. Thus, there is tremendous potential for reducing vulnerability & risks through integration of DRR in national schemes through structured framework and operational measures

Some key measures at policy level and delivery mechanism that can be incorporated in these national and state schemes are tabulated below. *(DDMC should emphasis on these issues in periodic meeting and incorporate relevant activities in the DDMP)*

#### Scope of integrating DRR in development schemes

(Suggested for Departments and schemes to incorporate in their plans)

Sector/National and State Schemes	Action Points (Probable)
<b>Housing and public buildings</b> 1. IAY (Indira Awaas Yojana) 2. Sardar Awaas Yojana 3. Other Housing Programmes	<ul style="list-style-type: none"> <li>• Safety audit of existing housing stock</li> <li>• Establishing Technology Demonstration Units for public education and awareness.</li> <li>• Certification of masons and creating database of master trainers.</li> <li>• Strengthen compliance and enforcement procedures of local building laws in the hazard prone areas</li> <li>• Adding construction elements for special needs groups in design and planning of all public buildings and mass housing projects</li> </ul>
<b>Water and Sanitation</b> 1. National Rural Drinking Water Programme (NRDWP) 2. Swajaldhara and WASMO Projects, 3. Total Sanitation Campaign	<ul style="list-style-type: none"> <li>• Rainwater Harvesting</li> <li>• Water recharge and conservation</li> <li>• Flood mitigation- retaining wall, strengthening embankments etc</li> </ul>
<b>Employment and NRM</b> 1. Pradhan Mantri Gramodaya Yojana (PMGY) 2. Mahatma Gandhi National	<ul style="list-style-type: none"> <li>• Prioritising and taking up works for flood control drought proofing</li> <li>• Land development including plantation</li> <li>• Revival of traditional water harvesting structures</li> </ul>

## Chapter 4 Preparedness, Prevention & Mitigation Measures

Sector/National and State Schemes	Action Points (Probable)
Rural Employment Guarantee Scheme (MGNREGS) 3. Integrated Watershed Management Programme (IWMP)	including treatment of catchment
<b>Health</b> 1. NRHM(National Rural Health Mission) 2. Food for Work Programme (FWP) 3. National Food Security Mission (NFSM) 4. GVK EMRI 108 Ambulance Service State AIDS Control Programme	<ul style="list-style-type: none"> <li>• Developing emergency plans and conduct mock drills in hospitals</li> <li>• Developing projects on community monitoring and reporting in major health and food security schemes.</li> </ul>
<b>Education</b> Sarva Siksha Abhiyan (SSA)	<ul style="list-style-type: none"> <li>• Upgradation of infrastructure for DRR,</li> <li>• Special needs of vulnerable groups including disabled children in design of school building, amenities and learning processes</li> <li>• Development and dissemination of learning material on risk awareness, preparedness and preventive measures in school</li> <li>• Curricula and integration of DRR modules in the regular training course of the “Teachers Training Institutes”</li> <li>• Training in life saving skills such as first aid, search and rescue, swimming to the school children, teachers and education administrators</li> <li>• Preparing disaster preparedness plans and conducts mock drills through School Management Committees (SMC).</li> </ul>

### 4.4.3 Risk Transfer / Risk Distribution

Risk transfer or risk distribution refers to compensation cover against loss of life or assets in case of any disaster event. Insurance and reinsurance mechanisms and products against natural and manmade disasters have rapidly evolved in last decade. According to UNISDR, “Insurance is a well-known form of risk transfer, where coverage of a risk is obtained from an insurer in exchange for ongoing premiums paid to the insurer. Risk transfer can occur informally within family and community networks where there are reciprocal expectations of mutual aid by means of gifts or credit, as well as formally, where governments, insurers, multi-lateral banks and other large risk-bearing entities establish mechanisms to help cope with losses in major events. Such mechanisms include insurance and re-insurance contracts, catastrophe bonds, contingent credit facilities and reserve funds, where the costs are covered by premiums, investor contributions, interest rates and past savings. Linkages with government insurance schemes like Rashtriya Swasthya BimaYojana, Aam Admi Bima Yojana can be extensively taken up for risk transfer. Linkages can

be done for teaching staff and children with existing insurance schemes. Livestock insurance can also be taken up through animal husbandry department. Coverage of crop insurance should be increased specifically for small and marginal farmers. Weather/rainfall insurance can also be explored with various existing schemes. *(DDMC should draw up their own risk transfer/distribution framework and action plan in this regard)*

#### Institutional Plans

**Each line department and important institutions at Taluka level should have disaster management plan in coordination with DDMC. The plan shall be comprehensive and include aspects of mitigation, preparedness and response.**

The objective of the plan will be to: –

- Identify risks, vulnerabilities and capacities within the school premises
- Identify potential support agencies near the school.
- Prepare an action plan for capacity building- schedule of trainings, mockdrills
- Prepare evacuation plan for emergency,
- Enlists procedures and measures for all round safety: fire, labs etc
- Generate data bank, which will have important contact numbers, contact persons, etc.
- Prepare stock pile of life saving tools, medicines/first aid, clothing material

A Taluka level forum for safe schools should be promoted to enhance peer to peer learning process and share experience and good practices for safe schools.

#### **Departmental Information (linkages with other stakeholders):**

**The mitigation strategy of the district plan can be linked to the Indira AwasYogna to ensuring that all new houses that are built contain seismic safe features and the mason's building these houses are trained in seismic safe construction. This is one example, other examples are: flood and cyclone shelter to be constructed from the existing developmental Programme, rising of the platform of school building etc. some of them are listed:**

- 1. Raising platform for new building in low lying or flood prone areas.**
  - 2. Alternate income generation activities to the risk group through District Panchayat's Sakhi Bachat Mandal and Self help Groups.**
  - 3. Raising the platform of tube well in flood and cyclone areas.**
  - 4. Strengthening and abiding the local coping mechanism.**
  - 5. Construction of high raised platforms from Forest for animal resources.**
  - 6. Road & bridges to be constructed and repair based on to reduce the vulnerability.**
  - 7. Provision of communication facility to the vulnerable areas.**
  - 9. Developing the skill and capacity of various DMTs to meet the disasters.**
- Linking of the departmental plans with long term developmental activity in the district as well as regular updating and mock drills can ensure long term sustainability.**



## Chapter 5

# Recovery Measures





## Chapter 5

### Recovery Measures

Disaster recovery is viewed by some people as a fight against nature to restore order in a community. However, the disaster recovery process is not a set of orderly actions triggered by the impact of a disaster upon a community. Rather, disaster recovery is a set of loosely related activities that occur *before, during and after* a disastrous event. These activities can include:

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

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

Search and Rescue, Damage Assessment, Public Information, Temporary Housing, Utility Restoration and Debris Clearance are essential elements of short-term recovery. The efficacy of their implementation affects long-term decisions.

Long-term recovery begins when a community starts to repair or replace roads, bridges, homes, and stores. It is also the period where improvement and changes for the better such as strengthening building codes, changing land use and zoning designations, improving transportation corridors and replacing “affordable housing” stock are considered. Whether they are considered during pre-disaster planning or short-term post-disaster recovery, it is during the long-term recovery period that most changes in pre-existing conditions can and do occur. Changes that include sustained efforts to reduce loss of life and property from the next disaster, such as changes to building codes and land use designations are examples of mitigation.

#### **5.1. Immediate and Short Term Recovery Detailed damage & loss assessment**

While a preliminary damage assessment is carried out during disaster phase, a detailed assessment must be conducted before commencing reconstruction and rehabilitation activities. The relevant Government departments and local authorities shall initiate detailed assessment at their respective level for damages sustained in housing, industry/services, and infrastructure, agriculture, health / education assets in the

affected regions. Immediate recovery can continue from a day to two months, depending upon the extent of damage.

#### **5.1.1) Restoration of Basic Infrastructure**

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

##### **a) Roads and Bridges**

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

Responsible Department: R & B (State & Panchayat)

##### **b) Drinking Water Supply**

Restoration of Drinking Water supply has to be done by setting up of new hand pumps, tube wells or setting up of piped water supply in areas with no access to potable water. In case of floods, setting up of raised hand pumps is required.

Responsible Department: Electricity Department & Water supply Department

**c) Electricity:** Restoration of power supply is also critical to immediate recovery.

Responsible Department: Electricity Department

**d) Communication Network:** In times of disasters, communication networks may be disrupted. The networks of mobile services providers have to be put back in operation at the earliest to make search and rescue easier, as well as to expedite coordinated response measures.

Responsible Department: BSNL & Mobile Service Provider, Electricity Department

##### **e) Reconstruction & Repair of Lifeline Buildings**

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

- Collectorate
- Line Department Buildings
- Block Offices
- Hospitals

##### **f) Rehabilitation**

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

### **g) Mass Care/Sheltering and Housing**

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

### **h) Food**

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

### **i) Debris Removal and Disposal of Dead Bodies**

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

### **j) Drainage and Sewage**

Drainage and sewage systems will have to be quickly re-established to decrease inundation from floods, spread of diseases and epidemics and maintaining hygiene.

### **k) Health Care**

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

### **l) Livelihood Recovery**

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

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

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

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

## Chapter 5 Recovery Measures

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

### **Mitigation Activities**

As a part of conducting a detailed damage and loss assessment, an assessment of prospective risks and vulnerabilities will also have to be done. For example, refurbishing of embankments or retrofitting of houses and other buildings...recently Bharuch District has been covered in the NCRMP project.

### **B. Long Term Recovery**

Long-term recovery must be complete in 2 months to 24 months time.

#### **i) Housing**

Development of permanent housing solution for victims will happen during this period. The construction of houses for victims identified under Indira Aawas Yojana and Sardar Awas Yojna shall be undertaken during this time.

### **5.1.2 Reconstruction and Repair**

#### **a) Infrastructure**

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

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

Responsible Department for Hospitals: Health Department & R & B

Responsible Department for Schools: Education Department & R & B

#### **b) Economic Infrastructure**

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

#### **c) Livelihood Recovery**

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

i) Livelihood Promotion: To initiate and strengthen livelihoods to be more economically and environmentally sustainable as well as more resilient to future disasters.

In this long term recovery effort, focus is on **livelihoods diversification**, creation of alternate income generating activities, providing financial services such as loans and insurance, and strengthening forward linkages with markets for existing and new livelihoods.

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

### 5.1.3 Restoration of Essential Services and Infrastructure

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

#### Power

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

To be planned after initial damage assessment by departments

#### Health

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

## Chapter 5 Recovery Measures

To be planned after initial damage assessment by departments

### Social

People in need of immediate rehabilitation including psychosocial support (due to disaster)

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

### Water Supply

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

### Road and Transport

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

## Chapter 5 Recovery Measures

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

### Communication

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

### Food Supply

#### List of village affected by disruption in food supply

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

### Housing

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

## Chapter 5 Recovery Measures

### Public Utilities

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

### 5.1.4 Restoration of Livelihood Provisioning of Employment

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

### Land Improvement

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

### Agricultural

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



## Chapter 5 Recovery Measures

### Non-farm livelihood

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

### Shops and establishment

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



## Chapter 6

# Financial Arrangement



## **6.1 Sources of Funds**

### **Funds available at the National and State Level**

1. **The Ministry of Finance** has allocated funds for strengthening Disaster Management Institutions, capacity building and response mechanisms, as per the recommendation of 13<sup>th</sup> Finance Commission.

#### **2. Prime Minister's Relief Fund:**

At the National level, Prime Minister's Relief Fund was created shortly after Independence with public contribution to provide immediate relief to people in distress for:

- a. Immediate financial assistance to victims and next of kin.
- b. Assist search and rescue.
- c. Provide Health care to the victims.
- d. Provide Shelter, food, drinking water and sanitation.
- e. Temporary restoration of roads, bridges, communication facility and transportation.
- f. Immediate restoration of education and health facilities.

#### **3. Chief Minister Relief Fund:**

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

#### **4. Calamity Relief Fund**

To provide for relief for famine, drought, floods and other natural calamities, funds are provided in the state budget under the head “**2245-Relief on account of Natural Calamities**”. Besides establishment charges, funds are provided for the grant of gratuitous relief in the shape of concessional supply of food, cash payment to indigent persons, cash doles to disabled supply of seed, fodder, medicines, prevention of epidemics, provision for drinking water, transport facilities for goods and test relief works. Funds are also provided to meet unforeseen expenditure in connection with the natural calamities and other allied purposes.

## **6. Finance and Budgeting**

Budget planning is a comprehensive exercise for annual financial planning. For Disaster Management, there can be two categories of budget heads—

- a) Line Department's own fund through various schemes and programmes;
- b) Additional budget required particularly for DM activities.

## Chapter 6 Financial Arrangement

The following are the sources available (or to be tapped) for different components of disaster management:

Name	Purpose	Finance Arrangements	Activities that can be take under scheme	Nodal Agency
NDRF (NCCF)	Relief Assistance	100% Central Govt	Cash and kind relief	Revenue Department
SDRF (CRF)	Relief Assistance	75% Centre, 25% State	Cash and kind relief	Revenue Department
Planning Commission (13 Finance commission) Year 2011-15	Capacity Building	100% Centre	Training Awareness Generation IEC material Mock drills	Revenue Department
State Fund	Capacity Building	100% State	Training Awareness Generation IEC material Mock drills	GSDMA
Line Department funds	Preparedness and mitigation	Line department budgetary allocation	Activities falling in purview of departments for DRR, Preparedness and mitigation	Line Departments
District Planning Fund	Any public works	MP and MLA aid and grants	Preparedness, Mitigation capacity building, recovery	Local Bodies, Line departments
External Institutional Funding	Projects on DRR, Recovery, Mitigation and Preparedness	Total external or bilateral or multilateral arrangements	Infrastructure upgradation Technological interventions and technical studies DRR projects	Revenue Department
Donor	Any	Total donation in cash and kind	Any	DDMA/TDMA
CSR	Corporate	2 % of profit	Any	Charity Commissioner and Corporate
Appeal	Immediate relief	Fully or partially external funds	Immediate relief, reconstruction	DDMA/TDMA

At the Taluka level, the budgeting for various activities should be planned and incorporated in the TDMP or the Taluka Disaster Management Plan after aligning itself with respective activities of line departments and other agencies. The activities proposed in various sections of this plan (mitigation, capacity building, recovery, etc.) need to be budgeted and reflected in the following format. The Budget source column indicates tentative source of funding (it may be line department funds or additional funds from above mentioned sources)

## Chapter 6 Financial Arrangement

### Budgetary requirement of Human resource and materials (tools, equipments and plants)

<b>Requirement resource</b>	<b>Human</b>	<b>Specification</b>	<b>Remarks</b>
1. Taluka level (Manpower)	Staff	Full time person responsible for facilitating for Relief & Response work	Salary as per govt. norms
1.		As per Requirement	



## Chapter 7 Maintenance Plan



## Chapter 7 Maintenance Plan

### **7.1 Introduction**

Plan maintenance is a dynamic process of updating the plan on a periodic basis. The backbone of maintaining the plan is carrying out mock drills and updating the plan based on lessons learnt thereof. This is a method of identifying the gaps and putting in place a system to fill the same. Regular updating of stakeholder details, contact numbers and resource inventory is another inherent and essential function of plan maintenance.

The District Administration, Bharuch constituted a special committee under the Supernumerary Assistant Collector, with designated nodal officers for the same in 2013 to undertake an overall updation exercise of the DDMP. Vulnerabilities newly brought to the attention of the district administration as a result of the disasters in Bharuch in the last year and lessons learnt have been incorporated. Detailed meetings with Line Departments and Nodal officers have also brought forth important lessons for Disaster Risk Mitigation and Reduction. These will be incorporated in this plan, and put up for discussion for dovetailing with development plans in the district. This will ensure that the element of Disaster Mitigation achieves due attention in all important aspects of administration.

### **7.2 Plan Testing**

The Commissioner of Relief and the Collector shall prepare, review and update the District level Disaster Management plan as provided for in the GSDMA Act (Section 22 (1) (C)). He/She shall also ensure that disaster management drills and rehearsals are carried out periodically.

While updating the plan the following aspects need to be considered by the Collector every year:

- i) Critical analysis of the outcome of exercises & mock drills as part of plan testing.
- ii) Incorporation of lessons learnt in the updated plan as a result of recommendations received from different stakeholders and as a result of mock drill exercises conducted.
- iii) Regular updation of the resource inventory and key infrastructure available in the district, and their updation on the SDRN.

The plan must be thoroughly tested and evaluated on a regular basis, at least twice a year. The plan testing should preferably be organized on the first Monday in the months of April and October every year.

After plan testing and incorporation of lessons learnt, the Collector should send a copy of the revised and updated plan to the following officials:

- (a) Chief Secretary, Government of Gujarat
- (b) Chief Executive Officer, Gujarat State Disaster Management Authority
- (c) Principal Secretary, Revenue Department
- (d) Head of all Line Departments
- (e) State Emergency Operation Center
- (f) District Emergency Operation Center
- (g) Taluka Officers

- (h) ERCs
- (i) IMD
- (j) CWC/ACWC

The main objectives of plan testing are to:

- (i) Determine the feasibility and compatibility of back up facilities and procedures.
- (ii) Identify areas in the plan that need modification.
- (iii) Identify training needs of key stakeholders.
- (iv) Assess the ability of the organization/department to respond to disaster threats.

All departments that have specific roles and responsibilities in the DDMP must have a system to ensure that all Officers of their departments who have a specific role to play are fully conversant with their responsibilities/tasks.

### ***7.3 Debrief and Evaluation-Mock Drills***

- After the mock exercise, debriefing and evaluation is very important. It is of critical importance that insights are collected from participants and use them to modify the plan.
- Debriefing is very effective as it is carried out immediately after the exercise. It also includes documentation in terms of recommendations and improvements of the plan.
- The lessons learned from the mock exercise are likely to be similar to those from real events. The only major difference is that exercises are controlled events, specifically designed to test procedures and they can be repeated again and again until sound/workable arrangements are in place.

### ***7.4 Review / Updation of Plan***

The Disaster Preparedness and Response Plan should be reviewed and updated regularly, based on inputs as under:

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

GSDMA and all other concerned Depts. should encourage formal and informal interaction with various stakeholders at different levels to learn and document their experiences, so that such experiences can contribute constructively towards updation of the DDMP for further improving the capacity and capability to deal with future Disasters.

#### **Yearly Updation:**

The Collector can, once a year, before the onset of the monsoon season, review in the monthly RO and Coordination Committee meetings, the level of disaster preparedness of different agencies and Line Departments. The Collector can direct Line Departments to submit plans of works executed during that year and add the relevant ones to their documentation of works undertaken under Disaster Risk Reduction.





## Chapter 8

# Past Incidents - Experience



### **8.1 Flood Situation (28/8/2020 to 5/9/2020)**

Heavy rain took place in catchment area of Narmada River from the mid august and as a counter effect water released from Sardar Sarovar Narmada Dam at Kevadiya colony so heavy flood raised in low lying areas of old Bharuch and Ankleshwar city and villages near shore area in Bharuch District from 28/8/2020 to 5/9/2020 .Narmada river was flowing between 7 to 10 feet above the danger level from 28<sup>rd</sup> August to 05<sup>th</sup> of September.

#### **Past Incidents Surrounding Pipelines and Measures Undertaken:**

- On 25<sup>th</sup> August 2013, there was explosion in the DUPL natural gas pipeline of GAIL and breakage in the 26” gas pipeline of RIL. This was followed by incident of oil leakage in the ONGC pipeline on 28<sup>th</sup> August 2013.
- District Administration issued an order of immediate shutdown of all pipelines in Bharuch District. District Crisis Group (DCG) Meeting was called on 26<sup>th</sup> August 2013; all pipeline operators were asked to verify structural safety of their pipelines and submit safety undertakings.
- On 31<sup>st</sup> August 2013, a show-cause notice was issued to ONGC by the District Administration for non-compliance of safety conditions and failing to give notice of incident. GPCB also issued notices to GAIL, RIL for failing to intimate the concerned authorities about the incident and lapses in safety procedures.
- On 1<sup>st</sup> September 2013, an Independent High-Level Technical team, i.e. M/S CEIL, Mumbai appointed by Energy & Petrochemical Department. Crude oil trapped in river section was displaced by ONGC. ONGC also conducted churning of oil in affected area by boats up to 13<sup>th</sup> Sept 2013
- Review and policy meeting was organized by GSDMA on 22<sup>nd</sup> November 2013 to discuss policy vacuum and multiplicity of laws and agencies granting ROU to pipeline operators.

As soon as the flood forecasting received from CWC, TAPI Division Surat prompt necessary action for evacuation of people from nearby villages and low lying area in Bharuch city started. Quick responses Team each at Bharuch and Ankleshwar kept in standby to cope with any emergency flood situation. Two team of fire fighters from Surat Municipal Corporation also deployed in each city. More relief team called as per situational demand. 2 teams of NDRF. Nearly 1511 people evacuated and relocated to relief camps at the same time around 600 livestock also evacuated. Food packets, pure drinking water provided in relief camps, quality of food was also checked by the team of food & drugs authority.

As far as situation improves Medical & paramedical teams were given task to quick & prompt action required to take preventive measures for health and sanitation in affected areas. Team of Sweepers had also been called from SMS and VMC for quick cleaning of villages and societies affected due to flood water.

Necessary instruction was given to respective officers for requirements of equipments for cleanliness and dewatering of affected area. Chlorine tablets for purification of water and medical paramedical team formed by CDHO to cope with after flood situation. Vaccination has also been done to the livestock as per requirements.

Survey for cash dolls assistance to be provide to affected people started by forming teams. And payment to the affected also started and around 200 relief kits distributed by leading industries of Bharuch district.

## **8.2 Experience Sharing: Flood Situation (28/8/2020 to 05/9/2020)**

Due to heavy rainfall across Bharuch district as well as the catchment area of Narmada River since 28<sup>nd</sup> August 2020, a serious flood situation had arisen in Bharuch. Narmada river was flowing 11.5 feet above the danger level as measured at the Golden Bridge on 1<sup>th</sup> September 2020. A natural way of this rainwater being diverted to the river was hence not possible.

A total of 12 human casualties were registered during this disaster situation in Bharuch district. Water ingress was recorded in 77 housing societies of Bharuch city and outskirts. 46 different roads under the Panchayat department, of the length of 307 km were found damaged; and at the same time, 82 km of State highways were also damaged at seven different locations.

For rescue operations, 2 Teams from NDRF were called for timely rescue operations. All teams were promptly deployed wherever required in the district..

In total, 163 Medical & paramedical teams were directed to take quick & prompt action for preventive measures for health and sanitation in affected areas. At the same time, the distribution of cash dole assistance was also undertaken by deploying 34 teams. A total of 37 buildings found dangerous during inspection by the teams of R & B Engineers were also evicted as a precautionary measure.

Representatives of Oil/Gas pipeline operators like ONGC, IOCL, GSPC, GAIL and Reliance were called by District Administration and instructions were issued to them for safe operation of their respective lines. Instructions were also issued to DPMC Ankleshwar, DMC Dahej and various Industries' Associations to take proper measures and precautions for safety. Parts of the National Highway passing through Bharuch district was found damaged at various locations, resulting in heavy traffic jam on the National Highway. Hence, from 09<sup>th</sup> September 2020, the toll collection at Narmada Bridge was withdrawn till further communication.

Moreover, during the course of this disaster, storm water accumulated near 220 KV substation of GETCO near Haldarava village, and due to absence of any way to drain off this water, power supply to Bharuch city was cut off. On 03<sup>th</sup> September 2020, rainwater was manually drained off with the help of JCB machines. A similar situation occurred in the 66 KV Substation in Palej causing shutdown of operations there. For this purpose, a heavy-capacity dewatering pump was provided and operation was restored immediately.

\*\*\*\*\*



# Annexures



Flood affected villages by Narmada River

Ankleshwar Taluka

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Holds	Drinking Water Facility	Electricity
1	Juna Chhapra	1335	110	Patel Faliyu	Sarpanch Talati	9925723931 7046912100	256	287	Yes	Yes
2	JunaHaripura	1470	284	Nava HariPura Primary School	Sarpanch Talati	7359963094 9979303925	652	338	Yes	Yes
3	Sajod	3851	50	SajodHighschool	Sarpanch Talati	9106548150 9924865980	250	851	Yes	Yes
4	Taria/ Tariya bavli	3474	295	Primary School Vadava	Sarpanch Talati	9558295495 9233318270	125	708	Yes	Yes
5	Juna Borbhatha Bet	4680	2000	Golden Bridge	Sarpanch Talati	8349966526 7574806507	235	996	Yes	Yes
6	Juna Diva	5584	1300	Bhathiji Temple	Sarpanch Talati	8140025712 9033933088	252	1192	Yes	Yes
7	Juni Divi	125	250	Jalaram Temple	Sarpanch Talati	7569663448 8980012612	258	581	Yes	Yes
8	Juna Bor Bhatha Gam	1176	300	Jalaram Temple	Sarpanch Talati	7096522307 7574821166	254	252	Yes	Yes
9	Sarfuddin	416	350	Jalaram Temple	Sarpanch Talati	9712729700	125	82	Yes	Yes
10	JunaPungam	2017	205	Primary School Nava Pungam	Sarpanch Talati	9904612471 7990060108	125	448	Yes	Yes
11	Juna Sakkarpor / Khalapiya	2935	1600	Nava Sakkarpor own Village	Talati Sarpanch	9924865980 9099074951 8140511371	425	580	Yes	Yes
12	Juna Kasiya	3686	989	Nava Kaiya & Primary School	Talati Sarpanch	7574821123 9924381291	253	755	Yes	Yes
13	Dhaturiya Koyali /	4717	1882	Primary School /Nava Dhanturiya	Talati Sarpanch	9662086457 8155069447	258	993	Yes	Yes

Annex.-A2 Bharuch Taluka

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Hold	Drinking Water Facility	Electricity
1	Dasan Dasan Bet	963	339	Primary School	Sarpanch Talati	7201023579 8980914999	44	193	Yes	Yes
2	Mangleshwar Kabirwad bet	1938	202	Community hall, primary school.	Sarpanch Talati	8866721767 7046767999	80	393	Yes	Yes
3	Zanor	7251	1825	Primary School (boys & Girls)	Sarpanch Talati	9512998543 7567373522	50	1622	Yes	Yes
4	Nava Tavera	6588	3622	Primary School High school	Talati Sarpanch	8140421762 9879293798	50	1366	Yes	Yes
5	Angareswar	1846	666	Primary School Community hall	Talati Sarpanch	9624510418 9687269940	52	398	Yes	Yes
6	Nikora	4563	1772	Primary School High school	Talati Sarpanch	9638894804 9825764537	63	955	Yes	Yes
7	Sukaltirth	7502	2500	Primary School	Sarpanch Talati	9825660043 7600462947	90	1582	Yes	Yes
8	kadod	465	335	Nava Sukaltirth Sukaltirth	Sarpanch	9426132505	60	80	Yes	Yes
9	Mangleshvar	1938	202	Community Hall Primary School	Sarpanch Talati	8866721767 7046767999	250	393	Yes	Yes
10	Sindhhot	963	154	Primary School	Sarpanch Talati	9662296993 9714080154		208	Yes	Yes
11	Vadava	610	6360	Primary School	Sarpanch Talati	9824076268 9427470638	350	114	Yes	Yes
12	Karjan	1350	580	Primary School	Sarpanch Talati	8141084024, 9712364956 9737022724	200	287	Yes	Yes

Annex.-A3 Jhagadia Taluka

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name Of Contact Person	Contact Number	Shelter Capacity	Details of House hold	Drinking Water Facility	Electr icity
1	Patar	56	54	Bhalod high school	Sarpanch Talati	8155988639 9825237122	100	13	Yes	Yes
2	Juni Tarsali	2691	497	Bhalod village highschool.	Teacher Sarpanch	9979695689 9574719288	100	438	Yes	Yes
3	Juna Tothidra	510	270	Bhalod village highschool	Sarpanch Talati	8758718761 7096874835	100	108	Yes	Yes
4	Bhalod	3476	171	Bhalodhighschool.	Sarpanch Talati	9574033287 8866186904	100	789	Yes	Yes
5	Kakalpor	613	10	High area.	Sarpanch Talati	9924176352 9726800986	200	129	Yes	No
6	Sarsad	1024	10	High area	Talati Sarpanch	9687395085 9978289168	200	216	Yes	No
7	Karasanpar i	625	10	High area	Talati Sarpanch	9726800986 9904140353	200	141	Yes	No
8	Limodra	2314	55	Hanumanji temple, jhagadia.	Sarpanch Talati	7574892618 7575894118	250	470	Yes	Yes
9	Uchadia	2438	48	Gumandevtempe l.	Sarpanch Talati	9979047295 9898085573	200	538	Yes	Yes
10	Govali bet	4389	490	Own villages.	Talati Sarpanch	8140724690 7600675503	10	994	No	No
11	Madhi-jhagadia	34	0	Hanumanji temple, jhagadia.	Sarpanch Talati	9426989967 9924037196	250	NA	Yes	Yes
12	Mota vasana	599	250	High area	Sarpanch Talati	9099307602 9408175504 9624813386	300	130	No	No
13	Nana vasana	770	300	Primary school	Talati Sarpanch	9409392712 9879386982	250	156	Yes	Yes



14	Ore	626	449	Bhalod village highschool	Sarpanch Talati	8155988639 8153822695	100	137	Yes	Yes
15	Juna pora	209	80	Nava pora village	Sarpanch Talati	9099608348 9924601745	50	41	Yes	Yes
16	Indor	2647	25	Primary school	Sarpanch Talati	9726994852 9913820022	256	551	Yes	Yes
17	jarsad	681	25	Primary school	Sarpanch Talati	7874782057 9687716195	350	145	Yes	Yes
18	Vadhvana	431	329	Primary school	Sarpanch Talati	974653856 7226800986	300	91	Yes	Yes
19	Velugam	1936	325	Primary school	Sarpanch	9714625235	256	407	Yes	Yes
20	Panetha	3951	125	Primary school	Sarpanch Talati	8347082144 9359113091	215	912	Yes	Yes
21	Vanakpor	2153	325	Primary school	Sarpanch Talati	7698901311 7567966389	236	427	Yes	Yes

**Ann.B Dhadhar Rivera Affected Villages:-Jambusar Taluka**

S.No	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Number	Contact Number	Shelter Capacity	Details of House hold	Drinking Water Facility	Electricit y
1	Asarol	841	167	Primary school	Sarpanch	7567527670	300	149	Yes	Yes
2	Kundal	477	184	Primary school	Sarpanch	9726450552	100	114	Yes	Yes
3	Bojedara	1621	1707	Primary School	Sarpanch Talati	9723778895 9427333106	300	350	Yes	Yes
4	Nada	2697	796	Primary School	Sarpanch Talati	9879145785 9427917529	50	612	Yes	Yes
5	Devla	4435	1378	Primary School	Sarpanch Talati	9727110135 9429036829 9726573553	100	897	Yes	Yes
6	Bhadkodra	3612	504	High school	Sarpanch Talati	9512936275 9558554405	350	623	Yes	Yes

7	Sigam	2551	1433	Primary School	Sarpanch Talati	9537262681 8469363058	200	565	Yes	Yes
8	Muradpur	560	150	Primary School	Sarpanch	9978786881	175	141	Yes	Yes
9	Kavi	10428	2745	Primary School	Sarpanch Talati	9714859604 8000159630	50	2182	Yes	Yes
10	Jantran	2535	711	Primary School	Sarpanch Talati	9558887570 9879530265 8128356054	300	547	Yes	Yes
11	Modafar-Neja	1582	646	Primary School	Sarpanch Talati	9662649366 9574371456	200	295	Yes	Yes
12	Tankari	1624	315	High school	Sarpanch Talati	9909074041 9727750225	62	315	Yes	Yes
13	Khanpur	4031	2156	Primary School	Sarpanch Talati	9998252988 9909403855	250	748	Yes	Yes
14	Mahapura	519	303	Primary School	Sarpanch Talati	9978756281 8511169368	120	108	Yes	Yes
15	Magnad	3613	1212	Primary School	Sarpanch Talati	9825663771 9537159551	400	781	Yes	Yes
16	Jambusar	43344	-	High school	Nagarpalika	02644222460	60	8343	Yes	Yes
17	Koteshvar	813	200	Primary School	Sarpanch	9898093398	200	172	Yes	Yes
18	Nobar	1819	256	Primary School	Sarpanch Talati	8141098641 9427333314	125	389	Yes	Yes
19	Uber	3702	1418	Primary School	Sarpanch Talati	9913828352 8758782266	250	830	Yes	Yes
20	Nondhana	1546	2561	Primary School	Sarpanch Talati	9825011211 9512237320	254	370	Yes	Yes
21	Jafarpura	672	459	Primary School	Sarpanch	9624310427	120	141	Yes	Yes
22	Kapuriya	413	256	Primary School	Sarpanch Talati	7359358253 9824527558	156	90	Yes	Yes
23	Malpur	1076	1055	Primary School	Sarpanch Talati	9726340287 9426287737	100	182	Yes	Yes
24	Vad	468	586	Primary School	Sarpanch Talati	9824782638 9429283014	258	100	Yes	Yes
25	Kora	1376	1017	Primary School	Sarpanch	9537981464	250	299	Yes	Yes

					Talati	9879775417				
26	Kava	1725	586	Primary School	Sarpanch Talati	9825716458 9825925631	156	370	Yes	Yes
27	Umara	527	253	Primary School	Sarpanch Talati	9428443301 9427333314	250	121	Yes	Yes
28	Ankhi	2783	908	Primary School	Sarpanch Talati	9737612458 9099807095	20	619	Yes	Yes
29	Vahelam	809	256	Primary School	Sarpanch Talati	9898865638 9978568286	210	183	Yes	Yes

**Ann. B2 Amod Taluka**

Sr. No.	Village Name	Population	Live stock	Safe Shelter	Name of Contact Number	Contact Number	Shelter Capacity	Details of House Hold	Drinking Water Facility	Electricity
1	Vasana	993	315	Primary School	Sarpanch Talati	9638753434	220	239	Yes	Yes
2	Manjola	972	535	Primary School	Sarpanch Talati	8734940677 9898925656,	240	206	Yes	Yes
3	Pursha (Kakariya)	2148	650	Primary School	Sarpanch Talati	7622901982 9427728219	256	471	Yes	Yes
4	Ikhar	6380	1840	Primary School	Sarpanch Talati	9624055329 9978101051	251	1217	Yes	Yes
5	Danda	2156	580	Primary School	Sarpanch Talati	9925123719 7600876238	241	458	Yes	Yes
6	Sarbhan	4296	260	Primary School	Sarpanch Talati	9099236753 9638126421	200	998	Yes	Yes
7	Dadapur	826	462	Primary School	Sarpanch Talati	9723785556 9824016805	201	197	Yes	Yes
8	Kobala	1152	3062	Primary School	Talati Sarpanch	9824016805 9909597756 7574810318	251	243	Yes	Yes
9	Amod	785	974	Primary School	Sarpanch	02641245837	125	16232	Yes	Yes

Ann. C1 Bhukhi Khadi Affected Villages Bharuch Taluka

Sr. No.	Village name	Population	Live Stock	Safe Shelter	Name of Contact Number	Contact Number	Shelter Capacity	Details of Household	Drinking Water Facility	Electricity
1	Segava	2780	1001	Highs School	Sarpanch Talati	9723415813 9537138772	200	505	Yes	Yes
2	Varadiya	2368	963	Primary School	Sarpanch Talati	9428322597 8347391053	200	477	Yes	Yes
3	Manch	992	347	Primary School	Sarpanch Talati	9824749409 9428438197	200	180	Yes	Yes
4	Kargat	698	436	Primary School	Sarpanch Talati	9898591107 9574126412	100	145	Yes	Yes
5	Sitpon	4162	1123	Primary School	Sarpanch Talati	9904061291 9408088318 9924151393	200	794	Yes	Yes
6	Pariaj	3998	1343	Primary School	Sarpanch Talati	9978298836 9714819792	200	715	Yes	Yes
7	Piplaliya	909	105	Swami Narayan Primary School	Sarpanch Talati	9638033954 9909325238	250	309	Yes	Yes
8	Dayadara	4175	1262	Primary School	Sarpanch Talati	9157915124 9586667374	200	755	Yes	Yes
9	Tralsi	680	378	Primary School	Sarpanch Talati	9979770641 9909919694	50	151	Yes	Yes
10	Tralsa	2654	674	Primary School	Sarpanch Talati	9824179068 8153062920	200	591	Yes	Yes
11	Kothi	2406	578	Primary School	Sarpanch Talati	9824194430 7623986089	250	472	Yes	Yes
12	Kelod	1783	375	Primary School	Sarpanch Talati	9879154605 9723826219	150	391	Yes	Yes
13	Derol	3065	540	Primary School	Sarpanch Talati	9924378410 9909628146	265	619	Yes	Yes
14	Kahan	1809	570	Primary School	Sarpanch	7623884625	325	324	Yes	Yes

Ann.-C2 Vagra Taluka

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Number	Contact Number	Shelter Capacity	Details of House hold	Drinking Water Facility	Electricity
1	Vilayat	2203	1290	community hall, Primary School	Sarpanch Talati	9909415546 8141717001	450	444	Yes	Yes
2	Kothia	555	247	community hall Primary School	Sarpanch Talati	9427465778 9824762435	125	111	Yes	Yes
3	Sadathala	277	107	community hall Primary School	Sarpanch Talati	9904302142 9824762435	95	58	Yes	Yes
4	Bheshli	1123	170	community hall Primary School	Sarpanch Talati	9904123641 9726506585	210	228	Yes	Yes
5	Khojbal	1513	140	community hall Primary School	Sarpanch Talati	9426436423 9726506585	350	287	Yes	Yes
6	Aargama	1188	1026	Primary School	Sarpanch	9723786779	400	223	Yes	Yes
7	Saykha	1072	192	Primary School / Community Hall	Sarpanch Talati	9924098841 8758375688	150	231	Yes	Yes

Ann. D Dam Affected Villages: D1 Baldeva Dam Netrang Taluka

Sr.No.	Village Name	Population	Live stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Hold	Drinking Water Facility	Electricity
1	Zarna	759	832	Primary School	Sarpanch Talati	9638835820 7574806534	200	150	Yes	Yes
2	Baladava	1455	439	Primary School	Sarpanch Talati	9429337597 9925785894	500	301	Yes	Yes
3	Kambodiya	1815	1020	Community Hall Primary School	Sarpanch Talati	9909238716 9428326764	150	408	Yes	Yes
4	Borkhadi	401	495	Primary School	Sarpanch Talati	9586645929 7574806541	140	98	Yes	Yes
5	Panchsim	837	289	Primary School	Talati Sarpanch	7574806526 997964323	150	168	Yes	Yes
6	Chaswad	1431	830	Primary School	Sarpanch Talati	9909445199 7574806542	150	286	Yes	Yes

Ann.2D2 Baldeva Da Valia Taluka

Sr.No.	Village Name	Population	Live stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Hold	Drinking Water Facility	Electricity
1	Singla	428	591	Primary School	Sarpanch	9537174244	125	91	Yes	Yes
2	sheer	1068	225	Community Hall Primary school	Sarpanch	9408221131	150	232	Yes	Yes
3	Dolatpur	1479	885	Primary School	Sarpanch Talati	9904945008 7573955276	150	317	Yes	Yes
4	Kesargam	423	469	Primary School			125	99	Yes	No
5	Pathar	1159	800	Primary school	Talati Sarpanch	9825331372 9909915690	175	270	Yes	Yes

6	Deshad	2113	1715	Primary School	Talati Sarpanch	9913965342 9909633795	215	481	Yes	Yes
---	--------	------	------	----------------	-----------------	--------------------------	-----	-----	-----	-----

### Ann-D3 Pignuts Dam Valia Taluka

	VillName	Population	Live stock	Safe Shelter	Name of Cor	Contact Number	Shelter Capa	Details of F	Drinking V	Electricity
1	Gundiya	3270	990	Primary Sch	Sarpanch	9913069902	250	650	Yes	Yes
2	Kamliya	1491	313	Primary Sch	Sarpanch	9712596263	200	339	Yes	Yes
3	Rajpara	1475	876	Primary sch	Sarpanch	9925364807	150	308	Yes	Yes
4	Jabugam	3378	3090	Primary Sch	Sarpanch	9879938122	250	751	Yes	Yes
5	Choramala	459	295	Primary Sch	Sarpanch	9909633839	75	123	Yes	Yes
6	Vandariya	702	310	Primary Sch	Talati Sarpanch	7574806540 9909633839	100	166	Yes	Yes
7	Umargam	921	250	Primary Sch	Talati Sarpanch	9638291622 8758460551	125	200	Yes	Yes
8	Sodgam	1863	1230	Primary sch	Sarpanch Talati	9429675365 7574806517	150	425	Yes	Yes
9	Sinada	712	130	Primary sch	Sarpanch	9723437776	75	158	Yes	Yes

Ann. D4 Pignuts Dam Netrang Taluka

Sr. No.	Village Name	Population	Live stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Hold	Drinking Water Facility	Electricity
1	Mauza	6570	2007	Primary School	Talati Sarpanch	7574806524 9979642912	250	1434	Yes	Yes
2	Chikli	539	330	Primary School	Sarpanch Talati	9979514917 7096381311	125	154	Yes	Yes
3	Navapur	168	150	Primary School	Sarpanch Talati	9724158011 9913044408	75	30	Yes	Yes

Ann. D5 Dholi Dam Jhagadia Taluka

Sr.No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Hold	Drinking Facility	Electricity
1	Bhilwada	463	154	Primary School	Sarpanch	8980363615	250	109	Yes	Yes
2	Dholi	649	193	Primary School	Sarpanch	9924978707	652	126	Yes	Yes
3	Kapat	770	485	Primary School	Sarpanch	9925327447	125	151	Yes	Yes
4	Katol	654	381	Primary School High school	Sarpanch Talati	9879883898 9638357984	845	140	Yes	Yes
5	Mota Sorva	1394	245	Primary School	Sarpanch	9913026487	251	289	Yes	Yes
6	Rajparadi	9303	4400	Primary School High school	Sarpanch Talati	9586873010 9979215684	256	2002	Yes	Yes
7	Razalwada	1102	420	Primary School	Sarpanch Talati	9924978707 7573022906	125	252	Yes	Yes
8	Sarsa	1721	1271	Primary School	Sarpanch Talati	9429556911 9574737046	258	401	Yes	Yes
9	Vanakpor	2153	2590	Primary School	Sarpanch Talati	7698901311 7567966389	125	427	Yes	Yes



**Ann. E Villages Affected in Low Lying areas :E1 Low Lying affected villages in Amod Taluka**

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Hold	Drinking Water Facility	Electricity
1	Buva	1740	460	Primary School	Sarpanch Talati	9979357011 9662439089	200	345	Yes	Yes
2	Ghamnada	1168	798	Primary School	Sarpanch Talati	9099204903 9924947210	150	274	Yes	Yes
3	Kurchan	2357	348	Primary School	Sarpanch Talati	9824486843 9737235364	250	455	Yes	Yes
4	Ninam	771	204	Primary School	Sarpanch Talati (I/c)	9428722758 7435095795	250	184	Yes	Yes
5	Shree Kothi	805	34	Community Hall	Sarpanch Talati	9925669782 9429411306	240	175	Yes	Yes
6	Suthodra	548	140	Community Hall	Sarpanch	0264123665	250	97	Yes	Yes
7	Tegva	752	380	Primary School	Sarpanch	9727525979	190	158	Yes	Yes
8	Roadh	797	275	Primary School	Sarpanch Talati	8735000110 9429411306	225	177	Yes	Yes
9	Karena	1082	692	Primary School	Sarpanch Talati	9979774177 9427130911	200	242	Yes	Yes
10	Mangrol	1139	922	Primary School	Sarpanch	9714188710	552	215	Yes	Yes
11	Achod	6328	1114	Primary School	Sarpanch Talati	9726585186 9726585384	100	1150	Yes	Yes
12	Samni	2112	745	Primary School	Sarpanch Talati	9624210033 9979855215	256	467	Yes	Yes
13	Simratha	495	215	Primary School	Sarpanch Talati	9979359758 9723655520	250	98	Yes	Yes
14	Valipur	397	429	Primary School	Sarpanch	9979855215	256	98	Yes	Yes
15	Intola	790	213	Primary School	Sarpanch	7202973183	255	138	Yes	Yes

					Talati	8140310668				
16	Ochan	1578	553	Primary School	Sarpanch Talati	9099635315 8238445596	400	348	Yes	Yes
17	Sudi	1012	610	Primary School	Sarpanch Talati	9727124215 9879465199	251	226	Yes	Yes
18	Machhasara	2116	1538	Primary School	Sarpanch Talati	7359676791 9714619218	256	383	Yes	Yes
19	Vatrasha	894	806	Primary School	Sarpanch	9879829708	152	175	Yes	Yes
20	Tanchha	1154	581	Primary School	Sarpanch Talati	8758146917 9909662187 9825009024	265	264	Yes	Yes
21	Anor	2268	1905	Primary School	Sarpanch Talati	9099241551 7600766868	321	446	Yes	Yes
22	Telod	1118	506	Primary School	Sarpanch Talati	9714171941 9624013289	152	251	Yes	Yes
23	Denva	1097	262	Primary School	Sarpanch Talati	9712350161 9538751712	542	232	Yes	Yes
24	Asenra	573	300	Primary School	Sarpanch Talati	9978278745 9825070106	152	131	Yes	Yes
25	Sonama	366	461	Primary School	Sarpanch Talati	9913161714 9638126421 7046963240	281	81	Yes	Yes
26	Vedcha	792	234	Primary School	Sarpanch Talati	9825846182 9638126421 7574810357 9537616624	145	193	Yes	Yes
27	Nahiye	982	219	Primary School	Sarpanch Talati	9427332845 9909662187	215	211	Yes	Yes

**Ann. E2 Low lying affected villages in Bharuch Taluka**

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Holds	Drinking water Facility	Electricity
1	Nandelav	13583	654	Primary School	Sarpanch Talati	9824939769 9825797901	255	3185	Yes	Yes
2	Umaraj	6330	716	Primary School	Sarpanch Talati	9998150050 9924437976	526	1473	Yes	Yes
3	Maktampur	10704	816	Primary School	Sarpanch	9737916455	251	2432	Yes	Yes
4	Navetha	974	199	Primary School	Sarpanch Talati	9824976994 9662015378 9099881084	100	196	Yes	Yes
5	Bhuva	689	290	Primary School High school	Sarpanch	9723518120	700	147	Yes	Yes
6	Sankhwad	742	248	Primary School	sarpanch Talati	9426828062 9099881084	60	155	Yes	Yes
7	Vanshi	1522	744	Primary School	Sarpanch Talati	7046834980 9825237122	250	270	Yes	Yes
8	Asuriya	330	147	Primary School	Sarpanch Talati	9909836145 9924437976 7359203518	100	64	Yes	Yes
9	Sarnar	1198	254	Primary School	Sarpanch Talati	9723785437 9904168334 9824729096	350	223	Yes	Yes
10	Serpura	5748	1236	Primary School	Sarpanch Talati	9714652555 9428324725	350	1079	Yes	Yes
11	Chaulad	530	337	Primary School	Sarpanch Talati	7201842602 9998411782	100	112	Yes	Yes
12	Amleshvar	2392	1650	Primary School	Sarpanch Talati	9925896251 9712115309	250	494	Yes	Yes
13	Bholav	24605	1258	Primary School Dud.Dairy	Sarpanch Talati	9626477851 9099181054	200	5786	Yes	Yes

14	Hingalla	1933	683	Primary School	Sarpanch Talati	9723497218 7043191170	150	368	Yes	Yes
15	Palej	12334	1983	Primary School	Sarpanch Talati	9898317747 9824711799 8866114472	250	2438	Yes	Yes
16	Jhandhar	2730	539	Primary School	Sarpanch Talati	9904072977 9898030152	150	512	Yes	Yes

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Holds	Drinking water Facility	Electricity
17	Luvava	1663	787	Primary School	Sarpanch Talati	9510310501 9898677010	150	385	Yes	Yes
18	Parkhet	3062	2355	Primary School	Sarpanch Talati	9714207438 8732923001	300	547	Yes	Yes
19	Kamboli	2216	199	Primary School	Sarpanch Talati	9898610052 8160616038	250	425	Yes	Yes
20	Umara	527	453	Primary School	Sarpanch	9909836145	100	121	Yes	Yes
21	Vadadala	1064	529	MajurMahajan hall	Sarpanch Talati	7359388549 9712670006, 8128121314	250	246	Yes	Yes
22	Vagushana	638	118	Primary School	Sarpanch Talati	9725027333 9898677010	100	123	Yes	Yes
23	Kavitha	2310	1224	Primary School	Sarpanch Talati	9904712211 9428111533	150	495	Yes	Yes
24	Bambusar	777	605	Primary School	Sarpanch Talati	9824731706 9824463813	100	146	Yes	Yes
25	Kuwadar	911	298	Primary School	Sarpanch Talati	9978343002 9898109774	100	197	Yes	Yes
26	Bori	838	328	Primary School	Sarpanch	7984340917	100	168	Yes	Yes
27	Eksal	938	468	Primary School	Sarpanch	9879219074	50	194	Yes	Yes

					Talati	9408267872				
28	Kesrol	818	764	Primary School	Sarpanch Talati	9724299230 9408267872	250	165	Yes	Yes

**Ann E3 Low lying affected villags in Vagra Taluka**

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Holds	Drinking Water Facility	Electricity
1	Vasti Khandali	2091	340	community hall Primary School	Sarpanch Talati	9979156492 9825833694	300	390	Yes	Yes
2	Saladra	994	300	community hallo Primary School	Sarpanch	8128530393	250	205	Yes	Yes
3	Aliabet	411	1744	School Ambheta Bhadbhoot	Sarpanch Talati	9909416506 9624454660	55	92	Yes	Yes
4	Rahad	931	262	Primary School	Sarpanch Talati	9099672666 7600056724	200	185	Yes	Yes
5	Nadarkha	447	248	Primary School	Sarpanch Talati	9099673065 9586986380	150	92	Yes	Yes
6	Pahaj	2437	637	Primary School	Sarpanch Talati	9898428443 9824120255	200	520	Yes	Yes
7	Ankot	739	297	Primary School	Sarpanch Talati	9727949425 7435843141	150	162	Yes	Yes
8	Vachnad	763	350	Primary School	Sarpanch Talati	7567537955 9909755587	200	151	Yes	Yes
9	Paldi	832	352	Primary School	Sarpanch Talati	9904574578 8469248715	100	183	Yes	Yes
10	Ochan	1578	143	Primary School	Sarpanch Talati	9427143198 909922636	100	348	Yes	Yes
11	Sachan	691	261	Primary School	Sarpanch Talati	9978983396 9712469971	100	152	Yes	Yes
12	Galenda	611	483	Primary School	Sarpanch	9727687203	350	120	Yes	Yes

					Talati	9099380871				
13	Vichyad	638	335	Primary School	Teacher Sarpanch	9712469971 9737892341	150	125	Yes	Yes
14	Mausam	798	479	Primary School	Sarpansh	9727949551	150	159	Yes	Yes

**Ann. E4 Low lying affected Villages in Hansot Taluka**

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House holds	Drinking water facility	Electricity
1	Shera	1229	450	Primary School, Community Hall	Talati	9426894575	300	275	Yes	Yes
2	Mothiya	918	285	Primary School Community Hall	Sarpanch Talati	9824404078 9426894575	400	195	Yes	Yes
3	Obha	1689	922	Community Hall Primary School	Sarpanch Talati	9825149185 9879762313	75	375	Yes	Yes
4	Ashrama	1159	1111	Community Hall Primary School	Sarpanch Talati	9913431320 9898181422	90	267	Yes	Yes
5	Panjaroli	1874	728	Community Hall Primary School	Sarpanch Talati	9825808784 9904690751	57	410	Yes	Yes
6	Balota	1205	288	Primary School	Sarpanch Talati	9904076568 9824664755	200	281	Yes	Yes
7	Kudadara	530	285	Primary School	Sarpanch Talati	8140704506 9904141024	250	91	Yes	Yes
8	Valner	1584	5625	Primary School	Sarpanch Talati	9904832414 9924073481	214	343	Yes	Yes

Ann. F: Cyclone Affected villages detail

AnnF1 Cyclone affected villages in Vagra Taluka :- (0-7 KM) villages

Sr. No.	Village name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House hold	Drinking Water Facility	Electricity
1	Dahej	13495	250	Primary School Community hall	Talati Sarpanch	9638016936 8511124948	400	3426	Yes	Yes
2	Lakhigam	4938	800	Primary School	Sarpanch Talati	9979875988 02641253027 9427131231	400	1217	Yes	Yes
3	Luwara	1663	438	Primary School, Community Hall	Sarpanch Talati	9925749688 81286605548	250	385	Yes	Yes
4	Jageshvar	1571	138	Primary School Community hall	Sarpanch Talati	9998336089 9099407490	300	383	Yes	Yes
5	Ambheta	1552	148	Community hall Primary School	Sarpanch Talati	9909015134 9099407490	245	347	Yes	Yes
6	Rahiyad	1694	1202	Primary School	Sarpanch Talati	9825222968 9662508614	250	355	Yes	Yes
7	Suwa	1920	562	Primary School	Sarpanch Talati	9825021259 9586748258	200	413	Yes	Yes
8	Koliyad	676	296	Primary School	Sarpanch Talati	9723788756 9979866514	70	152	Yes	Yes
9	Kaladara	1663	285	Primary School	Talati	9624454660	229	393	Yes	Yes
10	Vengani	908	307	Primary School	Sarpanch Talati	9429458759 9624454660	300	70	Yes	Yes
11	Paniyadara	2563	535	PrimarySchool & Community Hall	Sarpanch	8128177527	250	110	Yes	Yes
12	padariya	647	278	Primary School	Sarpanch Talati	9913694250 9638943068	100	35	Yes	Yes
13	Gandhar	2121	592	PrimarySchool & Community Hall	Sarpanch Talati	9978104469 8980350347	150	40	Yes	Yes

**Ann. F2 Cyclone affected villages in Jambusar taluka: - (0-7 KM) villages**

Sr. No	Village Name	Population	Live Stock	Safe Shelter	Name Of Contact Person	Contact Number	Shelter Capacity	Details of House hold	Drinking Water Facility	Electricity
1	Sarod	7854	3967	Primary School & Community hall	Sarpanch Talati	7069799005 9909610688	400	1528	Yes	Yes
2	Kamboi	749	433	Primary school	Sarpanch Talati	9904395672 9978568286	200	157	Yes	Yes
3	Malpore	1076	1055	Primary School	Sarpanch Talati	9726340287 9426287737	300	182	Yes	Yes
4	Zamdi	1107	697	Primary school	Sarpanch Talati	9099432245 9427413090	400	235	Yes	Yes
5	Devla	4435	1378	Primary School & High school	Sarpanch Talati	9727110135 9429036829 9712634290	200	897	Yes	Yes
6	Nada	2697	796	Primary school	Sarpanch Talati	9879145785 9427917529	250	612	Yes	Yes
7	Asarsa	841	167	Primary school	Sarpanch	9687555694	300	149	Yes	Yes
8	Kapuriya	413	150	Primary School	Sarpanch Talati	7359358253 9824527558	200	90	Yes	Yes
9	Islam pure	1328	658	Mosque & Primary School	Sarpanch Talati	9909598140 9537618982	250	265	Yes	Yes
10	Tankari	4415	278	Primary School	Sarpanch Talati	9664712099 9727750225	256	845	Yes	Yes
11	Doliya	799	400	Primary School	Sarpanch	972657365	245	152	Yes	Yes
12	Khanpor Deh	4031	2156	Primary School	Sarpanch Talati	9998252988 9909403855	250	748	Yes	Yes



**(7-15 KM) villages**

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Hold	Drinking Water Facility	Electricity
13	Sardarpura	411	190	Primary School	Sarpanch	9825255063	150	82	Yes	yes
14	Mahapura	519	303	Primary School	Sarpanch Talati	9726450552 8511169368	120	108	Yes	Yes
15	Kundhal	477	184	Primary School	Sarpanch	9726450552	100	114	Yes	Yes
16	Bojadra	1621	1707	Primary School	Sarpanch Talati	9723778895 9427333106	300	350	Yes	Yes
17	Jafarpura	672	459	Primary School	Sarpanch	9624310427	120	141	Yes	Yes
18	Magnad	3613	1212	Primary School	Sarpanch Talati	9825663771 9537159551	400	781	Yes	Yes
19	Kareli	5719	4012	Primary School	Sarpanch Talati	9998888305 8347504164	300	1313	Yes	Yes
20	Vedach	7921	3538	Primary School	Sarpanch Talati	8140561075 9727658671	400	1744	Yes	Yes

*Source VDMP***Ann. F3****Cyclone affected Villages in Hansot Taluka: - (0-7 Km)**

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House Hold	Drinking Water Facility	Electricity
1	Samli	792	202	Community Hall Primary school	Sarpanch	9662441879	50	179	Yes	Yes
2	Kantiyazal	1218	395	Primary School Community Hall	Sarpanch	9924929077	75	304	Yes	Yes
3	Vamleshvar	727	265	Community Hall Primary School	Sarpanch	9428177381	55	199	Yes	Yes
4	Katpor	2206	992	Primary School 9913064699	Sarpanch	9586927757	1050	513	Yes	Yes

**(7 -15 KM)**

Sr. No.	Village Name	Population	Live Stock	Safe Shelter	Name of Contact Person	Contact Number	Shelter Capacity	Details of House hold	Drinking Water Facility	Electricity
5	Ambheta	1552	350	Community Hall primary School	Sarpanch	9687074875	300	347	Yes	Yes
6	Pardi	597	293	Primary School Community Hall	Sarpanch	9537239482	300	134	Yes	Yes
7	Hansot	8726	416	Primary School High school Community hall	Sarpanch	8469444499	70	1825	Yes	Yes

**Annexure - G Details of Industrial estate villages: -****Annex- G1 Vagra Taluka:-**

S.No	No of Villages	Population	Number Of House Hold	Live Stock	Kaccha House	Pacca House	Name of Contact Person	Contact Number
1	Akhod	831	174	245	103	15	Sarpanch	7698642764
2	Ambheta	1552	347	334	246	170	Sarpanch	9925221325
3	Argama	1188	223	178	186	41	Sarpanch	7359578197
4	Dahej	13495	3426	863	650	500	Sarpanch	9825217345
5	Atali	1150	239	10	50	235	Sarpanch	9824155546
6	Bhensali	1123	228	293	85	152	Sarpanch	9624419266
7	Bhersam	1461	325	489	180	170	Sarpanch	9737004408
8	Galenda	611	120	167	125	17	Sarpanch	9727687103
9	Jagesavar	1571	383	445	174	140	Sarpanch	9727720722
10	Janidara	729	150	296	135	15	Sarpanch	9662456952
11	Jolva	1442	338	85	160	92	Sarpanch	9727069683
12	Juned	443	84	386	150	3	Sarpanch	9337004408
13	Kaladra	1663	939	963	270	25	Sarpanch	9737004408
14	Khajbol	1552	565	566	163	250	Sarpanch	9904985754
15	Kadodara	255	6565	419	210	90	Sarpanch	7567290797
16	Koliyad	676	152	214	144	45	Sarpanch	7698179926
17	Kothia	555	11	308	60	146	Sarpanch	9913877907

18	Kakhigam	4938	1217	1267	130	60	Sarpanch	9824375023
19	Luvara	1663	385	302	175	150	Sarpanch	9825044542
20	Nadarkha	447	92	210	18	62	Sarpanch	9099673065
21	Nandida	719	160	289	176	5	Sarpanch	9099673065
22	Pakhjan	1286	255	308	149	16	Sarpanch	9904684034
23	Piplia	1609	316	336	85	110	Sarpanch	7567530272
24	Rahiyad	1694	335	1300	282	18	Sarpanch	9925952466
25	Sadathala	277	58	191	60	23	Sarpanch	9904302142
26	Samrpura	363	79	105	67	3	Sarpanch	9712090250
27	Sambeti	416	82	74	42	35	Sarpanch	9879693811

*Source VDMP*

S.No	No of Villages	Population	Number Of House Hold	Live Stock	Kaccha House	Pacca House	Name of Contact Person	Contact Number
28	Saykha	1072	231	647	125	110	Sarpanch	9924098841
29	Suva	1920	413	545	336	200	Sarpanch	9913636027
30	Vadadla	822	201	195	67	11	Sarpanch	9904918072
31	Vathiyal	1170	250	795	215	36	Sarpanch	9537730859
32	Vav	727	155	275	105	178	Sarpanch	9638778710
33	Vegni	908	202	332	98	52	Sarpanch	9999416506
34	Vilayat	2203	444	844	300	196	Sarpanch	9979393609
35	Vorasamni	2514	475	722	115	300	Sarpanch	9974402963

*Source VDMP*

Annex- G2 Bharuch Taluka:-

S.No	No of Villages	Population	Number of House Hold	Live Stock	Kaccha House	Pacca House	Name of Contact Person	Contact Number
1	Amlesavar	2392	494	720	300	150	Sarpanch	9814979109
2	Bhdbhoot	3835	786	105	290	450	Sarpanch	9574776871
3	Bholav	24605	5786	1380	250	1500	Sarpanch	9426811698
4	Bhuva	689	147	300	105	40	Sarpanch	9913736300
5	Ekshal	938	194	910	140	50	Sarpanch	7567320377
6	Kasva samni	1336	272	142	160	65	Talati	
7	Kesrol	8118	165	910	139	166	Sarpanch	9904175504
8	Mahegam	1235	244	245	82	180	Sarpanch	9913320405
9	Manad	565	652	200	100	200	Sarpanch	9825236427
10	Navetha	974	198	104	110	90	Sarpanch	9924824921
11	Palej	12334	2438	1265	760	1680	Sarpanch	9825343760
12	Sankhivad	742	155	335	145	65	Sarpanch	9427830647
13	Vadala	1576	321	250	42	100	Sarpanch	9537371972
14	Vadva	610	144	630	120	20	Talati	9427470638

*Source VDMP*

**Annex- G3 Jhagadia Taluka:-**

S.No	Villages	Population	Number of House Hold	Live Stock	Kaccha House	Pacca House	Name of Contact Person	Contact Number
1	Daheda	1094	222	276	230	60	Sarpanch	9038030263
2	Fulvadi	1783	396	256	170	40	Sarpanch	9638472504
3	Kapalsadi	2024	431	844	225	236	Sarpanch	9879404423
4	Limbhet	1739	377	767	224	298	Sarpanch	9998177060
5	Randeri	447	98	898	120	15	Sarpanch	9978141666
6	Selod	1653	343	347	70	107	Sarpanch	9714409701
7	Talodara	2057	453	1484	223	190	Sarpanch	9978141666

*Source VDM*

**Annex-G4 Anklesvar Taluka:-**

S.No	Villages	Population	Number of House Hold	Live Stock	Kaccha House	Pacca House	Name Of Contact Person	Contact Number
1	Panoli	4626	926	1827	467	769	Sarpanch	8511032708
2	Anklesavar	44722	26060				Chief Officer	02646-247137
3	Bakrol	1591	393	543	175	150	Sarpanch	8160266188
4	Bhadkodra	13233	2986	60	170	1108	Sarpanch	9429337879
5	Dadhal	3695	758	627	128	471	Sarpanch	7016920103
6	Gadakhol	6100	25332	1296	1500	3175	Sarpanch	9727074073
7	Jitali	4225	921	1023	353	345	Sarpanch	9426109121
8	Kharod	465	802	760	390	320	Sarpanch	7434018769
9	Kosamdi	12287	2817	1126	660	1200	Sarpanch	9723265790
10	Piraman	4364	848	411	222	1250	Sarpanch	9586835133
11	Sanjali	5344	1560	1315	500	700	Sarpanch	9925738196
12	Sarngpur	16671	3768	576	1700	1500	Sarpanch	9913432916
13	Umarwada	3711	761	956	950	176	Sarpanch	9377511800

*Source VDM*

**Annexure -H****Control Rooms Contact Numbers**

<b>Sr.N</b>	<b>EOCs/ Control rooms</b>	<b>Contact Numbers</b>
1	State EOC	079-23251900,23251902 State Toll Free No – 079-1070
	GSDMA (Director)	23259219, Fax - 23250306
3	Director of Relief	23251509, (R) 23251506
4	Meteorological Dept. for Cyclone Warning (CWC)	079-22865012/22861413 Fax-22865449
5	Add.CEO, GSDMA	23259451,9909973692
6	<b>Bharuch District EOC</b>	<b>02642-242300</b> <b>Toll Free No – 02642-1077</b>
7	<b>Taluka EOCs</b>	
	1. Bharuch	02642-243536
	2. Amod	02641-245040, 225858
	3. Vagra	02641-225221
	4. Jambusar	02644-220070,220025
	5. Ankleswar	02646-224603,244877
	6. Hansot	02646-262026,262001
	7. Jhagadia	02645-220039,220034
	8. Valia	02643-270623
	9. Netrang	02643-282038
8	<b>Nagarpalika EOCs</b>	
	1. Bharuch Nagarpalika	02642 -243525, 220143,290400
	2. Ankleshvar Nagarpalika	02646 -247137, 247965, 247785
	3. Jambusar Nagarpalika	02644 -220360
	4. Amod Nagarpalika	02641-245442
9	1.CWC Bharuch Maktampur	02642-249848 (M) 9714983599
	2.Tapi Division (Flood )	0261-2478569
	3 Vishvamitri River & Ajwa Dam	0265-2413439
	4.Beldava, Dholi & Pingut Dam	02643-282251 (M) 9904266788
	Narmada Flood Central Baroda	9909921227
	Garudeshvar (Sardar Sarovad Dam)	02640-237056, 02640-232004
	MP Control Room for upper catchment Rain Status inquiry.	0755-2550170

Annexure H1

**DISTRICT DISASTER MANAGEMENT COMMITTEE (DDMC)  
OF  
BHARUCH DISTRICT**

S.No	Name of the Department	Head of the Department	Phone Number			
			Office	Fax	Resident	Mobile
1.	Revenue	Collector	240600	240602	223701	9978406205
2.	Revenue	Res. Addi.Collector	222332	240602	231275	9978405177
3.	Panchyat	DDO	240603	240951	245880	9978406230
4.	Home	Superintendent of Police	223633	223401	223330	9978405066
5.	DEOC	Mamlatdar Disaster	242300			7405551477
6.	GSDMA	District Project Officer	265050			9717393310
7.	Road & Buildings (R&B) State	Executive Engineer (R&B) State	651641	241476	651642	9825562962
8.	Health & Family Welfare	Chief District Health Officer (Panchyat)	243660	261332	261332	9726956500 9727702154
9.	Road & Buildings (R&B) Panchyat	Executive Engineer, R&B Panchayat	243415	243415		9825769859
10.	Education	District Education Officer (Secondary)	240424	240424		9909970211
11.	Education	District Education Officer (Primary)	244210 240951	240951		9099025943
12.	Port Authority	Port Officer	241772	243140	269004	9909962907
13.	I/C Fisheries	Superintendent of Fisheries	240453	240453		9274705581
14.	Forest	Dy. Conservation of Forest (Social Forestry)	269065	222330	241734	9687673214 8849808028
15.	Water Supply	Ex.Engineer,GWSSB	265560	265581		997840706
16.	Labour & Employment	Dy. Director. Industries Safety & Health	240421	240421	225838	9825627085
17.	Information Department	Dy.Director Information	222348 243778	240850	264003	9925810144
18.	Rural Development	APO, DRDA	241953	240745	247557	9824139631
19.	State Road Transport	Asst. RTO	233102 240653			9825063954
20.	Agriculture	DAO	252471	240951		9426362661

S.No	Name of the Department	Head of the Department	Phone Numbers			
			Office	Fax	Residence	Mobile
21	Animal Husbandry	Veterinary Officer (Animal Husbandry)	243146252 471	240951		9427344510
22	Western Railway	Station Superintendent	261800			9724098417
23	GEB (GETCO)	Superintendent Engineer	245952			9925211179
24	GEB (DGVCL)	Superintendent Engineer	245402 229189		245775	9825603168
25	State Transport ST	Divisional Controller	246102			6359919031
26	Food & Civil Supplies	District Supply Officer	241500	240862	266335	7567021674 9925898191
27	Civil Defense	Inspector Civil Defense	02646- 225700			9925563237
28	Home Guards	District Home guards	260150			9924136545
29	(GPCB)	Regional Officer (Bharuch)	246333			9427318615
30	(GPCB)	Regional Officer (Anklesvar)	02646- 222933	02646- 222933		7574827447
31	CDMO	Civil Surgeon	241759	241759		9978905371 9426891971
32	GLDC	Agriculture Officer				9825339735 9975251235
33	NH (Central)	Project Director Surat	0261- 2221223			7622946679
34	NH (Central)	Project Director, Bharuch	02642- 230800			7567095149
35	GSRDC	Dy. Engineer (Baroda)	-	-	-	9974041101
36	SSSN		229282	229287		9909028735
37	MIP-Drainage	Ex. Engineer	226460	222827		9979851311
38	State NH		241426	269159		
39	GIDC (Bharuch)	S.E.	242432 224183			9429257681
40	Notified Area Anklesvar	Chief Officer	02646- 222487	251750		9879110045
41	Irrigation	Ex Engineer Dist. Panchyat	243905	243905		9979414341
42	Notified Area Bharuch	Chief Officer	02646- 222487	251750		9909948901



43	Notified Area GIDC Panoli	Chief Officer	02646- 272747	272747		9909009051
44	CWC Bharuch	Ex.Engineer	02642- 249848			9824420502
45	Asst. Commissioner Food and Drugs		02642- 269525			9879508161
46	Irrigation (Ukai)	Ex.Engineer (Ank-Hansot)	02646- 247403	247451		9879068434 9099954106

## **Annexure H2**

### **District level Other Officers**

Sr.No	Designation	Phone No (O)	Fax No	Mobile
1	Project Administrator	02642-222331	251760	
2	District Planning Officer	02642-240771	240771,2224 92	9586998209
3	Ass.Geolist	260043	240602	9909039980
4	Superintendent Land Record	269571	269571	9879345299
5	District Treasury Officer	02642-240429	220430	7567022901
6	Dist. Employment Officer	02642260702		9925601199
7	Dist Social Welfare Officer-state	02642244734		9879517163
8	Dist. Social welfare Officer- Panchyat	02642243204		9427056004
9	Dist. Vigilance Officer- Tribal	02642265719		9924340299
10	GMDC Jhagadia	02645-224768		9824482021
11	Asst. Controler Legal metrology	02642-263253		9925751727
12	Dist. Register, Co-Operative Societies	02642240651		9428049082
13	Social Welfare Officer (Child Marriage)	02642263823	253051	9428780976
14	Asst. Charity Commissioner	02642-264353		9426380564
15	Social Welfare	District Backward Class Officer	244641	9427237940
16	Social Welfare	District Social Welfare Officer (Panchyat)	243204	9427056004
17	Social Welfare	District Social Welfare Officer(Buxipunch))	244734	7567332051, 9879517163 9427117171

## Annexure –H3

### CONTACT DETAILS OF LIASION OFFICER

TALUKA	DESIGNATION	OFF-PHONE	MOBILE
Bharuch City & Rural	SDM-Bharuch	02642-241980	9978405256
Ankleshvar	SDM- Anklesvar	02646-242648	7567011436
Jambusar	SDM-Jambusar	02644-220191	7567011407
Amod	Deputy. Collector- Stamp Duty	02642-240650	7829844207
Jhagadia	SDM- Jhagadia	02645-220036	7567011411
Valia	PO-cum TDO valia	02643-270626	7567018204
Netrang	District Planning Officer	02642-240771	9427678984
Hansot	Dy.DDO (Revenue) District Bharuch	02642-252478	9998540463
Vagra	District Supply Officer	02642-241500	9925894191

## Annexure –H4

### Contact Details of Prant Officer / Mamlatdar / TDO & Chief Officers in District :-

Taluka Name	Designation	Officer Name (Shri)	Code	(O)	Mobile	Police Station
Amod	Mamlatdar	Shri Jignesh D Patel	2641	245040	7567001322	245333
	TDO	Shri R.D. Desle		245269	8160823257	
	Chief Officer	Shri Gadhavi		245442	9429648838	
Jambusar	Prant Officer	Shri A K Kalsariya	02644	220191	7567011407	222411
	Mamlatdar	Shri G K Shah		220070	7567001547	
	TDO	Shri K C Patel		220071	94275 73360	
	Chief Officer	Shri Rahul Dodia		220360	94286 07215	
Bharuch	Prant Officer	Shri N R Prajapati	02642	241980	9978405256	245801
	Mamlatdar	Shri P K Parmar		243536	9898036994	
	TDO	I/C D.V Dave			8511103814	
	Chief Officer	Shri Sanjay Soni		243525	9825559095 9574007002	
Vagra	Mamlatdar	Shri Ranjit Makwana	02641	225221	7574817007	

	TDO	Mr B H Makwana		225223	7567012640 9409632652	
Hansot	Mamlatdar	Shri Neha Panchal		262026	7567001392	262033
	TDO	Shri Rajnikant Maniya I/c		262025	7567012651	
Ankleshwar	Prant Officer	Shri R K Bhagora	02646	227648	7567011436	247352
	Mamlatdar	Shri. Hardik G Beldiya		224603	7567001495	
	TDO	Shri Rajnikant Maniya		247801	75670 18865	
	Chief Officer	Shri Keshav Koldiya		247137	9825808418	
Jhagadia	Prant Officer	Shri Pranav Vithani	02645	220052	75670 11411 94288 67377	220033
	Mamlatdar	Shri J A Rajvanshi		220039	94262 56964	
	TDO	Shri D V Dave I/c		220036	7567018293	
Valia	Mamlatdar	Shri Ronak J Shah	02643	270623	9429832190	270623
	TDO	Shri K K Patel		270626	7567018204	
Netrang	Mamlatdar	Shri L R Chaudhari	02643	282038	94270 65256	
	TDO	Shri M B Vasava		282216	7567866901	

## Annex-H6

### CONTACT DETAILS OF DISTRICT PANCHYAT ELECTED MEMBERS

S.N	NAME	ADDRESS	MOBILE
1	Shri Yogeshbhai Patel PRESIDENT	At. & Po. Lakhigam, Ta. Vagra, Dist. Bharuch	98241 25025
2	Shri Anilkumar Chhitubhai Bhagat vice president	At. & Po. Bhamadiya, Ta. Valiya, Dist. Bharuch	99131 20711

**Annex- H7 Contact Details of Bharuch District Police Station**

<b>Sr. No.</b>	<b>Name</b>	<b>STD Code</b>	<b>Phone No.</b>
1	Bharuch HQ & Control Room	02642	223303 224100
2	A Division Police Station	02642	269133
3	B Division Police Station	02642	269233
4	C Division Police Station	02642	225312
5	Bharuch Taluka (Rural)	02642	245801
6	Nabipur Police Station	02642	283233
7	Palaj Police Station	02642	277333
8	Ankleshvar City Police station	02646	247352
9	Ankleshvar Taluka (Rural) P.Station	02466	220960
10	Ankleshvar GIDC Police Station	02646	225551
11	Jhagadia Police Station	02645	220033
12	Umalla Police Station	02645	234330
13	Valia Police Station	02643	270633
14	Hansot Police Station	02646	262033
15	Jambusar Police Station	02644	222411
16	Kavi Police Station	02644	230233
17	Vedach Police Station	02644	233303
18	Amod Police Station	02641	245333
19	Vagra Police Station	02641	224233
20	Dahej Police Station	02641	256233

Annex-H8 Bharuch District Health Department Contact

<b>Sr.No.</b>	<b>Name</b>	<b>Address</b>	<b>MobNo.</b>	<b>Ph No.</b>
1	C.D.H.O.	Dist.Panchayat Compound, Health Branch, Bharuch.	9726956500	02642-243660
2	A.D.H.O.	Dist.Panchayat Compound, FP Branch, Bharuch.	9727702154	02642-243660
3	R.C.H.O	Dist.Panchayat Compound, Health Branch, Bharuch.	9727702154	02642-243660
4	E.M.O.	Dist.Panchayat Compound, Health Branch, Bharuch.	9727702225	02642-243660
5	Q.M.O	Dist.Panchayat Compound, Health Branch, Bharuch.	9727702212	02642-243600
6	D.M.O.	Dist.Panchayat Compound, FP Branch, Bharuch.	982702225	02642-247173

## Annexure-H 9

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

No	Department	Phone	FAX
1	Ministry of Home Affairs, New Delhi	011 23092923 011 23093054 011 23092885 011 23093897	011-23092763 011-23093750
2	State Emergency Operation Center (SEOC), Gandhinagar	23251914 23251900 23221902	23251916
3	PS, RD- COR & Secy (SEOC)	23251926	23251912 23251916
4	Irrigation Deptt. Gandhinagar	23220954 23248735 23248736	23240553
5	R & B Deptt. Ahemdabad	26305296 26303490	-
6	Health Commissioner, Gandhinagar	23253343 23250818	23253343 23250818
7	Home Deptt. G'nagar (State Control)	23252957 23252958	23252075
8	DGP, Police Bhavan, G'nagar (State Control) SCR-23254343, 23249257	23246328 23246330/31	23146329
9	Police Commissioner, Ahemdabad	25633636	25630600
10	Gujarat Maritime Board, G'nagar	23238346-48	23234704
11	GEB Vadodara	0265-2330017	2337918 2338164
12	IMD (Seismo), New Delhi	011-24611842	011-24611792
13	IMD (MET), Ahmedabad	22865012	22865449
14	GSRTC, Ahmedabad (Central Office)	25454102	25453280

## Annexure H 10

### Relief Commissioners Office & SEOC

No.	Designation	(O)	(R)	(M)
1	Relief Commissioner & Ex-Officio Secretary (DM)	079-23251509	23154917	9978406123
2	Director of Relief & D.S	079-23251611 23251612	23234364	9978406087
3	Deputy Collector & U.S.	079-232556335		9978405740
4	Deputy Collector (DM) (SEOC)	079-23251900		9978405741

### Annex-H 11 Gujarat State Disaster Management Authority

S. No.	Name of Officer	Designation	(O)	(M)
1	Shri Harshad R Patel	CEO	23259276/502 23259275(F)	9978407002 9978407003
2		PA To CEO	23259276	8905195950
2	Shri Victor Mekwan	Addl. CEO	23259451	9978407004
3		Addl. CEO	23259292	9978407007
4	Shri Manoj Patadiya	Director (Admin)	23259219	9978407006
5		Director (Finance)	23259278	9978441047

### Annexure-H12 Army, Air Force and Coast Guard

No.	City	(O)
1	Ahmadabad	22856251
2	Ahmedabad	(O)22852444 (R)22852682 (F)22856251
3	Ahmedabad	(O)22852403 (R)22852433 (F)22861902
4	Ahmedabad	22869251
5	Gandhinagar	23242600
6	Delhi	011-23010231, 25687194-97
7	Gandhinagar	(O) 079-23243264, 23243283 (Operation Center) 23243147 (F) 079-23241717
	Dy.Comdt	(O) 079-23243241 (M) 9377858901
8	Mumbai	(O)022-24372472, 24333727 (F)022-24333727, 24372920

### Annex-H13 Air Force Gandhinagar

1	Wing Commander, Air-II for Air Commander-in-Chief, Sector-9, Gandhinagar	23242600/5241 (F)23240076/
---	--	----------------------------

### Annex-H 14 Bhaskaracharya Institute of Space Application & Geoinformatic (BISAG)

N o.	Name	Desi.	(O)	(R)	(M)
1	Shri T.P.Singh	Director	23213081/90 (F)23213091	23254846	9909945001
2	Smt. Parul	Manager	23213083	-	9909945008

**Annex-H 15 India Meteorological Department and Observatories**

No.	Desi.	(O)	(R)	(F)
1	Dir. Meteorology Canter Ahmedabad	22865165 (M)9978406424	26852615	22865449
2	Meteorologist Weather Forecasting A 'bad	22861413	26852615	22865449
3	D G, Institute of Seismological Research, Gandhinagar	23252703 23259100 Fax 23259192		9824020907
4	Asst. Meteorologist II IMD, Bhuj	02832-250575	223051	250575
5	Kevadia Observatory	02640- 232122, 232041	231137	232122
6	079-22865012		22865449	
7	Director, A'bad	079-22865165		
8	Met. (I/c), A'bad	079-22861413		22865449
9	079-22865012		22867206	

**Annex-H 16 Institute of seismological Research****Address: Near P.D.P.U. campus, Raisan village, Gandhinagar**

No.	Desi.	(O)	(M)
1	Director General	66739001 66739015(Fax)	997840 7515
2	Scientist-C	66739015	99252 43646
3	-	66739000 (F) 66739028	-

**Annex-H 17 BN, NDRF, Chiloda Road, Gandhinagar**

1	Control Room	079-23201551
2	Comdt. Officer	(O) 079-23202540 (F) 079-23202540 (R) 079-23202539
3	Rajesh Tiwari, PA to C.O.	9377206454
4	Pradhan, PRO	9427304214



Annexure H 18

**List of other District recourse: - (Specially Rescue)**

**NDRF (Gandhinagar)**

No	Designation	Name	Tel.No.s
1	Commandant	Shri R.S.Joon	(O) 07923202540 (F) 07923202540 (M) 09428826445
2	Dy.Commandant	Shri S.K.Rana	(M) 9427304217
3	Dy.Commandant	Shri J.P.Samuel	(M) 9427304213
4	Dy.Commandant	Shri Sanjay Negi	(M) 9904471799
5	Control Room		(O) 07923201551 (F) 07923202540

**Ahmadabad Mahanagarpalika:-**

S.No	Designation	Name	Tel.Nos
1	Chief Fire Officer	Shri M.S.Dastur	(O) 07922148465/66 (M) 9327038754

**Surat Mahanagarpalika:-**

S.No	Designation	Name	Tel.Nos
1	Chief Fire Officer	Shri Acharay	(O) 0261-2423751 (M) 9724345508
2	Divisional fire Officer	Shri V.B.Parmar	(O) 0261-2414195 (M) 9724345513

## Annexure: - H 19

## State EOC Iridium Contact Number (District wise)

Sr. No	Name		SIMCard Serial Number	Tel	Data
1	DoR	SEOC	89881 69214 00053 1170	881621467711	881693167711
2	Collector	Ahmedabad	89881 69214 00053 1279	881621467717	881693167717
3	Collector	Amreli	89881 69214 00053 1303	881621467719	881693167719
4	Collector	Anand	89881 69414 00058 4183	881641465669	881693465669
5	Collector	Banaskantha	89881 69414 00058 4126	881641465662	881693465644
6	Collector	Bharuch	89881 69414 00058 4266	881641465660	881693465642
7	Collector	Bhavnagar	89881 69214 00053 1162	881621467713	881693167714
8	Collector	Dahod	89881 69414 00058 4126	881621466137	881693466119
9	Collector	Dang	89881 69414 00058 4258	881641465659	881693465641
10	Collector	Gandhinagar	89881 69414 00058 4175	881641465668	881693465668
11	Collector	Jamnagar	89881 69414 00058 4209	881641465653	881693465635
12	Collector	Junagadh	89881 69214 00053 1196	881621457712	881693167712
13	Collector	Kheda	89881 69414 00058 4191	881641465670	881693465670
14	Collector	Kutchch	89881 69214 00053 1246	881621467718	881693167718
15	Collector	Mehsana	89881 69414 00058 4225	881641465655	881693465637
16	Collector	Navsari	89881 69414 00058 4159	881641465665	881693465646
17	Collector	Narmada	89881 69414 00058 4134	881641465663	881693465663
18	Collector	Panchmahal	89881 69414 00058 4241	881641465657	881693465639
19	Collector	Patan	89881 69414 00058 4233	881641465656	881693465638
20	Collector	Porbandar	89881 69414 00058 4142	881641465664	881693465645
21	Collector	Rajkot	89881 69414 00058 4274	881641465652	881693465634
22	Collector	Sabarkantha	89881 69414 00058 4217	881641465654	881693465636
23	Collector	Surat	89881 69414 00058 4118	881641465661	881693465643
24	Collector	Surendranagar	89881 69414 00058 4167	881641465666	881693465666
25	Collector	Vadodara	89881 69214 00053 1295	881621467716	881693167716
26	Collector	Valsad	89881 69214 00053 1261	881621467714	881693167715

**Annex- H20 Details of Pipeline Operators in Bharuch Dist.**

Sr.	Company	Pipeline Detail	Oil/Gas	Contact Person	Designation	Mobile	Email
1	GAIL	Dahej – Uran – 30”	Natural Gas	V.K.Singhl	Chief Manager (Surat-hazira)	9979969485	<a href="mailto:vk.singhal@gail.co.in">vk.singhal@gail.co.in</a>
		Hajira-Vijaypur- Jagdishpur – 36”		Gautam Prasad	GM Baroda	09871885777 07874588877	<a href="mailto:gprasad@gail.co.in">gprasad@gail.co.in</a>
				A.K.Tripathi	DGM (Hazira)	09712491300 09756600668	<a href="mailto:akt@gail.co.in">akt@gail.co.in</a> <a href="mailto:oiccellhaz@gail.co.in">oiccellhaz@gail.co.in</a>
2	RIL Ind.	Hazira to Dahej 26”	Gas	Mr. Arvind Patel	VP	9998975803	<a href="mailto:arvind.patel@ril.com">arvind.patel@ril.com</a>
		Hazira to Dahej 24”		Mr.C.K.Singh	Sr.VP	9867715620	
3	RGTEL	Kakinada(A.P.) to Bhadbhut 48”	Natural Gas	Mr. Khagesh Manjalwal	GM (O&M)	9987719100	<a href="mailto:khagesh.manjanwal@ril.com">khagesh.manjanwal@ril.com</a>
	RGTEL			Bhagwan Singh	Mgr	9725008572	<a href="mailto:Bhagwan.sing@ril.com">Bhagwan.sing@ril.com</a>
4	GSPL	Ankleswar to Dahej 24”	Natural Gas	Mr..j.China	AGM (O&M)	9825033054	<a href="mailto:chinna@gspc.in">chinna@gspc.in</a>
				Mr. Dipak Patel		9825033603	<a href="mailto:dipakpatel@gspc.in">dipakpatel@gspc.in</a>
5	ONGC	Ankleswar to CPF 8”	Oil	Mr.Misjra	GM(HEC)	9969222257	
				Mr. satisj kumar	CE (C&M)	9428332449	<a href="mailto:Kumar5satish@ongc.co.in">Kumar5satish@ongc.co.in</a>
6	IOCL	AMOD TO HAZIRA 12.75”	Oil	Mr.N.K.Sinha	Chief Manager	9427899504	<a href="mailto:sinhank1@indianoil.in">sinhank1@indianoil.in</a>
				Mr.Orabhat Kumar	Deputy Manager	9979884628	<a href="mailto:prabhatk@indianoil.in">prabhatk@indianoil.in</a>
7	Gujarat Gas	Bharuch Region	Natural Gas	Mr.Maulesh Bhatt	Manager (O&M)	9824114212	<a href="mailto:Maulesh.bhatt@gujaratgas.com">Maulesh.bhatt@gujaratgas.com</a>

## H21 List of Bharuch District Industries Associations President:-

No.	Name	Contact Nos.	Email ID
1	Ankleshvar Industries Association Shri Maheshbhai J. Patel (Secretary) Plot No. – 618-619, GIDC, Ankleshvar	(02646) 222000 253102, 9824125040	<a href="mailto:info@aiaindia.co.in">info@aiaindia.co.in</a>
	Shri Chandresh Devani, Ankleshvar Industries Association (Secretary)	9328385000	
	Shri. Jasubhai Chaudhari, Secretary, Ankleshvar Industries Association	9824476118	<a href="mailto:info@aiaindia.co.in">info@aiaindia.co.in</a>
2	Panoli Industries Association Shri B.S Patel (President)	(02646) 272275, 272828 9426807043	<a href="mailto:piapanoli@yahoo.com">piapanoli@yahoo.com</a>
	Shri..Maheebub Phisivala (Wise President)	9727877110	
	Shri. Pankaj Bharwada (Advisor)	94268 07038	
	Shri parmar (Secretary)	9426807036	
3	Jhagadia Industries Association Mr. V. G. Gavhane (Co-ordinator) Office Executive	9979875722	<a href="mailto:Vishwanath.gavhane04@gmail.com">Vishwanath.gavhane04@gmail.com</a>
	Shri. A. A. Panjwani President, JIA, Jhagadia	9909994902	<a href="mailto:panjwani@uniphos.com">panjwani@uniphos.com</a>
	Shri. B. L. Uppal (V.President)	8128652901	<a href="mailto:bluppal@vardhman.com">bluppal@vardhman.com</a>
	A.K.jain General Secretary	9727782162	<a href="mailto:ak.jain@artigroup.com">ak.jain@artigroup.com</a>
4	Dahej Industries Association		
	Sri. M. A. Hania President,	(O) 02641- 99798 82207	<a href="mailto:mhaniam@meghmani.com">mhaniam@meghmani.com</a> ;
	Shri J.J.Rajput Tresaror	8128669547	

## Annexure

### Annexure: - I List of Dahej by pass & Link Road Societies Presidents:-

S.N	Society name & add	Name	Designation	Contact Number
1	Vedant society	Satish B Oza	Member	9998005590
2	Vedant society	Gautam Patel	Member	9925999660
3	Vedant society	Narendrabhai Mistri	President	9427101410
4	Vedant society	Manish Solanki	Sabhya,umaraj	9428175580
5	Puspadhan bungalows,link road	Jignesh Gohil	Sabhya,umaraj	9825992562
6	Puspadhan bungalows,link road	Rusikesh Contractor	President	9925771728
7	Arbudanagar-2,link road	Chandrakant Sadhu	President	9998213518
8	Arbudanagar-2,link road	Vijaybhai	President	9879758029
9	Nandinipark soc,link road	Nileshbhai Parmar	President	9409067145
10	Arbudanagar-1,link road	Manharbhai Patel	President	9909029646
11	Aaradhana soc,link road	Maheshbhai Mehta	President	9427583313
12	Link complex,link road	Dipakbhai Patel	President	9638558547
13	Link resi plaza,link road	Pratixaben Parmar	President	9824906814
14	Aasopalav,link road	Kisorbhai Pathak	President	9638328928
15	Mangaltirth soc,dahej by pass road	Samir Patel	President	9824325329
16	Ganeshpark,dahej by pass road	Vijaybhai Vasava	President	9428519339
17	Ganeshpark,dahej by pass road	Jinish Mandviya	Member	9898997511
18	Gacl colony,dahej by pass road	Ghanshyam Patel	President	9725009860
19	Shantiniketan soc,dahej by pass road	Kamleshbhai Patel	President	9879264345
20	Shantiniketan soc,dahej by pass road	Nireshbhai Patel	Member	9925231569
21	Shantiniketan soc,dahej by pass road	Satish Karpenter	Member	9898327575
22	Niravnagar,dahej by pass road	Naisedh Bhatt	President	9998967369
23	Mirapark,dahej by pass road	Yogeshbhai Patel	President	9426864570
24	Sankalp bungalows,dahej by pass road	Thakorbhai	President	9825321260

## Annexure

S.N	Society name & add	Name	Designation	Contact Number
25	Aischary bung,dahej by pass road	Vijaybhai Gohil	President	9979882380
26	Dattkrupa,dahej by pass road	Raj nibhai Patel	President	9428722925
27	Mangal jyot soc,dahej by pass road	Lal jibhai Degama	President	9909672779
28	Mangal jyot soc,dahej by pass road	Chaudhari Chachu	Member	9998213954
29	Madhav park,dahej by pass road	Mayur Patel	President	9979154999
30	Narayansrusti,dahej by pass road	Babu ji Rajput	President	9824788932
31	Narayan residensy,dahej by pass road	M K Patel	President	
32	Mangaly residensi,dahej by pass road	S G Alal	President	
33	Tulsi residensi,dahej by pass road	Piyush Patel	President	9624855577
34	Narayan garden,dahej by pass road	Dineshbhai Vyas	President	9998216325
35	Madhuram soc,dahej by pass road	Sanjaybhai Pandya	President	8866326525
36	Reliance appartment,dahej by pass	Prakashbhai Patel	Resident	9586490144
37	Sanvila soc,dahej by pass road	Vasantbhai Patel	President	9429284162
38	Ganesh kunj,dahej by pass road	Amar Patel	President	9574007014
39	Chaitanyapark,dahej by pass road	Kiransinh Yadav	President	9925783778
40	Sakuntal appart,dahej by pass road	Mitesh Shah	President	9979898030
41	Manglapark soc,dahej by pass road	Rajeshbhai Patel	President	9974285783
42	Vaibhav soc,dahej by pass road	Manishbhai Shah	President	9998822043
43	Mangaldip soc,dahej by pass road	Hasubhai Patel	President	9824311375
44	Aalfa soc,link road	Sanjaybhai Patel	President	8511105483
45	V d township,dahej by pass road	Atul Patel	President	9925245719

## Annexure

### Annexure- J List of Resource

#### Annex-J1 List of Tractor

S.N	Village	Taluka	Name of Owner	Contact Number
1	Juna BorBhtha Bet	Ankleshvar	Yunushbhai Aadambhai	9904047366
2	Juna BorBhtha Gam	Ankleshvar	Ishvarbhai Karsanbhai Aahir	9824783399
3	Danturiya	Ankleshvar	Bachubhai Patel	9879036614
4	JuniDivi	Ankleshvar	Pratapsih Rana	9824151742
5	Umaraj	Bharuch	Siraj yushuf	9426871555
6	Sherpura	Bharuch	Yushuf Suleman Patel	9723110229
7	Vadadla	Bharuch	Ratan	9825166574
8	Segawa	Bharuch	Sbbir aadag Haji	9714357990
9	Katpor	Hansot	Govindbhai Gumanbhai Patel	9723934183
10	Vadhavan	Hansot	Nitinbhai S Patel	9427118711
11	Rayma	Hansot	Mohansih K Valvatiya	9825267958
12	Bojadra	Jambusar	Natavarsih Bhagat	9712556191
13	Aasarasa	Jambusar	Bhaim Sang	8306421304
14	Kapuriya	Jambusar	Aehamad Hasam Patel	9724471012
15	Mganad	Jambusar	Ganpatsang Chauhan	9913047718
16	Ore	Jhagadia	Bhupendragir Dangir	9909939640
17	Mota Vasana	Jhagadia	Jaiminbhai Kanubhai	7359128828
18	Tarsali	Jhagadia	Shekh Gulam Manmad	9913830816
19	Jrasad	Jhagadia	Parasottmbhai Rathod	9624204657
20	Rahiyad	Vagra	Baldev jesangbhai	9537280322
21	Gelenda	Vagra	Harunbhai Jitsang Raj	9979270052
22	Suva	Vagra	Gohil Jasavant N	9913628917
23	Dahej	Vagra	Vikramsih kiritsih Rana	9904559705
24	Arethi	Netrang	Indubhai somabhai	9099681720
25	Chandravan	Netrang	Amratbhai Cheliyabhai	9904097959
26	Moriyana	Netrang	Jashubhai Bhurabhai Vasava	9909682374
27	Itakala	Valia	Pushprajsinh S Rathore	9427143685
28	Bhilod	Valia	Manharbhai Ramanbhai Patel	9426833749
29	Hirapor	Valia	Indrasinh Jashvantsinh Mahinda	9913829184
30	Dadapor	Amod	Mahendra Raysang Thakor	9723785556
31	Kakariy-Pursa	Amod	Nazir Yzkub	9824585819
32	Vadia	Amod	Vasava Jagdish Kabhai	9909451335

(Source VDMF)

## Annexure

### Annex- J2 List of Trolly:-

S.No	Village	Taluka	Name of Owner	Contact Number
1	Juna Borbhtha Gam	Anklesvar	Kyomnd Horksji	9825045788
2	Juni Divi	Anklesvar	Pratapsih Rana	9824151742
3	Divi	Anklesvar	Ikabalbhai	7359897066
4	Pungam	Anklesvar	Dineshbhai Chaiohan	9879994240
5	Survadi	Anklesvar	Sanjaybhai Kantibhai Vasva	9998153423
6	Sarngpur	Anklesvar	Vipulbhai A Shah	9824127277
7	Zadesvar	Bharuch	Asokbhai Solnki	9427188748
8	Sherpura	Bharuch	Vali Mahmud Dalal	9924811736
9	Tham	Bharuch	Javid Ali Makkam	9924390162
10	Manubar	Bharuch	Inayat Bharuch	9864464555
11	Nikora	Bharuch	JiganeshKumar d Joshi	9428923893
12	Zangar	Bharuch	Imran Abdulla	9827874599
13	Zanor	Bharuch	Ramjibhai Mangubhai	9737963833
14	Kmaboli	Bharuch	Siraj Aadam Matadar	9898610052
15	Vansi	Bharuch	Siraj Ismail	9428027567
16	Kurla	Bharuch	Patel Abul Ibrahim	9925105664
17	Vadhavan	Hansot	Nitinbhai S Patel	9427118711
18	Dnatrai	Hansot	Rajeshbhai B Patel	9428180018
19	Aamod	Hansot	Hanif Nizam Shekh	9879022735
20	Pnadavai	Hansot	Sadrudin Rasul Malek	9712931970
21	Aanasan Vad	Jambusar	Narshi Ranchod	02644-238337
22	Sarod	Jambusar	aehamd Haji Chasama	9723454561
23	Limaj	Jambusar	Viththalbhai manubhai Patel	9904392912
24	Kahanva	Jambusar	Thakorbhai Pratapbhai	9924602855
25	Kareli	Jambusar	Rajesh Ranjit Padiya	9558418010
26	Moradpur Neza	Jambusar	Mukeshbhai L Patel	9824040438
27	Tarsali	Jhagadia	Shekh Gulam Mamanmad	9913830816
28	Indor	Jhagadia	Manojbhai Naginbhai	9712042936
29	Govali	Jhagadia	Asvinbhai N Patel	9825875132
30	Bhalod	Jhagadia	Arvindbhai Karasanbhai Vasava	7874023675
31	Goratiya	Netrang	Vasava Hargishbhai Valajibhai	9825016249
32	Mangrol	Amod	Manilal Moahnbhai	7567820305
33	Shrikothi	Amod	Kamleshbhai Patel	9909451339
34	Tanchha	Amod	Parvinsihbhimsih raj	9638119652



## Annexure

### Annex- J3 List of Truck:-

S.No	Village	Taluka	Name of Owner	Contact Number
1	Andada	Anklesvar	Vishalbhai N Patel	9825371720
2	Juna BorBhtha Gam	Anklesvar	Somabhai Patel	9825275111
3	Dadhhal	Anklesvar	Sukabhai Gambhirbhai Vasava	9662989027
4	Jeetali	Anklesvar	Ishmaial Hasan Kaiyat	9979136599
5	Pungam	Anklesvar	Jagdishbhai Patel	9586650174
6	`Junaskkrpo	Anklesvar	Jivrambhai Vasava	02646-265723
7	Tavara	Bharuch	Vishalshih	9825258085
8	Nikora	Bharuch	JiganeshKumar D JOshi	94289238911
9	Kavitha	Bharuch	Prajapati Mahesh Tribhovan	9826120679
10	Dahegam	Bharuch	Rustm Mhmmad	9924017907
11	Derol	Bharuch	Hasamukhbhai B Patel	9428588593
12	Hingnalot	Bharuch	Salim M Dhudhvala	9824345803
13	Borbhatha Bet	Bharuch	Anilbhai P Patel	9824113871
14	Maktmapur	Bharuch	Salimbhai Masahadi	9824152586
15	Pnadavai	Hansot	Narbheram Gam,bhir Patel	9879633637
16	Aragama	Vagra	Zakir Musa Purjak Saiyad	9099672666
17	Aladar	Vagra	Parmar Sajaybhai C	9925050519
18	Goldara	Vagra	Kajibhai Jesangbhai Gohil	9099941854
19	Ambhel	Vagra	Gumanbhai P Aahir	9099672666
20	Rajpardi	Jhagadia	Pravinsih M Keshrola	9427157446
21	Mota Vasana	Jhagadia	Jaiminbhai Kanubhai	7359128828
22	Indor	Jhagadia	Manojbhai Naginbhai	9712042936
23	Dholgam	Valia	Darmendrabhai I Vasava	9879938400
24	Kara	Valia	Jasvantsinh Harisinh	8628072575
25	Dholgam	Valia	Darmendrabhai I Vasava	9879938400
26	Nahiyer	Amod	Sureshbhai Vasantbhai Patel	9909074075
27	Goratiya	Netrang	Vasava Valajibhai Jesangbhai	9825016249

## Annexure

### Annex-J4 List of Dumper

S.No	Village	Taluka	Name of Owner	Contact Number
1	Survadi	Anklesvar	Bhupendrabhai Kantibhai Patel	9898101719
2	Nikora	Bharuch	JigneshKumar D Joshi	9428932893
3	Paguthna	Bharuch	salim I Mnsuri	9825040592
4	Zanor	Bharuch	Hitendrasah Sardarsih	9427143195
5	Hingnalot	Bharuch	Salim M Dhudhvala	9824345803
6	Mnagalesvar	Bharuch	Vanzara Shanubhai Nagaji	02642-281580
7	Vahalu	Bharuch	Ajim Baga	9574428262
8	Panetha	Jhagdia	Atulbhai P Patel	9426182189
9	Dharoli	Jhagdia	Kishorbhai Chotubhai	7874030432
10	Maljipura	Jhagdia	G.I.D.C	9979846454
11	Sultanpura	Jhagdia	Vijaysih A Paramar	9426166375
12	Kadvali	Jhagdia	Chitubhai Devji	9912829130
13	Goladara	Vagra	Jayantibhai Narsihbhai Gohil	9898518543
14	Jnipadra	Vagra	Ranjitsih Vaghela	9913824064
15	Dahej	Vagra	Ketansih Surendrasah Parmar	9824144744

### Annex- J5 List of JCB

S.No	Village	Taluka	Name of Owner	Contact Number
1	Juna Borbthagam	Anklesvar	Somabhai Patel	9825275111
2	Bhadkodra	Anklesvar	Shatishbhai Aahir	9974553399
3	Gadkhol	Anklesvar	Chana Basram Jadav	9898169428
4	Jeetali	Anklesvar	Shekh Aaiyub	9898587741
5	Panoli	Anklesvar	Ikabaklbhai Hatiya	9925014536
6	Sarnipur	Anklesvar	Rajubhai Bharvad	9998298207
7	Sanjali	Anklesvar	Basirbhai Aadamjibhai aadat	9825322948
8	Tariya	Anklesvar	Ranchodbhai B Patel	9714810165
9	Nava Tavara	Bharuch	Ganpatbhai Balubhai	9687342146
10	Tavara	Bharuch	Bakorbbhai Ramsing	9825059045
11	Zadeshvar	Bharuch	Jayeshbhai Nizama	9727436333
12	Snidhot	Bharuch	Rakeshbhai Antolbhai Padiyar	9974285580
13	Shitpon	Bharuch	Ishmail mush	9904231204
14	Paguthna	Bharuch	Salim I Manshuri	9825040592
15	Zanor	Bharuch	Manhar Ranchod Prjapeti	9824109487

## Annexure

S.No	Village	Taluka	Name of Owner	Contact Number
16	Kavitha	Bharuch	Prajapati Mahesh Tribhovan	9426120679
17	Dashan	Bharuch	Bipinbhai Bhatt	9824148917
18	Hingnalot	Bharuch	Salim M Dhudhvala	9824345803
19	Borbhatha Bet	Bharuch	Anilbhai Patel	9824113871
20	Maktmapur	Bharuch	Mukhtyrbhai Mashadi	9904655991
21	Mangalesvar	Bharuch	Vanzara Shanubhai Nagaji	02642-281580
22	Vahalu	Bharuch	Makbul Ali Munshi	9825573925
23	Vahalu	Bharuch	Azim Baga	9572482620
24	Panjroli	Hansot	Virendrasih Jasavatsih	9909889139
25	Dharmad	Hansot	Nanubhai Devansi	9427187575
26	Sarod	Jambusar	Yunush aadam Patel	9925442726
27	Kahanva	Jambusar	Zakirbhai Kayambhai Shekh	9825370198
28	Kareli	Jambusar	Thakorbhai	9909074242
29	Vavli	Jambusar	Patel Kanubhai M	9408354225
30	Nada	Jambusar	Sohendrabhai Rameshbhai	9428103294
31	Tarsali	Jhagdia	Shekh A.Kadar	9428122916
32	Nana Vasana	Jhagdia	Jayendrasih Laxaman Sih	9904403936
33	Motasorava	Jhagdia	Santilal Balubhai Vasava	8758094192
34	Dadheda	Jhagdia	Malek Imaran	9724485007
35	Goratiya	Jhagdia	Vasava Hargishbhai Valajibhai	9825016249
36	Aambosh	Jhagdia	Dilip Chotu Vasava	9979041722
37	Dharoli	Jhagdia	Dilipbhai Chotubhai Vasava	9099968080
38	Maljipura	Jhagdia	G.I.D.C	9979846454
39	Sulatanpura	Jhagdia	Umeshbhai C Vasava	9898435998
40	Rajpardi	Jhagdia	G.M.D.C	02645-240185
41	Padvaniya	Jhagdia	Kanubhai Jethbhai Vasava	9537311952
42	Fulvadi	Jhagdia	Baratbhai Kushlbhai Patel	
43	Jespor	Jhagdia	Candrkant Fatesing	9774535005
44	Ratanpor	Jhagdia	Zakirbhai Aazambhai Malek	9904628572
45	Umalla	Jhagdia	Natvarbhai C Vasava	9638262599
46	Aamod	Jhagdia	G.M.D.C	9979846454
49	Amheta	Vagra	Gohil Balavantsih kesubhai	9925001953
50	Galenda	Vagra	Raj Dilavar Raysang	9913833441
51	Dahej	Vagra	Mahendrasih A Gadhvi	9879555171
52	Vilayat	Vagra	M.R.Saiyad	9898637180
53	karsad	Valia	Bharatsinh A.Bharthaniya	9409386383

## Annexure

54	Goratiya	Netrang	Vasava Hargishbhai Valajibhai	9825016249
55	Valia	Valia	Shailesh Ila Bhai	9879931332

### Annex- J6 List of Loader

S.No	Village	Taluka	Name of Owner	Contact Number
1	Shitpon	Bharuch	Ishmail	9898070735
2	Maljipura	Jhagadia	G.I.D.C	9979846454
3	Rajpardi	Jhagadia	G.M.D.C	02645-240185
4	Aamod	Jhagadia	G.M.D.C	9979846454
5	Dahej	Vagra	Ketansih Surendrasih Parmar	9824144744
6	Bhersam	Vagra	Patel Prabhubhai Kantibhai	

*(Source VDMP)*

### Annex-J7 List of Crain

S.No	Village	Taluka	Name of Owner	Contact Number
1	Paguthna	Bharuch	Salim I Manshuri	9825040592
2	Chavaj	Bharuch	Paramjit Kor	9825030955
3	Maljipura	Jhagadia	G.I.D.C	9979846454
4	Aamod	Jhagadia	G.M.D.C	9979846454
5	Du.Bhuri	Jhagadia	G.M.D.C	
6	Kadvali	Jhagadia	Vasudevabhai	9925336333
7	Aragama	Vagra	Zakir Musa Purjak Saiyad	9099672666
8	Aladar	Vagra	Parmar Sajaybhai C	9925050519
9	Goldara	Vagra	Kajibhai Jesangbhai Gohil	9099941854

*(Source VDMP)*

### Annex-J8 List of Bulldozer

S.No	Village	Taluka	Name of Owner	Contact Number
1	Tavara	Bharuch	Bakorabhai Ramsing	9825026489
2	Rajpardi	Jhagdia	G.M.D.C	9824482021
3	Aamod	Jhagdia	G.M.D.C	9824482021
4	Du.bhuri	Jhagdia	G.M.D.C	9824482021
5	Aragama	Vagra	Zakir Musa Purjak Saiyad	9099672666
6	Aladar	Vagra	Parmar Sajaybhai C	9925050519
7	Goldara	Vagra	Kajibhai Jesangbhai Gohil	9099941854

*(Source VDMP)*

## Annexure

### Annex- J9 List of Inflatable Light Tower in District:-

Sr.No	Name Of Dept.	Number of Inflatable Tower	Contact Number	
			Mobile	Office
1	Bharuch Nagarpalika	2	9574007002	02642 -243525 220143 , 290400
2	Ankleshvar Nagarpalika	2	9099918903	02646 -247137 247965, 247785
3	Amod Nagarpalika	2	7567001417	02641-245442
4	Jambusar Nagarpalika	2	7567001359	02644 -220360
5	District EOC	3	9408703201	02642-242300

### Annex-J10 List of Generator in District: - (Govt Dept)

Sr.No	Name Of Dept.	Number of Generator With (K.V.)	Contact Number	
			Mobile	Office
1	Bharuch Mamlatdar Office	1 (10.K.V.)	7567001377	02642-243536
2	Ankleshvar Mamlatdar Office	1 (10.K.V.)	7567001495 9825405969	02646-224603
3	Hansot Mamlatdar Office	1 (10.K.V.)	7567001392	02646-262026
4	Valia Mamlatdar Office	1 (10.K.V.)	9408703208	02643-270623
5	Jhagadia Mamlatdar Office	1 (10.K.V.)	7567001469	02645-220039
6	Vagra Mamlatdar Office	1 (10.K.V.)	7567001417	02641-225221
7	Amod Mamlatdar Office	1 (10.K.V.)	7567001322	02641-245040
8	Jambusar Mamlatdar Office	1 (10.K.V.)	7567001959	02644-220070
9	SDM Office Bharuch	1 (10.K.V.)	9978405256	02642-241980
10	SDM Officer Anklesvar	1 (10.K.V.)	9979076562	02646-242648

## Annexure

### Annex- J10 List of Generator: - (Private)

S.No	Village	Taluka	Name of Owner	Contact Number
1	Bhadkodra	Ankleshvar	Bharatbhai A Patel	9638449911
2	Jeetali	Ankleshvar	Navinbhai D Vasava	8758371632
3	Zanor	Bharuch	Manubhai Jak Machi	9428587747
4	Bhadabhut	Bharuch	Somchnd M Tndel	9824783422
5	Vadhavan	Jambusar	KishorChandra S Patel	9426118822
6	Kahanva	Jambusar	solanki Jagadishbhai Dahayabhai	8737880534
7	Kareli	Jambusar	Jitubhai Mangalbhai	8128620550
8	Kavi	Jambusar	The Kavi Marketing Processing	02644-230221
9	Panetha	Jhagadia	Kalpeshbhai J Deshai	849265187
10	Tarsali	Jhagadia	Shekh Gulam Mahamd Rasul	9913830816
11	Vadhavana	Jhagadia	Vadhavana Deri	9712090409
12	Krushnpuri	Jhagadia	Dudh Deri (devendrasah Raj)	9408933464
13	Sarsad	Jhagadia	Prmukha Dudha deri Sahkari Madali (Pravinsih)	9979695279
14	Aambosh	Jhagadia	Abadul Rasid	9725253927
15	Dharoli	Jhagadia	Kishorbhai Chotubhai	7874030432
16	Rajparadi	Jhagadia	G.M.D.C	02645-240185
17	Aamod	Jhagadia	G.M.D.C	9979846454
18	Aladar	Vagra	Prajapati Mukeshbhai Zaverbhai	9099390361
19	Janipadra	Vagra	Ranjitsih Vaghela	9813824064
20	Panipadra	Vagra	Dilipbhai Parbat Gohil	9925231781
21	Goratiya	Netrang	Vasava Hargishbhai Valajibhai	9825016249
22	Valia	Valia	Arjun Rathore	9913120785

*(Source VDMP)*

## Annexure

### Annex- J11 List of Fire Tender:-

Capacity against industrial and chemicals disaster				
FIRE TENDEOR				
S. No	Name & Factory	Address	Contact Number	No Of Fire Tender
1	Gujarat Alkalies & Chemicals Ltd.	Dahej, Tal-Vagra, Bharuch-392 130	9909029643	2
2	Petronet Lng Ltd.	Plot No.7/A, Gidc, Dahej, Tal. Vagra, Bharuch	9998216186	2
3	Reliance Industries Ltd.	Reliance Industries Ltd P.O.Dahej, Tal. Vagra Bharuch-392 130	9998984700	6
4	Gujarat Fluro Chemicals Ltd.	12/A, Gidc, Dahej, Ta-Vagra Gujarat	9328877788	1
5	Hindalco Ind. Ltd. Unit: Birla Copper, P.O. Dehej	Lakhigam, Dist. Bharuch Bharuch-392 130	9904400045	3
6	Gujarat Chemical Port Terminal Company Ltd.	P.O. Lakhigam, Dahej Vagra, Bharuch	9998950534	4
7	Gail (India) Ltd	Vill. Roza Tankaria Bharuch	9574234440	2
8	Dpmc Dahej	Gidc Dahej, Tal-Vagra, Dist-Bharuch	9426253717 9824475576	2
9	Gujarat Narmada Valley Fertilisers Co. Ltd.	Dahej, Tal-Vagra, Bharuch	9898088332	2
10	Gujarat Narmada Valley Fertilisers Co. Ltd.	P.O. Narmadanagar Bharuch-392015	9898300649	6
11	Videocon Industries Ltd	Village Chavaj Dist. Bharuch 392 002	9898506591	1
12	National Thermal Power Corporesion Ltd.	Village : Jhanor Bharuch	9429109966	2
13	Clp India Pvt Ltd	Paguthan Bharuch-392 015	9824102073	2
14	Dpmc Ankleshwar	Gidc Ankleshwar, Dist-Bharuch	9426889616	7
15	Glemark	3109/C Gidc Ankleshwar, Dist-Bharuch	9687077755	1
16	Bayer Cropscience Limited	6301-10a, Gidc Ankleshwar, Dist-Bharuch	9662028547	1

## Annexure

S. No	Name & Factory	Address	Contact Number	No Of Fire Tender
17	Gidc Panoli	Gidc Panolo, Tal-Ankleshwar, Dist-Bharuch	02646-272872	3
18	United Phosphorous Ltd (Unit-5).	750 Gidc Indl. Estate Jhagadia Bharuch-393 110	9979880452	1
19	Vardhman Acrylics Ltd.	755 Gidc Mega Estate Jhagadia, Dist. Bharuch	9228020783 9228020784	1
20	Shriram Alkali & Chemicals (A Unit Of Dcm Shriram Consolidated) Ltd	749 Gidc Indl. Estate, Jhagadia Bharuch-393 110	9909388288	1
21	Lanxess India Pvt Ltd	748/2/A,748/3,748/4/A & B Gidc Jhagadia, Dist-Bharuch	9979117904	1
22	Gidc Jhagadia	Gidc Jhagadia, Dist-Bharuch	9727731192	1
23	Nagarpalika	Bharuch Nagarpalika	02642243525, 220143, 290400	5
24	Nagarpalika	Anklesvar Nagarpalika	02646247137, 247965, 247785	4
25	Nagarpalika	Jambusar Nagarpalika	02644 220360	1
26	Nagarpalika	Amod Nagarpalika	02641-245442	1

*(Source DISH)*



## Annexure

Annexure: - J12  
BHARUCH DISTRICT AMBULANCE SERVICES

Sr.No	Agency Name	Contact Number
1	Jayaben Modi Hospital GIDC Ankleshvar.	02646-224550
2	Hirabhai Modi Foundation Trust Ankleshvar	9825041750
3	Uttar Bharat Mitra mandal GIDC-Ankleshvar	02646-247940,
4	Rotary Club Of Ankleshvar	02646-247940/244111 9377510018
5	Darul Kuran Trust –Jambusar	02644-220786
6	Civil Hospital Ankleshvar	02646-248239
7	Jambusar Relief Hospital, Jambusar	02644-220088
8	Huseniam Committee At&Post Kapasiyapura Jambusar	02644-220901
9	PHC-Sukaltirth Ta: Bharuch	02642281358
10	PFC-Tankari Tal : Jambusar	02644-238279
11	PHC-Mandava Tal : Ankleshvar	02646-244717
12	PHC-Dharoli Tal : Jhagadia	02645-228093
13	PHC- Avidha Tal : Jhagadia	02645-240119
14	PHC-Netrang Tal : Valia	02643-282210
15	Bharuch Nagarpalika	02642-290400 241753/220702
16	Disaster Prevention & Management Center, Ankleshvar	02646-220229 02646-224100
17	Ankleshvar Nagarpalika	02646-249270 02646-247137
18	Gujarat Ankalies & Chemical Ltd. Tal : Vagra Dist : Bharuch	
19	Gujarat Narmada Valley Fertilizers Co. Ltd. Bharuch	02642-247108 02642-237517
20	Hindalco Industries Ltd. Unit Birla Vagra.	02641-256004
21	Jambusar Nagarpalika	02644-220360

Annex- J13 - List of Rescue equipments like Life Jacket, Fiber Ring, and Life boya, Rope, Generator Set Dewatering Pump and FRP boat given by Gujarat State Disaster Management Authority.

S.No	Name of Taluka	Life Jacket	Fyber Ring	Roap		Generator Set 2-1 K.V.	Dewatering Pump	Fiber Boat	Rubber Boat	Remarks
				200 Feet	100 Feet					
1	2	3.	4.	5.	6	7	9	9	10	11
1	Bharuch	15	30	10	7	01				
2	Jambusar	10	35	10	4	1not work.				
3	Amod	30	35	5	4	1not work.				
4	Vagara	10	35	4	3	1not work.				
5	Anklesvar	16	35	5	5	01				
6	Hansot	120	155	20	16	01				
7	Jhagadia	15	35	5	2	01				
8	Valia	25	30		4	01				
9	SDM Bharuch Office	--	--	--	--	01				
10	SDM Anklesvar Office	--	--	--	--	01				
11	DEOC Office	10	10	02	02	01				
12	Nagarpalika Bharuch	40	20	6	7		4	3	--	--
13	Nagarpalika Anklesvar	20	20	1	1	--	1	2	2	2-tower light
14	Nagarpalika Jambusar	25	25	10	4	--		1		FRP Boat
15	Nagarpalika Amod	25	25	,	4	--			1	
16	Dy.Eg. Irrigation Bharuch	--	--	--	--	--				
17	DSP Office, Bharuch	10	10	03	--	--		2	1	FRP Boat (Not in Use)
	<b>Total</b>	<b>371</b>	<b>480</b>	<b>81</b>	<b>63</b>	<b>11/6work.</b>	<b>5</b>	<b>6/5work</b>	<b>6</b>	

\*NW-NotWork

## Annexure: - J14

### DETAILS OF DEWATERING PUMPS GIVEN BY GOVERNMENT:-

Sr. No.	Place of Availability of Dewatering Pump	In-charge Person Name	Nos. of Dewatering Pump	Capacity	Telephone No.
1.	Hansot	Taluka Development Officer	1	10 HP	02641-262025
2.	Vagra	Taluka Development Officer	1	10 HP	02641-225223
3.	Bharuch	Taluka Development Officer	1	10 HP	02642-243504
4.	Amod	Chief Officer, Amod Nagarpalika	1	10 HP	02641-245442
5.	Bharuch	Chief Officer, Bharuch Nagarpalika	4	10 HP	02642-243525
6	Ankleshvar	Chief Officer, Ankleshvar Nagarpalika	3	10 HP	02646-247137
7	Jambusar	Chief Officer, Jambusar Nagarpalika	3	10 HP	02644-220360
8	Bharuch	Dy.Eng (Irrigation ) Panchyat	6	10 HP	02642-243525
Total			21		

Annex- J14		Details of Dewatering pumps under GIDC Bharuch Region						
Sr. No.	Name of Agency	Contact Person	Cell No.	Available pump set	Capacity	Available D.G. Set	Capacity	Location of Pump Set
1	M/s. Hitesh Electrical	(1) Mr. Hitesh Patel	9974705060 9824180020	3	10 HP	1	100 KVA	Bharuch
		(2) Mr. N.K. Parmar, NAO, Bharuch	9825021016	2	7.5 HP	1	70 KVA	
				2	5 HP	1	15 KVA	
2	M/s R.C Patel	(1) Mr. Amish Patel	9824270444	1	5 HP	1	15 KVA	Dahej
		(2) Mr. H.M. Patel, AAE, Bharuch	8511182997	1	7.5 HP			
3	M/a. Sachin Water Supply Co.	(1) Mr. Sushilbhai	9825313004	6	5 HP			Dahej
		(2) Mr. H.M. Patel, AAE, Bharuch	8511182997	1	7.5 HP			
4	M/s. RKC Infrabuilt	(1) Mr. Kamlesh Ahir	9099918047	1	10 HP			Dahej
		(2) Mr. D.K. Pansara, A.E., Bharuch	9925042373					
		(2) Mr. D.K. Pansara, A.E., Bharuch	9925042373					
5	NAO, Ankleshwar	(1) Mr. Arvind Mayatra , AAE, Ankleshwar	9879110124 /9909948901	3	5 HP	9		Ankleshwar
6	NAO, Panoli	(1) Mr. H.N. Dave, DEE, Panoli	9714109609 / 9879110075	1	5 HP			Panoli

## Annexure

### Annexure: - J15

#### List of Machine Boats information

Sr.No	Village Name	Taluka	Name of Boat Owner/Agency	Contact No
1	Bharuch	Bharuch	JagadisabhaiMachhi	9904350314
2	Bharuch	Bharuch	CampakabhaiVasava	9428443522
3	Nikora	Bharuch	Bachubhai	9898113753
4	Nikora	Bharuch	Phagatbhai	9723625556
5	Kadod	Bharuch	IshvarbhaiVasava	9824345814
6	Mangalesvar	Bharuch	JayantibhaiBhagubhai	9737971593
7	Mangalesvar	Bharuch	SureshbhaiGambhirbhai	9723386499
8	Mangalesvar	Bharuch	DineshbhaiMachhi	9898436669
9	Jhanor	Bharuch	Kanubhai	7874992876
10	Jhanor	Bharuch	Maheshbhai	9898510526
11	Kabiravad	Bharuch	Bhagatabhai	9904251508
12	Sukalatirth	Bharuch	Kanubhai	9824982907
13	Bhadbhut	Bharuch	RameshbhaiMachhi	9924487041
14	Tavara	Bharuch	Nitinbhai Ahir	
15	Zadesvar	Bharuch	Kalidas Cheemanbhai Vasava	
16	Vadva	Bharuch	Ikabal Umarji Patel	9537074320
17	Vadva	Bharuch	Rathod Ramanbhai Raysang	
18	Vadva	Bharuch	Mubark Yakub Dhuduvala	9514051507
19	Vadva	Bharuch	Abdul ahamad Isha	8140731088
20	Vadva	Bharuch	Inayat Umarji Patel	9574802691
21	Mahegam	Bharuch	Sravanbhai Gohil	8758096804
22	Nikora	Bharuch	Ramjibhai T Vasava	9426894639
23	Zanor	Bharuch	Bhima Rama Vasava	
24	Kukarvada	Bharuch	Soma Dhiraj Patel	
25	Veravada	Bharuch	Balu Mahija Vasava	
26	BorbhathaBet	Bharuch	Thakorabhai Snakar	8530920204
27	Maktmapur	Bharuch	Goaitambhai K Mistri	9427175432
28	Bhadbhut	Bharuch	Mubarakbhai	9924596209
29	Uchediya	Jhagadia	GovindbhaiMachhi	7874992176
30	Tarsali	Jhagadia	Mayuddin	9426216803
31	Tarsali	Jhagadia	IsmailAhemadMalek	9924781231
32	Tarsali	Jhagadia	Abdul Rahim Gulam Akbar	9909073683
33	Jalasad	Jhagadia	JivanabhaiVasava	9624663755
34	Bhalod	Jhagadia	ViththalbhaiMachhi	9978279215
35	Bhalod	Jhagadia	Motibhai	9725425835

## Annexure

Sr.No	Village Name	Taluka	Name of Boat Owner/Agency	Contact No
36	Bhalod	Jhagadia	MohanbhaiBecharbhai	9429555229
37	Panetha	Jhagadia	Aarifbhai Bachubhai Malek	
38	Tarsali	Jhagadia	Malek Husenlal	9723058286
39	Nana Vasavn	Jhagadia	Sivabhai Goradhnabhai	9712091389
40	Jarshad	Jhagadia	Natubhai Jivanbhai Vasava	8146545407
41	Juna Thothidara	Jhagadia	Vasava Baiubhai Mngabhai	
42	Velugam	Jhagadia	Rajeshbhai Isavarbhai Machi	
43	Bhalod	Jhagadia	Machi Natubhai Motibhai	9428179883
44	Vadhavana	Jhagadia	Ajitsih Dahiyabhai Makavana	9712090409
45	Aambosh	Jhagadia	Jaynti Vechan Vasava	9979343730
46	Aamod	Jhagadia	G.M.D.C	9979846454
47	Dhanturiya	Ankleshvar	RamanabhaiVestabhai	9737647845
48	Nava Bhorbhatha	Ankleshvar	Shirishbhai	9033001788
49	Juna BorBhtha Gam	Ankleshvar	Mngabhai Chotubhai	
50	Dhanturiya	Ankleshvar	Rajeshbhai Ramesh Vasava	7359649787
51	Juna Kasiya	Ankleshvar	Vinodbhai Panchiyabhai Vasava	9537753130
52	Sarfudin	Ankleshvar	Chanabhai Revladas	
53	Junaskkrpo	Ankleshvar	Ranjitbhai Gomanbbhai	9099074951
54	Tariya	Ankleshvar	Nagjibhai Khushalbhai Vasava	9904241410
55	Malpur	Jambusar	Chandu Nana machi	
56	Kavi	Jambusar	Junaid Ismail	9904611059
57	Jamadi	Jambusar	Pravin nanabhai	9724940436
58	Jamadi	Jambusar	Ranchhod Nanabhai	
59	Jamadi	Jambusar	Chhagan Machhi	
60	Paniyadara	Vagara	Bharatabhai	9909374745
61	ambheta	Vagara	Gohil Jayantibhai Raysang	8238377885
62	Jageswar	Vagara	Patel Kalidas Rayajibhai	9727720722
63	Suva	Vagara	Gohil Arjun S	9712927535
64	Panipadra	Vagara	Rajubhai Bhavsangbhai Vasava	9879014391

(Source VDMP)

## Annexure

### Annex - J16 List of Simple Boat

S.No	Village	Taluka	Name of Owner	Contact Number
1	Juna BorBhtha Bet	Anklesvar	Dipakbhai Rameshbhai Vasav	9904845897
2	Sarfudin	Anklesvar	Babubhai Revadas Vasava	9723126839
3	Bhadabhut	Bharuch	Dahiyabhai Somabhai Machi	9824739853
4	Sarod	Jambusar	Yunush aadam	9925442726
5	Kareli	Jambusar	Vagari Mafat Sankar	9558418010
6	Malpur	Jambusar	Dipak Nana Machi	8347589779
7	Kavi	Jambusar	Islamulhak Ismail	9714184910
8	Jarashad	Jhagdia	Rajeshbhai Ranshodhbhai Vasava	8141074924
9	Kaklpor	Jhagdia	Vasava Arvind Goradhan	9714086405
10	Ambheta	Vagra	Gohil Ranchhodhbhai Manguhai	9913838264
11	Suva	Vagra	Gohil Dipsang Magan	9979356867

*(Source VDMP)*

## Annexure

### Annex- K List of Swimmer:-

S.No	Village	Taluka	Age	Name of Swimmer	Contact Number
1	Juna BorBhtha Bet	Anklesvar	52	Pratapbhai Chandubhai Thakor	9913802075
2	Juna BorBhtha Gam	Anklesvar	40	Atulbhai Melabhai Rathod	7474042851
3	Danturiya	Anklesvar	30	Rajeshbhai Ramesh Vasava	7359649787
4	JuniDivi	Anklesvar	68	Mangabhai Mohanbhai	9825462758
5	Divi	Anklesvar	40	Jagdishbhai	9924311936
6	Nava Kansiya	Anklesvar	45	Jitendrabhai sivaji Ridhiyat	9824723037
7	Juna Kansiya	Anklesvar	53	Nanubhai Punabhai Vasava	9924381291
8	Sarfudin	Anklesvar	42	Sureshbhai Devjibhai	9879673534
9	Tariya	Anklesvar	31	Jitendrabhai Babubhai Patel	9558295383
10	Tariya	Anklesvar	37	Mineshbhai Balubhai	8347090416
11	Bharuch	Bharuch	53	Bhupendrabhai C. Parmar	9825315012
12	Bharuch	Bharuch	54	Girishbhai K. Vasava	7046619663
13	Bharuch	Bharuch	50	Rameshbhai B. Kahar	9723788207
14	Bharuch	Bharuch	53	Shamalbhai R. Vasava	9737967127
15	Bharuch	Bharuch	46	Parsottambhai B. Machchi	9978556735
16	Bharuch	Bharuch	33	Alpeshbhai R. Mistry	99824580514
17	Bharuch	Bharuch	34	Alpeshbhai J. Vasava	9913314983
18	Bharuch	Bharuch	24	Trupalbhai D. Gamit	9909748108
19	Bhadabhut	Bharuch		Rameshbhai Jemabhai Machi	9924487041
20	Katpor	Hamsot	51	Jerambhai Haribhai Rathod	9427879132
21	Katpor	Hamsot	33	Jerambhai Haribhai Rathod	9624244596
22	Vadhavan	Hamsot	29	Prsosttmbhai jivanbhai	9913932588
23	Dnatrai	Hamsot	42	Dineshbhai Meljibhai Rathod	9424661636
24	Dnatrai	Hamsot	36	Rakeshbhai Thakorabhai Patel	8511886086
25	Dnatrai	Hamsot	30	Dilipbhai Bhagubhai Patel	9913229141
26	Chilodra	Hamsot	40	Ambubhai M Rathod	9879429752
27	Aamod	Hamsot	40	Shantilal Mohan Vasava	9978492946
28	Utaraj	Hamsot	35	Melabhai Thakorabhai	8140708788
29	Kobala	Amod	40	Vijaybhai M Patel	9909597756
30	Dadapor	Amod	39	Khuman Jadav	9537968533
31	Ranada	Amod	40	Anvarsha Kashamsha Divan	9904811135
32	Ochan	Amod	35	Nareshbhai Deshaibhai Patel	7698855014
33	Asnera	Amod	45	Mahendrabhai Keshurbhai Vasava	9978278745
34	Bodaka	Amod	38	Mukesh Chhtrsang Padiyar	9099864721
35	Shrikothi	Amod		Chandrakantbhai Vasava	9727607803
36	Kareli	Jambusar	42	Vagari Mafat Sankar	8128620550



## Annexure

S.No	Village	Taluka	Age	Name of Swimmer	Contact Number
37	Umara	Jambusar	37	Pradip Chatur Patel	9574399771
38	Kavli	Jambusar	45	Rathod Babarbhai Sursang	9924002889
39	Jamdi	Jambusar	34	Bhailal Soma Rathod	9586605670
40	Amanpura	Jambusar	40	Ramesh Mangal Vagari	9712496697
41	Kora	Jambusar	30	Gaiottambhai Ganpatbhai	9913024222
42	Vadadala	Jambusar	37	Thakorbbhai Rathod	8154900458
43	Panchpipala	Jambusar	32	Thakor Bhailal	9723236525
44	Nada	Jambusar	39	Dineshbhai	9979896099
45	Patar	Jhagdia	38	Bakulbha Dalashukhbhai Vasava	9824462048
46	Jarashad	Jhagdia	38	Vasava Rajeshbhai Ranchodbbhai	8141074924
47	Bhalod	Jhagdia	40	Machi natubhai M	9428179883
48	Limodra	Jhagdia	38	Revadas Kalidas Vasava	9712807887
49	Vadhavana	Jhagdia	53	Thakorbbhai Nagjibbhai Jadav	9978341983
50	Krushnpuri	Jhagdia	50	Paramar Raysag Sankrbhai	9879584240
51	Sarsad	Jhagdia	35	Vasava Rasikbhai	9726569350
52	Kaklpor	Jhagdia	28	Hiteshbhai Santilal	96383553242
53	Vnakpor	Jhagdia	52	Isapkha Narasihkha Solanki	9574277019
54	Avidha	Jhagdia	42	Manilal Chaganbhai	9638635219
55	Vorasamani	Vagra		Ramesh Mahiji Vasava	7698058354
56	Rahiyad	Vagra		Gohil Nimesh Jasavantbhai	8980304748
57	Galenda	Vagra		Rathod Budhabhai Somabhai	9727687103
58	Suva	Vagra		Gohil Arjun S	9712927535
59	Dahej	Vagra		Govindbhai Lakhabbhai Rathod	8347104038
60	Naranali	Vagra		Ranjibbhai R Vasava	9726835230
61	Lakhigam	Vagra		Machhi Rameshbhai B	9824789094
62	Luvara	Vagra		Ranchhod Mohan Rathod	9113650281
63	Arethi	Netrang		Indubhai Somabhai Vasava	9099681720
64	Bedoli	Netrang		Ankitbhai DalsuKhbbhai Vasava	7500646003
65	Borkhadi	Netrang		Gumanbhai Bhanabbhai	9925894900
66	Chasvad	Netrang		Mansukhbhai S Vasava	9909445199
67	Chiklota	Netrang		Rohidas Devsubhai	9537291917
68	Kelvikuva	Netrang		Jaytibbhai P Vasava	9574160631
69	Kodavav	Netrang		Budhiyabbhai Jesingbbhai Vasava	9908427301
70	Kup	Netrang		Kanubbhai Devjibbhai Vasava	9427158941
71	Dungri	Valiya		Jakirhusen Mohammad Bhagat	9408269689

## Annexure

### Annexure L List of Trained Man Power

Sr. No	Taluka Name	Training	Category	Organization	Person Name	Contact Details
1	Bharuch	FRT	FP	Bharuch Nagarpalika	Bhupendra Chhaganbhai Parmar	0264-221516 / 9825315012
2	Bharuch	FRT	FP	Bharuch Nagarpalika	Shailesh A. Sansia	02642-223837/ 992537337
3	Bharuch	FRT	FP	Jambusar Nagar Police Bharuch	Tribhovanbhai Ganeshbhai Govardhan	02642-220360
4	Bharuch	FRT	SPF	B Division, Police Station, Bharuch	Sandipkumar Govindbhai Tandel	02642-269133
5	Bharuch	FRT	VW	Gujarat Maritime Board, Bharuch	Kanubhai Khatariyabhai Vasava	241772 / 243140 9727766676
6	Bharuch	FRT	VW	Gujarat Maritime Board, Bharuch	Fuljibhai Mithabhai Makwana	9274091020
13	Bharuch	MHSnR	FP	Bharuch Nagarpalika	Bhikhubhai Revadas Vasavaq	9712543444
14	Bharuch	MHSnR	FP	Bharuch Nagarpalika	Machi P P	02642-220151
15	Bharuch	MHSnR	MS	Bharuch Nagarpalika	Parmar I R	02642-220151
16	Bharuch	MHSnR	MS	Bharuch Nagarpalika	Pao P R	02642-220151
17	Bharuch	MHSnR	MS	Bharuch Nagarpalika	Manshuri R V	02642-220151
18	Bharuch	MHSnR	FP	Bharuch Nagarpalika	Parmar Bhupendrabhai Chhaganbhai	9825315012
19	Bharuch	FRT	FP	Bharuch Nagarpalika	Arvind Maile	9428686101
20	Bharuch	MHSnR	MS	Bharuch Nagarpalika	Mehta M T	02642-220151
22	Bharuch	FSR	FP	Bharuch Nagarpalika	Malek Mohamd Nisar	9924941576
23	Bharuch	FSR	FP	Bharuch Nagarpalika	Bhosale Balvantrav L	9428326807
24	Bharuch	FRT	HG	Police Headquarter Bharuch	Parmar Dahyabhai Arkhabhai	02642-223303
25	Bharuch	FSR	FP	Bharuch Nagarpalika	Fiter Rajesh Babubhai	9998754660
26	Bharuch	FSR	MS	Bharuch Nagarpalika	Kaysth Mukesh R	9925582602
27	Bharuch	FSR	FP	Bharuch Nagarpalika	Vasava Rangitlal C	02642-220151
28	Bharuch	FRT	FP	Bharuch Nagarpalika	Shivprasad Iswarbhai Jambu	02642-220151

## Annexure

Sr. No	Taluka Name	Training	Category	Organization	Person Name	Contact Details
29	Bharuch	FRT	FP	Bharuch Nagarpalika	Babubhai Lakshmanbhai Vasava	9924867740
30	Bharuch	FRT	FP	Bharuch Nagarpalika	Girishbhai Karsanbhai Vasava	7046619663
31	Bharuch	FRT	MS	Port Officer's Office, Bharuch	Dineshchandra Punjiram Patel	9228580321
32	Bharuch	FRT	HG	Police Headquarter Bharuch	Rathva Samserbhai Noorjibhai	02642-223303
33	Bharuch	FRT	HG	Police Headquarter Bharuch	Rathva Ajmalbhai Gopalbhai	02642-223303
34	Bharuch	FRT	HG	Police Headquarter Bharuch	Vasava Kantibhai Doriabhai	02642-223303
35	Bharuch	FRT	HG	Police Headquarter Bharuch	Parmar Dahyabhai Arkhabhai	02642-223303
36	Bharuch	FRT	HG	Police Headquarter Bharuch	Rathva Kanchanbhai Purshotambhai	02642-223303
37	Bharuch	FRT	HG	Police Headquarter Bharuch	Solanki Sureshbhai Ishwarbhai	02642-223303
38	Bharuch	FRT	HG	Police Headquarter Bharuch	Vasava Narottambhai Mangabhai	02642-223303
39	Bharuch	FRT	HG	Police Headquarter Bharuch	Makvana Natvarsinh Punjabhai	02642-223303
40	Bharuch	FRT	HG	Police Headquarter Bharuch	Chauhan Karansinh Arujusinh	02642-223303
41	Bharuch	FRT	HG	Home guard Bharuch	Solanki Karansinh Ramsinh	02642-271780
42	Bharuch	FRT	HG	Sub Unit Bharuch	Rana Rajnikant Manshuklal	02642-220500
43	Bharuch	FRT	HG	Sub Unit Bharuch	Rana Hareshkumar Champaklal	02642-223303
44	Bharuch	FRT	HG	Sub Unit Bharuch	Dhanshukbhai Santokbhai	9824008024
45	Bharuch	FRT	HG	Sub Unit Bharuch	Mishtri Gautambhai Ranchodbhai	02642-243435
46	Bharuch	FRT	HG	Sub Unit Bharuch	Kahar Rameshbhai Bajrangbhai	02642-240008
47	Bharuch	FRT	FP	Bharuch Nagarpalika	Sansia Shaileshbhai Ambalal	9925375337
48	Bharuch	FRT	FP	Bharuch Nagarpalika	Vasava Natvarbhai Mohanbhai	9979520456
49	Bharuch	FRT	FP	Bharuch Nagarpalika	Vasava Kamleshbhai	9913069646

## Annexure

					Gokalbhai	
50	Bharuch	FRT	FP	Bharuch Nagarpalika	Patel Govindbhai Mohanbhai	9724843242
51	Bharuch	FRT	FP	Bharuch Nagarpalika	Solanki Kalidas Jayantibhai	9824342387
52	Bharuch	FRT	FP	Bharuch Nagarpalika	Vasava Melabhai Valjibhai	9924434525
53	Bharuch	FRT	FP	Bharuch Nagarpalika	Kiyasth Rajubhai Chotalal	9974308283
54	Bharuch	FRT	FP	Bharuch Nagarpalika	Vasava Samalbhai Raijibhai	02642-240008 972581067
55	Bharuch	FRT	FP	Bharuch Nagarpalika	Mistri Vasantbhai Ramanbhai	02642-240008 9723384548
56	Bharuch	FRT	FP	Bharuch Nagarpalika	Vasava Bhikhabhai Revadas	02642-240008 9712543444
57	Bharuch	FRT	VW	Trained Volunteer	Vasava Ramubhai Laxmanbhai	
58	Bharuch	FRT	FP	Bharuch Nagarpalika	Machi Parshottambhai Babubhai	02642-252519 9978556735
60	Bharuch	FRT	FP	Bharuch Nagarpalika	Bhosle Balvantbhai Laxmanrav	9428326807
61	Bharuch	FRT	HG	City 'B' Division Police Station	Tandel Sandipkumar Govindbhai	02642-269133
62	Bharuch	FRT	HG	Police Headqtrs, Bharuch	Vanzara Mahipalsinh Himmatsinh	02642-223303
63	Bharuch	FRT	HG	Police Headqtrs, Bharuch	Chauhan Karansinh Arjunsinh	02642-288703
64	Bharuch	FRT	FP	Bharuch Nagarpalika	Jambu Raviprashad Ishwarbhai	02642-240008
65	Bharuch	FRT	FP	Bharuch Nagarpalika	Vasava Babubhai Laxmanbhai	9924867409
66						
67	Bharuch	FRT	VW	Port Office	Patel Dineshchandra Punjabhai	
68	Bharuch	FRT	VW	Volunteer	Rathod Udaisangbhai Prabhubhai	9374224063
69	Bharuch	FRT	VW	Volunteer	Rathod Arjunbhai Ramanbhai	9974643408
70	Bharuch	FRT	VW	volunteer	vasava Naginbhai Bhaplal	
71	Bharuch	FRT	VW	Volunteer	vasava Rameshbhai keshurbhai	

## Annexure

72	Ankleshvar	FRT	HG	Ankleshvar Nagarpalika	Kamleshbhai Bhikhabhai Vasava	02646-247201
73	Ankleshvar	FRT	FP	Ankleshvar Nagarpalika	Kanaiyalal Zinalal Ankleshwariya	02646-247201
74	Ankleshvar	FRT	FP	Ankleshvar Nagarpalika	Bharatkumar Chhotalal	02646-247201
75	Ankleshvar	FRT	VW	Shri Mastar Compound Opp. Bus Depo	Makwana Maheshkumar Govindbhai	02646-244913
76	Ankleshvar	FRT	FP	Ankleshvar Nagarpalika	Patel Bhaveshbhai Bhailal	02646-247201
77	Ankleshvar	FRT	FP	Ankleshvar Nagarpalika	Chauhan Dilipkumar Ishwarlal	02646-247201
78	Ankleshvar	FRT	HG	Ankleshvar	Vasava Kamleshbhai Bhimabhai	02646-247201
79	Ankleshvar	FRT	FP	Ankleshvar Nagarpalika	Ankleshwaria Kanaiyalal Zinalal	02646-247201
80	Ankleshvar	FRT	FP	Ankleshvar Nagarpalika	Dhamawala Bharatkumar Chotalal	02646-247201
81	Ankleshvar	FRT	FP	Ankleshvar Nagarpalika	Manharbhai Ramjibhai Patel	247201 /249304 9408177223
82	Ankleshvar	FRT	FP	Ankleshvar Nagarpalika	Dilipkumar Ishwarlal Chauhan	247201 / 249304
83	Ankleshvar	MHSnR	FP	Ankleshvar Nagarpalika	Chauhan D I	02646-247201
84	Ankleshvar	MHSnR	FP	Ankleshvar Nagarpalika	Patel Manahar R	9408177223
85	Ankleshvar	MHSnR	MS	Ankleshvar Nagarpalika	Chauhan Arun T	02646-247201
86	Ankleshvar	MHSnR	MS	Ankleshvar Nagarpalika	Vasava Balu C	02646-247201
87	Ankleshvar	MHSnR	FP	Ankleshvar Nagarpalika	Patel Girish M	02646-247201
88	Ankleshvar	FRT	HG	GIDC Ankleshvar	Naie Motisinh Vajisinh	
89	Jambusar	FSR	FP	Jambusar Nagarpalika	Sinde Mahendrasing	9377065357
90	Jambusar	FRT	VW	volunteer	Mansuri Iqbalbhai kasambhai	02644-239160
91	Jambusar	FRT	VW	volunteer	Patel Indravadhan Hiralal	9925294334
92	Jambusar	FRT	VW	volunteer	Patel Pravinbhai Parsottambhai	9727887797
93	Jambusar	FRT	VW	volunteer	Patel Mohmad Gulambhai	9567501649
94	Jambusar	FRT	FP	Jambusar Nagar Police Bharuch	Harshadrav Krushnarav Dongare	02644-222630
95	Jambusar	FRT	HG	Jambusar Unit	Rami Sandpanibhai Bhupendrabhai	02644-222308

## Annexure

96	Jambusar	FRT	HG	Jambusar Unit	Kachia Patel Harishchandra Gopalkrishna	02644-220135
97	Jambusar	FRT	HG	Jambusar Unit	Kachia Patel Amitbhai Bapubhai	02644-220135
98	Jambusar	FRT	HG	Jambusar Unit	Vasava Jitubhai Kantibhai	02644-222613
99	Jambusar	FSR	FP	Municipality	Tribhuvan Ganeshbhai	02644-220360
100	Jambusar	FSR	FP	Municipality	Patel Umeji Ahamadbhai	02644-220360
101	Jambusar	FSR	FP	Municipality	Dogra Harshadbhai K	02644-220360
102	Jambusar	FRT	HG	Jambusar, Bharuch	Mahendrarav Yashvantrav Argade	02644-222811
103	Jambusar	FRT	HG	Jambusar, Bharuch	Pravinkumar Mohanrav Malek	02644-20915
104	Jambusar	FRT	HG	Kavi Police Station	Raval Dineshbhai Punjaji	
105	Jambusar	FRT	HG	Kavi Police Station	Asari Shankarbhai Thavarbhai	
106	Jambusar	FRT	HG	Jambusar Unit	Panjrolia Yogendrasinh Mohansinh	02644220965/ 9427879696
107	Jambusar	FRT	FP	Jambusar Nagarpalika	Goverdhan Tribhovanbhai Ganeshbhai	02644-220360
108	Jambusar	FRT	FP	Jambusar Nagarpalika	Dongre Harshadrai Krishnarav	02644-220360
109	Jambusar	FRT	VW	Kalak, Jambusar, Makwana Street	Makwana Bhupendrabhai Parshottambhai	
110	Jambusar	FRT	VW	Kalak, Jambusar, Makwana Street	Makwana Kaushikkumar Manilal	2644229033
111	Jambusar	FRT	VW	Kalak, Jambusar, Makwana Street	Makwana Mahendrabhai Phuljibhai	2644-229033
112	Jambusar	FRT	VW	Ambaji Bhagol, Navinagri, Jambusar	Mahida Harishbhai Ramanbhai	
113	Jambusar	FRT	HG	Jambusar	Aargade Mahendrarav Yashwantrav	02644-222811
114	Jambusar	FRT	HG	Jasmbusar	Malet Pravinkumar Mohanrav	02644-20915
115	Jambusar	FRT	VW	volunteer	Jadav Gunvantsinh	02644-230492

## Annexure

					Prathamsinh	
116	Jambusar	FRT	VW	Volunteer	Parmar Vinubhai kabhaibhai	02644-230494
117	Jambusar	FRT	VW	Volunteer	parmar Karansinh Takhsinh	02644-230492
118	Jambusar	FRT	VW	Volunteer	Rathod Nagjibhai Mohanbhai	9913625229
119	Jambusar	FRT	VW	Volunteer	Rathod Hasmukhbhai Shankarbhai	02644-230307
120	Jambusar	FRT	VW	Volunteer	Rathod Naginbhai Shankarbhai	9313625229
121	Jambusar	FRT	VW	Volunteer	Chauhan Bhailalbhai Chhinubhai	
122	Jambusar	FRT	VW	Volunteer	Rathod Khumansang Jesangbhai	02644-239170
123	Jambusar	FRT	VW	Volunteer	Makvana Bharatbhai Himmatbhai	
124	Jambusar	FRT	VW	Volunteer	Chauhan Baldevbhai Somabhai	
125	Jambusar	FRT	VW	Volunteer	Mansuri Shiraj kasambhai	
126	Jambusar	FRT	VW	Volunteer	Parmar Rajendrabhai Kabhaibhai	02644-239177
126	Jambusar	FRT	VW	Volunteer	Parmar Rameshbhai Mathurbhai	02644-239177
128	Amod	FRT	VW	Volunteer	Gohil Jitendra jivanbhai	02641-230063
129	Amod	FRT	VW	Volunteer	Solanki Tribhovanbhai somabhai	02641-230017
130	Amod	FRT	VW	Volunteer	Solanki Jagdishbhai Udaisingbhai	9998748080
131	Amod	FRT	VW	Volunteer	Solanki Hasmukhbhai jesangbhai	02641-230012
132	Amod	FRT	VW	Volunteer	Soalanki Chandrasinh sursangbhai	9427158252
133	Amod	FRT	VW	Volunteer	Gohil Pratapsang Chandrasang	9879804756
134	Amod	FRT	VW	Volunteer	Vaghela Desai bhai Ranchhodbhai	9979394429
135	Amod	FRT	VW	Volunteer	Padhiyar Ranchhodbhai Somabhai	02641-290387

## Annexure

136	Jhagadia	FRT	VW	volunteer	Patel Vijabhai Pravinbhai - Uchadia.	9723585082
137	Jhagadia	FRT	FRT	volunteer	Patel Harshadbhai Baldevbhai At&Post Uchadia	9979796115
138	Jhagadia	FRT	FRT	volunteer	Patel Kalpeshbhai Bharatbhai At & Post Uchadia	02645-522125
139	Jhagadia	FRT	FRT	volunteer	Patel Harshadbhai Chitubhai At&Post Uchadia	9924880192
140	Jhagadia	FRT	FRT	volunteer	Patel Niteshbhai Naginbhai At&Post Uchadia	9978342559
141	Jhagadia	FRT	FRT	volunteer	Patel Jayeshbhai bachubhai At&Post Uchadia	9773777127
142	Jhagadia	FRT	FRT	volunteer	Machi Sunilbhai Chi,anbhai At&Post Asha	9712717682
143	Jhagadia	FRT	FRT	volunteer	Machi Chiragkumar Ramanbhai At&Post Asha	9537748881
144	Jhagadia	FRT	FRT	volunteer	Machi Ashvinbhai Ishvarbhai At&Post Asha	9726857335
145	Jhagadia	FRT	FRT	volunteer	Patanvadia Dhavalkumar Kalidas At & Post Asha	9722723401
146	Jhagadia	FRT	FRT	volunteer	Patanvadia Pankajkumar Jayntibhai At&Post Asha	9662983294
147	Jhagadia	FRT	FRT	volunteer	Vasava Shaileshbhai Hasmukhbhai At&Post Asha	9978815839
148	Jhagadia	FRT	FRT	volunteer	Machi Balubhai Nandubhai At&Post Asha	9913015762
149	Jhagadia	FRT	HG	Bhaldo Unit HG	Machi Ravichandra Chimanbhi	02645-243482
150	Jhagadia	FRT	HG	Bhaldo Unit HG	Machi Ramanbhai Chotubhai	02645-243432
151	Jhagadia	FRT	HG	Bhaldo Unit HG	Machi Thakorbhai Sukhabhai	02645-243704
152	Jhagadia	FRT	HG	Bhaldo Unit HG	Machi Sanabhai	02645-243385



## Annexure

					Prafulbhai	
153	Jhagadia	FRT	HG	Bhaldo Unit HG	Machi Ramanbhai Sanambhai	02645-243348
154	Jhagadia	FRT	HG	Bhaldo Unit HG	Machi Sanjaybhai Chandubhai	02645-243730
155	Jhagadia	FRT	HG	Bhaldo Unit HG	Machi Rajeshbhai Bhikhabhai	02645-243432
156	Jhagadia	FRT	HG	Bhaldo Unit HG	Machi Govindbhai Madhavbhai	02645-243580
157	Jhagadia	FRT	HG	Bhaldo Unit HG	Vasava Pravinbhai Vajabhai	02645-243394
158	Jhagadia	FRT	HG	Bhaldo Unit HG	Machi Rameshbhai Bhikhabhai	02645-243580
159	Jhagadia	FRT	FRT	Trained volunteer	Machi Sachinbhai Chimanbhai At&post Asha	9712245339
160	Hansot	FRT	SPF	State Police Force	Vasava Nareshbhai Ramanbhai	02622-220168
161	Valia	FRT	FRT	Volunteer	Vasava Karunbhai Tulshibhai At&Post Punjiya	9727567927
162	Vagra	FRT	HG	Vagra P. Station	Baria fatehsinh Haribhi	

Training Type		Category			
<b>FSR</b>	Elementary Fire Search & Rescue Training	<b>FP</b>	Fire & Emergency Personnel from Municipal Corporation	<b>CD</b>	Trained Civil Defense Personnel
<b>MHSnR</b>	Multi Hazard Search & Rescue Training	<b>MS</b>	Trained Municipality Staff Members	<b>HG</b>	Trained Homeguard Personnel
<b>FRT</b>	Flood Rescue Training	<b>IE</b>	Trained Industrial Employee	<b>SPF</b>	Trained State Police Force Personnel
		<b>GRD</b>	Trained Gram Rakshak Dal	<b>VW</b>	Trained Volunteers Workers
		<b>NDRF</b>	National Disaster Response Force		

**Annexure: - M**  
**MAJOR HOSPITAL AND RESOURCES**

Sr No	Name	Location	STD Code	Phone No.	Beds	Burn Ward	Chemical Poisoning Treatment Facility	Ambulance
1	Community Health Centre	Amod	02641	245016	30	N	Y	1
2	Ami Surgical Hospital	Station Road, Ankleshwar	02646	248001	9	Y	Y	-
3	Anand Hospital	Station Road, Ankleshwar	02646	246783	25	N	N	-
4	Jayaben Modi Hospital	Valia Road, GIDC Ankleshwar	02642	239196	60	Y	Y	2
5	Navjeevan Hospital	Behind Panchayat Bhawan, Station Road, Ankleshwar	02646	247157	15	N	N	-
6	Patel Surgical Hospital	Station Road, Ankleshwar	02646	246535	15	Y	Y	-
7	Aman Nursing Home	Zam Zam Complex, 5 Batti, Bharuch	02642	243754	6	N	N	-
8	Bharuch Hospital	Dahej bypass - Bharuch	02642	241044	125	Y	Y	4
9	C J Seth Memorial Hospital	Shalimar Complex - Bharuch	02642	264411	18	N	Y	-
10	Divya Jeevan Sangh Hospital	Nr. Victoria Hotel, Bharuch	02642	243677	22	N	N	1
11	Govardhan Hospital	Bholav Road, Bharuch	02642	241044	35	N	Y	-
12	Government General Hospital	5 Batti, Bharuch	02642	243515	210	Y	Y	7
13	Krishna Hospital	5 Batti, Bharuch	02642	264737	10	N	N	-
14	Parth Surgical Hospital	Shalimar Complex - Bharuch	02642	260844	10	N	Y	-
15	Sevashram Hospital	5 Batti, Bharuch	02642	243493	140	Y	Y	3
16	Shah Memorial Hospital	Ashirwad Complex, 5 Batti, Bharuch	02642	266585	12	N	N	-
17	Vishwas Hospital	Falsuti Nagar, Bharuch	02642	268675	18	N	Y	-
18	Zain Clinic (Dr. Khan)	5 Batti, Bharuch	02642	243691	12	Y	N	-
19	Community Health Centre	Jambusar	02644	220088	50	N	Y	1
20	Community Health Centre	Jhagadia	02645	220078	30	N	Y	1
21	Seva Rural Hospital	Jhagadia	02645	220313	75	Y	Y	1
22	Community Health Centre	Valia	02643	270733	30	Y	Y	1
23	Govardhan Trust Hospital	Valia	02646	270583	35	Y	Y	1
24	Global Hospital	Bharuch	02642	268800,265800 266800	50	Y	Y	2

## Annexure

### Annex-M 1 Other District Major Hospitals

Sr.No	Name of Hospital	Contact Details	
		Mobile	Office
1	Sterling Hospital (Baroda)	9574544456	0265-2354455 02645-2354466 0265-2354488
2	Bhailal Amin Hospital (Baroda)		0265-2284444 0266-2286666 0265-3956222
3	Baroda Heart Institute & Research Centre (Baroda)	9898500101	0265-2325444 0265-2322021
4	Shree Sir Sayaji General Hospital (Baroda)		0265-2424848 0265-2423122
5	Civil Hospital (New) Surat (Surat)		0261-2244985
6	Shree Mahavir General Hospital (Surat)		0261-2331181 0261-2332828 0261-2330180
7	Sanjeevani Multi Speciality Hospital (Surat)	7874285777 8140215777	0261-2215777

### **Annex- M 2 BHARUCH DISTRICT BLOOD BANKS**

Sr No	Name	Contact Person	Phone No.
1	Red Cross Blood Bank, Bharuch	Dr. J J Khilwani (mo) 9427879628	(02642) 243603
2	Kumarpal Gandhi Blood Bank, Ankleshwar	Dr. Ashis Modi	(02646) 244530

## Annexure:-N

## BHARUCH DISTRICT NGO CONTACT LIST:-

Sr. No	Name of NGO	Name of Person	Office Phone Number	Residence Number	Mobile Number	Activity
1	Rotary Club	Ketanbhai shah	02642 243612		9825226803	Social
2	President of Lions Club	President Balavansinh			9428887185	Social
3	President of Indian Medical Association.	Prashant Vasava	02642 263290		9537567853	Health & Social
4	President of Patel Welfare Hospital	Mohmad patel A.V.Matadar	(02642) 244880 244881 241044	02642241 044	9824148002 9824854416 9099028169	Health & Socail Activity
5	President of Bharuch District Drugs & Chemical Association	Bharatbhai shah	02642243 559		9925554930	Social
6	G.N.F.C. (NARDESH)	Anurag Srivastava (Project Manager)	(02642) 663480		9429003857	Social
7	N.T.P.C	-	(02642) 287414			Social Activity
8	Videocon, Chavaj	Niraj Saxsena	(02642) 240803		9227196168	Socail Activity
9	CLP India (formerly known G.P.E.C)	General Manager	(02642) 671101 288502		9824008075	Welfare Activity
10	Jan-Education, Bharuch (Jan-Gan Sanstha)	Retul saiyard fardishben mansuri	02642 260082	02642 265365	9825304175	Education
11	President Jalaram Temple, Ankleshvar	Arvindhbai T Rana Hasmukhbhai M Rana	(02646) 696339		9429478840	Socail & Religious
12	Ankleshvar GIDC	President	02646 251111			Industry related activity

Sr. No	Name of NGO	Name of Person	Office Phone Number	Residence Number	Mobile Number	Activity
13	Kakaba & Kalbadh Public Cheritable Trust, Hansot	President bharatbhai Alpeshbhai	02646 262003 262069		9909031760 9427328622	Health & Socail Activity
14	Gardha Foundation	President	02646 250305	026462545 62	9687979399 9099910901	Social activity
15	Narmada Nagar Industrial Association, Bharuch	President Kirti Patel	02642 228093 245596	02642 227162	9979896160	Welfare activity
16	Bharuch District Civil Eng. Forum, Bharuch	President	02642 241574	02642 226773	9377413049	Social
17	Eklavya Manav Seva Trust.Bharuch.	President Sangitaben Raj	02642 325388		9427105356	Education
18	Narmada Edu.& Scientifics Research Soc.Bharuch	President of	02642 663599 2470011			Education & Socail Activity
19	Gurukul Nahiyer, Amod.	Devkishor swami Bhakti Swami	02641 245511	02641 245511	9687190004 9427101948	Education & Social
20	President Santigram Tancha,Amod	Rohitbhai patel			9726865098	Social Welfare
21	Vikas Agency Development, Amod	President	02641 220580		9428324355	Social& Education
22	President Sramik Vikas Sansthan Vagra	Ramanbhai K Chaucha	02641 225453	942715991 9		Education
23	Birla Cooper . Dahej, Vagra.	Satish Bhavir	(02641) 256004 to06		9904705975	Social activity
24	Munsi Manubarwala Cheritable Trust	S.A.Patel	(02642) 256908 256909			Education & Socail Activity
25	A.K.R.S.P-Netrang	Ramanbhai Patel	02643		9925239320	Women's Empowerment And Economic develop

Sr. No	Name of NGO	Name of Person	Office Phone Number	Residence Number	Mobile Number	Activity
27	Jhagadia Industrial Accociation	Ashok Panjvani Anil jain Mr. bhatt	(02645) 226087		9909994902 9909994941	Industries & Social welfare Environm ent safety
28	Welfare Hospital & Research Center	Dr.Suketu Dave	(02642) 241044 244881 244880		9824141681 9428025009	Health
29	Human Welfare, Environment & Seafty Association	Gitaben P Thakar			9924395509	Human Welfare & Environm ent safety
30	World Vision India	Ronald John			9867611675	Social
31	Bharuch Dist Mahila Pramukh	Vinaben T.Rana			9904176335 7984342244	Womens Welfare
32	Krishna Manav Seva Traust	Jyotsna N.Machchhar			9898233702	Women welfare
26	Gram Nirvan K.Mandal Thava Netrang	Mansing mangrola Narendrasigh			9426439170 9925035956	Education & Social activity

#### **Annexure –O FCI & Civil Supply Godowns in the Bharuch District**

Sr.No	Agency Name	Address	Contact Number
1	Gujarat Co-Operative Markating Society Ltd.	Vagusana NH/8 Tal : Bharuch	02642-231255
2	Civil Supplies Godown	Jambusar	02644-220036
3	Civil Supplies Godown	Amod	02641-2454120
4	Civil Supplies Godown	Vagra	02641-225259
5	Civil Supplies Godown	Bharuch	02642-395188
6	Civil Supplies Godown	Ankleshvar	02646-395695
7	Civil Supplies Godown	Hansot	02646-262525
8	Civil Supplies Godown	Jhagadia	02645-220048
9	Civil Supplies Godown	Valia	02643-270679

**Annexure P**

**List of Panjarapol**

Sr.No	Agency Name	Address	Contact Number
1	Bharuch Panjarapol. Saktinath Modi Park near Bharuch	Sureshbhai I Shah. Sonari MahelBharuch	02642-653885 9824157170
2	Panjarapol Kava Bhagol Jambusar	Bhalchandra C Shah.N/R Police Station – Jambusar	02 644-220031

Annexure-Q													
DETAILS OF HELIPAD													
Fmn / Units	Name of location	GPS coord of helipad in lat / long.	Heli pad elevation in mtr & feet	Exact size of helipad in mtr	Surface of helipad i.e. black top/ concrete / kachha	General wind pattern i.e. South Westerly / Easterly etc.	Avlb of fire fighting equip., refuelling, med facility and wind sock.	Obst within 200 mtr of Helipad with height & aproox bearing from helipad	No two helipad should have same name	Controlling Agncy (Army / BSF/Civ Adm) if clv adm., pt incl the name / appt and tele No. of the office controlling.	Regd . Or not	Last landing date (incl type of heptra)	Remarks (Any other info)
1	G.N.F.C „ Bharuch	Latitude 21°-43'-23.6" Longitude 73°-01'-25.2"	-	Cricket Ground	Kachha (Grass)	-	-	No	-	G.N.F.C. Co.Ltd., Bharuch	-	-	-
2	Videocon, Chavaj	Latitude 21°-44'-35.9" Longitude 72°-59'-47.1"	-	12 mtr dia	Concrete	-	-	No	-	Videocon Co.Ltd., Chavaj	-	-	-
3	G.P.E.C „ Paguthan	Latitude 21°-46'-52.3" Longitude 72°-58'-37.3"	-	19 mtr dia	Concrete	-	-	No	-	G.P.E.C., Paguthan	-	-	-
4	Nikora	Latitude 21°-46'-52.1" Longitude 73°-07'-42.9"	-	19 mtr dia	Concrete	-	-	No	-	Nikora (Private)	-	-	-



Fmn / Units	Name of location	GPS coord of helipad in lat / long.	Heli pad elevation in mtr & feet	Excact size of helipad in mtr	Surface of helipad i.e. black top/ concrete / kachha	Gener al wind patter n i.e. South Westerly / Easterly etc.	Avlb of fire figtinh equip., refuelli ng, med facility and wind sock.	Obst within 200 mtr oof Helipad with height & aproox bearin g from helipad	No two helip ad shoul d have same name .	Controlling Agency (Army / BSF/Civ Adm) if civ adm., pt incl the name / appt and tele No. of the office controlling.	Regd . Or not	Last landing date (incli type of hepctr)	Remarks (Any other info)
5	O.N.G.C., Ankles hwar	Latitude 21°-38'-17.9" Longitude 73°-00'-49.3"	-	25 mtr dia	Asphalt	-	-	No	-	O.N.G.C. Ltd., Ankleshwar	-	-	-
6	Pandvai Sugar Factory	Latitude 21°-28'-58.4" Longitude 72°-55'-19.1"	-	20 mtr dia	Concrete	-	-	No	-	Pandvai Sugar Factory	-	-	-
7	G.A.C.L., Dahej	Latitude 21°-42'-25.3" Longitude 72°-35'-59.7"	-	19 mtr dia	Concrete	-	-	No	-	G.A.C.L., Dahej	-	-	-
8	Reliance (I.P.C.L.), Dahej	Latitude 21°-41'-29.4" Longitude 72°-34'-39.6"	-	30 mtr dia	Asphalt	-	-	No	-	Reliance Co.Ltd. (I.P.C.L.), Dahej	-	-	-

Fmn / Units	Name of location	GPS coord of helipad in lat / long.	Heli pad elevation in mtr & feet	Exact size of helipad in mtr	Surface of helipad i.e. black top/ concrete / kachha	General wind pattern i.e. South Westerly / Easterly etc.	Avlb of fire fighting equip., refuelling, medical facility and wind sock.	Obst within 200 mtr of Helipad with height & aproox bearing from helipad	No two helipad should have same name	Controlling Agency (Army / BSF/Civ Adm) if civ adm., pt incl the name / appt and tele No. of the office controlling.	Regd . Or not	Last landing date (incl type of hepctr)	Remarks (Any other info)
10	Welspun, Dahej	Latitude 21°-43'-06.8" Longitude 72°-38'-13.4"	-	20 mtr dia	Concrete	-	-	No	-	Welspun Co. Ltd., Dahej	-	-	-
11	Birla Century Jhagadia GIDC	Latitude 21°-40'-10.00" Longitude 73°-08'-12.7"	-	22 mtr dia	Concrete	-	-	No	-	Birla Century Jhagadia GIDC, 826, GIDC Industrial Estate	-	-	-
12	Sakata Inks Co. Ltd.	Latitude 21°-33'-01.2" Longitude 72°-59'-51.2"	-	22 mtr dia	Concrete	-	-	No	-	Sakata Inks Co. Ltd. Panoli, Ta.Ankleshwar Dist.Bharuch	-	-	-

**Annexure :- R**

List of Bharuch District MAH Units :-

Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities	Hazardous Chemicals Quantities	Disasters Likely	No.Of Trained Manpower	Contact Person	Contact No
1	2	3	4	5	6	7	8	9	10
1	Amal Rasayan Ltd.	136/137, Gidc Ankleshwar Bharuch-393002	Manufacturing of Inorganics Chemicals	Oleum (Sulphur Trioxide)	500 mt	Fire & toxic	4	Pankaj Sinha	9924694467
2	Air Liquid India Holding Pvt Ltd	Plotno.38/1,Gidc, Jhadia Dist-Bharuch	Industrial Gas	Liquid Oxygen	250 mt	Fire explosion	4	Shrinivas	9824008075
3	Atul Limited	297, Gidc Ankleshwar, Dist-Bharuch	Manufacturing Of Organic Chemicals	Liq So <sub>3</sub> So <sub>2</sub>	60 mt 15 mt	Fire explosion	8	Taranekar	9824116482
4	Elantas Beck India Ltd.	Plot 1 & 122, Gidc Ankleshwar Bharuch	Manufacturing Of Inorgsnics Chemicals	Formaldehyde	23 mt	Fire	7	Dilip Thumar	9327408001
5	Bayer Cropscience Limited	6301-10a, Gidc Ankleshwar, Dist-Bharuch	Manufacturing Of Orgsnics Chemicals	Toluence Diisocyanate	230 m <sup>3</sup>	Toxic & fire	15	Pankaj.D.Ranpura	9662028547
6	Birla Cellulosic	Birladham, Kharach Kosamba (R.S.) Bharuch-394	Chemicals & Visposal Fiber	Carbon Disulphide	350 mt	Fire explosion & toxic	15	Bhattnagar	9904203102

Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities	Hazardous Chemicals Quantities	Disasters Likely	No.Of Trained Manpower	Contact Person	Contact No
7	Bodal Chemie (P) Ltd.	Plot No.6606/2-B Gidc Anklesvar Bharuch	Manufacturing of Inorgsnics Chemicals	Ethylene Oxide	7.5 mt	Explosin	4	Hemant Patel	9909950803
8	Cheme Organic Chemicals	Plot No.758 Gidc Estate, Jhagadia Bharuch	Monocloro Benzin	Chlorine	18 mt	Fire Explosion & Toxic	8	S.J.Patel	9824106624
9	Cheminova India Ltd.	242/P, Gidc panoli Dt. Bharuch-394 116 Gujarat	Pesticides	Ethion Parathion-	22 mt 12 mt	Fire & Toxic	8	R.R.Patel	9824138251
10	Cheminova India Ltd.	27,28 Gidc Phase Iv Bharuch Panoli-394 116	Pesticides	Chlorine	96 t	Fire & Toxic	6	Dhimant Vora	9898587796
11	Clp India Pvt Ltd	Paguthan Bharuch-392 015	Power Janresion	Chlorine Naphtha	11 t 16 t	Fire Explosion	18	Abhay Potdar	9824102072

12	Clp India Pvt Ltd	Vill: Naphtha Storage Terminal Post-Haldar	Storage Of Naphtha	Naphtha	48 t	Fire Explosion	18	Abhay Potdar	9824102073
13	Coromandal International Ltd	PlotNo.3204,GI DC Ankleshwar Bharuch-383 002	Pesticides	Acrylonitrile	45 kl	Fire Explosion & Toxic	8	C.Sitaram	8128651001

Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Hendlred With Quantities	Hazardous Chemicals Quantities	Disasters Likely	No.Of Trained Manpower	Contact Person	Contact No
14	Dhanveen Pigments Pvt Ltd	Plot No.31505 To 3107,Phase-iii	Manufacturin g Of Pigments Green 7	Chlorine	50 mt	Chlorine likege	8	Bhupat.P. Ramoliya	9824128555
15	Expanded Polymer Systems Pvt Ltd	Ch-10, Gidc Dahej Tal-Vagara, Dist-Bharuch	Manufacturin g Of Inorgsnics Chemicals	Propylene Oxide Eo,	15 mt 15 mt	Explosin	6	Ashok Chuhan	8511178934
16	Gail (India) Ltd	Vill. Roza Tankaria Bharuch	Gas Procesing Unit	Lpg	208,500 tpa	Gas likege	12	Jayant Chakravati	9574234440
17	Galaxy Surfactants Ltd	892,Gidc Jhagadia, Dist-Bharuch	Manufacturin g Of Inorgsnics Chemicals	Ethylene Oxide	50 t	Explosin	8	B.Chandras hekar	9737042320

18	Gujarat Alkalies & Chemicals Ltd.	Dahej, Tal- Vagra Bharuch-392 130	Manufacturing Of Inorgsnics Chemicals	Chlorine	1290 mt	Chlorine likege	25	P.A.Patel	9909029643
19	Gujarat Borosil Ltd.	Ankleshwar Rajpipla Road Govali, Tal. Jhagadia Bharuch	Glass	Lpg	58 ton	Fire explosion	11	Jivankumar Dogra	8511195491
Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Hendlred With Quantities	Hazardous Chemicals Quantities	Disasters Likely	No.Of Trained Manpower	Contact Person	Contact No
20	Gujarat Chemical Port Terminal Company Ltd.	P.O. Lakhigam, Dahej Vagra, Bharuch	Chemicals Transpotestion	Benzone Butadiene Propane Methanol Naphtha Styrene M- Xylene	9000 m <sup>3</sup> 4000 m <sup>3</sup> 50000 m <sup>3</sup> 2900 m <sup>3</sup> 34800 m <sup>3</sup> 12000 m <sup>3</sup> 6440 m <sup>3</sup>	Explosin	18	Snjay Gupate	9998950534
21	Gujarat Fluro Chemicals Ltd.	12/A, Gidc, Dahej, Ta- Vagra Gujarat	Manufacturing Fine Chemicals	Chlorine	315 kl	Toxic & fire	20	J.S.Bedi	9328877788
22	Gujarat Guardian Ltd.	Village Kondh Tal: Valia ,Bharuch	Glass	Lpg	120 mt	Fire explosion	18	Pravin Trahan	989808696
23	Gujarat Insecticides Ltd.	805/806, Gidc Ankleshwar, Bharuch	Pesticides	Chlorine Bromine	10 mt 60 mt	Toxic	6	Chhasvadiy	9825415227

24	Gujarat Narmada Valley Fertilisers Co. Ltd.	P.O. Narmadanagar Bharuch-392015	Fertilizer	Ammonia Chlorine Lpg Methanol Naphta	20093 t 18000 t 45 t 7290 t 144 t	Fire explosion & toxic	40	P.K.Masare	9898300649
25	Hemani Industries Ltd.	Plot No. 3208, Gidc Ankleshwar Bharuch	Pesticides	Chlorine	21.6 mt	Fire explosion & toxic	8	S.P.Pande	9328624001
Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Hendlred With Quantities	Hazardous Chemicals Quantities	Disasters Likely	No.Of Trained Manpower	Contact Person	Contact No
26	Heuback Color Ltd.	Plot No.9003 To 9010, Gidc Ankleshwar, Bharuch	Pigments	Chlorine	105.30 mt	Toxic & fire	8	Thomse	9978244455
27	Hindalco Ind. Ltd. Unit: Birla Copper, P.O. Dehej	Lakhigam, Dist. Bharuch Bharuch-392130	Manufacturing Of Copper	Propane Nephtha Ammonia	292 mt 440 mt 10000 mt	Toxic & fire	20	Sanjay Sarkar	9904400045
28	Hindustan Petroleum Corpn. Ltd.	Piludra, Nr. Ongc Ctf Unit Ankleshwar, Bharuch	Lpg Bottaling	Lpg	777 t	Explosin	16	Ajay Rao	9909020917
29	Hunts Mann Performance Product India Pvt Ltd	321, G.I.D.C., Panoli Dist. Bharuch	Manufacturin g Of Inorganics Chemicals	Ethylene Oxide	30 mt	Explosin	22	G.K.Shami	9099068446

30	Hycle Ltd.	629/630, Gidc Panoli Bharuch	Manufacturing Of Inorganics Chemicals	Ethion	140 mt	Explosin	18	K.P.Pathak	9879113083
31	Impro Interchem Pvt. Ltd.	Plot No.414, Gidc Panoli, Bharuch	Manufacturing Of Inorganics Chemicals	Ethylene Oxide	7 mt	Explosin	6	Dharmesh Saleja	9227730407
32	Indian Oil Corpn. Ltd.	Village Rojatankaria Dist. Bharuch Amod-392 410	Lpg Bottaling	Lpg	2000 mt	Explosin	5	Vijay Bhatkar	9426416092
Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Hendlled With Quantities	Hazardous Chemicals Quantities	Disasters Likely	No.Of Trained Manpower	Contact Person	Contact No
33	Indofil Chemicals Company	Plot No. Z-7-1 & Z-8 Sez Dahej Road Tal-Vagara	Fungi Side	Cs <sub>2</sub>	125 mt	Explosin	28	Bhavesht Ramani	9909974614
34	Industrial Solvents & Chemicals Ltd.	Plot Nos. 7906,70,7909 Gidc, Ankleshwar Bharuch	Manufacturing Of Inorganics Chemicals	Sulphar Trioxide	45 mt	Toxic & fire	8	P.R.Rao	9377510056
35	Ion Exchange (India) Ltd.	Plot No.5811-12-13, Gidc Estate Ankleshwar Bharuch-393 001	Water Titment	Oleum(Sulphar Trioxide)	168 mt	Fire explosion & toxic	10	Ramesht Bodat	9374215028



36	J M Hubar India Pvt Ltd	754 Jhagadia Indl. Estate Gidc Bharuch 393 110	Precipated Silica	Lpg	31.5 t	Toxic	12	V.S.Ravikumar	9924126087
37	Jayshree Aromatics Pvt Ltd,	Plot No. 4703,4704 Gidc, Ankleshwar.	Manufacturing Of Aromatics	Chlorine	48 mt	Chlorine likege	8	Hashmukh Patel	9825031253
38	Kanoria Chemicals & Industries Ltd.	3407 G.I.D.C. Industrial Estate Ankleshwar-393002	Organics & Inorganics Chemicals	Formaldehyde	1600 kl	Toxic & fire	10	Arun Agrawal	9328245080
Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Hendlled With Quantities	Hazardous Chemicals Quantities	Disasters Likely	No.Of Trained Manpower	Contact Person	Contact No
39	Klg Organic Ltd.	Plot No.759, Gidc, Jhagadia Dist. Bharuch	Plasticizer	Chlorine	50 mt	Chlorinesion	8	Rajeshkumar Nahata	9825042991
40	Lanxess India Pvt Ltd	748/2/A,748/3,748/4/A & B Gidc Jhagadia, Dist-Bharuch	Ion Exchange Resion	Acrylonitrile oleum	30 t 80 t	Fire explosion & toxic	58	Utpal Kachchhi	9979117904
41	Meghmani Fine Chem Ltd	Plot No.Ch-1 & Ch-2, Gidc, Dahej Tal-Vagara Dist-Bharuch	Manufacturing Of Fine Chemicals	Chlorine	15 t	Toxic & fire	8	Haniya	9979882207

42	Meghmani Organic Ltd.	Plot No.- 5001/B, Gidc, Ankleshwar.	Pesticides	Acrlonitrile	52 kl	Toxic	6	Vasant Patel	9879507391
43	Merchem Limited	24,24/1,Gidc Panoli, Tal-Ankleshwar,Dist Bharuch	Manufacturing Of Inorganics Chemicals	Cs <sub>2</sub>	120 kl	Toxic	6	Mishra	9687694124
44	Meridian Chem Bond Ltd	Plot No.5906/4,Gidc Ankleshwar, Dist-Bharuch	Manufacturing Of Inorganics Chemicals	Chlorine	100 t	Toxic	8	Sampatkumar Nayar	9327467402
45	Meridian Chem Bond Ltd.	Plot No. 3209 Gidc Ankleshwar Bharuch-393002	Manufacturing Of Organics Chemicals	Chlorine	70 t	Toxic	12	Manoj Patil	9374689053
Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Hendlled With Quantities	Hazardous Chemicals Quantities	Disasters Likely	No.Of Trained Manpower	Contact Person	Contact No
46	Mohan Polyfab Pvt. Ltd.	Plot No.6510, Gidc Ankleshwar,Bharuch	Manufacturing Of Organics Chemicals	Chlorine	10 t	Toxic	8	Sandeep Agrawal	9662035661
47	National Thermal Power Corporesion Ltd.	Village : Jhanor Bharuch	Power Janresion	Chlorine	10 t 100 t	Toxic	45	K.Shridhar	9429109966

48	Navjeevan-O-Chem	5903/1, Gidc Estate Ankleshwar Bharuch-393 002	Manufacturing Of Organics Chemicals	Chlorine	20 t	Toxic	4	Kirit Patel	9825039426
49	Omnova Solution India Pvt Ltd	Dungari Bharuch-393 135	Synthetic Rubber	Acrylonitrile 1,3-Butadiene	100 mt 290 mt	Fire explosion & toxic	32	Anupkumar Shrivastav	9909020602
50	P I Industries Ltd	237 Gidc Panoli, Bharuch	Pesticides	Chlorine Phorate Ethion	10.8 t 100 t 100 t	Toxic & explosion	24	Sandip Mandot	9227562340
51	Panoli Intermediate (India) Pvt. Ltd.	Plot No. 778/1, Gidc Jhagadia, Bharuch-393 110	Monochloro Benzin	Chlorine	100 t	Fire explosion & toxic	8	Namdev S.P.	9328406642
52	Panoli Products Pvt. Ltd.	Plot No.33/3, 33/6 Gidc Panoli, Tal-Ankleshwar Dist-Bharuch	Manufacturing Of Aromatics	Chlorine	100 t	Chlorine likege	3	Vipulbhai .L. Patel	9328253806 9824865009
Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities	Hazardous chemicals quantities	Disasters likely	No.of trained manpower	Contact Person	Contact no
53	Panorama Aromatics Ltd.	Plot No. 2908-2911, Phase Iii Gidc, Panoli, Bharuch	Manufacturing Of Aromatics	Chlorine	19.8 mt	Chlorine likege	5	Mukeshbhai Patel	9825033576

54	Petronet Lng Ltd.	Plot No.7/A, Gidc, Dahej, Tal. Vagra, Bharuch	Lng Storage	Lng	592000 cubic meter	Toxis & explosion	30	Venu Gopal	9998216186
55	Piramal Glass Ltd.	Masar Road, Gajera Uchhad, Bharuch-392 150	Glass	Lpg	30 tons	Explosin	10	Rayjada	9099077101
56	Reliance Industries Ltd.	Reliance Industries Ltd P.O.Dahej, Tal. Vagra Bharuch-392 130	Manufacturing Of Organics Chemicals	Chlorine Ethylene Oxide Ethylene Naphtha Propylene Hexane Vinyl Chloride Monomer Butane Ethane/Propane	450 m <sup>3</sup> 120 mt 4800 m <sup>3</sup> 54000 mt 4800 m <sup>3</sup> 1250 m <sup>3</sup> 5000 m <sup>3</sup> 400 m <sup>3</sup> 4800m <sup>3</sup>	Fire explosion & toxic	50	Manoj Kamalia	9998984700
57	Saint Gobain Glass India Ltd	36, Gidc Jhagadia, Dist-Bharuch	Glass	Lpg	15 t	Fire explosion	8	Venkat Murugan	
Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities	Hazardous chemicals quantities	Disasters likely	No.of trained manpower	Contact Person	Contact no
58	Sajjan India Ltd.	Plot 6102-03/6117-19 Gidc Ankleshwar, Bharuch	Manufacturing Of Organics Chemicals	Chlorine	26 nos	Fire & toxic	10	Shrivastav	9327512940

59	Sanghvi Organics P. Ltd.	Plot No.3516, Phase Iii Gidc Panoli Bharuch-	Manufacturing Of Organic Chemicals	Chlorine	70 tonners	Chlorine likege	15	M.K.Pillai	9825318520
60	Sanjana Cryogenic Storage Ltd.	P.O. Dahej Bharuch, Gujarat	Ammonia Storage	Ammonia	72000 mt	Toxic	10	B.M.Patel	9824149536
61	Savla Chemicals Ltd.	26-A Gidc Estate Panoli, Dist. Bharuch Bharuch-394 116	Manufacturing Of Organic Chemicals	Isobutylene Methyl Tertiary Butyl Ether	180.6 mt/month 2123.74	Explosin	8	Vinod Modi	9377510523
62	Shilpa Chemical Industries	Plot No. 4777 Gidc Ankleshwar, Dist-Bharuch	Manufacturing Of Organic Chemicals	Ethylene Oxide	7 mt	Explosin	6	Ashokbhai Shah	9324287997
63	Shivam In Corporation	521 Gidc Panoli, Bharuch	Dyes Chemicals Intermediates	Chlorine SO <sub>2</sub> SO <sub>3</sub>	120 mt 100 mt 20 mt	Chlorine likege	6	Ramesh Gabhani	9825007610
Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Hendlred With Quantities	Hazardous chemicals quantities	Disasters likely	No.of trained manpower	Contact Person	Contact no
64	Shree Sulphuric Ltd.	2801, Gidc, Ankleshwar Dist. Bharuch	Manufacturing of Inorganics Chemicals	Oleum(Sulphur Trioxide)	172	Toxic	8	Saksena	9824057624

65	Shri Ganesh Khand Udhog Sahkari Mandali Ltd.	Vataria, Valia	Alcohol	Industrial Alcohol Ethanol	1193 kl 1190 kl	Fire & toxic	8	B.S.Dodiya	9408703001
66	Shriram Alkali& Chemicals (A Unit Of Dcm Shriram Consolidated ) Ltd	749 Gidc Indl. Estate, Jhagadia Bharuch-393 110	Manufacturin g Of Inorganics Chemicals	Chlorine	1235 mt	Toxic	15	Vaid	9909388288
67	Shyam Chemicals	Plot No. 6004, Gidc Ankleshwar Bharuch	Manufacturin g Of Organics Chemicals	Chlorine	900 mt 900 kg tonners	Explosin	6	Vijay Duva	9723916456
68	Siddhi Samrat Dye-Chem Pvt. Lt	Pl.No.6450, Gidc Estate, Ankleshwar	Manufacturin g Of Organics Chemicals	Ethylene Oxide	8 t	Explosin	6	Jayant Balodiya	9824150582
69	Stearling Auxilaries Pvt.Ltd.	Plot No.12/A-2,Gidc, Village-Dahej	Manufacturin g Of Organics Chemicals	Ethylene Oxide Propylene Oxide	70 mt 20 mt	Explosin	18	A.A.Faranc his	9972336999
Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Hendlled With Quantities	Hazardous chemicals quantities	Disasters likely	No.of trained manpower	Contact Person	Contact no

70	Styrolupion India Pvt. Ltd.	Dahej, Vaghra Taluka Bharuch	Manufacturing Of Organics Chemicals	Styrene Monomer Very Highly Flammable Liquids	2000 mt	Explosin	16	N.S.Swarup	9824704606
71	Sun Chloride Pvt. Ltd.	603, Gidc, Panoli Bharuch	Aluminium Chloride, Sodium Molibled	Chlorine	20 t	Chlorine likege	4	Lovekumar. V.Patel	9825466444
72	Tml Industrie Ltd.	Village Pilodra, Jambusa r Bharuch	Manufacturing Of Fine Chemicals	Acrylonitrile Chlorine	200 ton 54 kl	Toxic	6	R.D.Patel	9898076924
73	United Phosphorous Ltd (Unit-5).	750 Gidc Indl. Estate Jhagadia Bharuch-393 110	Pesticides	Chlorine Carbon Disulhide	307 mt 300 mt	Toxic & explosin	15	Chhakravati	9979880452
74	United Phosphorous Pvt. Ltd. (Unit No.2),	3405/3406, G.I.D.C. Ankaleshwar Dist. Bharuch	Pesticides	Ter. Butyl Mercqption (Tbm)- Phorate	40 kl	Toxic & explosin	18	Suman Datta	9909995798
75	United Phosphorus Ltd. (Unit-1)	117, Gidc, Ankleshwar Dist. Bharuch	Pesticides	Chlorine Carbon Disulhide	22 tonners of 900 kgs 30 ton	Toxic & explosin	10	Anil Mudala	9909994777

Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Handled With Quantities	Hazardous chemicals quantities	Disasters likely	No.of trained manpower	Contact Person	Contact no
76	United Phosphorus Ltd. (Unit-3)	3101 Gidc, Ankleshwar Bharuch	Pesticides	Ddvp Mcp Phosphamidn Cypermethrin	50 t 50 t 50 t	Toxic & explosin	6	V.S.Bhatiya	9909994546
77	Vardhman Acrylics Ltd.	755 Gidc Mega Estate Jhaghadia, Dist. Bharuch	Acrylics Yan	Acrylonitrile	2160 t	Fire explosion & toxic	40	B.L.Uppal	9228020783 9228020784
78	Videocon Industries Ltd	Village Chavaj Dist. Bharuch 392 002	Manufacturing Of Glass Tube	Lpg	280 t	explosion	15	Jadeja	9898506591
79	Wanksons Chemical Industries Pvt. Ltd.	Plot No. 518, Gidc Panoli Ankleshwar, Bharuch	Chloral	Chlorine	50 t	Chlorine likege	15	Ashok R.Pandiya	9824010793
80	Srf Limited	D-2/1, Gidc Phase-2, Pcpir Dahej Industrial Area, Tal-Vagara, Dist-Bharuch	Manufacturing Of Fine Chemicals	Chlorine	132 kl	Toxic & explosin	15	Mittal	9818006664
81	Shott Kaisha Pvt. Ltd	Village-Anakhi, Tal-Jambusar, Dist-Bharuch	Manufacturing Of Glass Tube	Lpg	10 mt	Explosin	6	Swati	8469365251



82	Grasim Industries Limited	Plot No.1. Gidc Vilayat, Tal-Vagra, Dist-Bharuch	Manufacturing Of Viscos Fiber	Chlorine Carbon Disulphide	1340 mt 3405 mt	Toxic & explosin	20	Danjay Dhar	9904409127
Sr. No.	Factory Name	Address	Activity Carried Out	Hazardous Chemicals Hendlled With Quantities	Hazardous chemicals quantities	Disasters likely	No.of trained manpower	Contact Person	Contact no
83	Payal Petrocheem Pvt Ltd	Plot No.D-2/Ch-Ii, Dahej Gidc , Tal-Vagra, Dist-Bharuch	Manufacturing Of Inorganics Chemicals	Chlorine	600 mt	Toxic	6	Patil	7600413352
84	Bharat Rasayan Limited	Dahej, Vaghra Taluka Bharuch	Pesticides	Chlorine	18 mt	Toxic	8	Sharma	9909995924
85	Shri Khedut Sahakari Khand Udiyog Mandli Ltd	At-Pandvai, Tal- Hansot, Dist-Bharuch	Storege	Industrial Alcohol Ethanol	1193 kl 1190 kl	Explosin	12	Amrutbhai Patel	9925199400
86	Jubilant Life Science Ltd Unit-2	Street No.P1-L-13 To L16, Jubilant Sez , Plot No.5, Vilayat Gidc, Tal- Vagra, Dist-Bharuch	Manufacturing Of Inorganics Chemicals	Chlorine	134 mt	Toxic	8	Khadakwala	9909699111
87	Jubilant Infrastructure Ltd	Plot No.5, Vilayat Gidc, Tal- Vagra, Dist-Bharuch	Manufacturing Of Organics Chemicals	Ammonia	100 mt	Toxic	6	Tripathi	997987403

## Annexure

### Annexure: - S

#### Capacity against industrial and chemicals disaster Trained personnel at Taluka level & chemicals experts / technicians

Sr.	Expert Name	Expertise Details, Qualification, Designation	Address	Phone Number (O,R,M)	Remarks
1	2	3	4	5	6
1.	Mr. Vijay aashar	Fire prevention, DPMC head	Fire Station, Notified Area, Gidc, Ankleshwar	(O) (02646) 220229 9428689616	
2.	Mr. P. A. Patel	Chemical accident	Gujarat Alkalies And Chemicals Limited, P.O.Dahej, Ta. Vagra, Dist -Bharuch, Dahej-392130,	(M) 99090 29643 02641-256133	
3.	Mr. Paresh ardhavaue	Chemical accident	United Phosphorus Limited Unit-5, Plot No-746&750, Gidc Estate, Jhagadia. Dist -Bharuch.Gujarat. Pin-393110.	(M) 99099 94534 02645-226011/15	
4.	Mr. Paresh doshi	Chemical accident	Solvay Specialities India Plot No. 3526-27 Gidc Estate Panoli - District Bharuch - 394 116	(O)2646 -272152 (M) 9824397440	
5.	Mr. Sandip mandot	Chemical accident	P I Industries Ltd 237, Gidc Estatepanoli -394 116Dist. Bharuch, Gujarat Stateph: 02646-655471/72/73/74	(M) 92275 62340 02646- 655471/72/73/74	
6.	Mr. V. C. Bhatt	Chemical accident	Gnfc Ltd.Po.- Narmadanagar , Bharuch-392015	(M) 98980 63460 02642-247007 to 247015	
7.	Mr. Venugopal	Chemical accident	Petronet Lng Limited Plot No. 7/A, Gidc Industrial Estat Dahej, Taluka Vagra District : Bharuch - 392130, Gujarat Ph.02641-300300, 300103, 300451	(M) 96625 26295 (O) 02641-300300	
8.	Mr. Manish shah	Chemical accident	Jhaghdia Alkalies & Chemicals Plot 749, Gidc, Jhagadia	(M) 9879061975	
9.	Mr. Nitin shah	Chemical accident	Cadila Pharmaceuticals Ltd. Plot 3203, GIDC Anklesvar	(M) 9427115524	

## Annexure

### Annexure :-T

#### List of Doctors in MAH Industries

S.no	Factory name	Address	Medical Offi.	Qualification	Phone no
1	2	3	4	5	6
1	Amal Rasayan Ltd.	136/137,Gidc Ankleshwar Bharuch-393002	Dr.Amit Shah	M.B.B.S AFIH	9824150384
2	Air Liquid India Holding Pvt Ltd	Plotno.38/1,Gidc, Jhgadia Dist-Bharuch	Dr.Chirag Guvaliwala	M.B.B.S AFIH	9099016106
3	Atul Limited	297, Gidc Ankleshwar, Dist-Bharuch	Dr.Amit Shah	M.B.B.S AFIH	9099016106
5	Bharat Glass Tube Ltd.	Plot No.9208-9213, Gidc Ankleshwar	Dr.Amit Shah	M.B.B.S AFIH	9824150384
6	Birla Cellulosic	Birladham, Kharach Kosamba (R.S.) Bharuch-394 120,	Dr.Vijay Panchal	M.B.B.S MDCH	9825116005
8	Cheme Organic Chemicals	Plot No. 758 Gidc Estate, Jhagadia Bharuch	Dr.Amit Shah	M.B.B.S AFIH	9824150384
9	Cheminova India Ltd.	242/P, Gidc Panoli Dt. Bharuch-394 116	Dr.Akash Chhabda	MD.CIH	9328823687
10	Cheminova India Ltd.	27,28 Gidc Phase Iv Bharuch Panoli-394 116	Dr.Akash Chhabda	MD.CIH	9328823687
11	Clp India Pvt Ltd	Paguthan Bharuch-392 015	Dr.Priyesh Modi	M.B.B.S. CIH	9824112284
12	Clp India Pvt Ltd	Vill: Naphtha Storage Terminal Post-Haldar	Dr.Priyesh Modi	M.B.B.S. CIH	9824112284
13	Coromandal International Ltd	Plot No. 3204, Gidc Indl. Estate, Ankleshwar Bharuch-383 002	Dr.Akash Chhabda	MD.CIH	9328823687
16	Gail (India) Ltd	Vill. Roza Tankaria Bharuch	Dr.J.B Vaidhya	M.B.B.S CIH	
18	Gujarat Alkalies & Chemicals Ltd.	Vagra Bharuch-392 130	Dr.R.K.Bram bhatt Dr. Kinjal Prajapati	M.B.B.S CIH M.B.B.S CIH	9998499668 9725122179

S.no	Factory name	Address	Medical Officer	Qualification	Phone no
19	Gujarat Borosil Ltd.	Ankleshwar Rajpipla Road Govali, Tal. Jhagadia Bharuch	Dr.J.J.Khilwani	M.B.B.S	9427879628
20	Gujarat Chemical Port Terminal Company Ltd.	P.O. Lakhigam, Dahej Vagra,Bharuch	Dr.Himansu Vanza	M.B.B.S CIH	9824143883
21	Gujarat Fluro Chemicals Ltd.	12/A,Gidc,Dahej,Ta-Vagra Gujarat	Dr.H.I.Shah	M.B.B.S CIH	9426892220
22	Gujarat Guardian Ltd.	Village Kondh Tal: Valia ,Bharuch	Dr.Naresh Shah	M.B.B.S CIH	9427413129
23	Gujarat Insecticides Ltd.	805/806, Gidc Ankleshwar, Bharuch	Dr.Anil Bhalodia	M.B.B.S CIH	9979856427
24	Gujarat Narmada Valley Fertilisers Co. Ltd.	P.O. Narmadanagar Bharuch-392015	Dr.Jaydeep Joshi	M.B.B.S CIH	9879263067
25	Hemani Industries Ltd.	Plot No. 3208, Gidc Ankleshwar Bharuch	Dr.Amit Shah	M.B.B.S CIH	9824150384
26	Heuback Color Ltd.	Plot No.9003 To 9010, Gidc Indl. Estate Ph. Vi Ankleshwar, Bharuch	Dr.Deepa Nadkarni	M.B.B.S CIH	9824149109
27	Hindalco Ind. Ltd. Unit: Birla Copper, P.O. Dehej	Lakhigam, Dist. Bharuch Bharuch-392 130	Dr.Manju Ramnani	M.S	9904705981
28	Hindustan Petroleum Corpn. Ltd.	Piludra, Nr. Ongc Ctf Unit Ankleshwar, Bharuch	Dr.Chirag Guvaliwala	M.B.B.S CIH	9099016106
29	Hunts Mann Performance Product India Pvt Ltd	321, G.I.D.C., Panoli Dist. Bharuch	Dr.Vilas Patel	M.B.B.S CIH	9909995931
30	Hycle Ltd.	629/630, Gidc Panoli Bharuch	Dr.Akash Chhabda	M.D.CIH	9328823687
33	Indofil Chemicals Company	Plot No. Z-7-1 & Z-8 Sez Dahej Road Tal-Vagara	Dr.Himansu Vanza	M.B.B.S CIH	9824143883

## Annexure

S.no	Factory Name	Address	Medical Officer	Qualification	Phone no
34	Industrial Solvents & Chemicals Ltd.	Plot Nos. 7906,70,7909 Gidc, Ankleshwar Bharuch	Dr.Amit Shah	M.B.B.S CIH	9824150384
35	Ion Exchange (India) Ltd.	Plot No.5811-12-13, Gidc Estate Ankleshwar Bharuch-393 001	Dr.Amit Shah	M.B.B.S CIH	9824150385
36	J M Hubar India Pvt Ltd	754 Jhagadia Indl. Estate Gidc Bharuch 393 110	Dr.Amit Shah	M.B.B.S CIH	9824150386
39	Kanoria Chemicals & Industries Ltd.	3407 G.I.D.C. Industrial Estate Ankleshwar-393002	Dr.Amit Shah	M.B.B.S CIH	9824150386
41	Lanxess India Pvt Ltd	748/2/A,748/3,748/4/A & B Gidc Jhagadia, Dist-Bharuch	Dr.Himesh Mehta`	M.B.B.S CIH	9725954515
42	Meghmani Fine Chem Ltd	Plot No.Ch-1 & Ch-2, Gidc, Dahej Tal-Vagara Dist-Bharuch	Dr.A.K.Patel	M.S. CIH	9898595681
43	Meghmani Organic Ltd.	Plot No.-5001/B, Gidc, Ankleshwar	Dr.A.K.Patel	M.S. CIH	9898595682
45	Meridian Chem Bond Ltd	Plot No.5906/4, Gidc Ankleshwar, Dist-Bharuch	Dr.Amit Shah	M.B.B.S CIH	9824150384
46	Meridian Chem Bond Ltd.	Plot No. 3209 Gidc Ankleshwar Bharuch-393 002	Dr.Amit Shah	M.B.B.S CIH	9824150385
50	Omnova Solution India Pvt Ltd	Dungari Bharuch-393 135	Dr.Amit Shah	M.B.B.S CIH	9824150385
51	P I Industries Ltd	237 Gidc Panoli, Bharuch	Dr.Vilash Patel	M.B.B.S CIH	9909995931
52	Panoli Intermediate (India) Pvt. Ltd.	Plot No. 778/1, Gidc Jhagadia, Bharuch-393 110	Dr.Himesh Mehta	M.B.B.S CIH	9725954515
55	Petronet Lng Ltd.	Plot No.7/A, Gidc, Dahej, Tal. Vagra, Bharuch	Dr. Jadeja Dr.Ashis Vyas	M.B.B.S CIH M.B.B.S CIH	7567555432 9825460911

## Annexure

S.no	Factory name	Address	Medical Officer	Qualification	Phone no
57	Reliance Industries Ltd.	Reliance Industries Ltd P.O.Dahej, Tal. Vagra Bharuch-392 130	Dr. Paren Shah	M.B.B.S CIH	9998987298
58	Saint Gobain Glass India Ltd	36, Gidc Jhagadia , Dist-Bharuch	Dr.Borasia	M.B.B.S CIH	9427873387
65	Shree Sulphuric Ltd.	2801, Gidc, Ankleshwar Dist. Bharuch	Dr.Amit Shah	M.B.B.S CIH	9824150384
66	Shri Ganesh Khand Udhyog Sahkari Mandali Ltd.	Vataria, Valia	Dr, Balvant Dodia	M.B.B.S CIH	9825141857
67	Shriram Alkali & Chemicals (A Unit Of Dcm Shriram Consolidated) Ltd	749 Gidc Indl. Estate, Jhagadia Bharuch-393 110	Dr.Dev Varma	M.D.CIH	9824003883
68	Shyam Chemicals	Plot No. 6004, Gidc Ankleshwar Bharuch	Dr Himesh Maheta	M.B.B.S CIH	9725954515
70	Stearling Auxiliaries Pvt.Ltd.	Plot No.12/A-2,Gidc, Village-Dahej	Dr.Himansu Vanza	M.B.B.S CIH	9824143883
71	Styrolupion India Pvt. Ltd.	Dahej,Vaghra Taluka Bharuch	Dr.Himansu Vanza	M.B.B.S CIH	9824143884
74	United Phosphorous Ltd (Unit-5).	750 Gidc Indl. Estate Jhagadia Bharuch-393 110	Dr.Vilash Patel	M.B.B.S CIH	9909993931
75	United Phosphorous Pvt. Ltd. (Unit No.2),	3405/3406, G.I.D.C. Ankaleshwar Dist. Bharuch	Dr.Vilash Patel	M.B.B.S CIH	9909993932
76	United Phosphorus Ltd. (Unit-1)	117, Gidc, Ankleshwar Dist. Bharuch	Dr. Vilash Patel	M.B.B.S CIH	9909993933
77	United Phosphorus Ltd. (Unit-3)	3101 Gidc,Ankleshwar Bharuch	Dr. Vilash Patel	M.B.B.S CIH	9909993934
78	Vardhman Acrylics Ltd.	755 Gidc Mega Estate Jhagadia, Dist. Bharuch	Dr Himesh Maheta	M.B.B.S CIH	9725954515

## Annexure

S.no	Factory name	Address	Fmo	Qualification	Phone no
88	Jubilant Infrastructure Ltd	Plot No.5, Vilayat Gidc, Tal- Vagra, Dist-Bharuch	Dr.Kamlesh Yadav	M.B.B.S CIH	9099906490
89	Welspun Crop Ltd	At Jolva,Tal-Vagra, Dist-Bharuch	Dr.Himansu Vanza	M.B.B.S CIH	9824143883
90	Universal Chemicals And Industriess Pvt Ltd	Gidc Dahej, Tal-Vagra, Dist-Bharuch	Dr.Himansu Vanza	M.B.B.S CIH	9824143884
91	K.Patel Dyechem Industries Ltd	157,Gidc Ankleshwar Dist-Bharuch	Dr.Satish Mistri	M.B.B.S CIH	9824114604
92	Thermax Ltd	903,Gidc Jhagadia, Dist-Bharuch	Dr.Chirag Guvaliwala	M.B.B.S CIH	9099016106
93	Asian Paints Pthalic Div	2702, Gidc Ankleshwar, Dist-Bharuch	Dr.Amit Shah	M.B.B.S CIH	9824150384
94	Endeka Ceramics India Pvt Ltd	Gidc Jhagadia, Dist-Bhauch	Dr.Himesh Mehta`	M.B.B.S CIH	9725954515
95	Fosroc Chemicals India Ltd	6204,Gidc Ankleshwar, Dist-Bharuch	Dr.Amit Shah	M.B.B.S CIH	9824150314
96	K Patel Chemopharma Pvt Ltd	153, Gidc Ankleshwar, Dist-Bharuch	Dr.Girish Purohit	M.B.B.S CIH	9825368538
97	Devanshi Dyestuff	141, Gidc Ankleshwar, Dist-Bharuch	Dr.Naresh Shah	M.B.B.S CIH	9824100171
98	Flometalic India Ltd	821, Gidc Jhagadia, Dist-Bharuch	Dr.Ranjit Parmar	M.B.B.S CIH	9898027111
99	Amsal Chem Pvt Ltd	401,Gidc Ankleshwar, Dist-Bharuch	Dr.Himesh Mehta`	M.B.B.S CIH	9725954515
100	Glenmark Generics Ltd	3109,Gidc Ankleshwar, Dist-Bharuch	Dr.Girish Purohit	M.B.B.S CIH	9825368538
101	Arti Ind. Ltd	758/1,Gidc Jhagadia, Dist-Bharuch	Dr.Amit Shah	M.B.B.S CIH	9824150384
102	Abg Shipyard Ltd Dahej	Dahej,Vaghra Taluka Bharuch	Dr.Ramesh Agrawal	M.B.B.S CIH	9687667499
103	Universal Chemicals & Ind.Pvt Ltd	Gidc Dahej, Tal-Vagra, Dist-Bharuch	Dr.Himansu Vanza	M.B.B.S CIH	9824143883
104	Asian Paints Ltd	2602,Gidc Ankleshwar, Dist-Bharuch	Dr.Girish Purohit	M.B.B.S CIH	9825368538
105	Bell Ceramic Pvt Ltd	At-Dora, Tal-Amod, Dist-Bharuch	Dr.Himesh Mehta`	M.B.B.S CIH	9725954515
106	Alkem Laboratory Ltd	At-Naugama Mandva, Tal-Ankleshwar, Dist-Bharuch	Dr.Amit Shah	M.B.B.S CIH	9824150384
107	Sun Pharmaceutials Ltd	24/2/25,Gidc Panoli, Tal-Ankleshwar, Dist-Bharuch	Dr.Amit Shah	M.B.B.S CIH	9824150384

## Annexure

### Annexure: - U Antidotes

#### Annex-U1 Capacity against industrial and chemicals Disaster Antidotes

##### Details

Sr. No	i. Name of Company	Plot No.	Ph. No.	Name of Chemicals	Name of Antidotes	Qty.
1	Acmechem Ltd.,	412, <b>Panoli</b>	272393 / 394	Aniline	Methylene blue injection	04
2	Sun Pharma. Ltd.,	24/25, <b>Panoli</b>	272534, 272363, 272364 Fax:225729	CH3OH	Baking Soda	--
				Toluene	Milk of magnesia	500 ml
				Ethyl Acetate	Novacine	--
				Cyanide	Cyanide Kit	1 Nos.
					Charcoal Tablet	500
3	Merchem Ltd., GIDC, Panoli	24/1 <b>Panoli</b>	272438/39	Aniline	Methylene blue injection	10 Nos.
4	Bayer Crop Sciences Ltd.	6301-10 A & 6008-10	02646- 661110, 661234	Ethoprophos and Nema-cur	Atropine (Injection)	100
					2-Pyridine Aldoxime Methiodide (PAM Injection)	07
				Diisopropyl amine and Monoisopropyl amine	Methylene Blue (Injection)	25
				Sodium cyanide	Cyanide Kits - 01	02 Kits
5	Isagro (Asia) Agro Chemicals Pvt. Ltd.	640 <b>Panoli</b>	02646- 272017/19/4 6 Extn.-201	Sodium Cyanide	Anti cyanide	70 ml
				Snake bite	Anti snake venom	10 ml
6	Galaxy Surfactants Limited,	892 , <b>Jhagadia</b>	(02645)2906 20	General	Tetanus Vaccine	30
				General	Inj. Anti Snake	4
				Phenol	Venom Glycerin	5 Ltr
7	Aarti Industries Ltd.	758 / 1-2-3 <b>Jhagadia</b>	02645- 226276 - 78/79 <b>Fax : 226178</b>	D.M.C.B. P.C.A. D.N.B.	Methylene blue	25



## Annexure

Sr. No	Name of Company	Plot No.	Ph. No.	Name of Chemicals	Name of Antidotes	Qty.
8	Meghmani Organics Ltd,	5001/ B	222971, 226371, <b>Fax- 222965</b>	Chloropyrphos Acrylontrile	Atropine sulphate &	5&2
					PAMHIL	1Kit
					Amyl Nitrate	
9	Hemani Industries Ltd.	3207/A & B,3208/1 &2	226195, 250627, Fax:227554	Bromine	Sodium Thio Sulphate Soln(30%)	310 ltr
10	Cheminova (I) Ltd (Intermediate Div.)	27-28 <b>Panoli</b>	645870, 645872, 645859-60-63	Chlorine	Milk of magnesia Atropine injection/	04 nos 06 nos
				Oregano phosphorus	PAM injection	02 nos
				HCL	Milk of magnesia	04 nos
11	Atul Ltd.	297/1	222518, 251416, 253389, 253387, 02632-230233,	Cresol	Castor Oil	15 Bottles
				For Gaseous Emission	Oxygen Treatment	2 Set
12	Bharuch Eviro-Infrastructure Ltd.	9701-16	225228 <b>Fax : 222849</b>	Organo Phos	Pam -25mg/ml	05
				Organo Phos	Antropin 0.6gm	10
				Aniline	Methalin blue	02
13	IPCA Laboratories Limited	4722-23	220594, 221962 <b>Fax- 250435</b>	3-Chloropropionitrile	Amyi Nitrite	8-10
14	Vardhman Acrylics Ltd.	755, <b>Jhagadia.</b>	02645-226064, 226069, 226080 <b>Fax- 226065</b>	Acrylonitrile	Cynide antidote kit.	12 ampoules

## Annexure

Sr. No	Name of Company	Plot No.	Ph. No.	Name of Chemicals	Name of Antidotes	Qty.		
15	Lupin Limited	123/124/125 /9	304266 <b>Fax- 251868</b>	Multipurpose	Inj. Dexona	3 vial		
					Inj. Avil	4 ampoule		
				Multipurpose	Inj. Adrenalin	5 ampoule		
					Inj. Epsolin	2 ampoule		
					Inj. Tetanus Oxide	2 ampoule		
Inj. Methelin blue	2 ampoule							
16	PI Industries	237, <b>Panoli</b>	02646-655471/72/73/74	Phorate (PHT), Propanephos(PFT), Ethion colt DETA O-Diethyl Dithio Phosphoric Acid , Diethyl Thiophours Chloride(DTCL) Fortox --10kg, Kitazin, Fosmite, carina, Rocket, Colfer ,Oliy Mass(EKO, Na, DTA,PFT, KO,P2S5.	PAM (Inj) Atropine Sulphate ( <b>Inj &amp; tab</b> )	4 no Atropine Sulphate ( <b>inj</b> )-400 no & <b>tab.</b> 500 NO.		
						02. Cypermethylene	Phi no verbitol (Tab & Inj)	N/A
						03 Cyanide kit	Sodium Nitrait (Inj ),Sodium Thiosulphat ( Inj)Amile Nitrite (Inj)	4.no
						Chlorine	Deriphyline	20 no.
						General	Charcoal (Tab)	300 no
						General	Baking Soda	2 Packet
17	Cheminova India Ltd.	241 <b>Panoli</b>	02646-645843	Organo Phosphorus Compound	Atropin Injection	20		
					Pam Injection	06		
					Methylene blue	02		

## Annexure

Sr. No	Name of Company	Plot No.	Ph. No.	Name of Chemicals	Name of Antidotes	Qty.
18	Cheminova India Ltd. (Formulation)	242 <b>Panoli</b>	02646-645843/46/47/48	1.Chloropyriphos	Atropine Sulphate	20 nos
				2.Quinaphose 3.Triazophos 4.Dimethoate 5.Profenophos 6.Phosalone 7.Fyfanon (Malathion)	2 PAM Injection	06 nos
19	Subhasri pigments pvt. Ltd.,	1211.1202.1203& 1213	02646-220918, 221780	Chlorine	Milk o Magnesia	5 Bottles
20	Finornic Chemicals (IO Pvt. Ltd.	6234	250177, 251792	O- phenyl diamine - & CS2	Oxygen,	2 Cylinder s
					Activated Charcoal	2 Kg.
					NaHCO <sub>3</sub> ,	--
				Sulphuric Acid	Milk of Magnesia	2 bags
21	United Phosphorous Ltd. (Unit – 3)	3101/2	251189	MCP	Atropine Sulphate	40
				DDVP	PAM Hill	05
22	Gharda Chemicals Ltd.	3525& 3512 <b>Panoli</b>	272152, 272386	HCl, Na OH, MCB, DMAC,	Methylene Blue –	06
				HNO <sub>3</sub>	Anti Snake Venom	02
23	Coromandel International Ltd.	3204	02646 6465941 -	Organo Phosphorous Comp.	Atropine,	09
					PAM	03
				Highly Toxic Chemicals	DizaPAM	02
24	Huntsman Perfomance Products	321 <b>Panoli</b>	272437/272009. Ext. No: 117	Hydrofluoric Acid	Calcium Gluconate	10 no. Injection
				Organophosphate Compounds	Inj.-Atropine	10 no. Injection
				Oral Toxaenic (Methyl Chemicals)	Tab.- Charcoal	200 no. Tablets
				Acidosis & Hexamal Toxaenic	Soda bicorb	05 no. Injection

## Annexure

Sr. No	Name of Company	Plot No.	Ph. No.	Name of Chemicals	Name of Antidotes	Qty.
25	Chemet Wets & Flows Pvt. Ltd.	129/C/2	239490 079- 26583242	Agrochemical Powder,	Atropine Sulphate	1 Box
				Agrochemical liquid	PAM	--
26	Chemet chemicals Pvt. Limited	6230/31/15	239206, 222826	Organo phosphorous	Atropine Sulphate	1 Box
					PAM	1 Unit
27	CadilaPharmaceutic als Limited	294	02646- 252626	Cyanide base compounds	Cyanide antidote	01
				Nitro based compounds	Inj.Methylene blue	25
				DEG,Magnesiumsalt &phosphorus compounds	Inj.Cilcium gluconet	10
				Anti hypertension, Conversation	Inj. Clamps	09
				In any type of injury	Inj.T.T	2 Aump.
				Snake bite	Antiserum	2
				Ammonia	Gentamicin.Eye Drops	10
				Halogen Compounds	Milk	All time available
				Methylene chloride	Aspirin	20 Tab.
28	Heubach Colour Pvt. Ltd. (Unit -3)	6105,6107, 6111	222153,2220 83	Aniline, Toluene, Nitro Benzene	Milk of Magnesia	10 ml.
				HCl, Acid	Methylene Blue	110 ml.
29	Cadila Health Care Ltd. (UNIT- 1)	291	220719, 220722 <b>Fax</b> 250672	Sidium Cyanide	Cyanide Antidote	1 Kit
				Acid/ Alkali	Antiseptic Cream	4 Nos.
30	Cadila Healthcare Ltd. (UNIT - 2)	5/1/B	<b>Fax</b> 250672,	Sodium Cyanide	Cyanide Antidote	1 Kit
				Acid/ Alkali	Antiseptic Cream	4 Nos.
31	BASF India Ltd.	6216	221890, 221703	Aniline Sulphanilic Acid Soda AshMorpholine	Methylene Blue	06

## Annexure

Sr. No	Name of Company	Plot No.	Ph. No.	Name of Chemicals	Name of Antidotes	Qty.
32	Hikal Ltd.	629/630 <b>Panoli</b>	02646-302100	Organophosphorous compound/gas	Inj.Atropine Inj.PAM	10 4
				Cyanide	Cyanide anti dote kit	1
				Pest control	Inj.vitamin-K	2
				Sanke bite	Inj.ASV	2
				Non Organo phosphorous compund/ gas	Inj.Deriphylline	2
33	Heubach Colour Pvt. Ltd. (Unit -2)	A-1/406	222153, 222083	Aniline, Toluene, Nitro Benzene	Methylene Blue	10 ml.
				HCl	Milk of Magnesia	110ml.
35	Sanofi India Limited,	3501, 3503,6310 B-14	(02646) 668405 / (02646) 668419	Aniline	<b>Inj. Methylene Blue</b>	5.
				<b>Organo Phosphorus</b>	<b>Inj. Atropin / Inj PAM</b>	50 2
				<b>Snake Bite</b>	<b>Inj. ASV</b>	2
				<b>for Gastric Lavage</b>	<b>Activated Charcoal</b>	20 Tab.
36	Ambica Chemical Industries	7414	02646-270152,2390 77,250764	Alumina Tri Hydrate Dilute Sulfuric Acid	-- <b>Milk of Magnesia</b>	
37	OMNOVA Solutions India Pvt. Ltd.	Vill: <b>Dungri</b> , Ta:Valia,	(02643) 270152, Fax : 270010	Acrylonitrile	Cyanide Antidotes Kit	02 Nos Kit

Sr. No	Name of Company	Plot No.	Ph. No.	Name of Chemicals	Name of Antidotes	Qty.
38	Asian Paints Ltd. (Paints)	2602	308001, 308110, <b>Fax</b> 308198	Phosphoric acid	Milk & Vegetable Oils	1
				Ethylene diamine	Inj. Calcium Gluconate	1
				Phenol 100%	Polyethylene Glycol	1
				Desmodour N75	Broncholidator (inj. , Deripphyl)	1
				Tetra potassium pyrophosphate	Inj. Atropine	1
				TD Mecraptant	Ether drops, inj Pyridoxine	1
				Ortho xylene	Inj. Diazepam	1
				Mixed xylene	Inj. Diazepam	1
				Iso phorone di isocynate	Bronchodilator, inj. Deripphyl	1
	Toluene	Inj. Diazepam	1			
39	Ion Exchange (India) Ltd.	5811-13	02646-302719,302700,302704, <b>Fax-</b> 250130,	Oleum	milk of megnesia, milk, sodium hydro carbonate	02 bottles
				Chlorosulphonic acid (CSA)	milk of megnesia, milk, sodium hydro carbonate (4% concentration)	02 bottles
				Trimethylamine (TMA )	methylene blue	02 ampoule
	Di-Methylamine (DMA)	methylene blue	02 ampoule			

				HCl	large quantity of water, milk of megnesia, Eno, Eye drops	02 bottles 02 bottles
				H2SO4 (98 %)	milk of megnesia milk,	02 bottles
				EDC	Not available	N/A
				H2S	Amile Nitrate or Sodium Nitrate, Pyridoxine 25 mg/kg, pure O2	Amile Nitrate kit – 01
				Caustic Soda Lye	Vinegar	02 bottles
40	Shree Sulphurics Pvt. Ltd.	2801/A	222436, 221335, 227166 <b>Fax- 215836</b>	Acids Alkalis Chlorine	Lime water / Milk of magnesia	2 ltr
					1% Citric acid	2 ltr
					Potassium permanganate	2 ltr
41	Solvay Specialties India (P) Ltd.	3526-27 <b>Panoli</b>	272575- 76,329667- 68 <b>Fax-</b>	Snake bite	Inj. Antiserum snake venom	04
				Aniline poisoning	Inj. Methylene blue	07
				Orgeno phosphorus poisoning	Inj.PAM	03
42	Unique Chem.,	5, <b>Panoli.</b>	272510, 272508 <b>Fax- 272842</b>	Aniline	Methyi blue	10
				Acid	Anti acid	05
43	UPL –1	117/118	251223, 250336 9824156701	Orgeno phosphorus	Atropine PAM	N/A

## Annexure

Sr. No	Name of Company	Plot No.	Ph. No.	Name of Chemicals	Name of Antidotes	Qty.
44	Chemie Org. Chem. (I) Pvt. Ltd	758 <b>Jhagadia</b>	02645-226019, 226020 <b>Fax</b> : 226145	Benzene	Milk of magnesia	250ml
				Chlorine Nitric acid Sulphuric acid	Soframmicene -do- -do-	250ml -do- -do-
45	Samrat Pharma. Ltd.	A2-3445	220774, Fax:251291	Chlorine	Water/Milk/Fresh air	N/A
46	Sanghvi Organics Pvt. Ltd.	3513-3516	02646-272276	Chlorine	Soda Water	N/A
				Toluene	Oxygene, Novasine,	
				HCl	Eye Drops ENO, Eye Drops,	N/A
47	Rajashree Polyfil	Rajashree Nagar Umalla	02640-308555	Mono Ethylene Glycol –	Potassium Permanganate	N/A
					Activated Carbon	
				Resorcinol	Dichlormid Chloride	N/A
				Oxalic Acid	Calcium Chloride	N/A
				Formaldehyde	Activated Charcoal	N/A
				Caprolactum	Ether, Veronal	N/A
48	Surya Remedies Pvt. Ltd.	1101	226290	HCl	Soframycin	N/A
				H2SO4	Antibiotics	
49	Surya Drugs & pharmaceuticals	1102	226694	Oleum Bromine HCl Spent Acid	Soframycin Antibiotics	N/A
50	Heubach Colour Pvt. Ltd.	9002-9010	252160,252159	HCl	Milk of Magnesia	N/A
				Chlorine, Bromine	Sodium Bi-Carbonate	



## Annexure

Sr. No	Name of Company	Plot No.	Ph. No.	Name of Chemicals	Name of Antidotes	Qty.
51	Birla Cellulosic	Birla dham, Kharach, Kosamba	270001-05, 271180	Carbon Disulphide  Hydrogen Sulphide Chlorine Ammonia Sulphur Dioxide Sulphuric Acid	Oxygen & Symptomatic Treatment --do-- --do-- --do--	N/A
52	Lanxess India Pvt Ltd	Plot No.748, GIDC, Jhagadia	02645-224136	Aniline	Inj. Methyline blue	6 Ampoules ( 10 ml )
				Acrylonitrile	Inj. Cyanide Kit	02 Nos
				Snake venom	Inj. Anti snake serum	02 vial (10 ml )

## Annexure

### Annexure: - U2

Details of chemicals properties, fire fighting agents, antidotes, first aid & medical Treatment

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
1	Acetic Acid	Corrosive	Carbon Dioxide, Dry Chemical Powder, Water Spray and Alcohol Resistant Foam	Remove the victim to fresh air. If there is a difficulty in breathing, give Oxygen. If heartbeats are absent, give external Cardiac compression. If substance has gone in eyes, wash with plenty of water for 15 minutes, holding eyes open and obtain medical treatment urgently.
2	Ammonia	Flammable, Toxic	Stop flow of gas, use water spray to cool fire exposed containers. Exposed fire fighter must wear positive pressure self-contained breathing-apparatus and full protective clothing.	Remove the victim to fresh air. If there is a difficulty in breathing, give Oxygen. Inhalation of steam or vinegar vapor is recommended. If substance has gone in eyes, wash with plenty of water for 15 minutes To relieve restlessness, ingestion morphine 15mg to relieve Dyspnoea, Oxygen inhalation.
3	Ammonium Carbonate	Corrosive	Non-flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give Oxygen. If substance has gone in eyes, wash with plenty of water for 15 minutes, holding eyes open.
4	Ammonium Nitrate (Melt)	-	Use plenty of water to cool fire exposed containers. Exposed fire fighter must wear positive pressure self-contained breathing apparatus and full protective clothing. Container may explode in fire.	In case of burns due to hot Ammonium Nitrate solution, part should be flushed with large quantity of water and treated according to usual burns.

## Annexure

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
5.	Carbon Dioxide	Asphyxiate	Non-flammable	It is simple asphyxiant and can cause oxygen deficiency in confined space / non ventilated areas. Respiratory protection is required.
6.	Carbon Monoxide	Flamm-able, Toxic	Carbon monoxide, dry chemical powder, wear self contained breathing apparatus. Let fire burn, shut off gas while using the chemicals.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If hearts beats are absent, give external cardiac compression. Do not use mouth to mouth ventilation. Administer 100% oxygen till carboxyhemoglobin level is measured. Cerebral edema and convulsions must be controlled. Ethylene blue must not be injected.
7.	Chlorine	Toxic	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give external cardiac compression. Incase of eye exposure, wash with copious amount of water for 15 minutes, keeping eyelids apart
8.	Coal	Flame-able	Dry chemical powder, water supply	Incomplete combustion may produce CO1, sulphur dioxide; hence respiratory protection may be required to fight the fire.
9.	Formic Acid	Flame-able, Corrosive	Carbon dioxide, dry chemical powder, water spray and alcohol resistant, foam all purpose foam.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If hearts beats are absent, give external cardiac compression. If substance has gone in eyes, wash with plenty of water for 15 minutes, holding eyes open and obtain medical treatment urgently.
10.	b) Fuel Oil	Flame-able	Carbon dioxide, dry chemical powder, foam	Remove the contaminated clothese. Wash the affected parts of skin with plenty of soap and water and seek medical advice immediately for inhalation of vapours / fumes.
11.	High Speed Diesel	Flammable	Dry chemical powder, foam	- do -

## Annexure

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
12.	Hydro-choleric Acid	Corrosive	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give artificial respiration. Do not give alkaline substances or carbonate preparation. Skin should be treated with 5% Trietanol amine. If substance has gone in eyes, wash with plenty of water for 15 minutes, holding eyes open and obtain medical treatment urgently.
13.	Hydrogen	Flammable, Explosive	Dry chemical powder, halon. Let fire burn under control. Stop flow of gas.	It is simple asphyxiate and can cause oxygen deficiency in confined space / non ventilated areas. Move victim to the fresh air and apply resuscitation methods.
14.	Hydrogen Iodide	Toxic	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If hearts beats are absent, give external cardiac compression. In case of eye exposure, wash with copious amount of water for 15 minutes, keeping eyelids apart.
15	Hydrogen Sulphide	Flammable, Toxic	Carbon dioxide, dry chemical powder. Wear self-contained breathing apparatus. Alcohol resistant foam is also advisable to be used to stop fire.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. Patient with significant exposure, should be hospitalized for 72 hours of medical observation for delayed pulmonary edema. The respiratory centre may be stimulated by injection of LOBGIN and nite thiamine. Vitamin C may be injected intravenously. In case of eye exposure, it should be treated with boric acid solution.

## Annexure

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
16	Iodine	Toxic	Use water spray or carbon dioxide. Do not use foam or dry chemical. Wear full protective clothing and self contained breathing apparatus for fire fighting.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If hearts beats absents, give external cardiac compression. Patient with significant exposure should be hospitalized for 72 hours of medical observation. Consider administration of multiple metered doses of topical steroid hormone or 30 mg/kg of methyl prednisolone IV.
17.	LPG	Flame-able, Explosive	Carbon dioxide, dry chemical powder, water spray	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If substance has gone in eyes, wash with plenty of water for 15 minutes holding eyes open.
18.	Methane	Flammable,	Carbon dioxide, dry chemical powder. Shut off gas.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If substance has gone in eyes wash with plenty of water.
19.	Methanol	Flammable, Toxic	Carbon dioxide, dry chemical powder, water spray and alcohol resistant foam.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. Never administer anything by mouth if a victim is losing consciousness. Do not induce vomiting. Do not use mouth to mouth respiration. Massive alkalization in life saving and eye saving measures. Give small quantity of Ethyl alcohol every 4 hourly. If substance has gone in eyes, wash with plenty of water for 15 minutes holding eyes open.
20.	Methyl Acetate	Flammable, Toxic	Carbon dioxide, dry chemical powder and alcohol resistant foam. Water may be ineffective.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If substance heart beats are absent, give external cardiac compression. If substance has gone in eyes, wash with plenty of water for 15 minutes holding eyes open and obtain medical treatment urgently.

## Annexure

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
21	Methyl Formate	Flammable, Toxic	Carbon dioxide, dry chemical powder, water spray and alcohol resistant foam.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If substance heart beats are absent, give external cardiac compression. If substance has gone in eyes, wash with plenty of water for 15 minutes holding eyes open and obtain medical treatment urgently.
22	Methyl Iodide	Toxic	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If substance heartbeats are absent, give external cardiac compression. Do not use mouth to mouth ventilation. Keep under medical surveillance for 48 hours. Consider administration of multiple metered doses of topical steroid by inhalation and or upto 30 mg / kg of methyl prednisolone. In case of eye, contact immediately, refer to ophthalmologist.
23	Mono Ethylene Glycol	Flamm-able, Toxic	Carbon dioxide, dry chemical powder and alcohol resistant foam.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If heartbeats are absent, give external cardiac compression. If substance has gone in eyes, wash with plenty of water.
24	Naphtha	Flamm-able	Foam dry chemical powder, carbon dioxide. Apply water fog from as far distance as possible.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. The decision of whether to induce vomiting or not should be made by an attending physician. If heartbeats are absent, give external cardiac compression. If substance has gone in eyes, wash with plenty of water.
25	Natural Gas	Flamm-able	Stop flow of gas. Dry chemical powder, carbon dioxide.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If substance has gone in eyes, wash with plenty of water for 15 minutes, holding eyes open.

## Annexure

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
26	Nitric Acid	Corrosive, Toxic	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give Oxygen. Do not induce vomiting. If heartbeats are absent, give external Cardiac compression. If substance has gone in eyes, wash with plenty of water for 15 minutes, holding eyes open and obtain medical treatment urgently.
27	Nitric Oxide	Corrosive, Toxic	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. Do not allow to walk. Fatal symptoms may be delayed upto 48 hours even though victim may seem normal after exposure. If hearts beats are absent, give external cardia compression. If substance has gone in eyes, wash with plenty of water for 15 minutes holding eyes open and obtain medical treatment urgently. Methemoglobinemia due to no resolve in hours with oxygen therapy.
28	Nitrogen	Asphy-xiant	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If hearts beats are absent, give external cardia compression. Treat for frostbite with lukewarm water.
29	Oxygen	-	Non flammable	Inhalation of 100 % oxygen can cause nausea, dizziness, irritation of lungs, pulmonary edema, pneumonia and collapse. Liquid oxygen will cause frostbite.

## Annexure

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
30	Nitrogen Dioxide	Corrosive, Toxic	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. Enforce complete rest for 24 to 48 hours. In case of high exposure keep patient under medical observation for at least 72 hours. Some individuals who had symptoms of acute exposure with or without edema, develop an immune reaction 10 days or 6 weeks after exposure. Symptoms include severe cough, cyanosis (turning blue) fever hypoxemia and X ray may show fine scattered nodules in the lungs are vulnerable to virus.
31	Potassium Hydroxide	Corrosive Toxic	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If substance heart beats are absent, give external cardiac compression. In case of eye contact immediately refer for ophthalmological opinion. Treat skin burns conventionally.
32	Potassium Methoxide	Flammable, Toxic	Only dry chemical powder is allowed to be used. It reacts with water and CO <sub>2</sub> .	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. Never administer anything by mouth if a victim is losing consciousness. Do not induce vomiting. Do not use mouth-to-mouth respiration. Baking soda in glass of water should be given.
33	Propionic Acide	Flammable, Toxic, Corrosive	Foam, dry chemical powder, carbon dioxide. Apply water fog from as far distance as possible.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If heart beats are absent, give external cardiac compression. In case of eye contact flush with plenty of water for about 15 minutes. Remove wet clothes and wash affected area with water & soap.



## Annexure

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
34	Rhodium Triiodide	-	Non flammable	Remove the victim to fresh air. Material cause irritation of nose, throat and respiratory tract. Repeated exposure to skin can cause allergic sensitization. Incase of eye contact, flush with plenty of water for 15 minutes.
35	Sodium Hydroxide	Corrosive, Toxic	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. Incase of eye contact flush with plenty of water for about 15 minutes. Remove wet clothese and wash affected area with water & soap.
36	Sulphur Dioxide	Corrosive, Toxic	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If hearts beats are absent, give external cardia compression. Atropic rhnitis and phayngitis may be treated by inhalation of 5% solution of sodium chloride, followed by inhalation of 5% solution of sodium chloride, followed by inhalation of vitamin A. Incase of of eye contact, flush with 2% sodium bicarbonate solution, drops of 2 to 3 % phedrine should be instilled in the nose.
37	Sulphuric Acid	Corrosive, Toxic	Non flammable, react with water to form large amount of heat and corrosive fumes. Do not use water to existing fire in the nearby area.	Remove the victim to fresh air. If there is a difficulty in breathing, give Oxygen. Incase eye contact flush with plenty of water for 15 minutes. Remove wet clothes and wash affected area with plenty of water.
38	Trichloro Ethylene	Flamm-able, Toxic	Carbon dioxide, dry chemical powder, water spray and alcohol resistant foam.	Remove the victim to fresh air. If there is a difficulty in breathing, give Oxygen. Do not induce vomiting If heart beats are absent, give external Cardiac compression. If substance has gone in eyes, wash with plenty of water for 15 minutes, holding eyes open and obtain medical treatment urgently.

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
39	Ortho Dichloro Benzene	Flamm-able, Toxic	Foam dry chemical powder, carbon dioxide. Apply water fog from as far distance as possible.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. In case of eye contact flush with plenty of water for about 15 minutes. Remove wet clothes and wash affected area with plenty of water.
40	Trichloro Acetyl Chloride	Corrosive, Toxic	Foam dry chemical powder, carbon dioxide.	It is very corrosive liquid. Exposure will produce tears in the eyes and severe chemical burns. Move the person to fresh air. If not breathing, perform artificial respiration. If required, give oxygen. Wash the affected skin thoroughly with soap and water. Flush and irrigate eyes with copious quantity of water for at least 15 minutes. Do not induce vomiting.
41	Acrylo-nitrile	Flamm-able, Toxic	Carbon dioxide, dry chemical powder	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If the unconscious, crush an amyl nitrile ampule in a cloth and hold it under the nose for 15 seconds in every minute. Do not interrupt artificial respiration during this process.
42	Copper Comp-ounds	-	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If heart beats are absent, give external cardiac compression. If substance has gone in eyes wash with plenty of water for about 15 minutes, holding eyes open and obtain medical treatment urgently.

## Annexure

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
43	Aniline	Flamm-able, Toxic	Foam, dry chemical powder, carbon dioxide	Remove the victim to fresh air. If there is a difficulty in breathing, give Oxygen. Aniline is very toxic, if splashed on skin. It passes through the skin, causing methamoglobinemia. Antidotes are methylene blue. Incase of eye contact flush with plenty of water for 15 minutes. Remove wet clothes and wash affected area with plenty of water
44	Benzene	Flamm-able, Toxic	Foam, dry chemical powder, carbon dioxide	Remove the victim to fresh air. If there is a difficulty in breathing, give Oxygen. Benzene is very toxic or if splashed on skin. Cronic exposure may lead to leukemia. Incase of eye contact flush with plenty of water for 15 minutes. Remove wet clothes and wash affected area with plenty of water.
45	Nitro-benzene	Flamm-able, Toxic	Foam, dry chemical powder, carbon dioxide	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. NB is very toxic if splashed on skin. It passes through the skin causing methamoglobinemia. Antidote is methylene blue. Incase of eye contact flush with plenty of water for about 15 minutes. Remove wet clothes and wash affected area with plenty of water.
46	c) Phosgene	Corrosive Toxic	Non flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. Phosgenen is very toxic incase of inhalation. It has very low TLV – 0.1 ppm. Keep the person under observation for 72 hours for possibility of delayed effect. Incase of eye contact, flush with plenty of water for about 15 minutes. Remove wet clothes and wash affected area with plenty of water.

## Annexure

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
47	Toluene	Flamm-able, Toxic	Foam, dry chemical powder, carbon dioxide	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. Toluene is very toxic if splashed on skin. Incase of eye contact flush with plenty of water for about 15 minutes. Remove wet clothes and wash affected area with plenty of water.
48	Di Nitro Toluenen	Flammable, Explosive	Use plenty of water to cool fire exposed containers. Exposed fire fighter must wear positive self contained breathing apparatus. Foam and dry chemical powder and carbon dioxide can be used.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. Di Nitro Toluene is very toxic if splashed on skin. Incase of `eye contact flush with plenty of water for about 15 minutes. Remove wet clothes and wash affected area with plenty of water.
49.	Metaol-uene Di Amine	Flamm-able, Toxic	Foam dry chemical powder, carbon dioxide. Apply water fog from as far distance as possible.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. Metaoluene Di Amine is toxic, if splashed on skin. Incase of eye contact flush with plenty of water for about 15 minutes. Remove wet clothes and wash affected area with plenty of water.
50	Toluene Di Isocyanate	Corrosive, Toxic	Dry chemical powder, carbon dioxide. Do not apply water as it reacts violently with water at elevated temperature.	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. Toluenen Di Isocynate is very toxic if inhaled.. In cause pulmonary edema. TLV of TDI vapour is ver low i.e. 0.0005 ppm. If splashed on skin, incases sensitization of skin tissue. Incase of eye contact, flush with plenty of water for about 15 minutes. Remove wet clothes and wash affected area with plenty of water.

## Annexure

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
51	Methyl Iodine	Toxic	Non Flammable	Remove the victim to fresh air. If there is a difficulty in breathing, give oxygen. If heart beats are absent, give external cardiac compression. Do not use mouth to mouth ventilation. Keep under medical surveillance for 48 hours. Consider administration of multiple metered doses of topical steroid aerosol by inhalation and or upto 30 mg / kg of methyl prednisolone. Incase of eye, contact immediately, refer to ophthalmologist.
52	Chloro Sulphonic Acid	A poison to irritant, corrosive	Use DCP, foam if exposes to fire.	Remove victim to fresh air. If there is difficulty breathing, give oxygen. Do not induce vomiting. Obtain medical treatment urgently.
53	Carbon Di Sulphide	Flamm-able, Explosive	Use DCP, CO2	Remove victim to fresh air. If there is difficulty breathing, give oxygen. Do not induce vomiting. Obtain medical treatment urgently.
54	Etyhlene Oxide	Flamm-able, Carci-nogen	Use DCP	Remove victim to fresh air. If there is difficulty breathing, give oxygen. Do not induce vomiting. Obtain medical treatment urgently.
55	Acephate Anilo-phose Ethion Phorate Quinal-phos	Non flamm-able	Use DCP, foam if exposed to fire.	Atropine sulphate in dose 2 – 4 mg for adult, 2 pam 1000 – 2000 mg / im.
56	Alachor Carbenda-zim Thiophanate – M	Non flamm-able	Use DCP, foam is exposed to fire	Inject 1 gm of Eralidioxime chloride IV. Do not induce vomiting if the injected poison is principally a hydrocarbon solvent.
57	Mancozeb Thiram	Non flamm-able	Use DCP, foam is exposed to fire	Low toxicity, no specific treatment.
58	Allethrin Cyperm-ethrin Fevalrate	Toxic	Use DCP, foam is exposed to fire	The treatment is symptomatic.
59	Alumi-nium Phosphate	Non flamm-able	Use DCP, foam is exposed to fire	Injection copper sulphate 0.25 gm.
60	Isopro-turon	Non flamm-	Use DCP, foam is	Supportive treatment.

## Annexure

Sr No	Name Of Chemical	Hazard Characteristics	Fire Fighting Agent	Antidote / First Aid / Medical Treatment
61	Hexa-conazole Propi-conazole	Non flamm-able	Use DCP, foam is exposed to fire	There is no specific antidotes and treats the victim symptomatically.
62	Propane	Flamm-able, Explosive	DCP, Water	First aid.
63	Propylene	Flamm-able, Explosive	DCP, Water	First aid.
64	Styrene Monomer	Flamm-able	DCP, Foam compound	-
65	Phospho-ric Acid	d) corrosive	-	Skin Contact: - Wash with clean water. Apply dry sterile dressing. Eye Contact: Through wash with clean water, apply benoxinate (novesine) drop (0.4%). Inhalation: Administer O <sub>2</sub> , Give him fresh drink water. Ingestion: Milk of magnesia, fresh egg, administer him oxygen.

**Annexures U3 Other Emergency Resources – Antidote Suppliers**

Sr.	Toxic Chemicals Handled in District (esp. In mah units)	Antidotes Required	Antidote Supplier* Name with Address And Phone:- Numbers, Contact persons	Quantity of antidotes Available	Remarks
1	Chlorine	Oxygen	Bhupat bhai Shriji entreprize, (02646) - 25207(M) 98250 40093 Heubach colour	3oxygen cylinders	
2	Chlorine		Mr. Sanjaybhai, Vijay medico 01/riddhi siddhiarcadeNew colony,Gidc nkleshwer, (o) 250634		
3	Cs2	Oxygen & symptomatic treatment	Aims industries ltd. G-5, paris plaza, M. G. Road no.#9, Udhna - udhyognagar, udhna, surat.		
4	Aniline & nitrobenzene	Methylene blue Inj usp 10 ml	<ul style="list-style-type: none"> <li>▪ Vulcan laboratories p ltd, p-36, kasba ind estate, phase - iii, kolkata-700107</li> <li>▪ Troika pharma suiticals ltd, Om tower, settelite road, Ahmedabad. Ph 079 26856242/43/44/45</li> <li>▪ Walker's pharma pvt. Ltd, Gate no.285- b, kasar amboli, Tal. Mulshi dist. Pune. Pin-411004</li> <li>▪ Sajjan india limited</li> <li>▪ Gnfc ltd</li> <li>▪ Omnova solutions india private limited</li> <li>▪ Industrial solvents &amp; chemicals pvt.ltd. Ankleshwar.</li> </ul>	<ul style="list-style-type: none"> <li>▪ 4 ampules</li> <li>▪ 103 ampules</li> <li>▪ 1 ampules</li> <li>▪ 40 impulse</li> </ul>	

## Annexure

Sr.	Toxic Chemicals Handled in District (esp. In mah units)	Antidotes Required	Antidote Supplier* Name with Address And Phone:- Numbers, Contact persons	Quantity of antidotes Available	Remarks
5	Acid , oleum	Milk of magnesia	<ul style="list-style-type: none"> <li>▪ Vijay medico, nr. Manav mandir, ankleshwar.</li> <li>▪ Deys medical stores manufacturing ltd., 62-bindel road, culcutta, 700019.</li> <li>▪ At main gate of shree sulphurics pvt.limited</li> <li>▪ Industrial solvents &amp; chemicals pvt.ltd. Ankleshwar.</li> </ul>	<ul style="list-style-type: none"> <li>▪ 250 ml x 3</li> <li>▪ 340ml x 1</li> </ul>	
6	Chlorine	Injection atropine, injection pam	Mr. Anil joshi (m) 94282 68024 (r) 02646 - 210227	Inj. Atropine -40 vials, Inj. Pam - 20	
7	Acid exposure	Universal charcoal	West-coast pharma work ltd	500 tabltles	
8	Snake bite	Antisnake venom	Gnfc ltd	- 10 nos.	
9	Chlorine Ammonia	<ul style="list-style-type: none"> <li>▪ Atropine amp.</li> <li>▪ Adrenaline</li> <li>▪ Pam inj.</li> <li>▪ Anti snack vial.</li> <li>▪ Xylocain</li> <li>▪ R c crom vial</li> <li>▪ Avil vial</li> <li>▪ T.t vial</li> <li>▪ Phenargen</li> <li>▪ Deriphyline.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mr. Sanjaybhai M/s. Vijay medical stores, Ankleshwar. (o) 02646 - 250634 (m) 98983 94090</li> <li>Shriram alkali &amp; chemicals Plot no. 749, gidc , Jhagadia industrial estate, jhagadia, Dist. Bharuch. Phone no. 02645-226021-23</li> </ul>	<ul style="list-style-type: none"> <li>▪ 10 nos.</li> <li>▪ 2 nos ampul</li> <li>▪ 1 no.</li> <li>▪ 1 nos.</li> <li>▪ 1 nos.</li> <li>▪ 1 nos.</li> <li>▪ 5 nos.</li> <li>▪ 11 nos.</li> <li>▪ 5 nos. Ampul</li> <li>▪ 10 nos ampul</li> </ul>	



## Annexure

### Annexure: - V

#### List of Evacuation Information – Sheltering

Sr.	Evacuation area location	Capacity of peoples	Details of Contact Persons
	2	3	4
1	Adarsh High School, Ankleshwar	350	Sh. N m modi (O) 2646 – 247159 (R) 2646 - 247644
2	Administrative Building Of Gail(India) Limited, Village -Rozatankaria,Tq-Amod, Dist BharuchPhone-02641-231110	100	Sh a.arora (o) 02641-231110
3	Amity High School, Dahej By-Pass Road, Bharuch: 392001.	250	Principal Sh. Ranchodbhai shah (O) 2642 - 243635
4	Anandpura Sports Complex	300	Principal – 02646 – 252 400,
5	Arts & Science & Commerce College, Near Bholav, Nh No. : '8', Bharuch: 392002, 3.0 Kms.	300	Shri R.C. Joshi Principal 262902 (commerce). 62802 (arts & science)
6	Bachelor Hostel, Kharach	60	Col. B k gandhi (O) 2646-222094 (R) 2646-223016
7	Bharuch Welfare Hospital, Bharuch	50	Sh. Mohammad patel (o) 2642 - 242504 (r) 2642 - 241888
8	Chandrabala Modi Academy, Ankleshwar	150	Sh. S K Bhattacharya (o) 2646 - 275126 (r) 2646 - 275152
9	Empty Houses In The Township,	60	Mr. C K Baxi C.M.5784
10	Fertilizer School, Township, Narmadanagar: 392 015. 2.0 Kms.	200	The PrincipalMr. Arvind patel 230944/5488/3330
11	Gandhi Ashram, Piludara	250	Principal
12	Gattu Vidhyalaya, Ankleshwar	300	Sh. Nilesh Parekh / Sh. Panchal, Director(O) 2646-252400 (R) 2646-252277 Smt,Ansuben Tiwari (Principal) (R) 910, Gidc Ankleshwar (O) 02646-252400
13	High School, Amod	300	Principal
14	High School, Palej	150	Principal (o) 2642 - 277048
15	Hotel -Navjeevan Hotel Sanman	300	Hitesh Inamdar Hod (Security & Administration) Tel. : 02646 – 655471( Office) Mobile: 9227562344

## Annexure

Sr.	Evacuation area location	Capacity of peoples	Details of Contact Persons
16	Ikra Islamic High School, Dehgam Chokdi	250	Sh. Maulana Matadar (O) 2642 - 266518 2422122642 - 266518 242212
17	J P Arts & Science College, Old N.H.No.8 College Road Bharuch-392001	200	Principal (O) 2642 - 228812
18	Jinwala High School, Ankleshwar	300	Sh. Pinakin Modi (O) 2646 – 247193 (R) 2646 - 244972
19	K J Polytechnic College, Bharuch	250	Sh. H M Dhandha (O) 2642 - 246402 (R) 2642 - 246316
20	Kadakia Commerce College, Ankleshwar	200	Sh. J N Gujjar (O) 2646 - 245215
21	Kanoria Guest House ,Gidc Colony ,Near Gattu Vidyalaya , Gidc Ankleshwar.-393002	50	P.M.Desai : Dgm ( Hr & A) (O) Kanoria Chemicals & Industries Ltd, Plot No 407g.I.D.C.Ind.Estate-Ankleshwar (R) Kanoria Colony ,Gidc-Ankleshwar (M) 97372 47111
22	Lallubhai G High School, Haldar	250	Principal (O) 2642 - 288652
23	Lions School, Ankleshwar	300	2646 - 223735
24	Lion's School,Natinal School	100	Principal – 02646 – 244 375
25	Luwara Primary School	350	Mr. Hemant Bahura Cm(Hr & Admin) (M) 96625 26276
26	M.K.College Of Commerce,Old N.H.No.8 College Road,Panchvati,Bharuch-392001	250	Principal (O) 2642 - 229902
27	Maharaj K G M Vidhyamandir, Zadeshwar	150	Principal (O) 2642 - 247286
28	Manav Mandir Complex, Ankleshwar	250	Sh. S B Chitre (O) 2646-253094 (R) 9824113079
29	Munshi Memorial School, Dahej Bypass, Link Road, Bharuch	100	Sh. Bashirbhai Chokiwala (O) 2642 - 266155
30	Narmada Club, Kharach	150	Col. B K Gandhi (O) 2646-222094 (R) 2646-223016
31	Narmada College Of Management, Near National Highway No.8 Shukla Tirth Road,Zadeshwar Road, Bharuch-392001	100	Principal (O) 2642 – 230595 Dr.Trupti S Almoula (I/C Director) (M)9099063337

## Annexure

Sr.	Evacuation area location	Capacity of peoples	Details of Contact Persons
32	Narmada College, Zadeshwar	250	Principal.
33	Narmada Vidhyalaya, Narmadanagar, Bharuch	250	Smt. Kusumben S Vyas (O) 2642-246414 (R) 2642-246150
34	National High School, Ankleshwar	50	Sh. Suhas Yeri (O) 2646-224375 (R) 2646-224352
35	Nilkanth Mahadev, Near Zadeshwar Village, New Nh No. : '8' Zadeshwar, Dist.: Bharuch.	300	Shri D.H.Desai Principal 261490
36	Polytechnic College. Near Bholav, National Highway (Old) No. : 8, Bharuch: 392002,	250	Shri H.M.Dhandha Principle 263402
37	Pahaj School	200	Principal
38	Primary School, Ambetha	100	Sh. Hirubhai Patel
39	Primary School, Dahej	100	Sh. Virendra Sinh Rana (M) 98247 96841
40	Primary School, Jageshwar	100	Sh. Pradip Sinh Rana (M) 9824565320
41	Primary School, Lakhigam	100	Sh. Sursang Bhai Gohil
42	Primary School, Luvara	100	Sh. Mangal Bhai Gohil
43	Primary School, Rozatankaria	250	Principal
44	Primary School, Suva	100	Sh. Jesang Bhai Gohil
45	R N Patel Vidhyalaya, Sarbhan	200	Principal (O) 234248
46	Relax Talkies, Bharuch	100	2642 – 260335
47	Relief Talkies, Bharuch	100	2642 – 262983
48	Rungta Vidhyalaya, Station Road, Bharuch	100	Ms. Pushpaben Patel (O) 2642 – 243466
49	Sanskardeep School, Ankleshwar	250	Smt. Ushaben Shah (O) 2646 - 252895 252435 (R) 2646 - 282354
50	Saraswati Township	50	Dr. Paren Shah (R) 02641-266226 (M) 99989 7298
51	Saraswati Township Of Reliance Industries Limited	50	Dr. Paren Shah. 999897298 , 02641-266226
52	Sarvajanik High School, Chanchvel	100	Principal (O) 230225
53	Sarvajanik High School, Dora	100	Principal (O) 236659
54	Sarvajanik High School, Nabipur	100	Principal (O) 2642 - 283242
55	School, Kharach	150	Col. B K Gandhi (O) 2646-222094 (R) 2646-223016
56	Schools At Village Pahej & Rozatankaria	250	Sh A.Arora, Contact No- 02641-231110
57	Shravan Vidhyalaya, Dahej Bypass Road, Bharuch	350	Biniwale (O) 2642- 261525

## Annexure

Sr.	Evacuation area location	Capacity of peoples	Details of Contact Persons
58	Shri Gattu Vidhalaya Plot No – 910 G.I.D.C, Ankleshwar Ph No - 02646 – 252400	200	Principal – Dr Anshu Tiwari (Ank) Mobile No – 942674032 (o) 222403 Add – 27, Jaldarshan Society GIDC
59	Shri M P Patel School, Samlod	100	Principal (O) 287632
61	Sports Complex, Ankleshwar	250	Sh. D A Anandpura (O) 2646-251455 (R) 2646-251022
62	Sports Complex, Narmadanagar, Bharuch	200	Sh. I P Bhatt
63	Tapti Club, Kharach	150	Col. B K Gandhi (O) 2646-222094 (R) 2646-223016
64	Township Guest House And Copper Club Garden Of Hindalco – Dahej	120	Mr.Rajesh Kumar (O) (02641) 664490 / 664317 (R & M) 97237 09865
65	Trainees Hostel, Township, Narmadanagar: 392015, 2 Kms.	200	R P Jasaval Senior Manager 230304/5472
66	Vivekanand School, Ankleshwar	150	Smt. Binaben Kagalwala (O) 2646-247988 (R) 2646-245374
67	Zadeshwar High School. 2. O Kms.	350	The Principal 262286
68	Svmit (Shree S'ad Vidhya Mandal Institute Of Technology) Old N.H.No.8, Bholav Road, Bharuch-392001	150	(O) 02642-245864
69	Laxmi Narayan Dev Mca College. Narmada Nagar, Narayan Kunj Vihar Society, Beside Swami Narayan Vidhayalaya, Bholav, Bharuch.	120	Principal (M) 09913575873
70	Government engineering college. Opp. Govt.guest house, bholav, bharuch- 392001	200	Principle (O) 02642-227054

## Annexure

71	Shanti manglam hall. Manishanand society, link road , bharuch-392001	100	(O) 02642-264997
----	--	-----	------------------

Sr.	Evacuation area location	Capacity of peoples	Details of Contact Persons
72	Trimurti hall. Dhanish park, near narayan nagar-2, link road bharuch-392001	150	(O) 02642-266080
73	Dasaha modh vanik panch wadi.lalubhai chakla, behind dena bank, bharuch-392001	140	(O) 02642-264542
74	Vishmo dikujini wadi. National highway no.8, near sardar bridge, bharuch-392001	150	(O) 02642-247838
75	Manglam hall.link road, near manishanand society, bharuch-392001	100	(O) 02642-264125
76	Lakdawala marriage hall. Soneri mahal, lakdawala mansion,b/s, dr.piyush parikh, bharuch-392001	250	(O) 02642-261969

## Annexure

### Annexure W

List of Overtopping Roads of Bharuch R & B Department (State) in heavy rain

Sr.No	Route Information	Affected Route in km
1	Derol- Vagara - Gandhar road	4.2 to 4.8 KM
2	Amod - RojhaTankariyaMuller Dahej Road	0.980 to 2.0 KM 2.4 to 3.8 KM 4.5 to 5.2 KM 7.6 TO 8.0 KM
3	Ankleshwar - HansotSahol Road	33.2 to 72.2 KM 33.2 to 33.4
4	Ilav - Kharach - Kosamba Road	3. 8 to 4. 0 KM 5.2 to 5.4 KM
5	Dayadara - Nabipur Road	5.2 to 5.6 KM
6	Valia – Mangarol	6 .4 to 6.6 KM
7	Link Road Bharuch	0.4 to 1.0 KM

### Annexure: - W1

List of Overtopping Roads of Bharuch R & B Department (Panchyat) in heavy rain

Sr.No	Taluka	Route Information
1	Ankleshwar	SarfuddinApproach Roach (Rural Road) 4.10 KM
2.	Ankleshwar	From Old N.H 8 to Old Borbhatha Road (Plan of Rurar Road) 2.00 KM
3	Ankleshwar	From Old Chhapra to Old Kansia Road Joining N.H 8 (RR) 3.40 KM
4	Ankleshwar	New Kansia-Old Kansia Joining Ankleshwar Mandva Road (RR Plan) 2.50 KM
5	Ankleshwar	Nava Danturia to Koyli Road (Main District Road) 5.40 KM
6	Ankleshwar	SakkarpurPungam Road (RR) 5.50 KM
7	Ankleshwar	SajodSakkarpur Road (a.District Road) 4.00 KM
8	Ankleshwar	BhadeeKharodBakrolKapodra Road (M.D.R) 10.80 KM
9	Ankleshwar	Old DiveeApproach Road (RR Plan) 2.00 KM
10	Ankleshwar	AndadaApproach Joining N.H 8 (RR Plan) 2.50 KM
11	Hansot	AmbhetaPardeeHansot Road (A.D.R) 5.00 KM
12	Hansot	HansotMotvanPanoli Road (MDR) 8.00 KM
13	Hansot	VadhwanKoteshwar Road (RR Nonplan) 2.00 KM

## Annexure

14	Hansot	IlavBalotaDharad Road (A.D.R) 6.80 KM
15	Hansot	VamleshwarAnklavaDhamradBolavAniyadra Road (A.D.R) 13.50 KM
16	Hansot	PandvaaiApproach Road (RR) 5.00 KM
17	Hansot	RoheedMotvan Road (RR) 3.00 KM
18	Jhagadia	Madhee Jhagadia Road (MDR) 4.20 KM
19	Jhagadia	MadheeLadvavad Road (RR Plan) 4.00 KM
20	Jhagadia	Or To Patar Road (RR) 0.61 KM
21	Jhagadia	UmallaAshaVelugam Road Part PanethaIdorVelugam (MDR) 22.00 KM
22	Jhagadia	TothidraTarsali Road (RR) 3.80 KM
23	Jhagadia	GudechaAamlajar Road (RR) 4.20 KM
24	Valia	PatharVasava Street Road (RR) 1.40 KM
25	Valia	PatharJokhala Road (RR) 2.70 KM
26	Valia	MauzaHathaakundi Road (RR nonplan) 4.50 KM
27	Valia	DaheliPeethor Road (A.D.R) 3.20 KM
28	Valia	Valia DesadViththal Village BhamadiaGundiya Road (MDR) 14.40 KM
29	Vagra	KadodaraPakhajan Road (MDR) 11.85 KM
30	Vagra	Rahad Approach Road (RR) 2.40 KM
31	Vagra	VagraBhersamKotheeyaSadakhalaKhojbal Road (A.D.R) 20.10 KM
32	Vagra	VagraVichhiyaadKolvanaMachhasara Road (A.D.R) 20.10 KM
33	Vagra	VastiKhandalee Approach Road (A.D.R) 2.80 KM
34	Vagra	ChanchvelOchhanVaheeyal Road (MDR) 12.88 KM
35	Bharuch	Shuklatirth Approach Road (RR) 1.50 KM
36	Bharuch	KarjanKarmaali Joining Bharuch Shukltirth Road (RR) 3.20 KM
37	Bharuch	ShuklatirthKadod Road (RR Nonplan) 3.50 KM
38	Bharuch	Shuklatirth Bypass road (RR Non plan) 2.00 KM
39	Jambusar	AnakheeJafarpuraBojadara Road (MDR) 7.80 KM
40	Jambusar	VelamBojadara Road (RR Nonplan) 4.80 KM
41	Jambusar	ThakorTalavadeeSindhav Road (RR) 7.60 KM
42	Jambusar	MalpurBhadkodraJantarnNondhanaUber Road (MDR) 38.60 KM
43	Jambusar	MadafarKansagar Road (RR) 6.00 KM
44	Amod	TanchhaAnorDhamanad Dora Road (MDR) 12.60 KM
45	Amod	AchhodMachhasaraMangrolDenava Road (MDR) 9.60 KM
46	Amod	AmodPursa road (DMR) 5.00 KM
47	Amod	Shreekothee Road Adavala Road (RR) 3.80 KM

## Annexure

કુદરતી આપત્તિઓ (Natural Calamities) ને કારણે થતા માનવ મૃત્યુ / પશુ મૃત્યુ / ઈજા તેમજ સ્થાવર / જંગમ મિલકતને થતા નુકશાન માટે નાણાકીય સહાય ચૂકવવાના સંકલિત ધોરણો બાબત.

ગુજરાત સરકાર,

મહેસુલ વિભાગ

ઠરાવ ક્રમાંક: સીએલએસ / ૧૦૨૦૧૨ / ૨૫૩ / સ.૩

સચિવાલય, ગાંધીનગર.

તારીખ : ૨૭ / ૦૪ / ૨૦૧૫

વંચાણે લીધા :-

- (૧) મહેસુલ વિભાગનો તા. ૨૧/૦૮/૨૦૧૦ નો ઠરાવ ક્રમાંક: સીએલએસ/૧૦૨૦૦૬/૧૨૪૧/સ.૩
- (૨) મહેસુલ વિભાગનો તા. ૨૦/૧૨/૨૦૧૦ નો પરિપત્ર ક્રમાંક: સીએલએસ/૧૦૨૦૦૬/૧૨૪૧(૧)/સ.૩
- (૩) મહેસુલ વિભાગનો તા. ૨૪/૧૦/૨૦૧૧ નો ઠરાવ ક્રમાંક: સીએલએસ/૧૦૨૦૦૬/૧૨૪૧/સ.૩
- (૪) મહેસુલ વિભાગનો તા. ૦૨/૦૪/૨૦૧૨ નો ઠરાવ ક્રમાંક: સીએલએસ/૧૦૨૦૦૬/૧૨૪૧/સ.૩
- (૫) ભારત સરકારનો તા. ૧૬/૦૧/૨૦૧૨ નો પત્ર ક્રમાંક ૩૨-૭/૨૦૧૧/ એન.ડી.એમ.-I
- (૬) મહેસુલ વિભાગનો તા. ૦૭/૦૮/૨૦૧૨ નો ઠરાવ ક્રમાંક: સીએલએસ/૧૦૨૦૧૨/૨૫૩/સ.૩
- (૭) ભારત સરકારનો તા. ૧૩/૦૮/૨૦૧૨ નો પત્ર ક્રમાંક ૩૨-૩/૨૦૧૦/ એન.ડી.એમ.-I
- (૮) ભારત સરકારનો તા. ૧૮/૦૮/૨૦૧૨ નો પત્ર ક્રમાંક ૩૨-૧૭/૨૦૦૮/ એન.ડી.એમ.-I
- (૯) ભારત સરકારનો તા. ૨૧/૦૬/૨૦૧૩ નો પત્ર ક્રમાંક ૩૨-૩/૨૦૧૩/ એન.ડી.એમ.-I
- (૧૦) મહેસુલ વિભાગનો તા. ૨૬/૦૮/૨૦૧૩ નો ઠરાવ ક્રમાંક સીએલએસ/૧૦૨૦૧૨/૨૫૩/સ.૩.
- (૧૧) ભારત સરકારનો તા. ૨૮/૧૧/૨૦૧૩ નો પત્ર ક્રમાંક ૩૨-૩/૨૦૧૩/ એન.ડી.એમ.-I
- (૧૨) મહેસુલ વિભાગનો તા. ૦૪/૦૭/૨૦૧૪ નો ઠરાવ ક્રમાંક સીએલએસ/૧૦૨૦૧૨/૨૫૩/સ.૩.
- (૧૩) મહેસુલ વિભાગનો તા. ૨૦/૦૮/૨૦૧૪ નો ઠરાવ ક્રમાંક સીએલએસ/૧૦૨૦૧૨/૨૫૩/સ.૩.
- (૧૪) ભારત સરકારનો તા. ૦૮/૦૪/૨૦૧૫ નો પત્ર ક્રમાંક ૩૨-૭/૨૦૧૪/ એન.ડી.એમ.-I

1

વિરજી  
૫૧૫૨૨૨૧ તા: ૫-૫-૨૦૧૫  
૫૧ ૨૫૫૦૧ ૬૨૫૦૬



**આમુખ :-**

રાજ્યમાં વિવિધ પ્રકારની કુદરતી આપત્તિઓને કારણે થતા નુકસાન માટે ઉપર વંચાણે લીધા ઠરાવોથી સહાયના ધોરણો અને સહાય ચુકવવાની પ્રક્રિયા તથા તેના અધિકારો આપવામાં આવ્યા છે. ભારત સરકારે સહાયના ધોરણોમાં કરેલ સુધારા ધ્યાને લઈ કુદરતી આપત્તિઓના પ્રકાર, સહાયના સુધારેલા ધોરણો, સહાય ચુકવવામાં વિસંગતતા નિવારવા રાખવાની કાળજી વગેરે બાબતોની સંકલિત સુચનાઓ બહાર પાડવી અનિવાર્ય જણાય છે.

**ઠરાવ :-**

રાજ્યમાં કુદરતી આપત્તિઓ જેવી કે, (૧) ભારે વરસાદ - પૂર (Heavy Rainfall - Flood), (૨) વાદળ ફાટવું (Cloud burst), (૩) વાવાઝોડું (Cyclone), (૪) દુષ્કાળ (Drought), (૫) ભૂકંપ / ત્સુનામી (Earthquake / Tsunami), (૬) જમીન ધસી જવી (Landslides), (૭) હિમપ્રપાત (Avalanches), (૮) કરાની વૃષ્ટિ (Hailstorm), (૯) ઠાર અને શીત લહેર (Frost and Cold wave), (૧૦) જીવાતનું આક્રમણ (Pest attack), (૧૧) આગ (Fire) વિગેરેથી થતા નુકસાન માટે સહાય મંજૂર કરવાના અધિકારો તથા સહાય મંજૂર કરવાની પ્રક્રિયા કાળજીપૂર્વકની વિચારણા કરી નીચે મુજબ અમલ કરવા આ સંકલિત ઠરાવ કરવામાં આવે છે.

ભારત સરકારે વંચાણે લીધેલ ક્રમ (૭) ના ઓફિસ મેમોરેન્ડમથી ઠાર અને શીત લહેરનો પણ કુદરતી આપત્તિમાં સમાવેશ કર્યો છે જે નીચે મુજબ છે.

ભારત સરકાર ના સંદર્ભ-૭ માં દર્શાવેલ પત્રથી ઠંડી / ઠાર / હિમપ્રપાત / હિમપ્રકોપ ને પણ કુદરતી આપત્તિ ગણવામાં આવેલ છે અને સહાય માટે નીચે મુજબના માપદંડ નક્કી કરવામાં આવેલ છે.

- (i) હિમપ્રપાત / હિમપ્રકોપ પ્રભાવિત વિસ્તારોમાં જ્યાં સામાન્ય સંજોગોમાં ૧૦° સે. કે તેથી ઉપરનું તાપમાન રહેતું હોય ત્યાં ૭° સે. થી વધુ નીચે તાપમાન જાય ત્યારે તથા
- (ii) જે વિસ્તારમાં ૧૦° સે. થી નીચે તાપમાન રહેતું હોય તેવાં વિસ્તારોમાં ૫° સે. થી નીચું તાપમાન જાય ત્યારે,
- (iii) ઉપરોક્ત તાપમાન ભારત સરકાર ના હવામાન ખાતાની કચેરી એ જે તે વિસ્તાર માટે પ્રસારિત કરેલ તાપમાન ની તત્કાલિન સ્થિતિ માપદંડ તરીકે ધ્યાને લેવાની રહેશે.
- (iv) જે પ્રભાવિત વિસ્તારોમાં પાકને ૩૩% અને તેથી વધુ નુકસાન થયું હશે તેને દુષ્કાળ, કરા વૃષ્ટિ, જીવાત આક્રમણ અને અન્ય આપત્તિઓની જેમ સહાયને પાત્ર રહેશે. તે જ રીતે પશુ, મરઘાં વિગેરેને પણ ઠરાવેલ સહાય મળવાપાત્ર થશે.

કુદરતી આપત્તિઓ ને કારણે થતા માનવ મૃત્યુ અને ઈજા, સ્થાવર જંગમ મિલકતને નુકશાન, ખેડૂતો, માછીમારો, હસ્તકલા અને હાથશાળના કારીગરોને થતા નુકશાન તથા પશુ મૃત્યુ સહાયના

## Annexure

સુધારવા ધીરણો.	
1	માનવ મૃત્યુ સહાય
	રૂ. ૪,૦૦,૦૦૦/-
2	નાશ / નુકશાન પામેલ કાચા / પાકા મકાનો / ઝુંપડા મરામત સહાય
2.1	સંપૂર્ણ નાશ પામેલ મકાનો અને મોટું નુકશાન પામેલ મકાનો
	રૂ. ૯૫,૧૦૦/- પાકુ મકાન (સમતલ/સપાટ વિસ્તારમાં આવેલ)
	રૂ. ૧,૦૧,૯૦૦/- પાકુ મકાન (પર્વતીય વિસ્તારોમાં આવેલ-ઈન્ટીગ્રેટેડ એક્શન પ્લાન લાગુ હોય તેવા જિલ્લાઓ સહિત)
	રૂ. ૯૫,૧૦૦/- કાચા મકાન
	રૂ. ૧,૦૧,૯૦૦/- કાચા મકાન (પર્વતીય વિસ્તારોમાં આવેલ-ઈન્ટીગ્રેટેડ એક્શન પ્લાન લાગુ હોય તેવા જિલ્લાઓ સહિત)
2.2	આંશીક રીતે નુકશાન પામેલ કાચા / પાકા મકાનો (ઓછામાં ઓછું ૧૫% નુકસાન હોય તો જ મળવાપાત્ર)
	રૂ. ૫,૨૦૦/- પાકુ મકાન
	રૂ. ૩,૨૦૦/- કાચુ મકાન
	(ઉપરોક્ત રકમ ઉપરાંત બંને કિસ્સામાં રૂ. ૬,૦૦૦/- રાજ્ય સરકારના બજેટમાંથી મળવાપાત્ર રહેશે.)
2.3	નાશ / નુકશાન પામેલ ઝુંપડા
	રૂ. ૪,૧૦૦/-
	(ઉપરોક્ત રકમ ઉપરાંત રૂ. ૩,૦૦૦/- રાજ્ય સરકારના બજેટમાંથી મળવાપાત્ર રહેશે.)
2.4	ઘર સાથે સંકળાયેલ કેટલ શેડ
	રૂ. ૨,૧૦૦/-
3	અપંગતાના કેસમાં સહાય (વ્યક્તિદીઠ)
	રૂ. ૫૯,૧૦૦/- ૪૦% થી ૬૦% અપંગતામાં
	રૂ. ૨,૦૦,૦૦૦/- ૬૦% થી વધુ અપંગતામાં
4	ગંભીર ઈજાથી હોસ્પિટલમાં દાખલ થવાના કેસમાં
	રૂ. ૧૨,૭૦૦/- એક સપ્તાહથી વધુ સમય હોસ્પિટલમાં દાખલ રહે તો
	રૂ. ૪,૩૦૦/- એક સપ્તાહથી ઓછા સમય હોસ્પિટલમાં દાખલ રહે તો
5	દૈનિક રોકડ સહાય (કેશ ડોલ્સ)
	રૂ. ૬૦/- દૈનિક પુખ્ત વયના વ્યક્તિ માટે (વધુમાં વધુ ૩૦ દિવસ માટે, જરૂરિયાત જણાય તો પ્રથમ તબક્કામાં ૬૦ દિવસ સુધી લંબાવી શકાય તથા દુષ્કાળ કે જીવાત આક્રમણના

# Annexure

	(કિસ્સામાં સળંગ ૯૦ દિવસ સુધી લંબાવી શકાય)
	રૂ. ૪૫/- બાળકદીઠ (વધુમાં વધુ ૩૦ દિવસ માટે, જરૂરિયાત જણાય તો પ્રથમ તબક્કામાં ૬૦ દિવસ સુધી લંબાવી શકાય તથા દુષ્કાળ કે જીવાત આક્રમણના કિસ્સામાં સળંગ ૯૦ દિવસ સુધી લંબાવી શકાય)
6	કપડાં અને ધરવખરી સહાય
	રૂ. ૧,૮૦૦/- કપડાં સહાય (કુટુંબદીઠ)
	રૂ. ૨,૦૦૦/- ધરવખરી સહાય (કુટુંબદીઠ)
7	પશુ મૃત્યુ સહાય (પશુદીઠ)
7.1	દુધાળા પશુ
	રૂ. ૩૦,૦૦૦/- ગાય / ભેંસ / ઉંટ / ચાક વિગેરે માટે
	રૂ. ૩,૦૦૦/- ઘેટા / બકરા વિગેરે માટે
7.2	બીન દુધાળા પશુ
	રૂ. ૨૫,૦૦૦/- ઉંટ / ઘોડા / બળદ વિગેરે માટે
	રૂ. ૧૬,૦૦૦/- રેલ્લો(પાડો-પાડી) ગાયની વાછરડી / ગધેડો / પોની વિગેરે
8	મરઘાં મૃત્યુ સહાય
	રૂ. ૫૦/- પ્રતિપક્ષી વધુમાં વધુ રૂ. ૫૦૦૦/-પ્રતિ કુટુંબ ની મર્યાદામાં(પક્ષીનું મૃત્યુ કુદરતી આપત્તિના કારણે થયેલ હોવું જોઈએ)
9	કૃષિ સહાય
9.1	બે હેક્ટર સુધી જમીન ધરાવતા ખેડૂતોને સહાય
	રૂ. ૧૨,૨૦૦/- જમીન ધોવાણ માટે (પ્રતિ હેક્ટર)
	રૂ. ૧૨,૨૦૦/- પર્વતીય વિસ્તાર (પ્રતિ હેક્ટર)
	રૂ. ૧૨,૨૦૦/- ફીશ ફાર્મના ધોવાણ અને પુનઃ સ્થાપન રીપેરીંગ (પ્રતિ હેક્ટર)
	રૂ. ૩૭,૫૦૦/- પ્રતિ હેક્ટર લેન્ડસ્લાઈડીંગ કે નદીનું વહેણ બદલાવાના કારણે જમીન અંશતઃ નકામી બની ગયેલ હોય કે વહેણમાં દબાઈ ગયેલ હોય
9.2	બે હેક્ટર સુધી જમીન ધરાવતા ખેડૂતોને ઈનપુટ સબસીડી (૩૩% અને તેથી વધુ નુકશાનનાં કિસ્સામાં)
	રૂ. ૬,૮૦૦/- પ્રતિ હેક્ટર બિન પિયત (વાવેતર વિસ્તારની મર્યાદામાં)
	રૂ. ૧૩,૫૦૦/- પ્રતિ હેક્ટર પિયત (વાવેતર વિસ્તારની મર્યાદામાં અને રૂ. ૧૦૦૦/- થી ઓછી નહીં તેટલી સહાય)
	રૂ. ૧૮,૦૦૦/- પ્રતિ હેક્ટર બારમાસી પાક (વાવેતર વિસ્તારની મર્યાદામાં અને રૂ.

## Annexure

	૨૦૦૦/- થી ઓછી નહીં તેટલી સહાય)
9.3	બે હેક્ટરથી વધારે જમીન ધરાવતા ખેડૂતો (પાકને ૩૩% અને તેથી વધારે નુકશાનના કિસ્સામાં) (વધુમાં વધુ ૨ હેક્ટરની મર્યાદામાં જ સહાય ચૂકવી શકાશે)
	રૂ. ૬,૮૦૦/- પ્રતિ હેક્ટર બિન પિયત (વાવેતર વિસ્તારની મર્યાદામાં)
	રૂ. ૧૩,૫૦૦/- પ્રતિ હેક્ટર પિયત (વાવેતર વિસ્તારની મર્યાદામાં)
	રૂ. ૧૮,૦૦૦/- પ્રતિ હેક્ટર બારમાસી પાક (વાવેતર વિસ્તારની મર્યાદામાં)
10	માછીમારીને થયેલ નુકશાન સહાય
	રૂ. ૪,૧૦૦/- અંશત: નુકશાન પામેલ હોડી રીપેરીંગ માટે
	રૂ. ૨,૧૦૦/- અંશત નુકશાન પામેલ જાળી રીપેરીંગ માટે
	રૂ. ૯,૬૦૦/- સંપૂર્ણ નાશ પામેલ હોડી બદલવા માટે
	રૂ. ૨,૬૦૦/- સંપૂર્ણ નાશ પામેલ જાળી બદલવા માટે
	રૂ. ૮,૨૦૦/- (હેક્ટરદીઠ) ઈનપુટ સબસીડી મત્સ્યબીજ માટે
11	હસ્તકલા અને હાથશાળ કારીગરો માટે સહાય
	રૂ. ૪,૧૦૦/- નુક્સાન પામેલ સાધનોની ખરીદી માટે
	રૂ. ૪,૧૦૦/- નુક્સાન પામેલ કાચા / પાકા માલ સામાન માટે

ઉપર્યુક્ત ટેબલ મુજબની સહાય મંજૂર કરતી વખતે નીચેની સુચનાઓ ધ્યાને લેવાની રહેશે.

૧. મૃત્યુ સહાય :-

- (૧) મૃત્યુ પામેલ વ્યક્તિ દીઠ રૂ. ૪,૦૦,૦૦૦/- ની સહાય ચૂકવવાની રહેશે. આ રકમ SIDRA માંથી ચૂકવવાની રહેશે. આ મૃત્યુ સહાય સરકારી કર્મચારી/રાહત કે બચાવ કામગીરી કરતા અન્ય કર્મચારી, કે જે રાહત કામગીરીમાં રોકાયેલ હોય તેમનું તે દરમિયાન મૃત્યુ થાય તો તેમને પણ મળવાપાત્ર રહેશે. આફત રાહત અંગેની મોકડીલ તથા તૈયારીની કામગીરી દરમિયાન પણ જો કોઈ કર્મચારીનું મૃત્યુ થાય તો તેને પણ આ સહાય મળવાપાત્ર રહેશે.
- (૨) નિર્દિષ્ટ કરેલી કુદરતી આફતને લીધે વિદેશમાં પોતાની જીંદગી ગુમાવનાર ભારતીય નાગરિક તથા ભારતીય સંઘ પ્રદેશમાં પોતાની જીંદગી ગુમાવનાર વિદેશી નાગરિકની બાબતમાં તેના કુટુંબને આ સહાય મળવાપાત્ર થશે નહીં.
- (૩) સક્ષમ અધિકારી ધ્વારા મૃત્યુ કુદરતી આફતના કારણે થયું છે તેવું પ્રમાણપત્ર મેળવવાનું રહેશે.
- (૫) કુદરતી આપત્તિની સીધી અસરના કારણે મૃત્યુ થયેલ છે તે બાબતની તપાસ અને ખાતરી મહેસુલી તથા પોલીસ તંત્રએ કરવાની રહેશે.

- (૬) મૃત્યુ પામનાર દરેક કીસ્સામાં પોલીસ ફરીયાદ (એફ.આઈ.આર.) અથવા "બનાવની જાણવા જોગ નોંધ" પોલીસ સ્ટેશને થયાના રિપોર્ટની નકલ કેસની ફાઈલ સાથે રાખવાની રહેશે.
- (૭) પોસ્ટમોર્ટમ રીપોર્ટ રેકર્ડ પર લેવાનો રહેશે.
- (૮) મૃત્યુના સંજોગોનું રેકર્ડ બનાવવાનું રહેશે. જેમાં બનાવનું સ્થળ, ગામ, જેના અધિકાર ક્ષેત્રમાં છે તે ગામના સરપંચ, તલાટીસહ મંત્રી અથવા નગર પંચાયત, નગર પાલિકા અથવા મહાનગર પાલિકાના ચૂંટાયેલ સભ્ય, ચીફ ઓફીસર / વોર્ડ ઓફીસરનું કુદરતી આપત્તિની સીધી અસરને કારણે મૃત્યુ થયેલ છે તે બાબતેનું પ્રમાણપત્ર રેકર્ડ પર રાખવાનું રહેશે.
- (૯) મૃત્યુ સહાયની મંજૂરી અંગેનો આખરી નિર્ણય શહેરી વિસ્તાર માટે જિલ્લા કલેક્ટર અને ગ્રામ્ય વિસ્તાર માટે જિલ્લા વિકાસ અધિકારીની કક્ષાએ લેવાનો રહેશે.
- (૧૦) આ રકમ ચૂકવતી વખતે મરનાર વ્યક્તિ અથવા તેના વારસદારોની આવક, ધંધો, તેમને મળેલ અન્ય સહાય અથવા તેમના જીવન વિમાની વિગત વગેરે જેવી બાબતો ધ્યાનમાં લેવાની રહેશે નહીં.
- (૧૧) રાજ્ય સરકાર ધ્વારા સંપૂર્ણ કે અંશતઃ પ્રિમિયમથી ખેત મજૂરો, ખેડૂતો, વિદ્યાર્થીઓ, શ્રમીકો વિગેરેને વિમાનુ રક્ષણ પુરૂ પાડવામાં આવેલું હોય તો ત્યાં આ સહાયની રકમ ચૂકવ્યાની જાણ સંબંધિત જિલ્લા કક્ષાના અધિકારી જેવા કે જિલ્લા શિક્ષણાધિકારી / જિલ્લા ખેતીવાડી અધિકારીને કરવાની રહેશે.
- (૧૨) કોઈ વિશિષ્ટ સંજોગોમાં પોલીસ ફરીયાદ થયેલ ન હોય અથવા પોસ્ટ મોર્ટમ થયેલ ન હોય તો તેવા કેસો સંજોગો / પરિસ્થિતિને ધ્યાનમાં લઈ વર્ગ - ૧ ના જિલ્લા કક્ષાના અધિકારી મારફતે ઉપલબ્ધ રેકર્ડની ચકાસણી કરાવી આ મૃત્યુ કુદરતી આપત્તિઓના કારણે થયું છે પરંતુ વિશિષ્ટ સંજોગો / પરિસ્થિતિને લીધે પોલીસ ફરીયાદ / પોસ્ટ મોર્ટમ થયેલ નથી તેવા સંજોગોમાં માનવ મૃત્યુ સહાય ચૂકવવા અંગેનો નિર્ણય જિલ્લા કક્ષાની સમિતિએ લેવાનો રહેશે.
- (૧૩) કુદરતી આપત્તિઓના કારણે કોઈપણ વ્યક્તિ તણાઈ જવાથી અથવા ડુબી જવાના કારણે લાપતા થયેલ હોય અથવા લાશ મળતી ન હોય અથવા વણઓળખાયેલ રહેતી હોય તેવા કિસ્સામાં (દરિયામાં માછીમારી માટે ગયેલ માછીમારોના કિસ્સા સહીત) કુદરતી આપત્તિના સંજોગો ધ્યાને લઈ નીચે જણાવેલ જિલ્લા કક્ષાની કમિટીમાં સહાય ચૂકવવા અંગે નિર્ણય લેવાનો રહેશે.

(૧)	જિલ્લા કલેક્ટર	અધ્યક્ષ
(૨)	જિલ્લા વિકાસ અધિકારી	સભ્ય
(૩)	જિલ્લા પોલીસ અધિકારી	સભ્ય
(૪)	જિલ્લા સીવિલ સર્જન	સભ્ય
(૫)	જિલ્લાના નિવાસી અધિક કલેક્ટર	સભ્ય

- (૧૪) દરિયાઈ વાવાઝોડાના કારણે કોઈ માછીમારનું દરિયામાં ડુબી જવાથી મૃત્યુ થાય તથા લાપત્તા થયેલ હોય તેવા કીસ્સામાં મૃત્યુ સહાય મંજૂર કરતી વખતે ભારતીય હવામાન ખાતાનો આ અંગેનો ચેતવણી રીપોર્ટ ધ્યાને લઈ તે પછી સહાય મંજૂર કરવા / નહીં કરવા બાબતે યોગ્ય નિર્ણય લેવાનો રહેશે. આ અંગેના કાગળો જિલ્લા મત્સ્યોદ્યોગ અધિકારીએ તૈયાર કરવાના રહેશે.
- (૧૫) સામાન્ય રીતે જે વ્યક્તિનું મૃત્યુ કુદરતી આપત્તિના લીધે વીજ કરંટ લાગવાથી થયેલ હોય તેવા કિસ્સામાં સહાયની રકમ મંજૂર કરી ચૂકવતા પહેલા સંબંધિત વીજ-જોડાણ અધિકૃત છે કે કેમ તેની ખાતરી કર્યા બાદ તથા વીજ-જોડાણ અધિકૃત અને કાયદેસર હોય તે અંગેનો રીપોર્ટ મેળવી તે પછી જ રાહત મંજૂર કરવાની રહેશે.
- (૧૬) રાજ્યમાં એક જિલ્લામાં રહેતા વ્યક્તિનું અન્ય જિલ્લામાં મૃત્યુ થયેલ હોય તો જે જિલ્લામાં મૃત્યુ થયેલ છે તે જિલ્લાના સક્ષમ અધિકારીએ તમામ રેકર્ડ તૈયાર કરી આ અંગે યોગ્ય નિર્ણય લઈ મૃત્યુ થયેલ વ્યક્તિનો જે જિલ્લામાં કાયમી વસવાટ હતો તે જિલ્લાના સક્ષમ અધિકારી મારફતે મૃતક વ્યક્તિના વારસદારોને સહાયનું ચૂકવણું કરવાનું રહેશે.
- (અ) નીચેના કિસ્સાઓમાં થયેલ મૃત્યુ કુદરતી આપત્તિથી થયેલ ગણાશે નહીં. તેથી આવા કિસ્સાઓમાં આ ઠરાવ હેઠળ મૃત્યુ સહાય મળવાપાત્ર થશે નહીં.
- (૧) નદી, તળાવ, જળાશય, વાંકળામા ન્હાવા પડેલ વ્યક્તિ ડુબી / તણાઈ જાય તો.
  - (૨) તળાવ, નદી, કોતર કે જળાશયના કીનારે કપડાં વાસણ ઘોવા કે અન્ય કામે ગયેલ હોય અને પગ લપસતા કે તણાઈ જવાના કિસ્સામાં.
  - (૩) નર્મદા કેનાલ કે અન્ય પ્રતિબંધિત વિસ્તારમાં પ્રતિબંધ હોવા છતાં ત્યાં ગયેલ હોય અને ત્યાં કોઈ કારણસર મરણ થાય તો.
  - (૪) નદી / નાળા તેમજ નીચાણવાળા વિસ્તાર વગેરેમાં પુર અંગે ચેતવણી આપી હોય અને સ્થળાંતર કરવા માટે વાકેફ કરવા છતાં તેનો અમલ ન કરે ને આવી જગ્યાએ અતિવૃષ્ટિ / પુર વગેરેમાં મૃત્યુ થાય તો.
  - (૫) નશો કરેલ વ્યક્તિનું મૃત્યુ થવાથી.
  - (૬) નદી / તળાવ / વાંકળા / જળાશય કીનારે પુરના પાણીની પરિસ્થિતિ જોવા કે અન્ય કારણસર જવાથી પગ લપસી જવાથી.
  - (૭) પુરના પાણીથી ઘેરાઈ ગયેલ વિસ્તારમાં માંદગીથી મૃત્યુ.
- (બ) મૃત્યુ સહાયની રકમના ચૂકવણાં બાબત :-
- (૧) મૃત્યુ સહાયના કેસ તથા અન્ય રાહતના કેસો કલેક્ટર / જિલ્લા વિકાસ અધિકારીશ્રીને મંજૂર કરવા અધિકૃત કરવામાં આવે છે.
  - (૨) આ સહાયની રકમ એકાઉન્ટ પેઈ ચેક / ડ્રાફ્ટથી ચૂકવવાની રહેશે.
  - (૩) આ સહાયની રકમ મરનાર વ્યક્તિના (૧) પતિ-પત્નિ (૨) માતા - પિતા (૩) પુત્ર - પુત્રી (પરણીત હોય તો પણ) જેવા સીધીલીટીના વારસદાર અને તે ન હોય તો

તેના કુટુંબના અન્ય સભ્યો કે જે મરનાર પર સંપૂર્ણ પણે આધારીત હતા તેમને જ (આ ક્રમમાં ) સહાય ચૂકવવાની રહેશે. અન્ય કુટુંબીજનોની સંમતિ હોય તો આ રકમ એક જ વ્યક્તિને ચૂકવી શકાશે અથવા જરૂર જણાયે સંયુક્ત નામનો એક બનાવવાનો રહેશે. તે સિવાય અન્ય ઈસમોને આ સહાય ચૂકવી શકાશે નહીં.

- (૪) આ રાહત વ્યક્તિના મૃત્યુ પછી જેટલી ઝડપથી ચૂકવી શકાય તેટલી ઝડપથી ચૂકવવાની રહેશે. અને રાહત ચૂકવવામાં વિલંબ ન થાય તે જોવાની જવાબદારી સંબંધિત જિલ્લા કલેક્ટર / જિલ્લા વિકાસ અધિકારીની રહેશે.
- (૫) આ અંગેનું સંકલીત માસીક પત્રક જિલ્લા કલેક્ટરશ્રીએ રાહત નિયામકશ્રી ગાંધીનગરને દર માસે મોકલી આપવાનું રહેશે.

૨. અપંગતા અને માનવ ઈજા સહાય : -

- (૧) કુદરતી આપત્તિની સીધી અસરને કારણે થતી ઈજામાં શરીરનો કોઈ અવયવ કે આંખો ગુમાવવા માટે સિવિલ સર્જનનું અપંગતાનું પ્રમાણપત્ર ધ્યાને લઈ તેમજ નોર્સમાં નિર્દિષ્ટ કર્યા મુજબ હોસ્પિટલાઇઝેશન માટે ઈજા સહાય ચૂકવી શકાશે.

૩. દૈનિક રોકડ સહાય (કેશ ડોલ્સ) : -

- (૧) કુદરતી આપત્તિઓનો ભોગ બનેલ કુટુંબ કે જેનો ખાધાખોરાકી / અનાજનો જથ્થો ધોવાઈ ગયેલ હોય/તણાઈ ગયેલ હોય અથવા જેમની આજીવિકા ગંભીર રીતે પ્રભાવિત થયેલ હોય અને જે રાહત શિબિરમાં ના રહેતા હોય તેવા કુટુંબને મંજૂર કરી ચૂકવી શકાશે.
- (૨) કુદરતી આપત્તિની ગંભીરતાના સંજોગો તપાસી આ નાણાંકીય મર્યાદાની અંદર આ સહાય મંજૂર કરવાના અધિકાર જિલ્લા કલેક્ટર / જિલ્લા વિકાસ અધિકારીને અને તેઓ જે અધિકારીને સત્તા આપે તે અધિકારીને રહેશે.

૪. કપડાં અને ઘરવખરી સહાય : -

- (૧) કુદરતી આપત્તિઓથી બે દિવસથી વધારે સમય માટે અસર ગ્રસ્ત રહેલ હોય અને જેના ઘર તણાઈ ગયેલ હોય, સંપૂર્ણ નાશ પામ્યા હોય, બે દિવસથી વધુ સમય સુધી પાણીમાં હોય તેવા નિરાધાર કુટુંબની વ્યક્તિઓનાં કપડા, વાસણો અને ઘરવખરીને નુકશાન થયું હોય તેવા કુટુંબને કપડાં સહાય રૂ. ૧,૦૦૦/- અને ઘરવખરી સહાય રૂ. ૨,૦૦૦/- ની પ્રાંત અધિકારી / નાયબ કલેક્ટર / નાયબ જિલ્લા વિકાસ અધિકારી અથવા કોઈ ચોકકસ કુદરતી આપત્તિને ધ્યાનમાં લઈ ચોકકસ સમય માટે અધિકૃત કરેલ જિલ્લાના અધિકારી આ સહાય મંજૂર કરી શકશે.

કેશ ડોલ્સ અને ઘરવખરીના સહાયના ચૂકવણા સમયે નીચેની બાબતો ધ્યાનમાં લેવાની રહેશે.

- (અ) આ સહાય મંજૂર કરતી વખતે અસરગ્રસ્ત કુટુંબની આવક, ધંધો, તેને મળેલ અન્ય સહાય, વિમો અથવા તેના કાયમી વસવાટનું સ્થળ અથવા મકાન બાંધકામ અધિકૃત છે કે નહીં વગેરે બાબતો ધ્યાનમાં લેવાની નથી.

- (બ) સંબંધિત અધિકારીએ આ સહાય મંજૂર કરતી વખતે સ્થાનિક પરિસ્થિતિ, કુટુંબને પડેલ મુશ્કેલી, કુદરતી આપત્તિની ગંભીરતા વગેરે ધ્યાને લઈને સૂચવ્યા મૂજબ સહાય ચૂકવવાની રહેશે.
- (ક) રહેણાંકના વિસ્તારમાં પાણી ભરાયાની બાબત સ્થાનિક રેકર્ડ પર લાવવાની રહેશે.
- (ખ) અસર પામેલા વિસ્તાર નક્કી કરવાનો નિર્ણય સત્તા પ્રાપ્ત અધિકારીએ કરવાનો રહેશે.
- (ગ) નીચાણવાળા વિસ્તારોમાંથી સલામત સ્થળે રાહત કેમ્પોમાં ખસી જવા માટે પુરતી સૂચના અને સગવડ કરવામાં આવી હોય છતાં જે વ્યક્તિઓ આ રીતે સ્થળાંતર કરી ગયા ન હોય તેવા કિસ્સાને પાત્રતામાંથી બાકાત રાખવાના રહેશે.
- (ઘ) કેશડોલ્સ અને ધરવખરીની પાત્રતા અંગે વખતો વખત બહાર પાડવામાં આવેલા ધોરણો પ્રમાણે સર્વે કરાવી પાત્રતા નક્કી કરવાની રહેશે.
- (ચ) સહાય વિતરણની વિગતોનું રેકર્ડ નિભાવવાનું રહેશે.
- (છ) સામાન્ય સંજોગોમાં આ સહાય એકાઉન્ટ પેઈ ચેક / ડ્રાફ્ટ ધ્વારા કુટુંબના વડાને ચૂકવવાનું રહેશે. પરંતુ સ્થાનિક સંજોગો ધ્યાનમાં લઈ આ સહાય નાણાં વિભાગના ઠરાવથી નક્કી કરેલ મર્યાદામાં રહીને રોકડ સ્વરૂપમાં બે સ્થાનિક જવાબદાર વ્યક્તિની હાજરીમાં ચૂકવવા સક્ષમ અધિકારી હુકમ કરી શકશે.
- (જ) આ સહાયની ચૂકવણી બનતી ત્વરાએ થાય તે જોવાનું રહેશે.
૫. નાશ પામેલ / નુકશાન પામેલ કાચા / પાકા મકાનો / ઝુંપડા સહાય :-
- (૧) સંપૂર્ણ નાશ પામેલા અથવા આંશીક નુકશાન થયેલા પાકા / કાચા રહેણાંકના મકાનને ખરેખર થયેલ નુકશાન અંગેના સર્વે ટીમના રીપોર્ટ ધ્યાનમાં લઈ સહાયની રકમ નક્કી કરવાની રહેશે.
- (૨) SARF સિવાયનો ખર્ચ રાજ્ય સરકારની ગ્રાન્ટમાંથી કરવાનો રહેશે.
- (૩) સહાય મંજૂર કરતી વખતે કાચા / પાકા મકાન અધિકૃત પરવાનગી લઈ બાંધેલ છે કે કેમ તે વિગત તપાસવી જરૂરી રહેશે. બિનઅધિકૃત બાંધકામના કીસ્સામાં કાચા / પાકા મકાનોની સહાય ચૂકવવાની રહેશે નહીં.
- (૪) મોજણી ટીમની રચના :- નાશ પામેલ/નુકશાન પામેલ કાચા/પાકા મકાનની મોજણી માટેની નીચે મુજબની સર્વે ટીમની રચના કરવાની રહેશે.
- (અ) સીનીયર કારકુનથી ઉતરતા દરજ્જાના ન હોય તેવા મહેસુલી / પંચાયત સંવર્ગના કર્મચારી / અધિકારી.
- (બ) અધિક મદદનીશ ઈજનેરથી ઉતરતા દરજ્જાના ન હોય તેવા ટેકનીકલ કર્મચારી / અધિકારી.
- (ક) જે તે ગામના તલાટી / તલાટી કમ મંત્રી.
- (ડ) મોજણી ટીમની રચનાના હુકમો કલેક્ટરશ્રી અને જિલ્લા વિકાસ અધિકારીની સંયુક્ત સહીથી કરવાના રહેશે.



- (ગ) મોજણી માટેના નિયત નમૂનામાં મળેલ અરજીપત્રકની વિગતો અંગે સ્થળ તપાસણી કરીને ટીમના તમામ સભ્યોશ્રીએ ચકાસણી રીપોર્ટમાં સહી કરવાની રહેશે.
- (ઘ) મોજણી સ્થાનિક આગેવાનો, પંચોની હાજરીમાં કરવાની રહેશે અને તે અંગે પંચોની સહી મેળવવાની રહેશે.
- (ચ) મોજણી ટીમ નુકશાનના અંદાજો અંગે સ્વયં સ્પષ્ટ વિગતો દર્શાવી અંદાજીત નુકશાનની રકમ સહીત અભિપ્રાય આપવાનો રહેશે.
- (છ) મોજણી દરમિયાન નાશ પામેલ/નુકશાન પામેલ કાચા/પાકા મકાન / ઝુંપડાના માલિક સાથેનો તારીખ અને સમય દર્શાવતો પોસ્ટકાર્ડ સાઈઝનો ફોટોગ્રાફ સરકારી ખર્ચે મોજણી ફોર્મ સાથે સામેલ કરવાનો રહેશે.
- (જ) મોજણી કર્યા બાદ તુર્તજ મોજણી ટીમના વડાએ મોજણીનો અહેવાલ સંબંધિત મામલતદાર / તાલુકા વિકાસ અધિકારીને યાદી બનાવી સૂપ્રત કરવાનો રહેશે.
- (ઝ) સક્ષમ અધિકારી એટલે કે, શહેરી વિસ્તારમાટે સંબંધિત મામલતદાર અને ગ્રામ્ય વિસ્તારમાટે સંબંધિત તાલુકા વિકાસ અધિકારીએ ટેકનીકલ કર્મચારીના સ્થળ નિરીક્ષણ પછી મકાનોને થયેલ ખરેખર નુકશાન તેમજ પંચનો અભિપ્રાય અને મોજણી ટીમનો નુકશાન અંગેના અહેવાલની વિગતો ધ્યાને લઈ સહાય મંજૂર કરવાના હુકમો કરવાના રહેશે.
- (ટ) બાંધકામની માલીકી અંગે કોઈ ઝઘડો અથવા વાદ વિવાદ હોય તો તે અંગે ઝડપથી યોગ્ય જણાય તેવી તપાસ કરી ગુણદોષ આધારે સ્વવિવેક અનુસાર નિર્ણય લઈ ઈન્ડેમ્નીટી બોન્ડ લઈ અસરગ્રસ્ત મકાન માલીકને સહાયની રકમ ચૂકવવાની રહેશે.
- (ઠ) મકાન સહાયને રહેઠાણના મકાનો માટે જ ચૂકવી શકાશે.
- (ઢ) ઝુંપડા સહાયમાં કેટલશેડ / ઝુંપડાના નાશ / નુકશાન માટેની સહાય અંગે ઝુંપડુ એટલે કે, કામ ચલાઉ, મેક શીફ્ટ એકમ, કાચા મકાનો કરતા નિમ્ન કક્ષાનું સાંઠાનું બનેલું, ગારો, પ્લાસ્ટીક શીટનું બનેલું, પરંપરાગત રીતે રાજ્ય સરકાર/જિલ્લા તંત્ર દ્વારા જાહેર નકકી થયેલ હોય તેવું ઝુંપડું.
- (પ) સરકારી કે પંચાયતની જમીનમાં દબાણ કરી બાંધવામાં આવેલ ઝુંપડા અતિવૃષ્ટિ/ભારે વરસાદથી સંપૂર્ણપણે નાશ પામેલ હોય તેમને નીચેની શરતો પરિપૂર્ણ કરવાની શરતે સહાય ચૂકવવાની રહેશે.
- (અ) પંચાયત કે સરકારી જમીનમાં દબાણ કરીને બાંધવામાં આવેલ અને અસરગ્રસ્ત થયેલ ઝુંપડાને પણ તેઓ દબાણ ખાલી કરે અને અન્ય જગ્યાએ વસવાટ કરે તે શરતે સહાય ચૂકવવાની રહેશે.
- (બ) નદી, તળાવ વગેરે જળાશયોના વિસ્તારમાં ગેરકાયદેસર બાંધવામાં આવેલ ઝુંપડા સંપૂર્ણપણે નાશ પામેલ હોય તો આવા અસરગ્રસ્તો આ જળાશયોના કીનારાથી ૧૦૦

મીટરની દુરની જગ્યાએ ખસી જાય અને નવી જગ્યાએ ઝુંપડા બનાવે તે શરતે સહાય ચૂકવવાની રહેશે.

- (ડ) કાચા / પાકા મકાનો / ઝુંપડા સહાયની ચૂકવણી વખતે ધ્યાનમાં લેવાની બાબતો.
- (અ) આ સહાય જે વ્યક્તિનું મકાન હોય કે જેણે ખર્ચ કરી બાંધેલ હોય તેને જ આપવાની રહેશે.
- (બ) આ સહાય એકાઉન્ટ પેઈ ચેક / ડ્રાફ્ટ ધ્વારા ચૂકવવાની રહેશે.
- (ક) સહાય મંજૂર / ચૂકવણી કરતી વખતે કુટુંબની આવક, ધંધો, મકાન પરનો સરકારી વિમો કે અંગત રીતે લીધેલ વિમો, કુટુંબને અન્ય સહાય અથવા કુટુંબના કાયમી વસવાટનું સ્થળ વગેરે બાબતો ધ્યાનમાં લેવાની જરૂર નથી.
- (ડ) સર્વે ટીમ ધ્વારા કરેલ આકારણી આખરી ગણાશે તેમાં પુનઃ વિચારણાનો અધિકાર શહેરી વિસ્તાર માટે જિલ્લા કલેક્ટર અને ગ્રામ્ય વિસ્તારમાટે જિલ્લા વિકાસ અધિકારીને રહેશે.
- (ગ) સર્વે ટીમ ધ્વારા મકાનની મોજણી કરાવ્યા બાદ મકાનની અંદાજવામાં આવેલ નુકશાનની રકમ મુજબની સહાય ચૂકવવાની રહેશે. ગ્રામ્ય / નગરપાલિકા / મહાનગરપાલિકા ધ્વારા કરવામાં આવેલ આકારણી રજીસ્ટરમાં કિંમત / ભાડાના દરની જોગવાઈ મકાન ધરાવનાર વ્યક્તિની માલીકી અંગે ખાતરી કરાવવાના આશયથી તેમજ આકારણી વખતે કેટલું ભાડુ ઉપજી શકે તેમ છે તે મૂજબનો મકાન વેરો નક્કી કરવાનો મુખ્ય આશય હોય તે આકારણી ધ્યાનમાં લેવાની નથી પરંતુ સર્વે ટીમ ધ્વારા કરેલ નુકશાનની આકારણી ધ્યાનમાં લેવાની છે.
- (ઘ) સીમતળમાં આવેલ કે ગામતળમાં આવેલ ઝુંપડાને નુકશાન અંગે સહાય મંજૂર કરવાની રહેશે.

૬. ઢોર મુત્યુ સહાય :-

- (૧) દુધાળા ઢોર
- (૨) બિન દુધાળા ઢોર
- (૧) આ સહાય ખરેખર થયેલ નુકશાન, આર્થિક ઉત્પાદન કરતા ત્રણ મોટા દુધાળા ઢોર અથવા ૩૦ નાના દુધાળા ઢોર અથવા ત્રણ મોટા બિન દુધાળા ઢોર અથવા ૬ નાના બિન દુધાળા ઢોર પ્રતિ ઘર દીઠ સહાય સીમીત રહેશે.
- (૨) રાજ્ય સરકારના સક્ષમ સત્તાધિકારીએ પ્રમાણિત કરેલ હશે તો જ આ સહાય મળવાપાત્ર થશે.

૭. મરઘા ઉછેર :-

- (૧) રૂ. ૫૦/- પ્રતિપક્ષી પરંતુ વધુમાં વધુ રૂ. ૫૦૦૦/- સુધી પ્રતિ લાભાર્થીદીઠ સહાય સીમીત રહેશે.
- (૨) પક્ષીનું મૃત્યુ જાહેર કરેલ કુદરતી આપત્તિથી થયેલ હોવું જોઈશે.
- (૩) રાજ્ય સરકારની અન્ય સરકારી યોજના હેઠળ સહાય મળવાપાત્ર થતી હશે તો આ ધોરણો હેઠળ સહાય મળવાપાત્ર થશે નહીં.

૮. કૃષિ : ખેત જમીન નુકસાન : -

(અ) બે હેક્ટર સુધીની જમીન ધરાવતા ખેડૂતોને સહાય :

(૧) જમીન ઘોવાણ માટે :

- (અ) ત્રણ ઈંચ કરતા વધારે ઘોવાણના કિસ્સામાં સહાય મળવા પાત્ર થશે.
- (બ) પર્વતીય વિસ્તારમાં ખેતીની જમીન પર પૂરના કારણે જમા થયેલ ધન કચરો ફટાવવા માટે સહાય મળવા પાત્ર થશે.
- (ક) રાજ્ય સરકારની અન્ય યોજનામાંથી આપત્તિ માટે સહાય લીધેલ ન હોય તો જ આ સહાય મળવાપાત્ર રહેશે.
- (ડ) મહેસુલી રેકર્ડ મુજબ કાયદેસર રીતે જમીનની માલિકી ધરાવતા ખેડૂતોને જ સહાય મળવાપાત્ર થશે.

(૨) પાકને નુકશાન માટે સહાય :

૩૩% અને તે કરતાં વધારે પાક નુકસાનના કિસ્સામાં જ આ સહાય મળવાપાત્ર થશે.

(બ) બે હેક્ટરથી વધારે જમીન ધરાવતા ખેડૂતો માટે :

(૧) માત્ર પાકને નુકશાન માટે.

૩૩% અને તે કરતાં વધારે નુકશાનના કિસ્સામાં જ આ સહાય મળવાપાત્ર થશે.

૯. (અ) માછીમારોને થયેલ નુકશાન માટે : -

- (૧) રાજ્ય સરકાર પાસે રજીસ્ટર કરાવેલી હોડીના કિસ્સામાં જ તેમજ સંપૂર્ણ કે આંશિક નુકશાન રાજ્ય સરકારે જાહેર કરેલ સક્ષમ અધિકારી ધ્વારા પ્રમાણિત કરેલ હોવું જોઈએ અને માછીમારે આ કુદરતી આપત્તિ વખતે અન્ય કોઈ સહાય કે સબસીડી લીધેલ ન હોય તો જ આ સહાય મળવાપાત્ર થશે.

(બ) મત્સ્યબીજ ફાર્મ માટે ઈનપુટ સબસીડી :

(૧) રાજ્ય સરકારની અન્ય કોઈ યોજના હેઠળ કુદરતી આપત્તિ વખતે અન્ય કોઈ સહાય કે સબસીડી લીધેલ ન હોય તો જ આ સહાય મળવાપાત્ર થશે.

### ૧૦. ગ્રામ્ય કારીગરો :-

પરંપરાગત હાથ કારીગરો માટે રાજ્ય સરકારના સક્ષમ સત્તાધિકારીએ સાધનોને નુકશાન અને સાધનો બદલવા માટે પ્રમાણિત કરેલ હશે તો જ સહાય મળવાપાત્ર થશે.

### ક્રમાંક:- ૯,૧૦ અને ૧૧ માટેની સામાન્ય સૂચનાઓ:-

- (૧) ખેડૂતોને થયેલ નુકશાન બાબતનો સર્વે જિલ્લા વિકાસ અધિકારીશ્રીએ જે તે જિલ્લાના સંબંધિત જિલ્લા ખેતીવાડી અધિકારી, નાયબ ખેતીવાડી નિયામકશ્રી મારફત કરાવી તેની વ્યાજબી ચકાસણી ખરાઈ કરાવી આ ઠરાવના ધોરણો મુજબ મંજૂરી આપી મળવાપાત્ર સહાય લાભાર્થીઓને ચૂકવવાની રહેશે.
- (૨) માછીમારોને થયેલ નુકશાન બાબતે જિલ્લા વિકાસ અધિકારીશ્રીએ જિલ્લાના મદદનીશ નિયામકશ્રી (મત્સ્ય) અધિકારી મારફત સર્વે કરાવી તેની વ્યાજબી ચકાસણી ખરાઈ કરાવી આ ઠરાવના ધોરણો મુજબ મંજૂરી આપી મળવાપાત્ર સહાય લાભાર્થીઓને ચૂકવવાની રહેશે.
- (૩) ગ્રામ્ય કારીગરોને થયેલ નુકશાન બાબતે જિલ્લા કલેક્ટરશ્રીએ જિલ્લાના જિલ્લા ઉદ્યોગ કેન્દ્ર મારફત સર્વે કરાવી તેની વ્યાજબી ચકાસણી ખરાઈ કરાવી આ ઠરાવના ધોરણો મુજબ મંજૂરી આપી મળવાપાત્ર સહાય લાભાર્થીઓને ચૂકવવાની રહેશે.

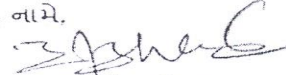
### સામાન્ય સૂચનાઓ:-

- (૧) પરિશિષ્ટમાં જોડેલ ભારત સરકારના ગૃહ મંત્રાલયના તા. ૦૮/૦૪/૨૦૧૫નાં પત્ર ક્રમાંક ૩૨-૭/૨૦૧૪-NDM-1 ની માર્ગદર્શક સૂચનાઓ લાગુ રહેશે.
- (૨) જમીન ધસી પડવી, સ્થાનિક પ્રકારનું વાવાઝોડું જેવા કેસમાં કોઈ વ્યક્તિનું મૃત્યુ થાય / ઈજા થાય / માલ મિલકતને નુકશાન થાય તો આવા કેસો મંજૂર કરવા માટે મહેસુલ વિભાગની પૂર્વ મંજૂરી મેળવવાની થતી હતી જેના બદલે આ કેસો મંજૂર કરવાની સત્તા જિલ્લા કલેક્ટરશ્રીને આપવામાં આવે છે તેથી આ કેસોની સંપૂર્ણ ચકાસણી કરી આ ઠરાવની સહાયની જોગવાઈઓ ધ્યાને લઈ પોતાની સ્વવિવેકી બુધ્ધિ વાપરીને નિર્ણય કરી કેસો મંજૂર કરવાના રહેશે.
- (૩) આ ઠરાવની જોગવાઈઓ તા. ૦૧/૦૪/૨૦૧૫ ની પાશ્ચ્યાતવર્તી અસરથી અમલમાં આવશે તથા આ તારીખ પહેલાના બનાવાના કેસોમાં રાહત ચૂકવણી અગાઉના ઠરાવોની જોગવાઈઓને આધિન રહીને કરવાની રહેશે.

- (૪) એસ.ડી.આર.એફ.ના નોર્મ્સ મુજબ મળવાપાત્ર સહાયનો ખર્ચ પ્રથમ એસ.ડી.આર.એફ. હેઠળ કરી ત્યારબાદ જો કોઈ વધારાની રકમ ચૂકવવાની થાય તો તે ખર્ચ ચૂકવણી ખર્ચ મુખ્ય સદર-૨૨૪૫ કુદરતી આપત્તિઓ અંગે સહાય પેટા મુખ્ય સદર-૦૨. પુર અને વાવાઝોડા સદર ખાતે ઉધારવાનો રહેશે અને જે તે નાણાકીય વર્ષમાં થયેલ જોગવાઈમાંથી મેળવવાનો રહેશે.
- (૫) જુદીજુદી કુદરતી આપત્તિઓમાં દર્શાવેલ જોગવાઈઓ મૂજબ સહાય મંજૂર કરતી વખતે સ્થાનિક પરિસ્થિતિ, સ્થળ, સમય, સંજોગો જોઈને સહાય મંજૂર કરનાર અધિકારીએ વિવેકબુદ્ધિ વાપરી નિર્ણય લેવાનો રહેશે.
- (૬) શહેરી વિસ્તાર માટે જિલ્લા કલેક્ટર અને ગ્રામ્ય વિસ્તાર માટે જિલ્લા વિકાસ અધિકારીને આવી સહાય મંજૂર કરી ચૂકવવા માટે અધિકૃત કરવામાં આવે છે.
- (૭) આ સહાયના ધોરણોમાં ભારત સરકાર / ગુજરાત સરકાર વખતો વખત સુધારા / વધારા કરે તે આપોઆપ લાગુ પડશે.

આ હુકમો આ વિભાગના સરખા ક્રમાંકની કાઈલ પર નાણાં વિભાગની તા.૨૨/૦૪/૨૦૧૫ નાં રોજ મળેલ સંમતિ અને માન. મુખ્યમંત્રીશ્રીની સંમતિ મેળવીને બહાર પાડવામાં આવે છે.

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,



(બી.પી.જી. ભટ્ટ)

નાયબ સચિવ (રાહત)

મહેસુલ વિભાગ, ગુજરાત સરકાર.























વિડાણ: પરિશિષ્ટ:-

૧. ભારત સરકારના ગૃહ મંત્રાલયના તા. ૦૮/૦૪/૨૦૧૫ના પત્ર ક્રમાંક: ૩૨-૭/૨૦૧૪/ એન.ડી.એમ.-I ની માર્ગદર્શક સુચનાઓ.

પ્રતિ,

- :- નામદાર રાજ્યપાલશ્રીના સચિવશ્રી, રાજભવન, ગાંધીનગર.
- :- માન. મુખ્યમંત્રીશ્રીના અગ્રસચિવશ્રી, સચિવાલય, ગાંધીનગર.
- :- તમામ માન. મંત્રીશ્રીઓ તથા રાજ્ય કક્ષાના મંત્રીશ્રીઓના રહસ્ય સચિવશ્રીઓ, સચિવાલય, ગાંધીનગર.
- :- સર્વે વિભાગના અધિક મુખ્ય સચિવશ્રી / અગ્રસચિવશ્રી / સચિવશ્રીઓ, સચિવાલય, ગાંધીનગર.
- :- માન. વિરોધપક્ષના નેતાશ્રી, ગુજરાત વિધાનસભા, સચિવાલય, ગાંધીનગર.
- :- મુખ્ય સચિવશ્રીના રહસ્ય સચિવશ્રી, સચિવાલય, ગાંધીનગર.

## Annexure Y Cyclone Warning Signals

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

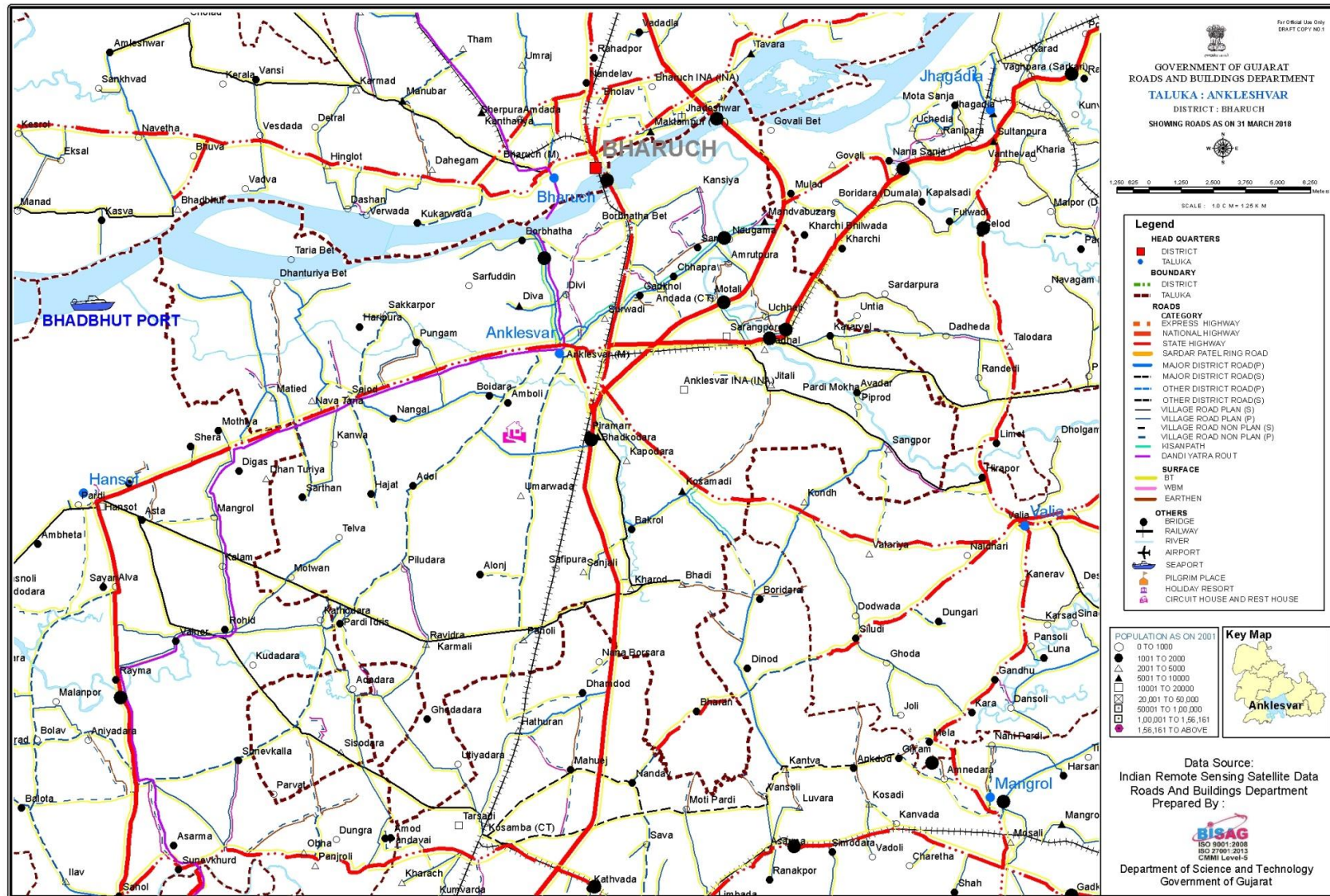
# Annexure Z Bharuch District Taluka Map

## Annexure- Z1 Bharuch Taluka Map



BHARUCH TALUKA MAP

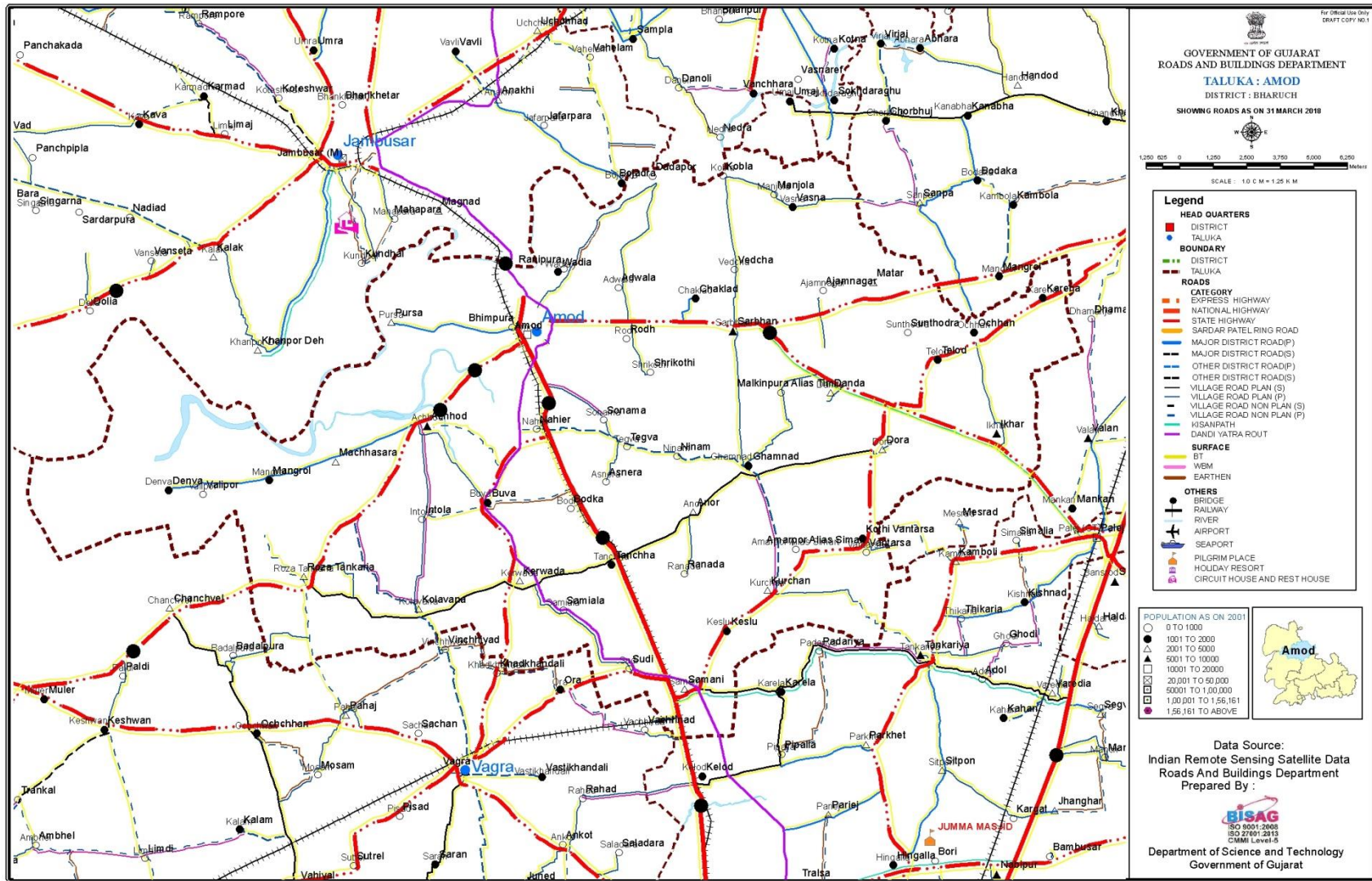
# Annexure- Z2 Anklesvar Taluka Map



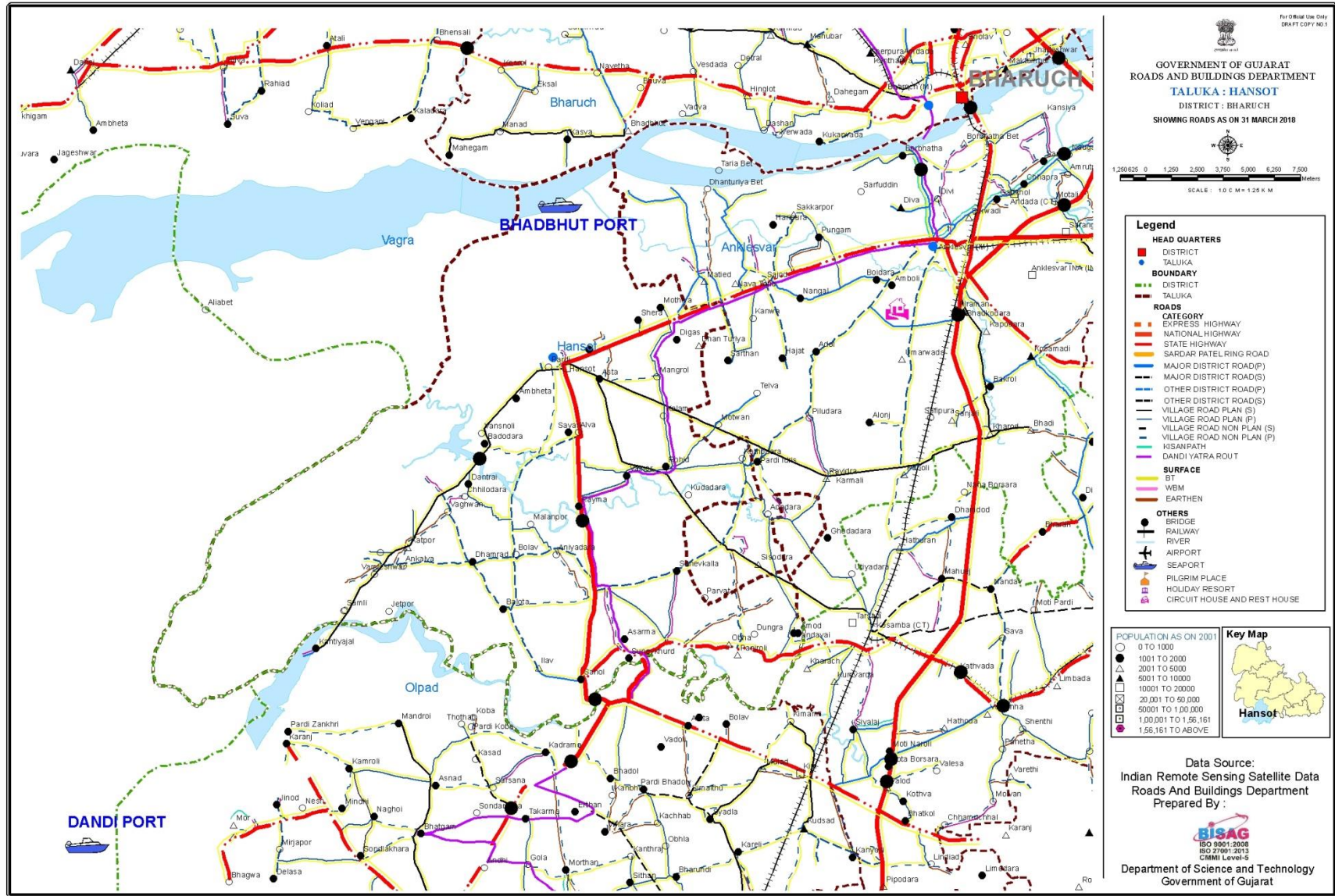
ANKLESVAR TALUKA MAP



# Annexure- Z3 Amod Taluka Map

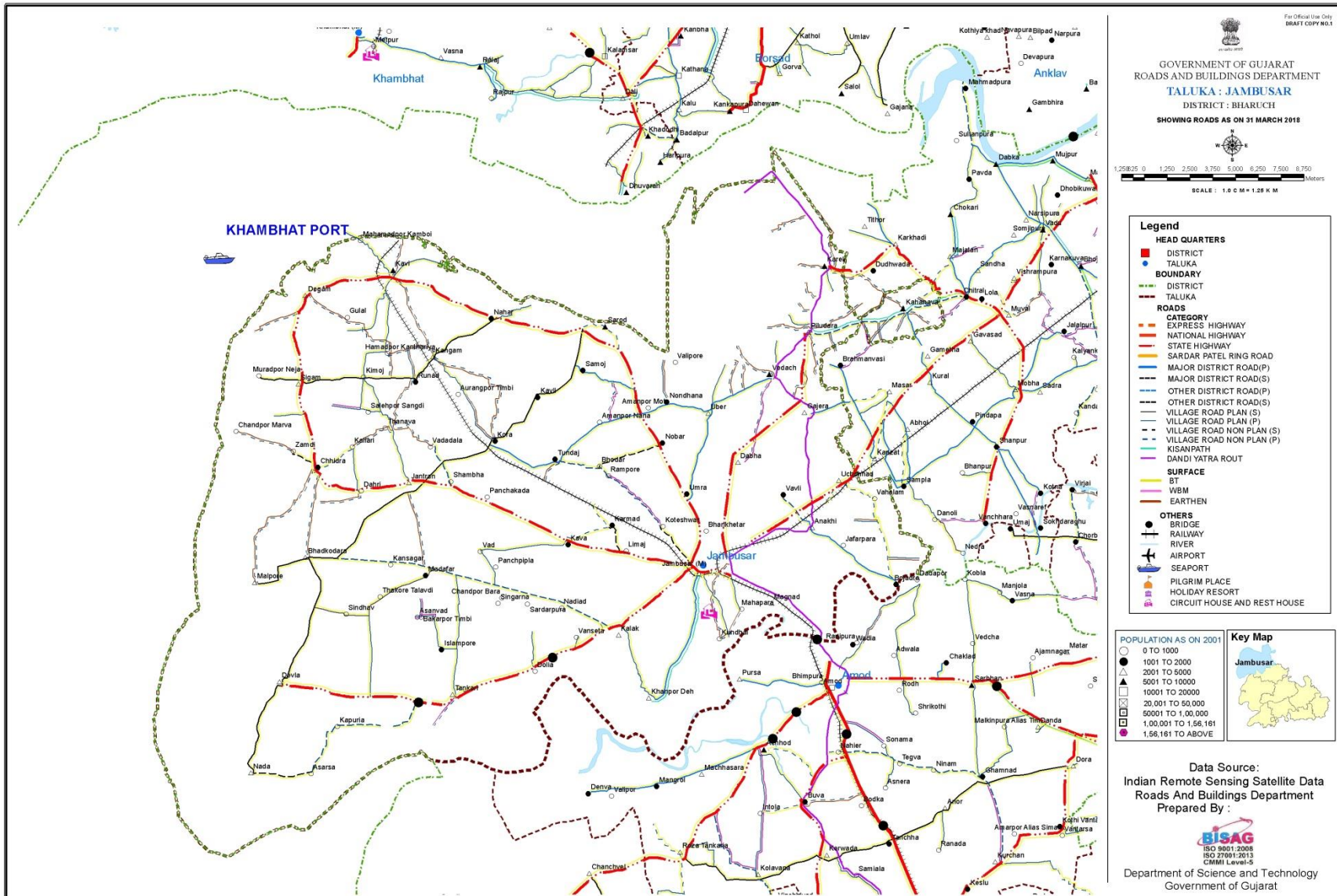


# Annexure-Z4HansotTalukaMap

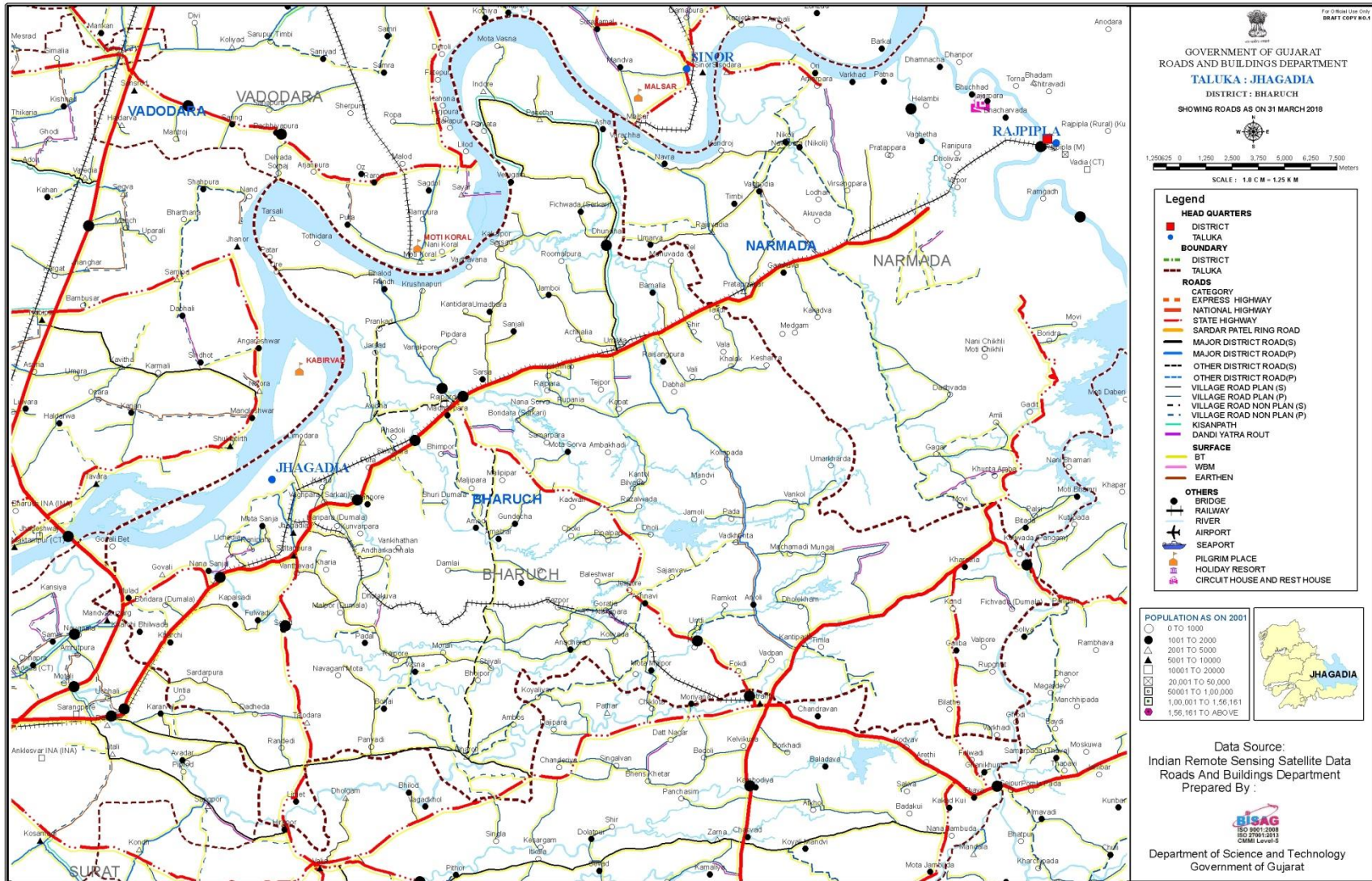


HANSOT TALUKA MAP

# Annexure-Z5 Jambusar Taluka Map

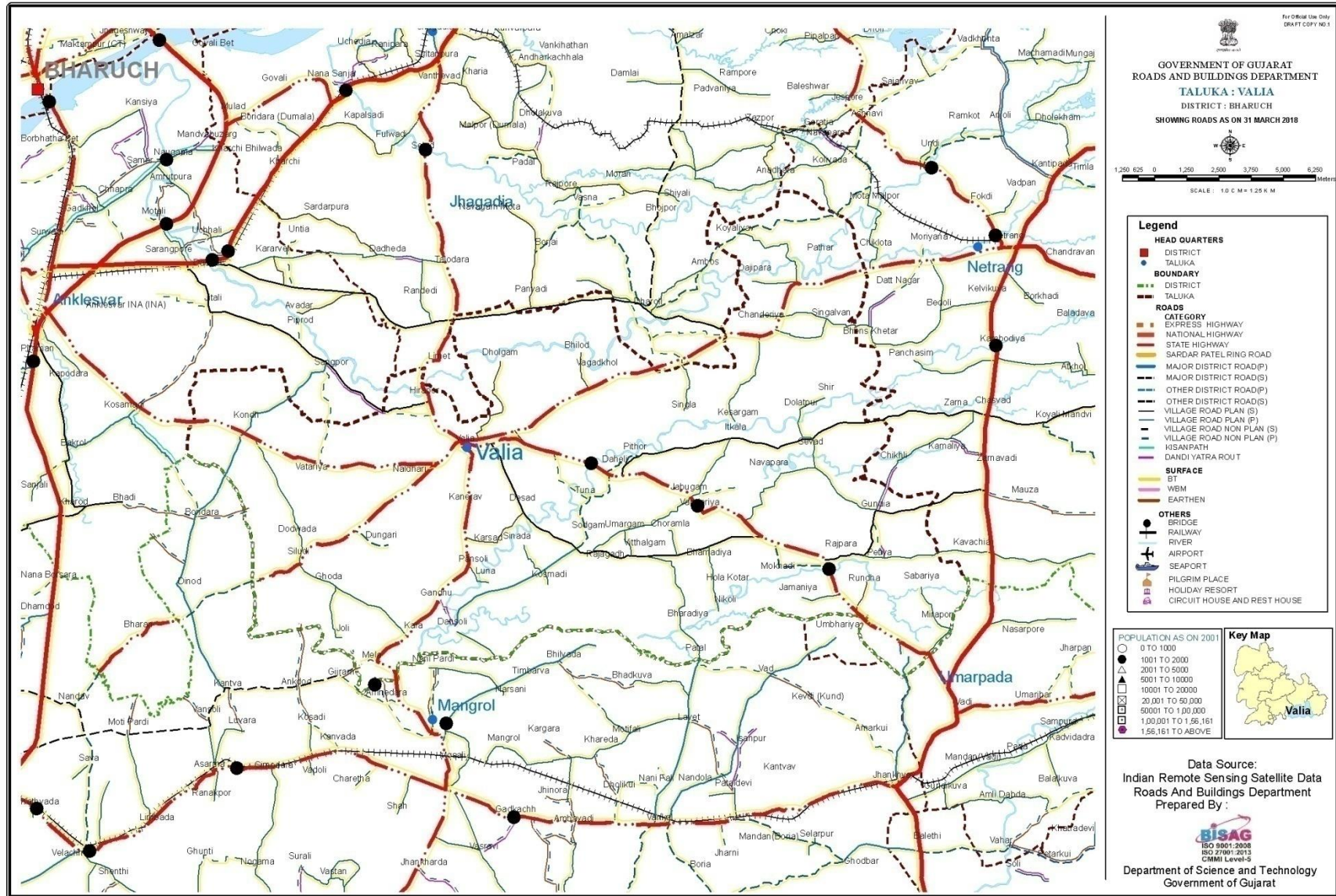


# Annexure- Z6 Jhagadia Taluka Map



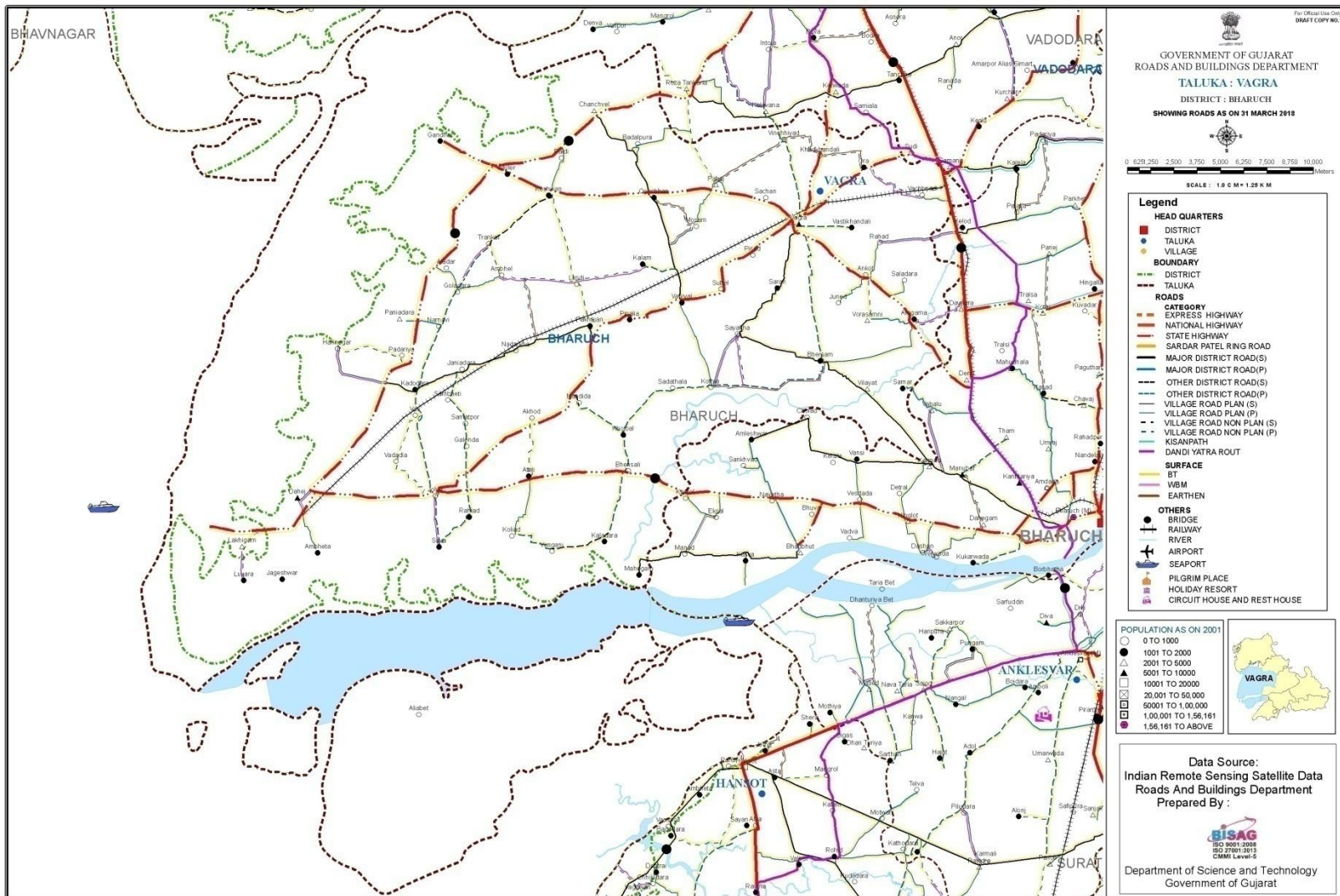
JHAGADIA TALUKA MAP

# Annexure- Z7 Valia Taluka Map



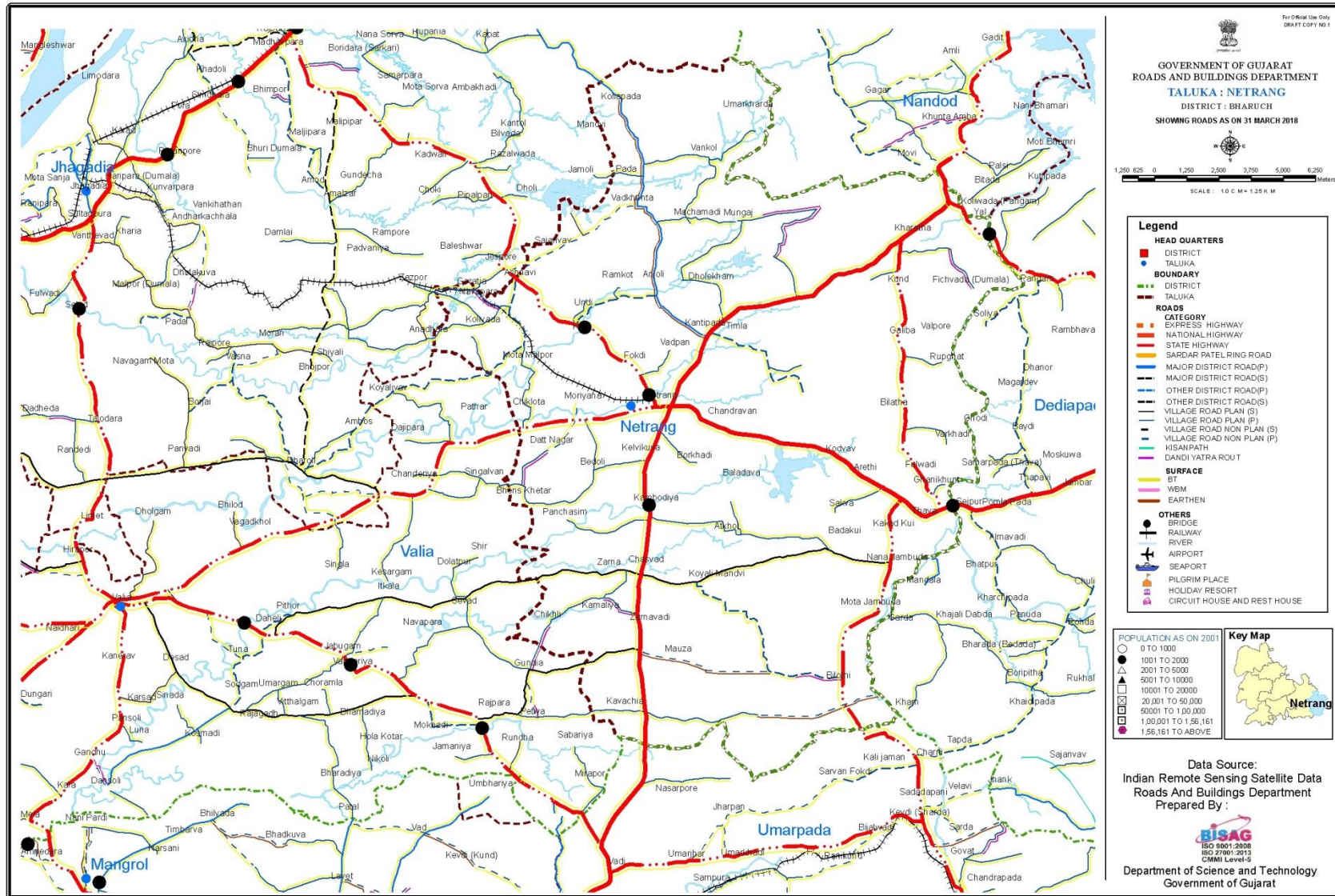
VALIA TALUKA MAP

# Annexure- Z8 Vagra Taluka Map



VAGRA TALUKA MAP

# Annexure- Z9 Netrang Taluka Map



NETRANG TALUKA

## રાસાયણિક દુર્ઘટના : કેસ સ્ટડી

તા.૦૩/૦૬/૨૦૨૦ નાં રોજ સવારના ૧૨.૦૦ કલાકે ભરૂચ જિલ્લાનાં વાગરા તાલુકાનાં દહેજ ઈન્ડ. એસ્ટેટમાં આવેલ આવેલ Yashasvi Rasayan Pvt. Ltd કંપનીમાં કેમિકલ આગનો બનાવ બનતાં બનાવનાં સ્થળે કલેક્ટરશ્રી ભરૂચ, પ્રાંત અધિકારી ભરૂચ, ગુજરાત પ્રદૂષણ કંટ્રોલ બોર્ડનાં અધિકારી, મામલતદાર વાગરા, ટી.ડી.ઓ.ડેપ્યુટી ડાય.ઈન્ડ.સેફ્ટી એન્ડ હેલ્થ, ડી.પી.એમ.સી. નાં અધિકારીશ્રી સ્થળે પહોંચી ગયેલ. બનાવની ગંભીરતાને ધ્યાને લેતા સ્થાનિક કક્ષાએથી અંદાજિત ૧૧ ફાયર ફાઈટર ૬ એમ્બ્યુલન્સ મંગાવી આગને કાબુમાં લેવાં પ્રયત્ન કરવામાં આવેલ.

બનાવ સંદર્ભે તકેદારીનાં પગલા રૂપે લુવારા તથા લખીગામ ગામનાં અંદાજે ૪૮૦૦ રહીશોને 10 થી 15 બસો મારફત નજીકના ગામોએ સ્થળાંતર કરાવેલ.

સદર બનાવ સંદર્ભે તપાસ કરતાં DCNB (ડ્રાય કલોરો નાઈટ્રો બેનઝીન), DMS (ડાય મીથાઈલ સલ્ફેટ), DCA (ડાય કલોરો એનીલીન), સલ્ફ્યુરીક એસીડ, નાઈટ્રીક એસીડ, ઓર્થો ફાય કલોરો બેનઝીન, ઝ)યલીન, મીથેનોલ વિગેરે રો-મટેરીયલ્સની ૫૦ કિલોલીટર કેપેસિટીની એક એવી બે સ્ટોરેજ ટેન્ક, DCA ની ૫૦ કિલોમીટર કેપેસિટીની એક સ્ટોરેજ ટેન્ક, DCNB ની ૫૦ કિલોમીટર કેપેસિટીની એક સ્ટોરેજ ટેન્ક, નાઈટ્રીક એસિડની ૨૫ કિલોલીટર કેપેસિટીની એક એવી ત્રણ સ્ટોરેજ ટેન્ક, DMSની ૫૦ કિલોમીટર કેપેસિટીની એક એવી બે સ્ટોરેજ ટેન્ક, NAOHની ૫૦ કિલોમીટર કેપેસિટીની એક એવી બે સ્ટોરેજ ટેન્ક, KOHની ૫૦ કિલોમીટર કેપેસિટીની એક એવી બે સ્ટોરેજ ટેન્ક તથા સલ્ફ્યુરીક એસિડની ની ૫૦ કિલોમીટર કેપેસિટીની એક એવી બે સ્ટોરેજ ટેન્ક એટલો લિકવીડ સ્ટોરેજ ટેન્કો ટેન્ક ફાર્મ એરીયામાં આવેલ છે. જેમાં આગ લાગતા ત્યાથી ભારી માત્રામાં

બ્લેક કલરની ફ્યુમ્સ નીકળતા આશરે બપોરે ૩.૦૦ કલાકે આગ કાબુમાં મેળવવામાં આવેલ.

### Lessons Learn:-

- કરાર આધારિત શ્રમિકોને વિષય સુસંગત તાલીમથી તાલીમબદ્ધ કરવા.
- DMC, દહેજની કાર્યક્ષમતાવર્ધન હેતુ વધુ જમીન ફાળવણી કરવી.
- સતત સંકલન અને મોનીટરીંગ.
- કેમીકલ ડીઝાસ્ટર મેનેજમેન્ટ પ્લાન તૈયાર કરાવવો.
- Antidots- Expert ની યાદી તૈયાર રાખવી.
- તમામ કંપનીઓએ ઓનસાઈટ પ્લાન તૈયાર કરવાં/ સમયાંતરે મોકડૂલ હાથ ધરવા જેવી બાબતોમાં ગંભીરતા વધારવા કાર્યવાહી હાથ ધરવી