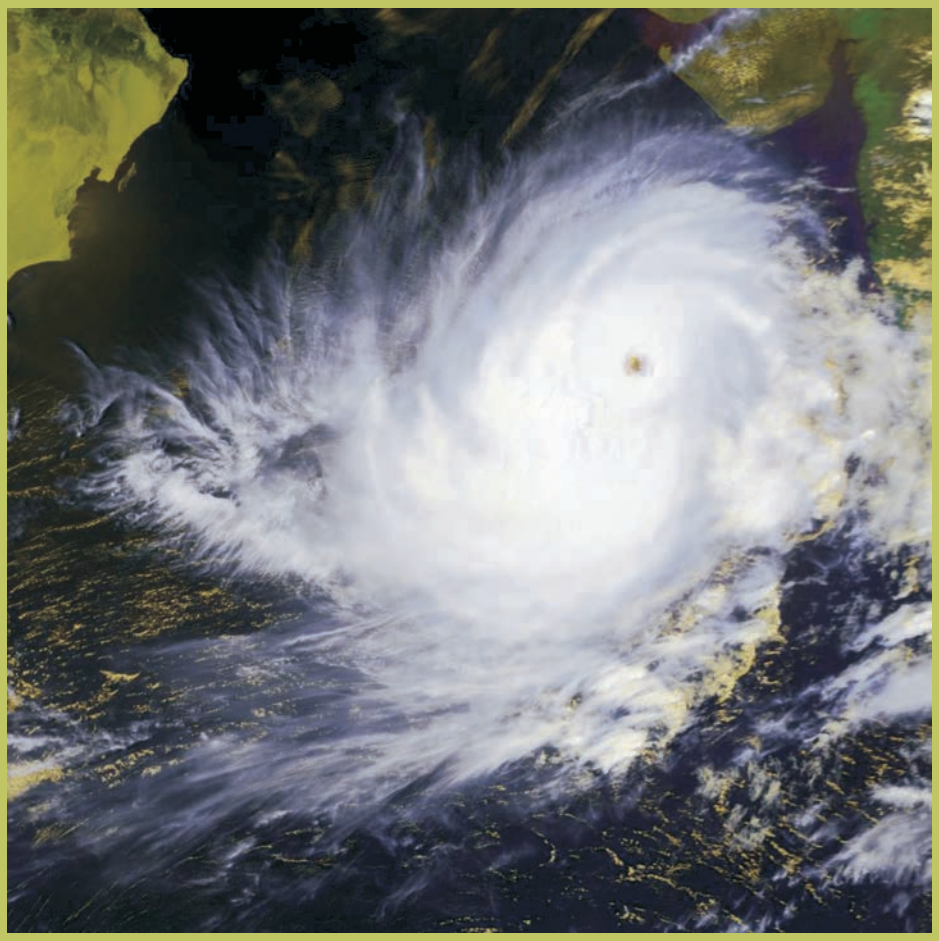
GSDMA

Cyclone Preparedness and Response Plan

2014



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Abbreviation

ACWCs	Area Cyclone Warning Centres
AFTN	Aeronautical Fixed Telecommunication Network
AIR	All India Radio
BISAG	Bhaskaracharya Institute for Space Applications and Geo-Informatics
BOOT	Build Own Operate and Transfer
CBOs	Community Based Organizations
CCG	Central Crisis Management Group
CDMA	Code Division Multiple Access
CDR	Cyclone Detection Radar
CEO	Chief Executive Officer
CFO	Chief Fire Officer
CMG	Crisis Management Group
CoH	Commissioner of Health
COR	Commissioner of Relief
CP	Commissioner of Police
CRED	Centre for Research on the Epidemiology of Disasters
CWC	Central Water Commission
CWCs	Cyclone Warning Centres
CWDS	Cyclone Warning Dissemination System
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
DM	Disaster Management
DoR	Director of Relief
DoT	Department of Telegraph
DRM	Disaster Risk Management
DRMP	Disaster Risk Management Programme
DWR	Doppler Weather Radar
EMS	Emergency Medical Services
EOC	Emergency Operation Centre
ERCs	Emergency Response Centres
ERTs	Emergency Response Teams
F&ES	Fire And Emergency Services
GAD	General Administration Department
GEB	Gujarat Electricity Board
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
GSDMA	Gujarat State Disaster Management Authority
GSM	Global System for Mobile Communications
GSWAN	Gujarat state Wide Area Network
GWSSB	Gujarat Water Supply & Sewerage board
HF	High Frequency
HFL	Highest Flood Level
HFRT	High Frequency Resonance Technique
HoD	Head of Department
HRVA	Hazard, Risk and Vulnerability Assessment
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
ICT	Information and Communication Technology
ICTS	Information Communications Technology System
ISRO	India Space Research Organization
IVRS	Interactive Voice Response System
MHA	Ministry of Home Affairs
NDMA	National Disaster Management Authority
NDRF	National Disaster Response Force
NEC	National Executive Committee
NGO	Non Government Organization
NIDM	National Institute of Disaster Management
PPP	Public Private Partnership
SDMP	State Disaster Management Plan
SDRF	State Disaster Response Force
SDRN	State Disaster Response Network
SEOC	State Emergency Operation Centre
SMS	Short Messaging Service
SOG	Standard Operations Guide
SOP	Standard Operation Procedure
SRPF	State Reserve Police Force
TEOCs	Taluka Emergency Operation Centers
UNDP	United Nations Development Programme
UTs	Union Territories
VHF	Very High Frequency
VSAT	Very Small Aperture Transmission
WAN	Wide Area Network
WB	World Bank

Chapter 1

Introduction

1.1 Background

A long coastline of about 1600 km of flat coastal terrain, shallow continental shelf, high population density, geographical location and physiological features of its coastal areas makes Gujarat, extremely vulnerable to cyclones and its associated hazards like storm, high velocity wind and heavy rains.

This plan provides the cyclone vulnerability and risk assessment, preparedness measures to be undertaken by each and every department of the State Government, the existing system of cyclone forecasting and warning dissemination to various stakeholders and the measures to be taken by the concerned departments for emergency response.

1.2 Objectives

- To protect and minimize the loss of lives and property/infrastructure from cyclones.
- To minimize the suffering of people due to cyclones.
- To build the capacity of all stakeholders in the State to cope with the cyclones and promote community based disaster management.
- Develop efficient cyclone response/relief mechanism in the State.
- To provide clarity on roles and responsibilities for all stakeholders concerned with cyclone management.
- To ensure co-ordination by promoting productive partnership with all other agencies related to cyclone management.

1.3 Trigger Mechanism

The plan would be put into action considering the situation prevailing at a given point of time as per the provision made vide SECTION 2 (h) of the Gujarat State Disaster Management Act, 2003.

1.4 Plan Authority

The Revenue department is primarily responsible for emergency response and relief (DM Act - Section 12(2)(b)) in the State, while the Gujarat State Disaster Management Authority (GSDMA) is designated as the nodal agency for formulation of policies, long-term planning, coordination and monitoring body for mitigation, reduction and preparedness for disasters in the State (DM Act - Section 12). The responsibility for initiation and execution of emergency preparedness and response measures before, during and after the cyclone rests with the Commissioner of Relief in conjunction with other relevant government departments (DM Act - Section 22).

1.5 Disaster Declaration

The Gujarat State Disaster Management Act, 2003 (Section 32) provides for the state government to declare any area where cyclone had occurred or likely to occur as disaster affected area on the recommendations of the State Relief Commissioner or the District Collector. The purpose of declaration of disaster is to organize effective response in managing the after

effects of cyclone. Such a declaration provides wide powers and responsibilities to the State Relief Commissioner and the District Collectors in order to handle the incident effectively.

1.6 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.

1.7 Plan Activation

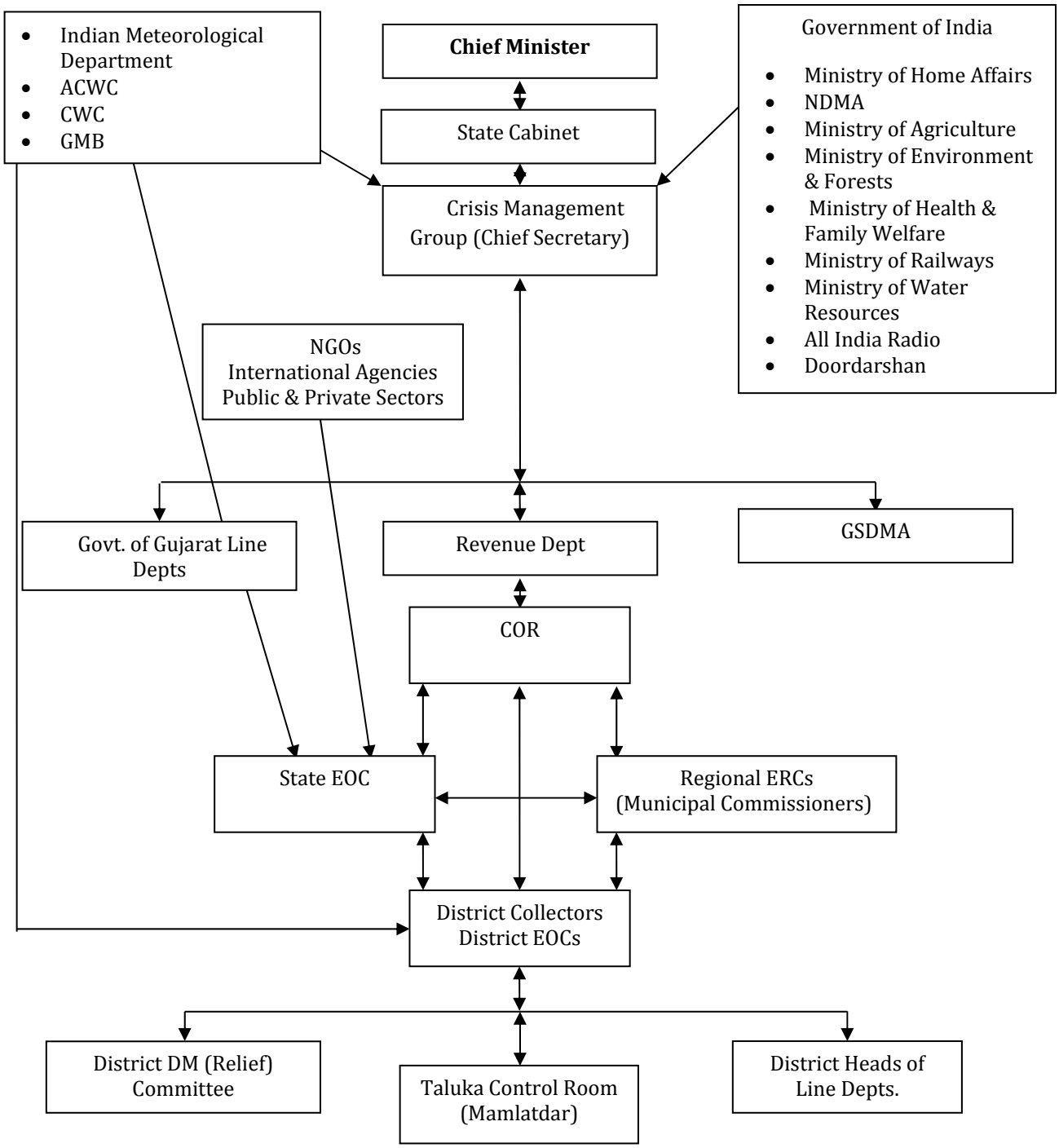
The cyclone response structure will be activated on the receipt of cyclone warning by the India Meteorological Department (IMD). The occurrence of a cyclone may be reported by the IMD to the Commissioner of Relief/GSDMA by the fastest means. The Commissioner of Relief (COR) will activate all departments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

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

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

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

1.8 State level Cyclone Management Structure



Chapter 2

Cyclone Hazard, Vulnerability and Risk Assessment

2.1 About Cyclone

Concept

- Cyclones are huge revolving storms caused by winds blowing around a central area of low atmospheric pressure. In the northern hemisphere, cyclones are called hurricanes or typhoons and their winds blow in an anti-clockwise circle. In the southern hemisphere, these tropical storms are known as cyclones, whose winds blow in a clockwise circle.
- Tropical cyclone is a storm system characterized by a large low-pressure center and numerous thunderstorms that produce strong winds and heavy rain. Tropical cyclones fall under the purview of warm core system of storms.
- As far as India is concerned, cyclonic storm develops over tropical oceans like the Indian Ocean, Bay of Bengal and the Arabian Sea.
- The revolving draft that develops during tropical cyclone could be of size ranging from 200 to 2000 kilometres in diameter. Abnormally high pressure gradient, strong wind and heated center are some of the basic features of tropical cyclone.

Formation of Cyclone

- When sun warms the oceans surface to temperatures over 27°C, evaporation and conduction transfer heat to the atmosphere.
- The moist air moves up and comes in contact with the cold air in the upper level of atmosphere and gets condensed.
- The water vapour from the ocean generated by such evaporation is the fuel that drives a tropical storm, because as the vapour condenses into clouds and precipitates, it pumps huge amounts of heat into the cyclone. This instability boosts the likelihood of convection current which leads to strong updrafts that lift the air and moisture upwards creating an environment favorable for the development of high, towering clouds.
- A tropical disturbance is born when this moving mass of thunderstorm maintains its identity for a period of 24 hours or more.

Cyclone Movement

- It is often hard to foresee where a cyclone will hit. When it starts moving from oceans towards the land area, a cyclone can change track and hit areas other than those anticipated.
- The path of a cyclone depends very much on the wind belt in which it is located. A cyclone originating in the eastern tropical Pacific, for example, is driven westward by easterly trade winds in the tropics. Eventually, these storms turn northwestward around the subtropical high and migrate into higher latitudes. In time, cyclones move into the middle latitudes and are driven northeastward by the western-lies, occasionally merging with mid-latitude frontal systems.
- Cyclones draw their energy from the warm surface water of the tropics and latent heat of condensation which explains why cyclones dissipate rapidly once they move over cold water.

Frequency of Cyclone

- Cyclonic disturbances that formed in Bay of Bengal between 1891 and 2000 are shown in **Annexure 1** shows the cyclone frequency and wind hazard map of India.

Table 2.1 Different types of cyclonic disturbances formed in Bay of Bengal between 1891 and 2000

[Source: IMD]

Types of Disturbance	Cyclonic Disturbance	Depression/ Deep Depression	Cyclonic Storm	Severe Cyclonic Storm and Above
Number	1087	635	279	173
Maximum (1891 – 1991)	158 (Aug.)	131 (Aug.)	51 (Oct.)	38 (Nov.)
Minimum (1891 – 1991)	4 (Feb.)	1 (Mar)	0 (Feb.)	1(Jan)
Yearly Average	10	6	3	1.5
Wind Speed (Km/h)	31 or less	31-61	62-88	89 and more

Table 2.2 Severe Cyclonic Storm Landfall & Impact in Gujarat (1910-2010)

[Source: GSDMA/TARU-2005]

Date	Landfall location	Peak wind speeds (kmph)	Impact	Source
Nov. 1919	N.A	N.A	N.A	Gujarat Planning Atlas (1987)
June 1929	N.A	N.A	N.A	Gujarat Planning Atlas (1987)
22 Oct. 1975	15 km NW of Porbandar	160 to 180	85 dead; damage to property estimated at Rs. 750 million	IMD (1999)
3 June 1976	Saurashtra coast	167	70 dead; 51 villages badly affected; 25,000 houses damaged : 4,500 cattle lost; damage to property estimated at Rs. 30 million	IMD (1999)
1 Nov. 1981	West of Veraval & Porbandar	125	13,942 animals dead; 1,128 huts and 677 houses collapsed; 8,686 huts and 6,034 houses damaged; 1.18 m Ha crops damaged with a loss of Rs. 836 million. One ship sinks off Veraval	Gujarat State Gazetteer (1989)
8 Nov. 1982	5 km west of Veraval	200	Surge of 6 to 8 m; 544 dead; 0.2 million animals dead – loss Rs. 125 million; 60,000 huts collapsed; 0.22 million huts damaged; 45,000 houses collapsed; 0.11 million damaged; 2,800 km of roads damaged – Rs. 356 million loss; 70 dams affected – Rs. 175 million loss; 2,530 settlements deprived of power – loss Rs. 103 million; 1,036 SSI and 27 large industrial units affected; 1,359 fishing vessels damaged; Port loss Rs. 19.1 million; agriculture and orchards loss Rs. 1,050 million	Gujarat Planning Atlas (1987); Gujarat State Gazetteer (1989); Memorandum to Central Team on cyclone and unseasonal rains (Nov 1982)
June 1983	N.A	N.A	Heavy rain (70 cm in two days) in Saurashtra	Gujarat Planning Atlas (1987)
July 1988	N.A	N.A	N.A	Gujarat State Gazetteer (1989)

Date	Landfall location	Peak wind speeds (kmph)	Impact	Source
18 June 1996	Diu	N.A	14 people died, 1611 houses damaged	IMD (1997)
9 June 1998	North of Porbandar	N.A	1,173 people died, 1,774 missing. Losses estimated at Rs. 18.65 billion	IMD (1997).
20 May 1999	International border with Pakistan	N.A	453 died; 5,153 buildings damaged and estimated loss to property Rs 800 million	IMD (1999)
31 May - & June 2010	Pakistan	157	No significant adverse impact in India, though there was heavy rain over Gujarat and Rajasthan.	IMD (2011)

Classification of Cyclone

- Many types of tropical cyclones are observed all over the world. Based on its location and severity tropical cyclone can be classified as typhoon, tropical storm, cyclonic storm, tropical depression and hurricane. Normally, tropical cyclones are classified as per their wind speed. Indian classifications of these cyclonic disturbances are shown in Table 2.3.

Table 2.3 Indian Classification of cyclonic disturbances in the North Indian Ocean (Bay of Bengal and Arabian Ocean)

[Source: IMD]

Types of Disturbances	Associated wind speed in the circulation
Low Pressure Area	Less than 17 knots (< 31 km/h)
Depression	17 to 27 knots (31 to 49 km/h)
Deep Depression	28 to 33 knots (50 to 61 km/h)
Cyclonic Storm	34 to 47 knots (62 to 88 km/h)
Severe Cyclonic Storm	48 to 63 knots (89 to 118 km/h)
Very Severe Cyclonic Storm	64 to 119 knots (119 to 221 km/h)
Super Cyclonic Storm	120 knots and above (222 km/h and above)

Impact

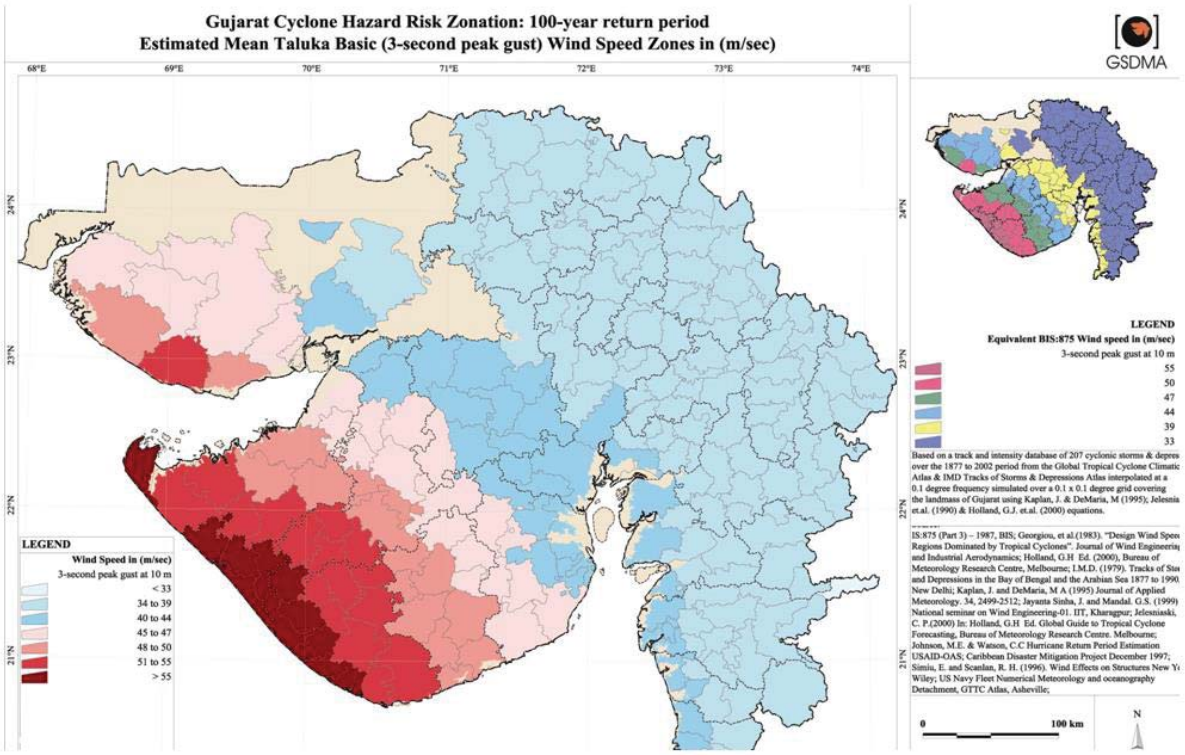
- The impact of tropical cyclones can be very significant in terms of the detrimental aspects.
- There are three main features of cyclone (high wind, rainfall and storm surge) which can cause widespread damage.
- A major factor in the growing losses caused by meteorological hazards is the concentration of population and economic activity in coastal plains and low-lying areas that are subject to storm surges and land-borne flooding.
- **High winds** can damage structures like houses and other infrastructure (bridges, dams, embankments etc.); uproot electricity supply and telecommunication lines etc.
- **Extremely heavy rain** can cause flooding. Floods wash away human beings and animals and make water unfit for drinking. There can be outbreak of diseases like cholera, jaundice or viral fever due to intake of impure water. Water gets contaminated because of floating carcasses and corpses and mixing of sewage. Movement of stored food supplies also gets severely affected due to floods as rail tracks and roads are breached. The floodwaters turn the fields salty.

- **Storm surge** inundates low-lying coastal areas resulting in life loss and destruction of property. Besides it destroys vegetation and reduces soil fertility. It also affects environment as coral reefs can often suffer damage.

2.2 Geographic Vulnerability of Cyclone

- Gujarat falls in the region of tropical cyclone. With the longest coast line of 1600km in the country, it is highly vulnerable to associated hazards such as floods, storm surges etc.
- Most of the cyclones affecting the State are generated in the Arabian Sea. They move northeast and hit the coast particularly the southern Kutch and southern Saurashtra and the western part of Gujarat.
- Two cyclonic storm seasons are experienced in Gujarat: May to June (advancing southwest monsoon) and September to November (retreating monsoon).
- Many a severe cyclone had originated in the Arabian Sea and passed through the state in last 100 years. Many districts are prone to cyclone viz., Kutch, Junagadh, Narmada, Rajkot, Jamnagar, Porbandar, Amreli, Bhavnagar, Kheda, Surat, Vadodara, Ahmedabad, Anand, Bharuch, Kheda, and Valsad.
- The Gulf of Kutch and Gulf of Khambhat also witness surge as the funneling effect takes place at both the places.
- The Gulf of Khambhat is most vulnerable due to recurrent cyclone strike to the southeastern coast of Saurashtra. The eastern reach of the Gulf of Kutch is the next most vulnerable region due to its low lying flat topography and high population density.

Fig.2.1. Cyclone Hazard Zonation 100 year returns period



- The Hazard Risk and Vulnerability Atlas prepared by GSDMA shows the Cyclone hazard zonation along with the basic wind speed at the taluka level (Fig. 2.1). Over 120 cyclones originating in the Arabian Sea had passed through Gujarat over a period of 100 years. Figure

2.1 shows a maximum wind speed class of more than 55 m/sec along the Saurashtra coast, specifically in Porbandar, Jamnagar and Junagadh districts, which are exposed to high intensity cyclonic and storm impact. The 51 to 55 m/sec class extends further inland to cover much of Jamnagar, part of Rajkot, Junagadh and Kutch districts. The 48 to 50 m/sec classextends to most of Rajkot, part of Amreli and Jamnagar districts including Jamnagar, Rajkot cities and parts of Kutch. The 45 to 47 m/sec class covers much of Saurashtra and all of Kutch. This is followed by the 40 to 44 m/sec class that gets its swathe from Kutch through northern Saurashtra all the way to the coast of Gulf of Khambhat and southern Gujarat. The rest of the State falls into the 34 to 39 m/sec class.

2.3 Vulnerable coastal Talukas

- About 10 million people (about 25 per cent of the State population) live in coastal talukas of Gujarat and this includes 75 coastal towns and 41 ports (1 major, 11 intermediate and 29 minor).
- Gujarat's coastal population is growing at a faster rate than the rest of the State due to rapid growth of ports, energy infrastructure and saltpans. Due to economic opportunities, growing coastal population faces increasing risk unless an appropriate techno-legal regime and appropriate zoning regulations are enforced.
- According to CRED (2002) report, the annual loss of life in Gujarat due to various disasters is 2000. It is estimated that 33% out of it is due to cyclone and surges. Table below gives the damage caused by cyclones in Gujarat during the last century.
- Cyclones, storm surge and associated flooding have had devastating impact on agriculture, horticulture and animal husbandry in coastal Gujarat, especially in Gulf of Khambhat.
- Maximum damage has often been to standing crop, destroyed both by winds and floods. Wind damage to horticulture has been severe especially in Kutch where it is an important economic activity.
- Storm surge induced soil salinisation and in extreme cases, sand casting is an important associated risk. This has severe long-term impacts, which can take many years to recover from, especially if a cyclone event is followed by drought, in which there is a lack of runoff to wash off the excess salt. Table 2.1 shows the cyclone event in Gujarat with impacts from 1910 to 2010.

2.4 Economic Risk Due to Cyclone

Cyclones and storm surges are estimated to make up 12 per cent of the risk exposure of the State. The estimated composite probabilistic cyclone and storm surge risk to the Gujarat economy is Rs 11,182 crore for capital stock and Rs 1,035 crore for GVA for a 100-year return period event.

The potential risk due to cyclones is highest to the manufacturing sectors estimated at Rs. 413 million GVA losses and Rs. 2,271 million of capital stock loss in case of 50-year return period. This is substantially higher in case of 100-year return period cyclone with Rs. 1,479 million of GVA loss and Rs. 16,689 million of capital stock loss. The increasing concentration of investment along the coast of south Gujarat, the Gulf of Khambhat and the Gulf of Kutch are matters of

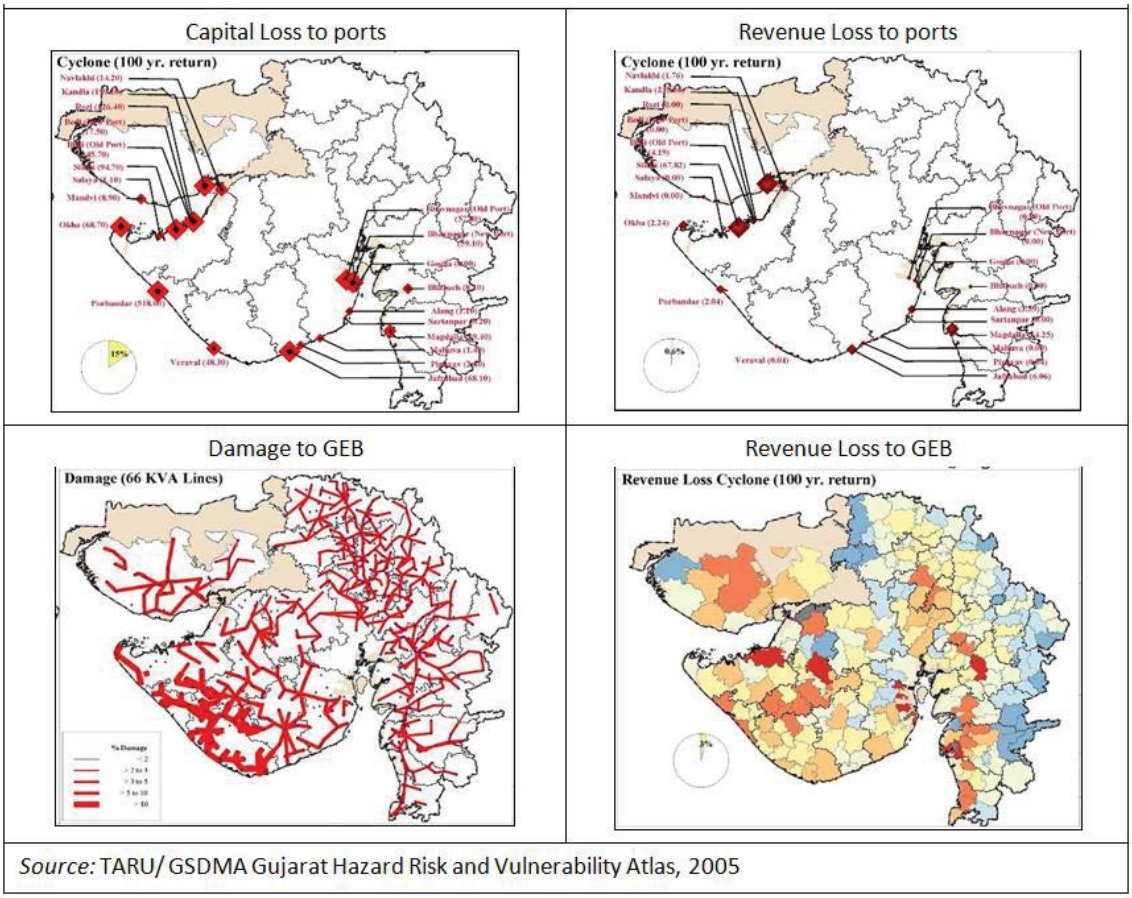
considerable concern for natural hazard risk mitigation. This is worsened by earthquakes and flood risk exposures to most areas of coastal region.

The estimated impact of a 100-year return period cyclonic storm on power infrastructure was 4 per cent of the capital stock and 3 per cent of the annual power sector revenue. Port infrastructure is also expected to suffer up to 15 per cent loss to capital assets due to a similar storm. The estimated impact on marine fisheries was estimated at 11 per cent of the GVA and one per cent of the capital stock (GSDMA/ TARU, 2005).

2.5 Structural Risks

The Gujarat Hazard Risk and Vulnerability Atlas (GSDMA/TARU, 2005) indicates that out of 675,000 residential buildings in the region vulnerable to cyclonic wind damage, about 248,000 residential buildings can be damaged due to a 100-year return period cyclone. Fig. 2.2 shows the Gujarat's estimated infrastructure risk due to cyclones.

Fig. 2.2 *Gujarat's estimated infrastructure risk due to cyclones*



Source: TARU/ GSDMA Gujarat Hazard Risk and Vulnerability Atlas, 2005

2.6 Flood Vulnerability

Cyclones and other extreme weather conditions in either Bay of Bengal or the Arabian Sea are also responsible for incessant rainfall which may cause local flooding in coastal areas owing to the flat terrain of the State.

Since the cyclone and storm surge shelters are primarily designed to provide shelter from high-speed winds and storm surges and these areas are often prone to flooding, it is suggested that they be utilized to provide shelter from local flooding too.

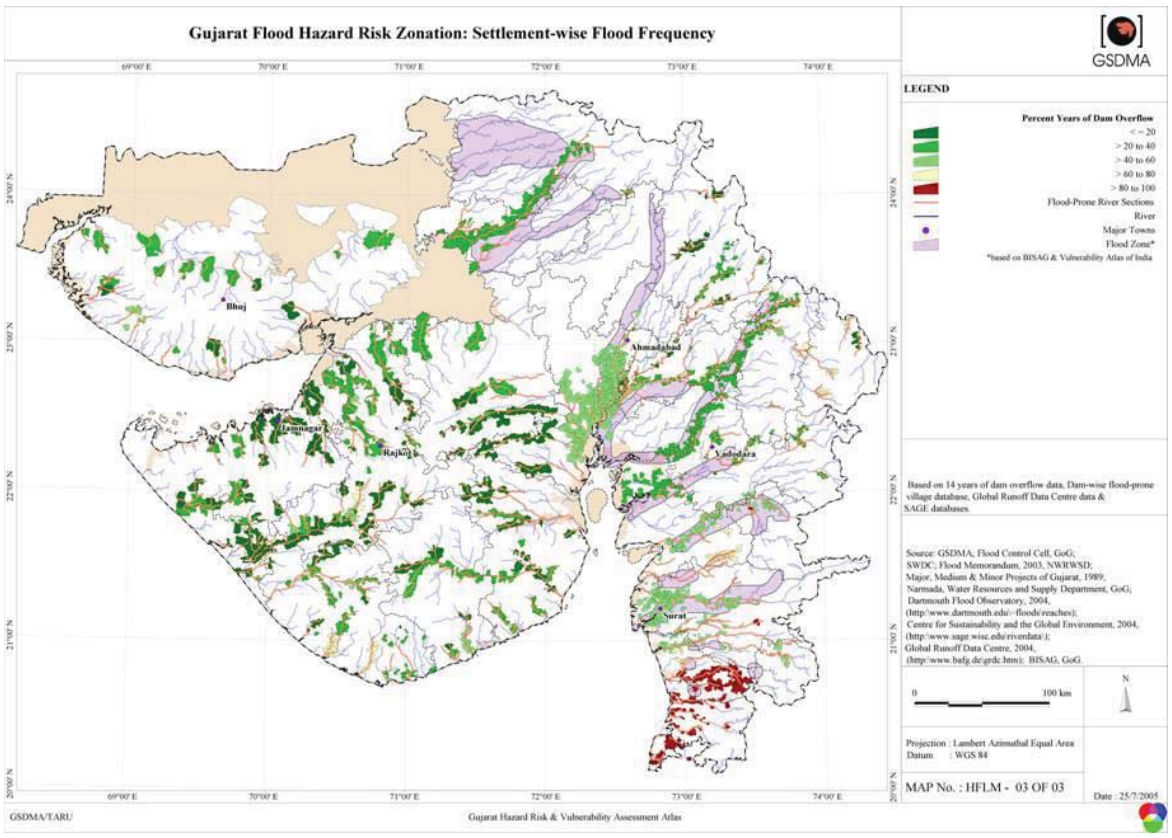
The frequency of flooding in the coastal areas is on the rise due to the modification of upstream drainage systems. Hence local flood risk also needs to be addressed by considering the HFL (High Flood Line).

The flood hazard zonation for Gujarat (Fig. 2.3) shows flood prone areas in Saurashtra and Kutch region. While a large number of medium and small check dams have been constructed all over the state, they are typically designed for 75 per cent availability of runoff and, therefore, involve emergency discharge during extreme rainfall events.

The current focus of flood management in Gujarat is on fluvial riverine flooding. Cyclone and storm surge induced coastal flood combined with fluvial and pluvial inland flood have yet to come into focus.

Hence, coastal saline embankments, roads and bridges will need to be designed with a modified set of criteria, norms and specifications taking into account risk of fluvial and pluvial flooding induced during cyclonic events

Fig. 2.3. Settlement-Wise Flood Frequency



Source: TARU analysis, 2005

Since Gujarat's most critical infrastructure is located along the Khambhat coast, storm surge can impact a large number of settlements. Rivers flowing into the Arabian Sea are flood prone with very gentle slopes causing large areas to be inundated followed cyclone-induced rain.

Gujarat's coastal soils are alkaline or saline. Surge-induced saline water intrusion is a major risk in coastal Gujarat, which can create wastelands for many years in previously fertile areas. Farmers typically have to migrate or shift to other economic activities following such an event.

GSDMA had prepared a detailed taluka level (Level-II) Hazard Risk and Vulnerability Atlas (HRVA) for six major hazards including cyclone and storm surge. Taking a step forward, GSDMA also undertook a village level study of the area vulnerable to cyclone (as identified by HRVA) and prepared an action plan for cyclone risk mitigation project. A detailed survey of all the vulnerable villages to cyclone and storm surge along the coastal belt of the State was undertaken. The study identified 1741 coastal villages vulnerable to cyclone and storm surge to varying degrees. A district and taluka wise list of all 1741 coastal villages prone to cyclone and storm surge is placed at **Annexure-2**.

Chapter 3

Preparedness

3.1 Introduction

- Preparedness refers to the state of being prepared for specific or unpredictable situations. It is a continuous cycle of planning, organizing, training, equipping, exercising, evaluating and improving capabilities to ensure effective coordination to respond and to recover from natural and man-made disasters. In preparedness phase, disaster managers develop plans of action to manage and improve upon the necessary capabilities or infrastructure at hand. Common Cyclone preparedness measures include:
  - Communication plans with easily understandable terminology and methods.
  - Proper maintenance and training of cyclone disaster services, including mass human resources such as community based disaster response teams.
  - Development and exercise of cyclone warning methods combined with cyclone shelters and evacuation plans.
  - Stockpiling and inventory, management of essential supplies and equipments.
- As per the current thinking and policy of the State Government, disaster management is a continuous and an integrated activity. As such, the focus has shifted from response and relief activities in post disaster scenario to prevention and preparedness for all likely disasters which may affect the State. Emergency preparedness measures for cyclone disaster have been identified and given below:

3.2 Cyclone Preparedness Task and Responsibility

S. No.	Task	Responsibility	Activity
1	Development of Policies and Guidelines	GSDMA Revenue Dept/COR	Develop appropriate guidelines to ensure the implementation of the cyclone preparedness measures.
2	Development of Cyclone Preparedness and Response (P&R) Plan	Revenue Dept/COR	Prepare, test and update State Cyclone P&R Plan periodically.
		GSDMA	Provide guidelines and help to all concern departments to prepare Cyclone P&R Plan.
		All Line Departments	To prepare, test and update department level Cyclone P&R Plan.
3	Establishment of cyclone forecasting and warning mechanism	IMD	o Issues daily weather bulletins and weather forecasts. o Issues 4- Stage warning to State Government, Port Authority, Fisheries Officials and other key depts. in case of cyclone formation.
		Revenue Dept/COR	o Conduct meetings with the HoDs of line departments before cyclone season to ensure fail-proof cyclone warning and dissemination system and cyclone preparedness measures. o Establish a system of early warning and its dissemination to line departments and others institutions who are likely to be affected by cyclone.

S. No.	Task	Responsibility	Activity
			o Establish Cyclone warning dissemination centres (If required at the coastal district)
		GSDMA	Analyze the existing early warning and dissemination system, identify gaps and suggest advance system.
		GMB	Maintain effective coordination and liaison with CWC, Ahmedabad.
4	Ensure necessary safety measures along the Coastal areas	Revenue Dept/COR	o Review the safety measures taken by concerned dept. before the cyclone season. o Establish continuous communication links with IMD, (ACWC and CWC) for further verification of weather condition during the cyclone season. o Review and monitor an implementation of Coastal Zone Regulation. o Make prior arrangements with armed forces so that the people can be rescued in case of cyclone event.
		GMB	o Conduct awareness programs regarding the safety measures that need to be taken in case of cyclone and the meaning of the different hoisted signals. o Maintain effective coordination and liaison with CWC, Ahmedabad and their communication network during cyclone season.
		Fishries dept. Port & Tansport dept.	o Fisheries officials should be well equipped and ready for search and rescue of fishermen out of sea during cyclone situation. o Advance planning for getting the help of coast guards in search and rescue operations should be made.
		Tourism Dept	o Visitors/tourist should be informed about cyclone hazard who are visiting vulnerable coastal area during Cyclone season. o Take part in pre-cyclone season meetings and take all the safety measures recommended by Revenue Dept/COR.
5	Review and strengthening relief distribution system and stock piling	Revenue Dept/COR Dist. Collector Municipal Commissioner Civil Supply Dept	o Strengthening of relief distribution and accounting system at state and district level o Identification of centralized system for receipt, storage and distribution of relief o Rate contract, procurement and stockpile of relief material
6	Fail-safe communication and last mile connectivity	Revenue Dept. COR GSDMA Science & Technology Dept. Information Dept. Local and district	o Undertake study to establish fail safe two way communication – information system from state level to disaster site connecting state, district, taluka and city level. o Undertake study to establish alert/siren with multi-lingual recorded massages in coastal areas o To procure the system and run a pilot project

S. No.	Task	Responsibility	Activity
		authorities Municipal Commissioner	o Establishment of multiple/alternative system o Training/IEC campaign for general public of the vulnerable areas. o Plan for re-establishment of disrupted system
7	Resource Mapping	Revenue Dept./COR Line dept. Dist. Collectors GSDMA Other dist. authorities of line dept.	o Identify available resources viz. Human, financial and equipment for cyclone disaster management with - State Dept. - Dist. Level - Taluka level - Village level - Public sector - Private sector - Community level o Identification of gaps of resources as per the need o Process for procurement of lacking resources o Periodic upgradation, validation and maintenance of SDRN[1] and IDRN[2] - List of the fire fighting and search & rescue equipments provided to various districts, municipal corporations, municipalities and GIDCs are given in **Annexure 3** - Detailed list of the swimmers identified and trained by GSDMA is kept on GSDMA's Website (**http://www.gsdma.org/active-alerts.aspx**) o Identification of safe shelter for evacuation in cyclone prone villages and updation in the level specific plans through SDRN.

[1] *The State Disaster Resource Network (SDRN) is operational in over 18,000 villages of the State. The SDRN system has three layers namely Village, Municipality and Taluka. The level specific data is collected in the standard disaster management plan format and uploaded in to the system either at taluka or district level. The centrally stored database in the server located at GSDMA, Gandhinagar can be accessed through GSWAN connectivity (**http://117.239.205.164/sdrnguj/**) and GSDMA Web Site (**www.gsdma.org**). Username and password to access the database is 'guest'.*

[2] *IDRN, a web based information system, is a platform for managing the inventory of equipments, skilled human resources and critical supplies for emergency response. The primary focus is to enable the decision makers to find answers on availability of equipments and human resources required to combat any emergency situation. This database will also enable them to assess the level of preparedness for specific vulnerabilities.*

Total 226 technical items listed in the resource inventory. It is a nationwide district level resource database.Each user of all districts of the state has been given unique username and password through which they can perform data entry, data updation on IDRN for resources available in their district. The IDRN network has functionality of generating multiple query options based on the specific equipment, skilled human resources and critical supplies with their location and contact details.

S. No.	Task	Responsibility	Activity
8	Cyclone preparedness, training and capacity building/awareness measures	Revenue Dept./COR GSDMA Information Dept. Education Dept. All line dept. Dist. Collectors Other Dist. Authorities	o Arrangement for training to: - Trainers from the Districts - First Responders ▪ Police including Traffic personnel ▪ Home Guards ▪ Civil defense personnel ▪ Fire and Emergency services personnel ▪ Medical Personnel ▪ Port officers ▪ Local bodies/PRI o Advertisement, hording, booklets, leaflets, banners, shake-table, demonstration, folk dancing and music, jokes, street play, exhibition, TV Spot, radio spot, audio-visual and documentary, school campaign, - Planning and Design - Execution and Dissemination
9	Medical Preparedness	Medical & Health dept. Commissioner of Health Medical Institutions	o Preparation of authentic medical database for public and private facilities available in the State - Collection of Data - Mapping and gap analysis - Strengthening o Resource management - Manpower, logistics, medical equipments, medicines, antidotes, personal protective equipments, disinfectant, vaccine o Identification of medical incident command system - Incident Commander ▪ State Level ▪ Dist. Level ▪ Disaster site - Identification of each section head at each level ▪ Operation ▪ Planning ▪ Logistic ▪ Administration & Finance ▪ Media and Public information - Identification of key members of different task force - Control room arrangement ▪ Departmental control room ▪ State and district control room ▪ Appointment of liaison officer in shifts

S. No.	Task	Responsibility	Activity
			- Planning ▪ Preparation of medical management plan -State level -Dist. Level -Hospital preparedness plan - Training and capacity building ▪ Hospital preparedness, ▪ Pre hospital care, o Mass casualty management, etc.
10	Community Preparedness[3]	Revenue Dept./ COR GSDMA IMD Finance Dept. All Dist. Collectors Municipal Commissioner All Taluka Mamlatdars Local self Govt. UDD Panchayat and Rural Housing Dept.	o Selecting vulnerable community and most vulnerable groups at risk (keep gender issues in mind) o Disseminate information about vulnerability and risk to the community o Promote local level cyclone risk management planning through participatory approach o Advice and issue direction wherever necessary for community cyclone prevention, mitigation and preparedness through local resources and participatory approach o Provide necessary resources and support for cyclone risk reduction at community level o Promote community managed implementations o Review the preparedness at community level o Take appropriate actions to enhance community preparedness o Promote community education, awareness and training o Ensure fail safe mechanism for timely dissemination of forecasting and warning of impending cyclone to the community o Disseminate information to community to deal with cyclone situation

3.3 Proposed Information Communications Technology System (ICTS)

Whereas early warning systems and mechanisms are in place to communicate to the general public about the impending disaster, the GSDMA is also planning to set up an "Information Communications Technology System (ICTS)" Network for emergency response for the State. The robust network would extend to State, District, Taluka and the local incidence point with a well defined control and coordination structure supported with adequate and appropriate Information and Communication Technology (ICT) resources tools. This network would be

[3] *The Disaster Risk Management Program (DRM) being implemented by Gujarat State Disaster Management Authority (GSDMA) aims to strengthen the response, preparedness and mitigation measures of the community, local self-governments, the District administration and the State in Gujarat.*

designed for integrating State Emergency Operation center (SEOC) at Gandhinagar with all District Emergency Operation centers (DEOCs), 5 Emergency Response Centers (ERCs) and 226 Taluka Emergency Operation centers (TEOCs). The proposed ICTS infrastructure will be set up on Build Own Operate and Transfer (BOOT) basis. A technical committee has been constituted to oversee the process of finalizing the agency as per the procurement guidelines of the State Government. The proposal is now awaiting the final approval of Chairman of the State Disaster Management Authority.

Chapter 4

Cyclone Forecasting and Warning

4.1 Introduction

An effective cyclone forecasting, early warning communication network can prevent large part of the damage and suffering caused by cyclones and associated hazards, including, loss of human life, property etc. Timely warning to affected population and concerned officials is one of the critical short-term cyclone disaster mitigation measures. Cyclone predictions include time of arrival, location and magnitude of the event. The time of arrival is moderately predictable but the specific location of landfall and the storm strength at landfall is poorly known only a day or two in advance.

In case of cyclones, 72 hours advance warning of various levels of certainty are provided by the IMD. This system is well established and the Gujarat State EOC and ERCs gear up emergency operations soon after the first warning is received. The typical sequence of cyclone early warning is as follows:

i. The IMD issues daily weather bulletins and weather forecasts
ii. Cyclone Warning Centre, Ahmedabad issues cyclone warnings in four stages (which are explained later in this chapter).
iii. Cyclone Warning Radar, Bhuj tracks cyclones up to 400 km
iv. The Survey of India maintains seven tide gauges that provide tidal surge heights
v. The INSAT system activates the disaster warning network along the coast whenever a cyclone is expected to hit the coast and provides cyclone warning in voice mode in coastal areas

4.2 Organizational Set-Up

The Cyclone Warning Organization in India has a 3-tier system to cater to the needs of the maritime states. These are : Cyclone Warning Division set up at IMD Headquarters to co-ordinate and supervise cyclone warning operations in the country and to advise the Govt. at the apex level; Area Cyclone Warning Centres(ACWC) at Chennai, Kolkata and Mumbai and Cyclone Warning Centres(CWC) at Visakhapatnam, Bhubaneswar and Ahmedabad. The cyclone warning work is also supervised and coordinated by the Forecasting Division at Pune.

Area Cyclone Warning Centres (ACWCs) - Mumbai and Cyclone Warning Centres (CWCs) - Ahmedabad liase with the Gujarat Government at state and district levels on cyclone-related warnings. The cyclone warning bulletins are communicated to the Chief Secretary, Revenue Secretary, Relief Commissioner, EOC, ERC, GSDMA and concerned district collectors every three hours when there is a likelihood of a cyclone hitting parts of the State. In addition, the Chief Secretary is personally briefed by Director, ACWC/CWC regularly during such situation. Before the cyclone season, the ACWC/CWC organizes the pre-cyclone preparedness meeting under the chairmanship of Chief Secretary where all the State Govt. officials from various departments participate.

In Gujarat under the chairmanship of Chief Secretary, cyclone preparedness meeting is held once in a year before monsoon either in late April or early May with all secretaries of key departments taking part.

At district levels under the chairmanship of District Collectors, series of meetings are held from April in which all the heads of district administrative units and other line department heads take part.

4.3 Cyclone Detection Radars

A network of conventional Cyclone Detection Radars (CDRs) has been established at Kolkata, Paradip, Visakhapatnam, Machilipatnam, Chennai and Karaikal along the east coast and Goa, Cochin, Mumbai and Bhuj along the west coast. These conventional radars are being phased out and replaced by Doppler Weather Radars (DWRs). DWRs have already been installed and made operational at Chennai, Kolkata, Visakhapatnam and Machlipatnam. An indigenously developed DWR Radar by Indian Space Research Organisation (ISRO) has been installed at Sriharikota.

4.4 Dissemination Process

1. Cyclone/flood forecasting is generally the responsibility of the Indian Meteorological Department (IMD). IMD is the nodal agency for providing cyclone warning services. IMD's INSAT satellite based Cyclone Warning Dissemination System (CWDS) is one of the best currently in use in India to communicate cyclone warnings from IMD to community and important officials in areas likely to be affected directly and quickly. There are 19 CWDS stations in Gujarat as shown in **Annexure 4.**
2. After getting information from IMD, warning dissemination is a responsibility of State Government (COR). The COR under the Revenue Department is responsible for disseminating cyclone warnings to the public and Line Departments.
3. On receiving an initial warning, the office of the COR sends the warning to all Line Departments, the District administration and DG Police. Warning messages are transmitted though wireless to all districts and talukas. District Collectors are provided with satellite phones and a Ham radio to maintain effective communication, even if terrestrial and cell-phone communication fails.
4. The SEOC and control rooms of the other line departments at the state level as well as district level also get the warnings. The control rooms are activated on receiving the warnings.

4.5 Four-Stage Warning System for Tropical Cyclones

As far as cyclones are concerned, general expectations of Disaster Managers to mitigate the effects of cyclone are longer lead time and improved accuracy of landfall forecast. But the present system has limitations to make the above requirements go hand in hand. Lead time depends on the formation and duration of cyclone itself which may vary considerably from one cyclone to another. However, since pre-monsoon cyclone season of 1999, IMD introduced a 4-Stage warning system to issue cyclone warnings to the disaster managers. They are as follows:

Pre-Cyclone Watch

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

Cyclone Alert

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

Cyclone Warning

It is issued at least 24 hours before the commencement of the bad weather when the cyclone is located within 500 km from the coast. Information about the most likely time/place of landfall is indicated in the bulletin. Confidence in estimation increases as the cyclone comes closer to the coast

Post landfall outlook

It is issued 12 hours before the cyclone landfall when the cyclone is located within 200 km from the coast. More accurate & specific information about time/place of landfall and associated bad weather are indicated in the bulletin. In addition, the interior distraction likely to be affected due to the cyclone is warned in this bulletin.

4.6 Ways to disseminate Cyclone Warnings

The different telecommunication channels used for warning dissemination are as follows;

- Landline/ Telephone
- Telefax
- VHF/HFRT (Internal)
- Police Wireless
- AFTN (Aviation)
- Internet (e-mail)
- Websites
- Radio/TV network
- Interactive voice response system (IVRS)
- Mobile Phones (including SMS)
- Satellite Phones, etc.

4.7 Warning to Various Stakeholders

Ports

Ports under General, Extended and Brief systems should receive warning messages consisting of relevant portions of sea area bulletins along with instructions to hoist the appropriate signals. As far as Gujarat is concerned, the bulletins issued by ACWCs at Mumbai is to be the basis on which port warnings and other action will be initiated by the CWCs at Ahmedabad till the system is picked up by the radars at Bhuj. Ultimately, Indian Meteorological Department is responsible for issuing the warnings while the port authorities arrange the display of signals. In addition, to hoisting the signals, the port officers, in most cases, make arrangements for disseminating the warnings received by them, to country craft and sailing vessels in the harours.

The number of the signal to be hoisted is given in plain language to avoid errors in transmission. Similar procedure is also being followed for other items such as latitude and longitude of centre of the storm etc.

In all messages to ports subsequent to the one advising for hoisting of a signal, the words “keep signal number hoisted” should be mentioned till the signal is lowered or replaced by another signal.

The ports without signals also receive messages whenever adverse weather threatens them due to a disturbance. These messages may be similar to the one to the adjoining ports with signals. It contains information on the location and direction of movement of the system and the expected weather over the ports in brief. Only, the advice to hoist any signal is omitted in the messages. The system of storm warning signals for different ports is shown in **Annexure 5**

Steps to be taken by GMB after receiving the Cyclone Warning

- Gujarat Maritime Board (GMB) maintains effective co-ordination and liaison with Cyclone Warning Centre, Ahmedabad during cyclonic storm.
- Gujarat Maritime Board deputes one officer with vehicle during cyclone period to collect port warning messages and passing it immediately to the ports which are likely to be affected by adverse weather, through their own communication channel.
- On receipt of warnings, port officials hoist appropriate visual signals so that they are visible from a distance.
- Ports are warned 5 to 6 times a day during period of cyclonic storm.
- Warning contains information about location, intensity, expected direction, expected landfall point and type of signal the Port should hoist.
- Light house organization is also kept in preparedness for which GMB and district collectors ensure coordination.

Transmission of messages to ports

Port warning messages are normally sent by fax. Immediate telephone calls also are made to port officers regarding the disturbed weather at their ports.

Police W/T facilities can also be utilized for passing on the port warning messages to those ports where Police W/T stations exist, in the following cases: (i) when the meteorological telecommunication channels have either failed or (ii) when there is a likelihood of the messages getting unduly delayed. **Annexure 6** is showing the General terminology used in weather bulletin.

Fishermen

A fisherman warning is a warning message for fishermen who ply on coastal areas or may go out at sea. Dangers to fisherman due to storm are strong winds and associated high seas, due to which fishing boats may capsize. The list of Fisheries Officials submitted by Commissioner of Fisheries, Gujarat State is on the list of offices identified for immediate communication of any cyclone situation by CWC, Ahmedabad. The fishermen are issued warning when one of the following conditions of weather is expected along and off any coast:

- Strong off-shore and on-shore winds (or with appropriate direction), speed exceeding 45 km/h
- Squally weather – frequent squalls with rain; or persistent type of strong gusty winds (>20kts; 36km/h) accompanied by rain.
- Gales and
- State of sea very rough or above (wave heights are four metres or more).

The warnings are disseminated to fishermen through:

- Port

- Fisheries officials and
- AIR broadcasts daily three / four times in local language. The warnings are broadcasted as a routine four times a day (morning (0600 hrs), mid-day, evening (1800 hrs) and mid-night) from the air stations in the local language and are broadcasted in Gujarat from All India radio, Ahmedabad, Baroda, Rajkot and Bhuj. During a cyclonic storm, such warnings are covered in the cyclone bulletins sent to the air stations at hourly or 3 hourly intervals for frequent broadcast. The fisheries warnings issued during mid-day are incorporated in the 'general weather bulletin' by forecasting offices in maritime states.

With regards to search and rescue operations for the fishermen out in the sea, the port department keeps powerful fully equipped rescue boats and take the help of Coast Guards if required.

The fishermen warning contains information about

- Synoptic situation
- Signals hoisted and
- Advice not to go out in to the sea

Salt Workers

The District Collectors are required to take steps to specifically warn salt industries and if necessary, carry out immediate evacuation of salt workers to safe shelters. The labour department and industries department officials at the district level will assist the collector in this regard.

Ship in the high Sea

For the benefit of the ships out at sea, two routine bulletins are broadcasted daily through the Dept. of Telegraph (DoT), Coastal Radio Station at Mumbai at fixed times and on fixed wavelengths for the Arabian Sea. During the cyclone situation, bulletin known as "Extra", "Storm" and "Special" are also issued as and when necessary by ACWC, Mumbai. The IMD issues alert/warning bulletins in which numbered danger signals are mentioned to be displayed at each port.

Coastal shipping

Coastal weather bulletins give weather information in greater detail in the coastal areas for the benefit of ships plying mainly in coastal areas defined as the sea area up to 75km off the coastline. These bulletins are issued twice a day as a routine by CWC, Ahmedabad for entire Gujarat Coast and broadcasted through Coastal Radio Stations at Mumbai and Kandla. During the cyclone situation, bulletin known as "Extra", "Storm" and "Special" are also issued as and when necessary by CWC, Ahmedabad six times a day and broadcasted by Coastal Radio Stations at Mumbai and Kandla.

Public

Weather bulletins are broadcasted in Gujarati daily as routine from the AIR station at Ahmedabad. When there is a threat of cyclone special weather bulletins are broadcasted as soon as they are received from IMD Ahmedabad and repeated in subsequent transmission. The do's

and don't are specified in **Annexure 7**. Dissemination of warning to the general public at large in vulnerable areas is through print, radio, TV and other media.

4.8 Cyclone tracking/warning Web Sites

For Cyclone tracking/warning IMD's Web Site is official for the State government which is;
India Meteorological Department - http://www.imd.gov.in/section/nhac/dynamic/cyclone.htm

However, there are few other renowned global Web Sites which can be helpful for Cyclone tracking. The Web Sites are as shown below;

- National Hurricane Centre - http://www.nhc.noaa.gov/
- Central Pacific Hurricane Centre - http://www.prh.noaa.gov/hnl/cphc/
- Japan Meteorological department - http://www.jma.go.jp/jma/indexe.html
- Bureau of Meteorology (Australia) - http://www.bom.gov.au/
- Cooperative Institute for Meteorological Satellite Studies - http://cimss.ssec.wisc.edu/tropic2/
- Fleet Numerical Meteorology and Oceanography Center from (FNMOC) US Navy Portal - http://www.usno.navy.mil/FNMOC/tropical-applications

Chapter 5

Cyclone Response

5.1 Introduction

Response measures are those which are taken instantly prior to, and following, a disaster aimed at limiting injuries, loss of life and damage to property and the environment and rescuing those who are affected or likely to be affected by disaster. Response process begins as soon as it becomes apparent that a disastrous event is imminent and lasts until the disaster is declared to be over.

Since response is conducted during periods of high stress in a highly time-constrained environment and with limited information and recourses (in majority of the cases), it is by far, the most complex of four functions of disaster management.

Response includes not only those activities that directly address the immediate needs, such as search and rescue, first aid and shelters, but also includes systems developed to coordinate and support such efforts. For effective response, all the stakeholders need to have a clear perception/vision about hazards, its consequences and actions that need to be taken in the event of it.

The Revenue Department of the State is the Nodal Department for controlling, monitoring and directing measures for organizing rescue, relief and rehabilitation. All other concerned line departments should extend full cooperation in all matters pertaining to the response management of the disaster whenever it occurs. The State EOC, ERCs and other control rooms at the State level as well as district control rooms should be activated with full strength. The State Government may publish a notification in the official gazette, declaring such area to be disaster-affected area under GSDMA Act (Section 32 (2) (a)).

5.2 Institutional Arrangements

Under this Plan, all disaster specific mechanisms would come under a single umbrella allowing for attending to cyclone. The existing arrangements therefore will be strengthened by defining this administrative arrangement. This arrangement proposes Chief Secretary as the head supported by the Relief Commissioner through the branch arrangements at the Emergency Operations Centres (EOC), both at State level and at the district levels.

Emergency Operations Centre

Emergency Operation Center (EOC) is a physical location and normally includes the space, facilities and protection necessary for communication, collaboration, coordination and emergency information management.

GSDMA is in process of developing a comprehensive network for effective disaster management which includes emergency communication, operation and response management. The network extends to State, District, Taluka and the local incidence point with a well defined control and

coordination structure supported with adequate and appropriate Information and Communication Technology (ICT) resources tools (as explained in Chapter 3).

The emergency network will work in all circumstances in synchronisation with the dynamics of "type of emergency". This network includes the State Emergency Operation Center (SEOC) at Gandhinagar with 26 District Emergency Operation Centers (DEOCs), 226 Taluka Emergency Operation Centers (TEOCs) and 5 Emergency response centres (ERCs).

The EOC will be the hub of activity in a disaster situation. This is however, not to underestimate its normal time activities. The EOC, the key organizational structure, is flexible to expand when demand increases, and contracts when the situation comes to normal.

Activation of EOC

The EOC is a nodal point for the overall coordination and control of relief work. In case of an L1 cyclone disaster the DEOC will be activated, in case of an L2 cyclone disaster SEOC will be activated along with the DEOC.

The primary function of an EOC

- Receive, monitor, and assess disaster information.
- Keep track of available resources.
- Monitor, assess, and track response units and resource requests.
- Manage resource deployment for optimal usage.
- Make policy decisions and proclaim local emergencies as needed.
- Provide direction and management for EOC operations through Standard Operations Guide (SOG), set priorities and establish strategies.
- Coordinate operations of all responding units, including law enforcement, fire, medical, logistics etc.
- Augment comprehensive emergency communication from EOC to any field operation when needed or appropriate.
- Maintain EOC security and access control.
- Provide recovery assistance in response to the situations and available resources
- Keep senior, subordinate and tenant officials informed.
- Keep local jurisdictions (Village/town/City, district and State) informed.
- Operate a message center to log and post all key disaster information.
- Develop and disseminate public information warnings and instructions.
- Provide information to the news media.
- Manage donation / aids.

Command & Control of EOCs

The EOC, its system, and procedures are designed in such a way that information can be promptly assessed and relayed to concerned parties. Immediate dissemination of information contributes to quick response and effective decision-making during emergency. Being the main coordination and control point for all disaster specific efforts, the EOC is the place of decision-making, under a unified command.

The EOC in normal circumstances will work under the supervision of Relief Commissioner at the State level and under the District Collector at the district level. It is the nerve centre to

support, co-ordinate and monitor the disaster management activities at the district level. In a disaster situation, the EOC will come under the direct control of Chief Secretary or any other person designated by the Chief Secretary as Chief of Operations.

Emergency Response Centres (ERCs):

In order to have speedy response in terms of post cyclone disaster search & rescue and relief GSDMA have established ERCs at five strategic locations viz. Gandhinagar, Vadodara, Rajkot, Surat and Gandhidham in the State. The ERCs will be equipped with trained manpower and State-of-the-art equipments to provide support to the District EOCs if the situation becomes worse and goes beyond their control. ERCs will do response related activities and increase the preparedness through capacity building.

Activation

ERC will get activated in case of;

- An event is or has the potential to becoming an L2 disaster
- Specialist rescue operation is required
- There are insufficient local emergency rescue resources

Command & Control

The ERC's will work under the direct control of Government of Gujarat (CoR) in response time and under representative Municipal Corporation/distrct collectorate in peace time.

In time of disaster response the ERCs will resort under the State Relief Commissioner. The ERC will be the instrument to the State Relief Commissioner to provide multi-hazard emergency response to L2 events.

District Collector/Municipal Commissioner will request the assistance from the ERC team as soon as they have established that district resources are insufficient to deal with the emergency situation at hand.

5.3 Alert Mechanism – Early Warning

Chapter 4 explains about the existing early waraning and dissemination mechanism in the State.

The occurrence of the cyclone will be communicated to

At State Level:

Governor, Chief Minister, Home Minister, State Cabinet, Guardian Minister of the district, and non-officials namely MPs and MLAs from the affected district.

At the Central Level:

- PMO, Cabinet Secretary, Secretary-Home and Defence, NDMA, MHA
- Maharashtra-Gujarat Area Command: HQ, Mumbai

The occurrence of the cyclone would essentially bring into force the following:

- The EOCs and ERCs will be put on full alert and expanded to include Branch arrangements, with responsibilities for specific tasks, depending on the extent of its impact. The number of branches to be activated will be decided by the Chief of Operations. i.e. the Relief Commissioner at the State level and respective District Collectors at the District level.
- All Branch Officers and Nodal Officers will work under the overall supervision and administrative control of the Chief of Operations. All the decisions taken in the SEOC have to be approved by the Chief of Operations.
- Immediate access to the cyclone affected sites through various means of communications such as mobiles, VSAT, wireless communication and hotline contact.

The EOCs and ERCs in its expanded form will continue to operate as long as the need for cyclone relief and operations continue and the longer term plans for rehabilitation are finalised. For managing long-term rehabilitation programmes, such as reconstruction of houses, infrastructure and other social amenities, the responsibilities will be that of respective line departments through a well structured R & R Programme. This will enable EOCs and ERCs to attend to other disaster situations, if the need be.

Time Frame	Task	Responsibility	Activity
Time = 0 – 72 Hours	Warning receipt and dissemination	Revenue Dept./ COR	o Report the generation of Cyclone in Arabian Sea/ Indian Ocean after getting information from IMD to following officials; - COR/DOR - Principal Secretary (Revenue) - Chief Executive Officer, GSDMA - Chief Secretary of the State - Members of Crisis Management Group - Hon. Chief Minister - Hon. Minister – Disaster Management - National Disaster Management Authority, GoI. - All concerned District Collectors as well as Control Rooms of the district/s likely to be affected as per preliminary warning of IMD. - Ministers and Secretaries of all line departments o Instruct all Collectors (of the districts likely to be affected) to activate DEOCs at full strength. o Alert all response teams in the State for deployment. o Remain in constant touch with control rooms at National & State Level. o Instruct and alert all HoDs of the key line departments to activate their departmental plan and SOPs for Cyclone response.

Time Frame	Task	Responsibility	Activity
	Interdepartmental Coordination	Revenue Dept./ COR GAD District Collector Municipal Commissioner All Line Departments GSDMA	o Instruct all State government officers and employees in the State to report to their respective Head for emergency duties (Only if the warning is of a level 2 disaster or as per the decision taken in the meeting of the Crisis Management Group headed by Chief Secretary). o Alert the District Collectors of districts not likely to be affected to be prepared for providing: - Additional manpower - Additional resources ▪ Machinery & Equipment ▪ Relief material to the districts likely to be affected
	Establishment of lines of Communication	Revenue Dept./ COR Information Dept. All Line Departments GSDMA District Collector Municipal Commissioner	o Activate alternative communication equipments i.e. satellite phones, HF/VHF sets, Ham radio, VSAT in State EOC and ERCs, DEOCs and Taluka control rooms o Establish communication links with ERCs and Search & Rescue Teams in all Municipal Corporations and alert them to be in stage of readiness. o Establish communication links with villages likely to be affected as per the contact details available in SDRN.
Time = 0 – 48 Hours	Review of situation and reporting	Revenue Dept./ COR	o Establish contact with IMD, CWC, ACWC, ISRO and the defense ministry of GoI for aerial / satellites imageries of the latest cyclone threat. o 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. o After reviewing the weather report and satellite images issue instructions and orders for emergency response to areas likely to be affected.
	Management of EOC, ERCs and Cyclone Response	Revenue Dept./ COR District Collector Municipal Commissioner	o Take over full command of SEOC and ERCs. o Instruct line departments to depute representatives at the SEOC and DEOCs. o Hold a meeting with leaders of task forces and entrust them their tasks.

Time Frame	Task	Responsibility	Activity
			o Ensure that Cyclone information is disseminated to all who are at danger. o Arrange emergency meeting with State Crisis Management Group to device a plan of action. o Arrange dissemination of information through various means of communication such as Radio, TV, Cable Network, SMS about Cyclone warning to districts/areas which are likely to be hit by Cyclonic Storm. o Alert following teams to remain in readiness: - Evacuation - Emergency Medical Services - Search and Rescue o Alert following emergency response forces to remain in readiness: - Fire & Emergency Services - NDRF - Village Disaster Management Teams - Police, Home Guards - State Reserve Police Force - Army (if required) - Air Force (if required)
		Port & Transport Dept.	Impose restriction on all transport activities heading towards coastal areas that are likely to be affected by cyclone.
	Cyclone response to coastal areas (likely to be affected)	Revenue Dept./ COR Port & Transport Dept. District Collector Municipal Commissioner	o 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. o Village wise data of safe sheltering for evacuation available on SDRN should be referred and the dist. Collectors/Village level officers should be contacted to know the status of the shelters with the capacity of the shelter and other available facilities at the site. o Make transport arrangement for mobilization of all emergency o Make arrangements for logistic support to all emergency response team.

Time Frame	Task	Responsibility	Activity
		Commissioner of Fisheries	o Ensure arrangements are in place to evacuate fishermen and salt workers if needed.
		Turism Dept.	o Ensure safety of tourists visiting beaches along the coastline
		Home Dept. District Collector	o Cordoning off coastal areas for restricting entries of rail or road traffic. o Ensure law and order is maintained in areas likely to be affected
		Concerned Line dept.	o Ensure that all critical activities (mainly industrial production) in areas likely to be affected are shutdown.
		Education Dept.	o Ensure that the schools and colleges are closed in areas likely to be affected by Cyclone and associated hazards.
		Information Dept. District Collector	o Ensure dissemination of information to remote areas by local means. o Ensure that local help lines are opened and effectively managed for public information, guidance and rumor control. o Ensure that the information to public and media about the progress of cyclone at periodic intervals is released.
		Health Dept.	o Health Department to activate their Departmental Cyclone Disaster Management Plan and Departmental SOPs for Management of casualties
Time = 0 – 24 Hours	Review of situation and reporting	Revenue Dept./ COR District Collector Information dept. All Line dept.	o Establish contact with IMD, CWC, ACWC, ISRO and the defense ministry of GoI for aerial / satellites imageries of the latest Cyclone threat. o After reviewing the weather report and satellite images issue instructions and orders for emergency response to areas likely to be affected.
			o Review and monitor following activities: - Evacuation of people from coastal areas likely to be affected - Positioning of Search and Rescue Teams

Time Frame	Task	Responsibility	Activity
			- Positioning of mobile communication units - Positioning of quick medical response teams - Mobilization of restoration teams of respective departments - Requirement of armed forces in rescue and relief operations - Dissemination of information to the vulnerable areas - All preparedness measures to be taken by various authorities o Keep in touch with National, District and Taluka Control Rooms o Release information at appropriate time to media and public regarding response measures organized by the Government.
	Emergency Response Management	Revenue Dept./ COR District Collector Home Dept.	If reports regarding striking of Cyclone are confirmed by IMD and other sources, start the emergency response and relief operations.
			o Divert the emergency services to areas likely to be affected as per the warning issued by IMD. o Inform the public residing in areas likely to be affected to evacuate through various means such as SMS, AIR, FM Radio, Doordarshan, etc. o Start evacuation from the likely affected areas through Police support, if necessary
		GMB Coast Guard	To account for the exact number of fishermen in the sea and fishermen that have already reached the shore
	Emergency Relief Management	Revenue Dept./ COR	Ensure that the Relief Management work planned in the areas likely to be affected by the Cyclone are well organized.
		Revenue Dept./ COR Civil Supply Dept. Dist. Collectors Water Supply Dept. GEB Health Dept	o Ensure that the arrangement for basic amenities(shown below) at evacuation/relief centres are made by the respective departments: - Drinking water - Food - Clothing - Sanitation and hygiene, - Lighting o Medicines and other Health Care

Time Frame	Task	Responsibility	Activity
		Revenue Dept./ COR	o Inform following agencies to be in a state of readiness for assisting in the Cyclone response measures (if required): - Public sector agencies - Private sector agencies - NGOs - CBOs - Volunteer Organizations o Request for help (if needed) to MHA/National Disaster Management Authority
		Information dept.	Make necessary arrangements for public information/guidance, public opinion and rumor control.
		Transport Dept. Dist. Collectors Home Dept.	Restriction may be imposed for transportation in threatened areas.
Time = 0 Hours	Disaster Declaration	Revenue Dept./ COR Dist. Collectors	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)
	Preliminary assessment, deployment of emergency response teams and dissemination of information	Dist. Collectors	o Dist. Collector/s should send teams to the affected areas to take stalk of the effects of cyclone and associated rain. o District Collector/s should send sector wise situation reports to: - State EOC/COR - GSDMA
		Revenue Dept./ COR Dist. Collectors Municipal Commissioner	o Deployment of following teams to cyclone affected areas: - Emergency Communication Teams - Emergency Medical Services Teams - Search and Rescue Teams (With Equipments) - Preliminary Damage Assessment Teams - Need Assessment Teams

Time Frame	Task	Responsibility	Activity
		Revenue Dept./ COR Dist. Collectors Information Department	o Establish communication link with affected districts by activating alternate communication equipments such as Satellite Phones, HF/VHF Sets, Ham Radio, V Set etc., in State/District EOCs and Taluka Control Rooms. o Arrange dissemination of information about occurrence of cyclone and areas that are affected by it to Media & Public.
Time = 0 + 24 Hours	Mobilization and Deployment	Revenue Dept./ COR Dist. Collectors Municipal Commissioner	o Remain in constant touch with IMD for updates on weather forecast for the coming hours and plan accordingly. o Immediate mobilization of following units/teams to areas affected by Cyclone and associated rains: - S & R Teams of Fire and Emergency Services - Quick Medical Response Teams - Quick Damage & Loss Assessment Teams - Quick Need Assessment Teams - Road Clearance Teams - Teams for disposal of dead bodies - Teams for disposal of carcasses - Teams for debris clearance (if any) - Teams for maintaining Law & Order in the affected areas - Arrange for S & R teams of Air Force (If required).
	Measures for quick and organized response	Revenue Dept./ COR Dist. Collectors Municipal Commissioner Line Dept.	SEOC, ERCs, the Collectors of the affected District/s should ensure that the following response activities are carried out immediately:
	i. Clearance of access roads to reach at the sites of affected areas	R & B Dept. Transport Dept., Railways COR/DOR	o To survey the access roads/routes leading to the affected areas and manage traffic for mobilization of equipments, machinery and volunteers. o Identify alternate roads/routes for evacuation.

Time Frame	Task	Responsibility	Activity
			o Undertake repairing/restoration of damaged roads leading to the affected areas. o Identify and declare unsafe buildings/structures in cyclone affected areas. o Evacuate people from unsafe buildings/structures and shift them to relief camps/sites. o Divert/stop transport activities (Rail + Road) heading towards cyclone affected areas.
	ii. Necessary Arrangements at evacuation/ relief centres	Revenue Dept./COR Civil Supply Dept. Dist.Collectors Municipal Commissioner Water Supply Dept. Health Dept., GEB Power & Energy Dept. GWSSB Local Authorities Home Dept.	o To ensure that necessary arrangements at evacuation/relief centers is made with sufficient availability of: - Food, - Water, - Blankets/Clothing - Medicines - Lighting - Sanitation and hygiene etc. o 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. o To ensure that law and order is maintained at evacuation/relief centers and in the affected areas as well.
	iii. Safety of fishermen and salt workers	Revenue Dept./COR GMB Fisheries Dept. Tourism Dept. Industrial Dept.	o Immediate actions to be taken for safety of fishermen, salt workers and visitors at cyclone affected coastal areas. o 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
	iv. Ensure immediate health and minimization of outbreak of disease	Health Dept. Transport Dept.	o To establish camp hospitals near the affected areas. o To make transportation arrangements to shift seriously injured persons to nearest- - Camp Hospitals, - Taluka and District Hospitals, - Regional and State Hospitals

Time Frame	Task	Responsibility	Activity
			o Ensure that the hospitals are well prepared to deal with seriously injured persons. o Ascertain 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. o Take sanitation and epidemic control measures for preventing any water borne disease. o Keep adequate stock of essential medicines, first-aid etc. at taluka/district hospitals o Take steps to purify drinking water sources o If required, take the help of doctors/paramedics from the list of doctors/paramedics available at the taluka/district level for immediate medical assistance.
		Animal Husbandry Dept.	o Assess need for fodder if required. o Keep ready teams for carcass disposal (if required).
	v. Information to public and media	Information Dept. COR/DOR	o Establish Media/Press Centre for media management and information dissemination o Ensure that the information to media/general public about the response of the State Government is released in an organized manner. o Organize media briefing twice a day at pre-determined intervals.
	vi. Other important work related to immediate response	COR/DOR	o Prepare quick need assessment report for planning of relief operation. o Additional assistance may be asked for emergency response/relief from GoI-NDMA (If needed).
		COR/ In-charge of SEOC	o Prepare situation report and circulate it twice a day in the morning and evening to key government functionaries. o Maintain constant touch with National, District and Taluka EOCs and other control rooms.

Time Frame	Task	Responsibility	Activity
			o Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly. o Conduct arial survey of affected areas for taking a stalk
		Revenue Dept. Collectors/COR/DOR	o Activate evacuation & relief centers according to needs/situation. o Maintain record of persons admitted at evacuation/relief centres
Time = 0 + 24 to 48 Hours	Review of situation and reporting	COR	o Establish contact with IMD, CWC, ACWC, ISRO and the defense ministry of GoI for aerial / satellites imageries about further weather condition and plan accordingly.
	Restoration of critical infrastructure/essential services	COR/DOR Line Depts. Dist. Collectors Municipal Commissioner	o 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. o Ensure that key administrative and lifeline buildings are brought back to operation quickly. o Designate and deploy senior officers (as per the need) to worst affected area/s to oversee rescue/relief operation. o Ensure following primary necessities are restored: - Power - Water - Telecommunication - Roads & Bridges
	Disposal of Dead bodies	COR/DOR Home Dept., Health Dept., Local Authorities Dist. Collectors Municipal Commissioner	o Ensure following procedure is followed before disposal/handing over of dead bodies: - Photographs of the dead bodies are taken, - Identification of the dead bodies is done, - Post Mortem where ever necessary and possible is carried out, - Handing over dead bodies of persons known/identified to their relatives, - Disposal of unclaimed and unidentified

Time Frame	Task	Responsibility	Activity
		Animal Husbandry Dept. Local Authorities Health dept.	o Animal Husbandry Department to ensure medical aid to cattle that are injured. o Disposal of animal carcasses with the help of local bodies
	Public Information and Media Management	COR/DOR Information Dept. Dist. Collector Municipal Commissioner	o Ensure that the information about progress of rescue and relief is provided to media/public in an organized manner at least twice a day. o Establish help lines for facilitating communication between the victims and their relatives residing outside the affected area/s. o Establish Information Centers at strategic locations for providing information about persons evacuated to the relief centres/hospitals.
	Miscellaneous rescue and relief works	COR/DOR Dist. Collector Municipal Commissioner	o Assess the situation and take appropriate action to accelerate the Search & Rescue Operations. o Depute additional officers and supporting staff to cyclone affected areas from non-affected areas (if required) to accelerate the rescue and relief operations.
		COR/DOR, Civil Supply Dept.	Ensure that the relief assistance received from outside shuld be stored and sent for distribution to cyclone affected areas according to their need and proper accounts are maintained about both receipt and distribution.
		Revenue Dept. Civil Supply Dept.,	District Collector may oversee the functioning of relief centres and ensure adequate supply of relief materials.
Time = 0 + 48 to 96 Hours	Continuous rescue and relief works	COR/ DOR Dist. Collectors Municipal Commissioner Finance Dept. Civil Supply Dept.	o Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly. o Arrange for procurement of additional relief material required for relief operations (on the basis of need assessment). o Mobilize additional relief material required for relief operations. o Maintain constant touch with State & Districts EOCs.

Time Frame	Task	Responsibility	Activity
		Revenue Dept. Health Dept. Transport Dept.	o Arrangement for transportation of injured from field hospital to base hospital. o Arrangement for transport of dead bodies to their native places.
		COR/DOR Dist. Collectors Municipal Commissioner Line Depts.	Ensure maintenance of record, timely reporting and information management.
Time = 0 + 96 to 168 Hours	Continuous rescue and relief works	Revenue Dept. COR/DOR	o Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly. o Review the restoration of all the public and essential in cyclone affected areas. o Review and follow-up all necessary arrangements for emergency response & relief in the affected area/s. o Ensure relief disbursement, allotment of funds and grants to line department and district collectors for organizing emergency response, relief and evacuation arrangements. o On receiving the message from IMD about degradation of cyclone, inform the concern dist. Collector.
		COR/DOR Dist. Collectors R & B Dept.	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 house.
		COR/DOR Dist. Collectors Home Dept.	After receiving the massage of de-warning, ensure that people are moved back safely to their houses.

Chapter 6

Plan Maintenance

6.1 Introduction

Plan maintenance is a dynamic process of updating the plan on a periodic basis. The back-bone of maintaining the plan is carrying out mock drills and updating the plan based on the lesson learnt as an outcome of the mock exercise which consists of identifying the gaps and putting in place a system to fill the same.

6.2 Plan Testing

The Commissioner of Relief, Revenue Dept. shall prepare, review and update State level Cyclone P&R plan as provided for in the GSDMA Act (Section 22 (1) (C)). He 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 COR every year:

- Critical analysis of the outcome of exercises & mock drills as part of plan testing.
- Incorporation of lessons learnt in the updated plan as an outcome of mock exercises through identification of gaps and measures to fill them.

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 lesson learnt, the COR should send a copy of the revised and updated plan to the following officials:

- Chief Secretary, Government of Gujarat
- Chief Executive Officer, Gujarat State Disaster Management Authority
- Principal Secretary, Revenue Dept
- Head of all line Depts.
- State EOC
- District EOCs
- ERCs
- IMD
- CWC/ACWC

The main objectives of plan testing are to:

- Determine the feasibility and compatibility of back up facilities and procedures
- Identity areas in the plan that need modification.
- Identify training needs of key stakeholders.
- Assess the ability of the organization/department to respond to cyclone threats.

All the departments, which have specific roles and responsibilities in Cyclone P&R plan, 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.

6.3 Debrief and Evaluation-Mock Drills

- After the mock exercise debriefing and evaluation is very important. It is of critical importance that these insights are collected from participants (who participated in the exercise) and used to modify the plan.
- Hot 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.

6.4 Review / Updation of Plan

- The Cyclone Preparedness and Response Plan should be reviewed and updated regularly every year before the monsoon season, based on inputs as under:
  - Drills and Rehearsals
  - Recommendations from all Depts. in their Annual DM Report
  - Lessons learnt from Cyclone in other states and countries
  - Directions from Ministry of Home Affairs, National Disaster Management Authority, Government of India, 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 Cyclone P & R Plan for further improving the capability to deal with future Cyclone disaster.

Chapter 7

Plan Budget

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

State Budget

The Authority, submit to the State Government for approval a budget in the prescribed form for the next financial year, showing the estimated receipts and expenditure, and the sums which would be required from the State Government during that financial year.

As per the provisions of The Gujarat State Disaster Management Act, 2003 the Authority may accept grants, subventions, donations and gifts from the Central or State Government or a local authority or any individual or body, whether incorporated or not.

State Disaster Response Fund

To carry out Emergency Response & Relief activities after any disaster the State Disaster Response Fund is made available to Commissioner of Relief, Revenue Department under which the Central Government will share 75% and the Govt. of Gujarat has to share 25% as per the recommendation of 13th Finance Commission. The available SDRF for Gujarat for year 2010 – 2015 is Rs. 2774.54 crore out of which Central share will be Rs 2080.90 crore and State share will be Rs. 693.64 crore.

National Disaster Response Fund

Where the calamity is of such proportion that the funds available in the State Disaster Response Funds are not sufficient for provision of relief, the State seeks assistance from the National National disaster Response Fund - a fund created at the Central Government level. When such requests are received, the requirements are assessed by a team from the Central Government and thereafter the assessed requirements are cleared by a High Level Committee of Central Government. In brief, the institutional arrangements for response and relief are well established and have proved to be robust and effective.

13th Finance Commission Grant

13th Finance Commission has observed that effective disaster response requires trained manpower to deal with complex situations. Therefore it is necessary to continuously undertake measures to build capacity amongst those responsible for disaster response and augmenting public awareness. Accordingly, 13th Finance Commission has recommended a grant-in-aid of Rs. 30 crore for Gujarat for building capacity within the administrative machinery for better handling of disaster response and for preparation of district and state level disaster management plans. This grant will be released in five equal annual instalments during the years 2010-15.

Grant in aid

Further State may receive a grant in aid from Central Govt., World Bank and/or other departments/agencies to carry out specific projects/schemes related to disaster management/ mitigation/ capacity building.

Partnerships

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

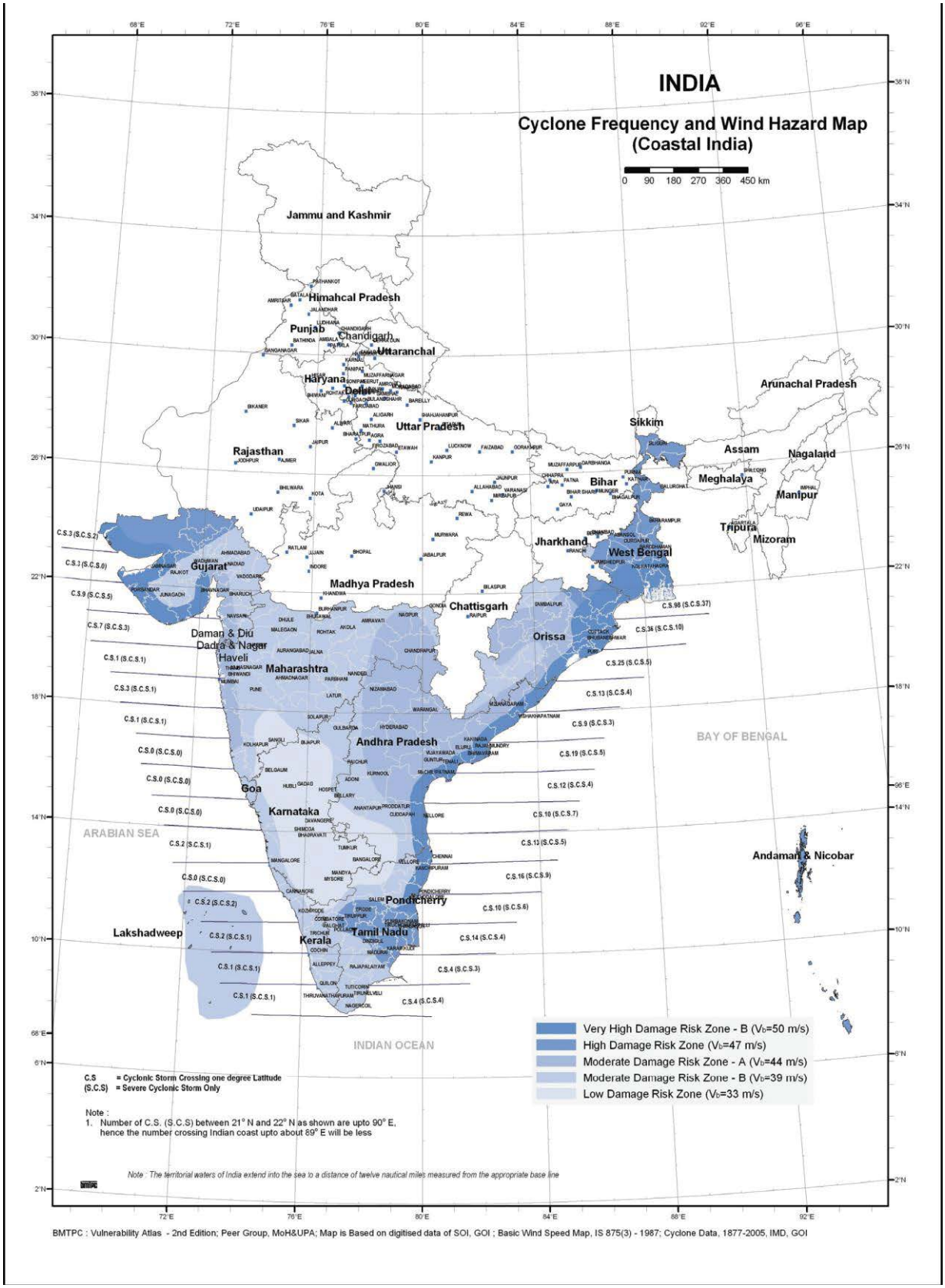
Loan

Authority may borrow money from the open market with the previous approval of State government to carry out disaster management functions as described in DM Act 2003.

Annexes

Annexure 1

Cyclone Frequency and Wind Hazard Map of India



BMTPC : Vulnerability Atlas - 2nd Edition; Peer Group, MoH&UPA; Map is Based on digitised data of SOI, GOI ; Basic Wind Speed Map, IS 875(3) - 1987; Cyclone Data, 1877-2005, IMD, GOI

Annexure 2

Vulnerable villages due to cyclone winds

(Peak gust Velocity ≥45 m/s 100 year return)

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1	Amreli	Kunkavav Vadia	Devalki	49	Medium
2	Amreli	Kunkavav Vadia	Megha-pipaliya	48	Medium
3	Amreli	Kunkavav Vadia	Sanali	48	Medium
4	Amreli	Kunkavav Vadia	Barvala Baval	49	Medium
5	Amreli	Kunkavav Vadia	Bantwa-Devli	49	Medium
6	Amreli	Kunkavav Vadia	Bhukhli-Santhali	49	Medium
7	Amreli	Kunkavav Vadia	Targhari	48	Medium
8	Amreli	Kunkavav Vadia	Khajuri	48	Medium
9	Amreli	Kunkavav Vadia	Talali	48	Medium
10	Amreli	Kunkavav Vadia	Khajuri-Pipaliya	48	Medium
11	Amreli	Kunkavav Vadia	Khadkhad	49	Medium
12	Amreli	Kunkavav Vadia	Vadia	49	Medium
13	Amreli	Kunkavav Vadia	Anida	48	Medium
14	Amreli	Kunkavav Vadia	Ujala-Mota	48	Medium
15	Amreli	Kunkavav Vadia	Surya Pratapgadh	48	Medium
16	Amreli	Kunkavav Vadia	Morvada	49	Medium
17	Amreli	Kunkavav Vadia	Khakhariya	49	Medium
18	Amreli	Kunkavav Vadia	Kunkavav Moti	48	Medium
19	Amreli	Kunkavav Vadia	Khijadiya Hanuman	50	Medium
20	Amreli	Kunkavav Vadia	Pipaliya Dhundhiya	49	Medium
21	Amreli	Kunkavav Vadia	Arjansukh	49	Medium
22	Amreli	Kunkavav Vadia	Khijadiya Khan	49	Medium
23	Amreli	Kunkavav Vadia	Tori	49	Medium
24	Amreli	Kunkavav Vadia	Najapur	49	Medium
25	Amreli	Kunkavav Vadia	Rampur	49	Medium
26	Amreli	Bgasara	Vaghaniya Nava	48	Medium
27	Amreli	Bgasara	Vaghaniya Juna	48	Medium
28	Amreli	Bgasara	Pithadiya	49	Medium
29	Amreli	Bgasara	Balapur	49	Medium
30	Amreli	Amreli	Kamigadh	48	Medium
31	Amreli	Amreli	Khijadiya Khari	48	Medium
32	Amreli	Bgasara	Mavjinjva	49	Medium
33	Amreli	Bgasara	Hadala	49	Medium
34	Amreli	Amreli	Kerala	48	Medium
35	Amreli	Amreli	Rajasthali	54	High
36	Amreli	Bgasara	Khari	48	Medium
37	Amreli	Bgasara	Haliyad Juni	50	Medium
38	Amreli	Bgasara	Charan pipali	48	Medium
39	Amreli	Bgasara	Deri Pipaliya	49	Medium
40	Amreli	Bgasara	Pipaliya Nava	49	Medium
41	Amreli	Bgasara	Haliyad Navi	50	Medium
42	Amreli	Amreli	Mandavda Mota	48	Medium
43	Amreli	Bgasara	Jethiavadar	48	Medium
44	Amreli	Bgasara	Ghantiyan	50	Medium
45	Amreli	Bgasara	Adpur	49	Medium
46	Amreli	Bgasara	Munjiasar Mota	49	Medium

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
47	Amreli	Bgasara	Sanaliya	48	Medium
48	Amreli	Bgasara	Jamka	48	Medium
49	Amreli	Bgasara	Munjiasar Nana	50	Medium
50	Amreli	Bgasara	Manekvada	50	Medium
51	Amreli	Bgasara	Shilana	48	Medium
52	Amreli	Bgasara	Rafala	50	Medium
53	Amreli	Bgasara	Khijadiya	48	Medium
54	Amreli	Bgasara	Hamapur	49	Medium
55	Amreli	Bgasara	Janjariya Nava	49	Medium
56	Amreli	Bgasara	Halariya	48	Medium
57	Amreli	Bgasara	Samadhiyala	49	Medium
58	Amreli	Bgasara	Hulariya	48	Medium
59	Amreli	Dhari	Gopalgram	48	Medium
60	Amreli	Bgasara	Janjariya Juna	49	Medium
61	Amreli	Dhari	Padargadh	49	Medium
62	Amreli	Savar Kundla	Kunkavav	46	Low
63	Amreli	Bgasara	Kagdadi	49	Medium
64	Amreli	Dhari	Dahida	48	Medium
65	Amreli	Bgasara	Kadaya	50	Medium
66	Amreli	Dhari	Ambardi	49	Medium
67	Amreli	Dhari	Bhayavadar	49	Medium
68	Amreli	Dhari	Manavav	48	Medium
69	Amreli	Dhari	Bharad	49	Medium
70	Amreli	Dhari	Monvel	50	Medium
71	Amreli	Dhari	Parbadi	48	Medium
72	Amreli	Dhari	Bhader	50	Medium
73	Amreli	Dhari	Morzar	48	Medium
74	Amreli	Dhari	Dangavadar	49	Medium
75	Amreli	Dhari	Zar	48	Medium
76	Amreli	Dhari	Hudli	48	Medium
77	Amreli	Dhari	Dhari	49	Medium
78	Amreli	Savar Kundla	Mevasa	46	Low
79	Amreli	Dhari	Kotha Pipariya	49	Medium
80	Amreli	Dhari	Garamali Nani	48	Medium
81	Amreli	Dhari	Khicha	49	Medium
82	Amreli	Dhari	Chhatradiya	49	Medium
83	Amreli	Dhari	Kaner	48	Medium
84	Amreli	Dhari	Kathrota	50	Medium
85	Amreli	Dhari	Vaghvadi	48	Medium
86	Amreli	Dhari	Mashika	50	Medium
87	Amreli	Dhari	Rampur	48	Medium
88	Amreli	Dhari	Fategadh	49	Medium
89	Amreli	Dhari	Devla	49	Medium
90	Amreli	Dhari	Lakhapadar	48	Medium
91	Amreli	Dhari	Shivad	50	Medium
92	Amreli	Dhari	Nagadhra	48	Medium
93	Amreli	Dhari	Bordi	50	Medium
94	Amreli	Dhari	Gigasan	50	Medium
95	Amreli	Dhari	Sarasiya	49	Medium
96	Amreli	Dhari	Kubda	49	Medium
97	Amreli	Khambha	Samadhiyala Mota	48	Medium

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
98	Amreli	Dhari	Amaratpur	49	Medium
99	Amreli	Dhari	Madhupur	48	Medium
100	Amreli	Dhari	Virpur	48	Medium
101	Amreli	Dhari	Dabhali	49	Medium
102	Amreli	Dhari	Govindpur	50	Medium
103	Amreli	Dhari	Paniya Dungri	51	High
104	Amreli	Dhari	Mithapur Nakki	50	Medium
105	Amreli	Dhari	Jira	49	Medium
106	Amreli	Dhari	Chanchai	51	High
107	Amreli	Dhari	Dalkhaniya	50	Medium
108	Amreli	Khambha	Anida	48	Medium
109	Amreli	Dhari	Gadhiya	49	Medium
110	Amreli	Dhari	Sakhpur	50	Medium
111	Amreli	Dhari	Kotda	50	Medium
112	Amreli	Khambha	Ingorala	48	Medium
113	Amreli	Dhari	Trambakpur	49	Medium
114	Amreli	Dhari	Hirava	49	Medium
115	Amreli	Dhari	Shemardi	51	High
116	Amreli	Dhari	Krangsa	50	Medium
117	Amreli	Khambha	Bhad	48	Medium
118	Amreli	Khambha	Dhari Nani	49	Medium
119	Amreli	Dhari	Karmdadi	50	Medium
120	Amreli	Khambha	Visavadar	49	Medium
121	Amreli	Dhari	Khisri	49	Medium
122	Amreli	Khambha	Nanudi	49	Medium
123	Amreli	Dhari	Rajsthali	49	Medium
124	Amreli	Dhari	Patla	49	Medium
125	Amreli	Dhari	Jaljivadi	50	Medium
126	Amreli	Dhari	Dudhala	50	Medium
127	Amreli	Khambha	Umariya	49	Medium
128	Amreli	Khambha	Lasa	49	Medium
129	Amreli	Dhari	Tarsingada	49	Medium
130	Amreli	Khambha	Tantaniya	49	Medium
131	Amreli	Dhari	Gadhiya Chavand	50	Medium
132	Amreli	Khambha	Khambha	49	Medium
133	Amreli	Khambha	Dadhiyali	48	Medium
134	Amreli	Khambha	Dhavadiya	49	Medium
135	Amreli	Khambha	Pipalava	49	Medium
136	Amreli	Khambha	Gidardi	49	Medium
137	Amreli	Khambha	Bhaniya	49	Medium
138	Amreli	Khambha	Kodiya	48	Medium
139	Amreli	Khambha	Sarakadiya	48	Medium
140	Amreli	Khambha	Sarakadiya	48	Medium
141	Amreli	Khambha	Bhavardi	49	Medium
142	Amreli	Khambha	Khadadhar	49	Medium
143	Amreli	Khambha	Pati	48	Medium
144	Amreli	Khambha	Ranigpara	49	Medium
145	Amreli	Khambha	Raydi	48	Medium
146	Amreli	Khambha	Borala	49	Medium
147	Amreli	Khambha	Nesdi No-2	48	Medium
148	Amreli	Khambha	Nava Malaknes	49	Medium

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
149	Amreli	Khambha	Babarpur	49	Medium
150	Amreli	Rajula	Rajparda	48	Medium
151	Amreli	Rajula	Sajanavav	48	Medium
152	Amreli	Khambha	Dedan	49	Medium
153	Amreli	Rajula	Kotdi	48	Medium
154	Amreli	Khambha	Samadhiyala No-2	48	Medium
155	Amreli	Rajula	Rabhda	48	Medium
156	Amreli	Rajula	Zampodar	48	Medium
157	Amreli	Rajula	Hadmatiya	48	Medium
158	Amreli	Khambha	Chakrava	49	Medium
159	Amreli	Khambha	Hanumanpur	49	Medium
160	Amreli	Khambha	Kantala	49	Medium
161	Amreli	Rajula	Nesdi No -1	48	Medium
162	Amreli	Rajula	Dantardi	48	Medium
163	Amreli	Rajula	Jholapar	48	Medium
164	Amreli	Rajula	Devka	48	Medium
165	Amreli	Khambha	Juna Malaknes	49	Medium
166	Amreli	Khambha	Talda	49	Medium
167	Amreli	Khambha	Jivapar	49	Medium
168	Amreli	Rajula	Khambhaliya	48	Medium
169	Amreli	Rajula	Kathivadar	48	Medium
170	Amreli	Rajula	Visaliya	48	Medium
171	Amreli	Rajula	Majdar	48	Medium
172	Amreli	Khambha	Katarpara	48	Medium
173	Amreli	Rajula	Khakhbai	48	Medium
174	Amreli	Khambha	Munjiyasar	49	Medium
175	Amreli	Rajula	Katar	49	Medium
176	Amreli	Rajula	Samadhiyala No-1	48	Medium
177	Amreli	Rajula	Kadiyali	48	Medium
178	Amreli	Khambha	Trakuda	49	Medium
179	Amreli	Khambha	Dadli	49	Medium
180	Amreli	Rajula	Pipavav	48	Medium
181	Amreli	Khambha	Dhundhavana	50	Medium
182	Amreli	Rajula	Ningala No-1	48	Medium
183	Amreli	Khambha	Vangadhara	49	Medium
184	Amreli	Khambha	Gorana	49	Medium
185	Amreli	Khambha	Jamka	49	Medium
186	Amreli	Khambha	Pachapachiya	50	Medium
187	Amreli	Rajula	Barpatoli	49	Medium
188	Amreli	Rajula	Patva	48	Medium
189	Amreli	Rajula	Hindorna	49	Medium
190	Amreli	Rajula	Chhatadiya	48	Medium
191	Amreli	Khambha	Ningala No-2	49	Medium
192	Amreli	Khambha	Bhundani	49	Medium
193	Amreli	Rajula	Bherai	49	Medium
194	Amreli	Khambha	Salva	50	Medium
195	Amreli	Rajula	Chanch	49	Medium
196	Amreli	Khambha	Ambaliyala	50	Medium
197	Amreli	Rajula	Victar	49	Medium
198	Amreli	Rajula	khera	48	Medium
199	Amreli	Rajula	Vad	49	Medium

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
200	Amreli	Jafrabad	Sarovarda	49	Medium
201	Amreli	Rajula	Bhachadar	49	Medium
202	Amreli	Jafrabad	Fachariya	49	Medium
203	Amreli	Khambha	Pipariya	50	Medium
204	Amreli	Khambha	Rabarika	50	Medium
205	Amreli	Khambha	Barman Mota	49	Medium
206	Amreli	Jafrabad	Lor	49	Medium
207	Amreli	Khambha	Barman Nana	49	Medium
208	Amreli	Jafrabad	Lothpur	49	Medium
209	Amreli	Jafrabad	Kanthariya Koli	49	Medium
210	Amreli	Jafrabad	Kagvadar	49	Medium
211	Amreli	Jafrabad	Bhatvadar	49	Medium
212	Amreli	Jafrabad	Kanthariya Khalsa	49	Medium
213	Amreli	Jafrabad	Pati Mansa (Nana)	50	Medium
214	Amreli	Jafrabad	Pichhadi	49	Medium
215	Amreli	Rajula	Dharano Nes	49	Medium
216	Amreli	Rajula	Uchaiya	49	Medium
217	Amreli	Jafrabad	Balanivav	49	Medium
218	Amreli	Jafrabad	Lunsapur	49	Medium
219	Amreli	Jafrabad	Ebhalvad	49	Medium
220	Amreli	Rajula	Rampara No-2	49	Medium
221	Amreli	Jafrabad	Mota Mansa	50	Medium
222	Amreli	Rajula	Chotra	49	Medium
223	Amreli	Jafrabad	Jikadri Navi	49	Medium
224	Amreli	Jafrabad	Mithapur	49	Medium
225	Amreli	Jafrabad	Hemal	50	Medium
226	Amreli	Jafrabad	Dudhala	49	Medium
227	Amreli	Jafrabad	Jikadri Juni	49	Medium
228	Amreli	Jafrabad	Timbi	50	Medium
229	Amreli	Jafrabad	Nage	49	Medium
230	Amreli	Jafrabad	Mitiyala	49	Medium
231	Amreli	Jafrabad	Chhelana	50	Medium
232	Amreli	Jafrabad	Vandh	49	Medium
233	Amreli	Jafrabad	Dholadri	49	Medium
234	Amreli	Jafrabad	Shiyalbet	49	Medium
235	Amreli	Jafrabad	Bhada	50	Medium
236	Amreli	Jafrabad	Sokhda	50	Medium
237	Amreli	Jafrabad	Kadiyali	50	Medium
238	Amreli	Jafrabad	Ghenspur	50	Medium
239	Amreli	Jafrabad	Sakariya Mota	50	Medium
240	Amreli	Jafrabad	Babarkot	49	Medium
241	Amreli	Jafrabad	Sakariya Nana	50	Medium
242	Amreli	Jafrabad	Bhankodar	49	Medium
243	Amreli	Jafrabad	Varahsvarup	49	Medium
244	Amreli	Jafrabad	Vadli	50	Medium
245	Amreli	Jafrabad	Chitrasar	50	Medium
246	Amreli	Jafrabad	Vadhera	50	Medium
247	Amreli	Jafrabad	Balana	50	Medium
248	Amreli	Jafrabad	Kerala	50	Medium
249	Amreli	Jafrabad	Rohisa	50	Medium
250	Amreli	Jafrabad	Dharabandar	51	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
251	Bhavnagar	Palitana	Gandhol	45	Low
252	Bhavnagar	Mahuva(B)	Kalmodar	45	Low
253	Bhavnagar	Mahuva(B)	Mota Malpara	46	Low
254	Bhavnagar	Mahuva(B)	Khadsaliya	46	Low
255	Bhavnagar	Mahuva(B)	Anganka	46	Low
256	Bhavnagar	Mahuva(B)	Modaliya	47	Low
257	Bhavnagar	Mahuva(B)	Nana Pipalva	48	Medium
258	Bhavnagar	Mahuva(B)	Vangar	48	Medium
259	Bhavnagar	Mahuva(B)	Padhiyarka	48	Medium
260	Bhavnagar	Mahuva(B)	Doliya	48	Medium
261	Devbhumi Dwarka	Khambhalia	Vadinar	48	Medium
262	Devbhumi Dwarka	Ohkamandal	Positra	55	High
263	Devbhumi Dwarka	Ohkamandal	Hamusar	56	Very High
264	Devbhumi Dwarka	Ohkamandal	Shamlasar	56	Very High
265	Devbhumi Dwarka	Ohkamandal	Padli	56	Very High
266	Devbhumi Dwarka	Khambhalia	Ajad Tapu	53	High
267	Devbhumi Dwarka	Khambhalia	Bharana	48	Medium
268	Devbhumi Dwarka	Khambhalia	Mota Ambla	48	Medium
269	Devbhumi Dwarka	Ohkamandal	Mojap	56	Very High
270	Devbhumi Dwarka	Ohkamandal	Goriyali	56	Very High
271	Devbhumi Dwarka	Ohkamandal	Rajpura	56	Very High
272	Devbhumi Dwarka	Ohkamandal	Gadhechi	56	Very High
273	Devbhumi Dwarka	Khambhalia	Parodiya	49	Medium
274	Devbhumi Dwarka	Ohkamandal	Batisa	56	Very High
275	Devbhumi Dwarka	Khambhalia	Kalawad Simani	50	Medium
276	Devbhumi Dwarka	Ohkamandal	Mulvel	56	Very High
277	Devbhumi Dwarka	Ohkamandal	Vasai	57	Very High
278	Devbhumi Dwarka	Khambhalia	Chudeshvar	50	Medium
279	Devbhumi Dwarka	Ohkamandal	Nageshvar	56	Very High
280	Devbhumi Dwarka	Khambhalia	Nana Ambla	48	Medium
281	Devbhumi Dwarka	Khambhalia	Timbdi	48	Medium
282	Devbhumi Dwarka	Ohkamandal	Kalyanpur	56	Very High
283	Devbhumi Dwarka	Khambhalia	Nana Mandha	49	Medium
284	Devbhumi Dwarka	Khambhalia	Kajurda	49	Medium
285	Devbhumi Dwarka	Khambhalia	Vachlabara	50	Medium
286	Devbhumi Dwarka	Khambhalia	Mota Mandha	49	Medium
287	Devbhumi Dwarka	Khambhalia	Goinj	50	Medium
288	Devbhumi Dwarka	Ohkamandal	Varavala	57	Very High
289	Devbhumi Dwarka	Khambhalia	Sumra Tardhari	49	Medium
290	Devbhumi Dwarka	Ohkamandal	Dhrasan Vel	57	Very High
291	Devbhumi Dwarka	Khambhalia	Vadaliya Sinhan	49	Medium
292	Devbhumi Dwarka	Khambhalia	Sodasala	49	Medium
293	Devbhumi Dwarka	Ohkamandal	Aniari	56	Very High
294	Devbhumi Dwarka	Ohkamandal	Tobar	57	Very High
295	Devbhumi Dwarka	Khambhalia	Beh	51	High
296	Devbhumi Dwarka	Khambhalia	Kotha Visotri	49	Medium
297	Devbhumi Dwarka	Khambhalia	Nana Ashota	52	High
298	Devbhumi Dwarka	Khambhalia	Danta	49	Medium
299	Devbhumi Dwarka	Ohkamandal	Mota Bhavda	56	Very High
300	Devbhumi Dwarka	Khambhalia	Sakhpar	49	Medium

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
301	Devbhumi Dwarka	Ohkamandal	Tupani	56	Very High
302	Devbhumi Dwarka	Khambhalia	Samor	50	Medium
303	Devbhumi Dwarka	Khambhalia	Zakasiya	51	High
304	Devbhumi Dwarka	Khambhalia	Kanchanpur	49	Medium
305	Devbhumi Dwarka	Khambhalia	Sinhan Kakabhai	49	Medium
306	Devbhumi Dwarka	Khambhalia	Hansthal	50	Medium
307	Devbhumi Dwarka	Khambhalia	Haripar	49	Medium
308	Devbhumi Dwarka	Khambhalia	Beraja	52	High
309	Devbhumi Dwarka	Ohkamandal	Korada	57	Very High
310	Devbhumi Dwarka	Khambhalia	Vadtra	51	High
311	Devbhumi Dwarka	Ohkamandal	Dhinaki	56	Very High
312	Devbhumi Dwarka	Khambhalia	Sinhan Aher	49	Medium
313	Devbhumi Dwarka	Khambhalia	Kuvadiya	50	Medium
314	Devbhumi Dwarka	Ohkamandal	Charakla	56	Very High
315	Devbhumi Dwarka	Ohkamandal	Baradia	57	Very High
316	Devbhumi Dwarka	Ohkamandal	Vachhu	57	Very High
317	Devbhumi Dwarka	Khambhalia	Mahadeviya	49	Medium
318	Devbhumi Dwarka	Khambhalia	Sonaradi	51	High
319	Devbhumi Dwarka	Khambhalia	Datrana	52	High
320	Devbhumi Dwarka	Khambhalia	Dhandhusar	51	High
321	Devbhumi Dwarka	Khambhalia	Ramnagar	50	Medium
322	Devbhumi Dwarka	Okhamandal	Lovrali	56	Very High
323	Devbhumi Dwarka	Khambhalia	Viramdad	50	Medium
324	Devbhumi Dwarka	Okhamandal	Gorinja	57	Very High
325	Devbhumi Dwarka	Okhamandal	Juni Dhrevad	56	Very High
326	Devbhumi Dwarka	Khambhalia	Khajuriya	50	Medium
327	Devbhumi Dwarka	Khambhalia	Bhatel	51	High
328	Devbhumi Dwarka	Khambhalia	Kota	50	Medium
329	Devbhumi Dwarka	Khambhalia	Pir Lakhasar	50	Medium
330	Devbhumi Dwarka	Khambhalia	Kandorna	50	Medium
331	Devbhumi Dwarka	Okhamandal	Navi Dhrevad	56	Very High
332	Devbhumi Dwarka	Khambhalia	Vinzalpar	50	Medium
333	Devbhumi Dwarka	Khambhalia	Juvangadh	50	Medium
334	Devbhumi Dwarka	Ohkamandal	Maripur	56	Very High
335	Devbhumi Dwarka	Khambhalia	Kolava	50	Medium
336	Devbhumi Dwarka	Khambhalia	Bajana	50	Medium
337	Devbhumi Dwarka	Khambhalia	Bhatgam	50	Medium
338	Devbhumi Dwarka	Khambhalia	Manza	50	Medium
339	Devbhumi Dwarka	Khambhalia	Pipriya	51	High
340	Devbhumi Dwarka	Khambhalia	Madhupur	51	High
341	Devbhumi Dwarka	Khambhalia	Movan	51	High
342	Devbhumi Dwarka	Khambhalia	Laliya	50	Medium
343	Devbhumi Dwarka	Khambhalia	Tathiya	50	Medium
344	Devbhumi Dwarka	Khambhalia	Keshod	51	High
345	Devbhumi Dwarka	Khambhalia	Devaliya	50	Medium
346	Devbhumi Dwarka	Bhanvad	Bhangol	51	High
347	Devbhumi Dwarka	Ohkamandal	Okhamadhi	56	Very High
348	Devbhumi Dwarka	Khambhalia	Bhinda	51	High
349	Devbhumi Dwarka	Khambhalia	Ambardi	50	Medium
350	Devbhumi Dwarka	Khambhalia	Bhandariya	51	High
351	Devbhumi Dwarka	Khambhalia	Bhankhokhari	51	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
352	Devbhumi Dwarka	Khambhalia	Golan Sherdi	51	High
353	Devbhumi Dwarka	Bhanvad	Chokhanda	51	High
354	Devbhumi Dwarka	Kalyanpur	Dhrumthal	52	High
355	Devbhumi Dwarka	Ohkamandal	Kuranga	56	Very High
356	Devbhumi Dwarka	Khambhalia	Bhadthar	51	High
357	Devbhumi Dwarka	Khambhalia	Bhara Beraja	51	High
358	Devbhumi Dwarka	Khambhalia	Moti Khokhri	51	High
359	Devbhumi Dwarka	Kalyanpur	Jampar	52	High
360	Devbhumi Dwarka	Kalyanpur	Bhatvadiya	55	High
361	Devbhumi Dwarka	Kalyanpur	Khijadad	52	High
362	Devbhumi Dwarka	Bhanvad	Kabarka	51	High
363	Devbhumi Dwarka	Khambhalia	Sutariya	51	High
364	Devbhumi Dwarka	Kalyanpur	Kanpar Sherdi	52	High
365	Devbhumi Dwarka	Bhanvad	Shedhakhai	51	High
366	Devbhumi Dwarka	Bhanvad	Bhoria	51	High
367	Devbhumi Dwarka	Bhanvad	Jampar	51	High
368	Devbhumi Dwarka	Khambhalia	Laluka	51	High
369	Devbhumi Dwarka	Bhanvad	Chandvad	51	High
370	Devbhumi Dwarka	Kalyanpur	Bankodi	54	High
371	Devbhumi Dwarka	Bhanvad	Gunda	52	High
372	Devbhumi Dwarka	Kalyanpur	Hadmatiya	54	High
373	Devbhumi Dwarka	Kalyanpur	Dhaturiya	52	High
374	Devbhumi Dwarka	Khambhalia	Lalparda	52	High
375	Devbhumi Dwarka	Bhanvad	Fotdi	52	High
376	Devbhumi Dwarka	Kalyanpur	Goji Nes	55	High
377	Devbhumi Dwarka	Kalyanpur	Keshavpura	54	High
378	Devbhumi Dwarka	Bhanvad	Sevak Devaliya	52	High
379	Devbhumi Dwarka	Bhanvad	Bodki	52	High
380	Devbhumi Dwarka	Bhanvad	Dharagar	52	High
381	Devbhumi Dwarka	Bhanvad	Rentala Kalavad	52	High
382	Devbhumi Dwarka	Bhanvad	Navagam	52	High
383	Devbhumi Dwarka	Bhanvad	Sai Devaliya	52	High
384	Devbhumi Dwarka	Bhanvad	Sajadiyali	52	High
385	Devbhumi Dwarka	Bhanvad	Rojhivada	52	High
386	Devbhumi Dwarka	Kalyanpur	Sanosari	53	High
387	Devbhumi Dwarka	Bhanvad	Rupamora	53	High
388	Devbhumi Dwarka	Bhanvad	Sanakhala	52	High
389	Devbhumi Dwarka	Kalyanpur	Dangarvad	53	High
390	Devbhumi Dwarka	Bhanvad	Krushnagadh	53	High
391	Devbhumi Dwarka	Bhanvad	Fatehpur	53	High
392	Devbhumi Dwarka	Bhanvad	Ambaliyara	53	High
393	Devbhumi Dwarka	Bhanvad	Ranparda	53	High
394	Devbhumi Dwarka	Bhanvad	Bhenakvad	53	High
395	Devbhumi Dwarka	Bhanvad	Ambardi	53	High
396	Devbhumi Dwarka	Bhanvad	Jharera	53	High
397	Devbhumi Dwarka	Bhanvad	Mevasa	53	High
398	Devbhumi Dwarka	Bhanvad	Vanavad	53	High
399	Devbhumi Dwarka	Bhanvad	Shiva	53	High
400	Devbhumi Dwarka	Bhanvad	Dhebar	53	High
401	Devbhumi Dwarka	Bhanvad	Katkola	53	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
402	Devbhumi Dwarka	Bhanvad	Modpar	54	High
403	Devbhumi Dwarka	Bhanvad	Ranivav Nes	53	High
404	Devbhumi Dwarka	Bhanvad	Pachhatar	53	High
405	Devbhumi Dwarka	Bhanvad	Kalyanpar	54	High
406	Devbhumi Dwarka	Bhanvad	Dudhala	53	High
407	Devbhumi Dwarka	Bhanvad	Gadu	54	High
408	Devbhumi Dwarka	Bhanvad	Dhedkhuna Nes	54	High
409	Devbhumi Dwarka	Bhanvad	Hathla	54	High
410	Devbhumi Dwarka	Bhanvad	Dhola Dhuna Nes	54	High
411	Devbhumi Dwarka	Bhanvad	Thar Nes	54	High
412	Devbhumi Dwarka	Bhanvad	Satsagar Nes	54	High
413	Devbhumi Dwarka	Bhanvad	Jasapar	54	High
414	Devbhumi Dwarka	Bhanvad	Killeshwar Nes	54	High
415	Devbhumi Dwarka	Bhanvad	Kathiyani Nes	54	High
416	Devbhumi Dwarka	Bhanvad	Bado Nes	54	High
417	Devbhumi Dwarka	Bhanvad	Jambusar	54	High
418	Devbhumi Dwarka	Bhanvad	Gali Nes	54	High
419	Devbhumi Dwarka	Khambhalia	Hanjdapar	52	High
420	Gir Somnath	Talala	Khada	54	High
421	Gir Somnath	Talala	Dudhala	54	High
422	Gir Somnath	Talala	Pancholi	54	High
423	Gir Somnath	Talala	Karamndajiya	53	High
424	Gir Somnath	Una	Garal	51	High
425	Gir Somnath	Una	Tad	51	High
426	Gir Somnath	Talala	Haripur	54	High
427	Gir Somnath	Una	Motha	51	High
428	Gir Somnath	Una	Manekpur	50	Medium
429	Gir Somnath	Una	Sanjavapur	50	Medium
430	Gir Somnath	Talala	Lakadverines	54	High
431	Gir Somnath	Talala	Sajiya	55	High
432	Gir Somnath	Talala	Bhojde	54	High
433	Gir Somnath	Talala	Hiranvel	55	High
434	Gir Somnath	Una	Dandi	51	High
435	Gir Somnath	Talala	Sangodra	54	High
436	Gir Somnath	Una	Paldi	51	High
437	Gir Somnath	Talala	Bheriya	55	High
438	Gir Somnath	Una	Bhingran	51	High
439	Gir Somnath	Talala	Amrutvel	54	High
440	Gir Somnath	Talala	Chitravad	55	High
441	Gir Somnath	Una	Khan	50	Medium
442	Gir Somnath	Una	Kob	51	High
443	Gir Somnath	Una	Dudhala	51	High
444	Gir Somnath	Una	Simasi	50	Medium
445	Gir Somnath	Una	Khajudra	51	High
446	Gir Somnath	Talala	Rasulpura	54	High
447	Gir Somnath	Una	Vansoj	51	High
448	Gir Somnath	Talala	Shirvan	53	High
449	Gir Somnath	Una	Bhacha	51	High
450	Gir Somnath	Talala	Lushala	54	High
451	Gir Somnath	Talala	Jasapur	54	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
452	Gir Somnath	Una	Olvan	51	High
453	Gir Somnath	Una	Kandhi	51	High
454	Gir Somnath	Una	Nandrakh	51	High
455	Gir Somnath	Una	Chikhli	50	Medium
456	Gir Somnath	Una	Simar	51	High
457	Gir Somnath	Una	Nathej	51	High
458	Gir Somnath	Talala	Jepur	55	High
459	Gir Somnath	Una	Ranvasi	50	Medium
460	Gir Somnath	Una	Kothari	50	Medium
461	Gir Somnath	Una	Yajpur	51	High
462	Gir Somnath	Una	Bhadiyadar	51	High
463	Gir Somnath	Una	Men	51	High
464	Gir Somnath	Una	Samter	51	High
465	Gir Somnath	Talala	Moruka	54	High
466	Gir Somnath	Talala	Virpur	55	High
467	Gir Somnath	Una	Bhadasi	50	Medium
468	Gir Somnath	Talala	Vadla	54	High
469	Gir Somnath	Una	Khada	51	High
470	Gir Somnath	Gir Gadhada	Kanakiya	51	High
471	Gir Somnath	Una	Sondardi	50	Medium
472	Gir Somnath	Una	Sondarda	50	Medium
473	Gir Somnath	Una	Gangda	51	High
474	Gir Somnath	Gir Gadhada	Panderi	52	High
475	Gir Somnath	Una	Khapat	52	High
476	Gir Somnath	Gir Gadhada	Ambavad	51	High
477	Gir Somnath	Una	Khatriwada	50	Medium
478	Gir Somnath	Una	Mota Desar	50	Medium
479	Gir Somnath	Gir Gadhada	Fulka	52	High
480	Gir Somnath	Talala	Gundaran	55	High
481	Gir Somnath	Una	Maghardi	51	High
482	Gir Somnath	Talala	Bamanasa	53	High
483	Gir Somnath	Talala	Ankolvadi	54	High
484	Gir Somnath	Gir Gadhada	Ankolali	52	High
485	Gir Somnath	Talala	Surva	54	High
486	Gir Somnath	Una	Saiyad Rajpara	52	High
487	Gir Somnath	Una	Revad	50	Medium
488	Gir Somnath	Una	Sanakhda	51	High
489	Gir Somnath	Gir Gadhada	Kaneri	52	High
490	Gir Somnath	Gir Gadhada	Sonpura	51	High
491	Gir Somnath	Patan Veraval	Ukadiya	56	Very High
492	Gir Somnath	Una	Moti Moli	51	High
493	Gir Somnath	Una	Paswala	51	High
494	Gir Somnath	Una	Kalapan	52	High
495	Gir Somnath	Una	Madhgam	50	Medium
496	Gir Somnath	Una	Rajput Rajpara	50	Medium
497	Gir Somnath	Una	Kanakbarda	51	High
498	Gir Somnath	Una	Senjaliya	50	Medium
499	Gir Somnath	Patan Veraval	Paldi	56	Very High
500	Gir Somnath	Una	Elampur	51	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
501	Gir Somnath	Una	Amodra	50	Medium
502	Gir Somnath	Gir Gadhada	Bodidar	53	High
503	Gir Somnath	Patan Veraval	Sarasva	56	Very High
504	Gir Somnath	Una	Chorali Moli	51	High
505	Gir Somnath	Patan Veraval	Hasnavadar	56	Very High
506	Gir Somnath	Gir Gadhada	Dhrabavad	52	High
507	Gir Somnath	Patan Veraval	Umrala	56	Very High
508	Gir Somnath	Talala	Mandorna	54	High
509	Gir Somnath	Patan Veraval	Kherali	56	Very High
510	Gir Somnath	Talala	Semarvav	56	Very High
511	Gir Somnath	Una	Varsingpur	51	High
512	Gir Somnath	Patan Veraval	Simar	57	Very High
513	Gir Somnath	Talala	Dhramanva	55	High
514	Gir Somnath	Una	Rampara	52	High
515	Gir Somnath	Patan Veraval	Kindarva	56	Very High
516	Gir Somnath	Talala	Javantri	54	High
517	Gir Somnath	Patan Veraval	Deda	56	Very High
518	Gir Somnath	Una	Sultanpur	51	High
519	Gir Somnath	Gir Gadhada	Velakot	52	High
520	Gir Somnath	Una	Vavarda	51	High
521	Gir Somnath	Talala	Gabha	56	Very High
522	Gir Somnath	Talala	Batheshvar	53	High
523	Gir Somnath	Patan Veraval	Gunvantpur	55	High
524	Gir Somnath	Patan Veraval	Mathasuriya	55	High
525	Gir Somnath	Una	Kansari	51	High
526	Gir Somnath	Patan Veraval	Umba	56	Very High
527	Gir Somnath	Una	Nathal	51	High
528	Gir Somnath	Gir Gadhada	Jhanjhariya	52	High
529	Gir Somnath	Una	Rameshvar	51	High
530	Gir Somnath	Patan Veraval	Vavdi Adri	57	Very High
531	Gir Somnath	Una	Naliya Mandvi	53	High
532	Gir Somnath	Una	Chanchakvad	53	High
533	Gir Somnath	Patan Veraval	Moraj	56	Very High
534	Gir Somnath	Una	Jhankharvada	52	High
535	Gir Somnath	Patan Veraval	Sidokar	57	Very High
536	Gir Somnath	Kodinar	Valadar	54	High
537	Gir Somnath	Patan Veraval	Chamoda	57	Very High
538	Gir Somnath	Patan Veraval	Adri	57	Very High
539	Gir Somnath	Una	Siloj	51	High
540	Gir Somnath	Patan Veraval	Kodidara	56	Very High
541	Gir Somnath	Una	Ratad	52	High
542	Gir Somnath	Patan Veraval	Mandor	56	Very High
543	Gir Somnath	Patan Veraval	Khandheri	55	High
544	Gir Somnath	Talala	Ratidhar	55	High
545	Gir Somnath	Patan Veraval	Pandva	56	Very High
546	Gir Somnath	Una	Nandan	53	High
547	Gir Somnath	Talala	Vadala	54	High
548	Gir Somnath	Patan Veraval	Govindpara	56	Very High
549	Gir Somnath	Patan Veraval	Chhatroda	57	Very High
550	Gir Somnath	Kodinar	Harmadiya	53	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
551	Gir Somnath	Kodinar	Ghantvad	54	High
552	Gir Somnath	Patan Veraval	Ishvariya	56	Very High
553	Gir Somnath	Talala	Raydi	54	High
554	Gir Somnath	Una	Kakidi Moli	52	High
555	Gir Somnath	Patan Veraval	Indroi	56	Very High
556	Gir Somnath	Patan Veraval	Dabhor	57	Very High
557	Gir Somnath	Una	Nesda	52	High
558	Gir Somnath	Kodinar	Nagadla	54	High
559	Gir Somnath	Patan Veraval	Kukras	56	Very High
560	Gir Somnath	Patan Veraval	Tantivela	57	Very High
561	Gir Somnath	Sutrapada	Anand Para	55	High
562	Gir Somnath	Sutrapada	Tobra	55	High
563	Gir Somnath	Sutrapada	Mahobatpara	55	High
564	Gir Somnath	Una	Vankiya	52	High
565	Gir Somnath	Una	Timbarva	50	Medium
566	Gir Somnath	Kodinar	Sandhnidhar	54	High
567	Gir Somnath	Talala	Semaliya	54	High
568	Gir Somnath	Talala	Jamalpara	54	High
569	Gir Somnath	Talala	Vithalpur	54	High
570	Gir Somnath	Kodinar	Pichhvi	53	High
571	Gir Somnath	Una	Untwala	53	High
572	Gir Somnath	Sutrapada	Lakhapara	55	High
573	Gir Somnath	Patan Veraval	Bhalpara	57	Very High
574	Gir Somnath	Patan Veraval	Navadra	56	Very High
575	Gir Somnath	Patan Veraval	Bolas	56	Very High
576	Gir Somnath	Kodinar	Arithiya	53	High
577	Gir Somnath	Patan Veraval	Nakhada	56	Very High
578	Gir Somnath	Sutrapada	Rangpur	55	High
579	Gir Somnath	Sutrapada	Pransli	55	High
580	Gir Somnath	Sutrapada	Gorakh Madhi	56	Very High
581	Gir Somnath	Sutrapada	Pipalva	55	High
582	Gir Somnath	Kodinar	Pavti	54	High
583	Gir Somnath	Kodinar	Chidivav	54	High
584	Gir Somnath	Kodinar	Kantala	54	High
585	Gir Somnath	Sutrapada	Alidhra	55	High
586	Gir Somnath	Kodinar	Arnej	55	High
587	Gir Somnath	Sutrapada	Vansavad	55	High
588	Gir Somnath	Kodinar	Sugala	54	High
589	Gir Somnath	Kodinar	Sedhaya	54	High
590	Gir Somnath	Kodinar	Pichhva	53	High
591	Gir Somnath	Sutrapada	Gangetha	55	High
592	Gir Somnath	Kodinar	Morvad	54	High
593	Gir Somnath	Sutrapada	Sara	55	High
594	Gir Somnath	Patan Veraval	Badalpara	56	Very High
595	Gir Somnath	Una	Ghud Jinjva	53	High
596	Gir Somnath	Sutrapada	Navagam	56	Very High
597	Gir Somnath	Kodinar	Girdevli	54	High
598	Gir Somnath	Patan Veraval	Kajli	57	Very High
599	Gir Somnath	Sutrapada	Bosan	55	High
600	Gir Somnath	Sutrapada	Barula	55	High
601	Gir Somnath	Sutrapada	Lati	57	Very High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
602	Gir Somnath	Sutrapada	Bhuva Timbi	55	High
603	Gir Somnath	Kodinar	Jagatiya	54	High
604	Gir Somnath	Sutrapada	Thareli	55	High
605	Gir Somnath	Sutrapada	Khera	55	High
606	Gir Somnath	Kodinar	Anandpur	55	High
607	Gir Somnath	Kodinar	Bodva	54	High
608	Gir Somnath	Sutrapada	Kadvar	57	Very High
609	Gir Somnath	Sutrapada	Padruka	55	High
610	Gir Somnath	Una	Dodhi	53	High
611	Gir Somnath	Kodinar	Jithla	54	High
612	Gir Somnath	Sutrapada	Prashnavda	56	Very High
613	Gir Somnath	Sutrapada	Vavdi (Sutra)	56	Very High
614	Gir Somnath	Kodinar	Chhachhar	54	High
615	Gir Somnath	Sutrapada	Kadsala	55	High
616	Gir Somnath	Bhesan	Patla (Mahadev)	52	High
617	Gir Somnath	Kodinar	Govindpur Bhandari	54	High
618	Gir Somnath	Kodinar	Navagam	55	High
619	Gir Somnath	Kodinar	Adpokar	54	High
620	Gir Somnath	Kodinar	Devalpur	55	High
621	Gir Somnath	Kodinar	Sayajirajpura	54	High
622	Gir Somnath	Bhesan	Khajuri	51	High
623	Gir Somnath	Gir Gadhada	Thordi	52	High
624	Gir Somnath	Kodinar	Kareda	54	High
625	Gir Somnath	Kodinar	Jamanvada	54	High
626	Gir Somnath	Una	Chikhal Kuba	52	High
627	Gir Somnath	Manavdar	Kothariya	53	High
628	Gir Somnath	Kodinar	Ronaj	55	High
629	Gir Somnath	Gir Gadhada	Jamvala	51	High
630	Gir Somnath	Gir Gadhada	Vadli	53	High
631	Gir Somnath	Sutrapada	Vadodra (Jhala)	56	Very High
632	Gir Somnath	Maliya	Kanek	53	High
633	Gir Somnath	Sutrapada	Matana	55	High
634	Gir Somnath	Kodinar	Inchvad Nani	55	High
635	Gir Somnath	Sutrapada	Barevla	55	High
636	Gir Somnath	Gir Gadhada	Nagadiya	51	High
637	Gir Somnath	Gir Gadhada	Bhakha	52	High
638	Gir Somnath	Sutrapada	Singsar	55	High
639	Gir Somnath	Kodinar	Advi	54	High
640	Gir Somnath	Kodinar	Fafni Moti	54	High
641	Gir Somnath	Kodinar	Fafni Nani	54	High
642	Gir Somnath	Kodinar	Mitiyaj	54	High
643	Gir Somnath	Gir Gadhada	Kodiya	51	High
644	Gir Somnath	Gir Gadhada	Sonariya	52	High
645	Gir Somnath	Gir Gadhada	Mandvi	53	High
646	Gir Somnath	Kodinar	Dudana	55	High
647	Gir Somnath	Una	Ghodavadi	53	High
648	Gir Somnath	Kodinar	Velva	54	High
649	Gir Somnath	Gir Gadhada	Motisar	51	High
650	Gir Somnath	Sutrapada	Rakhej	55	High
651	Gir Somnath	Gir Gadhada	Sanosri	53	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
652	Gir Somnath	Una	Ambada	53	High
653	Gir Somnath	Gir Gadhada	Mahobatpara	53	High
654	Gir Somnath	Gir Gadhada	Nitli	52	High
655	Gir Somnath	Gir Gadhada	Dhokadva	53	High
656	Gir Somnath	Gir Gadhada	Khilavad	53	High
657	Gir Somnath	Kodinar	Devli	55	High
658	Gir Somnath	Sutrapada	Thordi	56	Very High
659	Gir Somnath	Kodinar	Malgam	54	High
660	Gir Somnath	Una	Jasadhar	53	High
661	Gir Somnath	Gir Gadhada	Dron	52	High
662	Gir Somnath	Gir Gadhada	Babariya	52	High
663	Gir Somnath	Gir Gadhada	Rasulpara	51	High
664	Gir Somnath	Gir Gadhada	Bediya	53	High
665	Gir Somnath	Una	Nava Ugla	53	High
666	Gir Somnath	Gir Gadhada	Fatsar	54	High
667	Gir Somnath	Kodinar	Panch Pipalva	54	High
668	Gir Somnath	Kodinar	Barda	55	High
669	Gir Somnath	Sutrapada	Kanjotar	55	High
670	Gir Somnath	Kodinar	Chauhan ni khan	55	High
671	Gir Somnath	Una	Tapakeshvar	52	High
672	Gir Somnath	Gir Gadhada	Itvaya	53	High
673	Gir Somnath	Una	Mota Samadhiyala	53	High
674	Gir Somnath	Kodinar	Kadodara	55	High
675	Gir Somnath	Gir Gadhada	Gir Gadhada	52	High
676	Gir Somnath	Kodinar	Pipalva Bavana	54	High
677	Gir Somnath	Kodinar	Jantrakhadi	54	High
678	Gir Somnath	Gir Gadhada	Jhudvadli	53	High
679	Gir Somnath	Kodinar	Panadar	55	High
680	Gir Somnath	Una	Bandharda	53	High
681	Gir Somnath	Kodinar	Mul Dwarka	55	High
682	Gir Somnath	Kodinar	Nanavada	54	High
683	Gir Somnath	Gir Gadhada	Fareda	52	High
684	Gir Somnath	Una	Gundala	53	High
685	Gir Somnath	Kodinar	Pipli	55	High
686	Gir Somnath	Kodinar	Malsaram	54	High
687	Gir Somnath	Kodinar	Damli	55	High
688	Gir Somnath	Una	Naliyeri Moli	52	High
689	Gir Somnath	Gir Gadhada	Ugla	53	High
690	Gir Somnath	Gir Gadhada	Jaragli	53	High
691	Gir Somnath	Kodinar	Sarkhadi	55	High
692	Gir Somnath	Una	Navabandar	52	High
693	Gir Somnath	Gir Gadhada	Sanvav	53	High
694	Gir Somnath	Una	Padapadar	53	High
695	Gir Somnath	Kodinar	Chhara	55	High
696	Gir Somnath	Una	Luvari Moli	52	High
697	Gir Somnath	Kodinar	Kaj	54	High
698	Gir Somnath	Una	Nana Samadhiyala	53	High
699	Gir Somnath	Una	Vajdi	53	High
700	Gir Somnath	Kodinar	Velan	54	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
701	Gir Somnath	Una	Pankhan	53	High
702	Jamnagar	Jamjodhpur	Vansjaliya	54	High
703	Jamnagar	Jamjodhpur	Dhoriyo Nesh	54	High
704	Jamnagar	Jamjodhpur	Udepur	54	High
705	Jamnagar	Jamjodhpur	Sukhpur	54	High
706	Jamnagar	Jamjodhpur	Amrapar	54	High
707	Jamnagar	Jamjodhpur	Malvada	53	High
708	Jamnagar	Jamjodhpur	Vadwala	54	High
709	Jamnagar	Jamjodhpur	Patan	54	High
710	Jamnagar	Jamjodhpur	Satapar	54	High
711	Jamnagar	Jamjodhpur	Mahiki	54	High
712	Jamnagar	Jamjodhpur	Chur	53	High
713	Jamnagar	Jamjodhpur	Balva	53	High
714	Jamnagar	Jamjodhpur	Gingni	53	High
715	Jamnagar	Jamjodhpur	Valasan	53	High
716	Jamnagar	Jamjodhpur	Kotda	53	High
717	Jamnagar	Jamjodhpur	Ambardi Mevasa	53	High
718	Jamnagar	Jamjodhpur	Vasantpur	53	High
719	Jamnagar	Jamjodhpur	Jamvali	53	High
720	Jamnagar	Kalyanpur	Ranparda	53	High
721	Jamnagar	Jamjodhpur	Melan	53	High
722	Jamnagar	Jamjodhpur	Hothiji Khadba	53	High
723	Jamnagar	Jamjodhpur	Butavadar	52	High
724	Jamnagar	Kalyanpur	Khirasara	52	High
725	Jamnagar	Jamjodhpur	Dhrafa	53	High
726	Jamnagar	Jamjodhpur	Mota Vadiya	53	High
727	Jamnagar	Kalavad	Moridad	50	Medium
728	Jamnagar	Jamjodhpur	Meghpar	52	High
729	Jamnagar	Jamjodhpur	Chiroda Sang	52	High
730	Jamnagar	Jamjodhpur	Chiroda Muluji	52	High
731	Jamnagar	Kalyanpur	Dudhiya	52	High
732	Jamnagar	Jamjodhpur	Rabarika	52	High
733	Jamnagar	Jamjodhpur	Bagdhara	52	High
734	Jamnagar	Jamjodhpur	Jasapar	52	High
735	Jamnagar	Jamjodhpur	Bharad Moti	52	High
736	Jamnagar	Jamjodhpur	Ishvariya	52	High
737	Jamnagar	Kalavad	Haripar (Mevasa)	51	High
738	Jamnagar	Jamjodhpur	Gadhakda	52	High
739	Jamnagar	Kalavad	Kalmeghada	49	Medium
740	Jamnagar	Bhanvad	Gundla	52	High
741	Jamnagar	Jamjodhpur	Ambardi Bhupat	52	High
742	Jamnagar	Kalavad	Umrala	51	High
743	Jamnagar	Jamjodhpur	Zinavari	52	High
744	Jamnagar	Kalavad	Bhavabhi Khijadiya	50	Medium
745	Jamnagar	Jamjodhpur	Moti Gop	52	High
746	Jamnagar	Jamjodhpur	Veraval	52	High
747	Jamnagar	Jamjodhpur	Karsanpar	52	High
748	Jamnagar	Jamjodhpur	Vanana	52	High
749	Jamnagar	Jamjodhpur	Sogthi	52	High
750	Jamnagar	Kalavad	Gunda	49	Medium
751	Jamnagar	Jamjodhpur	Kotha Virdi	52	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
752	Jamnagar	Kalavad	Bhangda	50	Medium
753	Jamnagar	Kalavad	Bamangam	50	Medium
754	Jamnagar	Jamjodhpur	Ambardi Jam	52	High
755	Jamnagar	Jamjodhpur	Bamthiya	52	High
756	Jamnagar	Kalavad	Navagam	50	Medium
757	Jamnagar	Lalpur	Kathitad	51	High
758	Jamnagar	Kalavad	Metiya	49	Medium
759	Jamnagar	Lalpur	Sansora	52	High
760	Jamnagar	Kalavad	Toda	50	Medium
761	Jamnagar	Jamjodhpur	Sukhpar Dhrafa	52	High
762	Jamnagar	Jamjodhpur	Narmana	51	High
763	Jamnagar	Kalavad	Kharedi	49	Medium
764	Jamnagar	Jamjodhpur	Laloi	52	High
765	Jamnagar	Kalavad	Bhagat Khijadiya	49	Medium
766	Jamnagar	Kalyanpur	Bamanasa	55	High
767	Jamnagar	Kalavad	Deri	49	Medium
768	Jamnagar	Kalyanpur	Kenedi	54	High
769	Jamnagar	Kalavad	Machharda	50	Medium
770	Jamnagar	Kalavad	Fagas	50	Medium
771	Jamnagar	Kalavad	Dangarvada	48	Medium
772	Jamnagar	Kalyanpur	Khakharda	53	High
773	Jamnagar	Jamjodhpur	Virpur	51	High
774	Jamnagar	Lalpur	Sanosri	51	High
775	Jamnagar	Lalpur	Tebhada	51	High
776	Jamnagar	Lalpur	Babariya	51	High
777	Jamnagar	Kalavad	Labukiya Bhadukiya	49	Medium
778	Jamnagar	Kalavad	Napaniya Khijadiya	49	Medium
779	Jamnagar	Kalavad	Chhatar	50	Medium
780	Jamnagar	Lalpur	Sajadiyali	51	High
781	Jamnagar	Kalyanpur	Gadhka	52	High
782	Jamnagar	Lalpur	Rinzpur	51	High
783	Jamnagar	Lalpur	Khadba Nana	51	High
784	Jamnagar	Kalavad	Mulila	50	Medium
785	Jamnagar	Lalpur	Vijaypur	51	High
786	Jamnagar	Kalyanpur	Bhopalka	53	High
787	Jamnagar	Kalavad	Bediya	48	Medium
788	Jamnagar	Lalpur	Vavdi	51	High
789	Jamnagar	Kalavad	Mota Bhadukiya	49	Medium
790	Jamnagar	Kalavad	Arala	50	Medium
791	Jamnagar	Lalpur	Khatiya	51	High
792	Jamnagar	Kalyanpur	Sidsara	52	High
793	Jamnagar	Kalyanpur	Juvanpar	53	High
794	Jamnagar	Lalpur	Godavari	51	High
795	Jamnagar	Kalavad	Balambhadi	49	Medium
796	Jamnagar	Kalyanpur	Manpara	52	High
797	Jamnagar	Kalavad	Nana Panchdevda	51	High
798	Jamnagar	Kalavad	Khad Dhoraji	48	Medium
799	Jamnagar	Kalavad	Pipaliya (Jaliya)	49	Medium
800	Jamnagar	Kalyanpur	Gaga	55	High
801	Jamnagar	Kalavad	Sarvaniya	49	Medium
802	Jamnagar	Kalyanpur	Nandana	54	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
803	Jamnagar	Lalpur	Bharudiya Mota	51	High
804	Jamnagar	Kalavad	Kotha Bhadukiya	49	Medium
805	Jamnagar	Kalavad	Bodi	50	Medium
806	Jamnagar	Kalyanpur	Meghpur	52	High
807	Jamnagar	Kalavad	Vazir Khakhariya	50	Medium
808	Jamnagar	Lalpur	Nanduri	51	High
809	Jamnagar	Kalavad	Rajda	48	Medium
810	Jamnagar	Lalpur	Babarzar	50	Medium
811	Jamnagar	Lalpur	Govana	50	Medium
812	Jamnagar	Kalyanpur	Ranjitpar	54	High
813	Jamnagar	Kalavad	Savli	50	Medium
814	Jamnagar	Kalavad	Chela Bedi	50	Medium
815	Jamnagar	Kalavad	Khimani Sanosara	49	Medium
816	Jamnagar	Lalpur	Khadba Mota	50	Medium
817	Jamnagar	Lalpur	Dhuniya Nava	50	Medium
818	Jamnagar	Lalpur	Pipar Navi	50	Medium
819	Jamnagar	Kalavad	Rajsthali	49	Medium
820	Jamnagar	Lalpur	Rafudad Nani	50	Medium
821	Jamnagar	Kalavad	Hansthal	50	Medium
822	Jamnagar	Kalyanpur	Mahadeviya	54	High
823	Jamnagar	Lalpur	Khad Khambhaliya	50	Medium
824	Jamnagar	Lalpur	Veraval Nani	50	Medium
825	Jamnagar	Kalavad	Dhedh Khijadiya	49	Medium
826	Jamnagar	Kalyanpur	Ran	53	High
827	Jamnagar	Kalavad	Sanala	49	Medium
828	Jamnagar	Lalpur	Apia	49	Medium
829	Jamnagar	Lalpur	Kanvirdi	49	Medium
830	Jamnagar	Kalavad	Nani Bhagedi	49	Medium
831	Jamnagar	Kalavad	Nikava	48	Medium
832	Jamnagar	Kalavad	Laloi	49	Medium
833	Jamnagar	Kalavad	Jashapar	48	Medium
834	Jamnagar	Kalavad	Ravashiya	50	Medium
835	Jamnagar	Kalavad	Moti Bhagedi	49	Medium
836	Jamnagar	Lalpur	Charantungi	49	Medium
837	Jamnagar	Kalavad	Bhayu Khakhariya	48	Medium
838	Jamnagar	Kalyanpur	Habardi	53	High
839	Jamnagar	Kalavad	Shishang	48	Medium
840	Jamnagar	Lalpur	Arikhana	49	Medium
841	Jamnagar	Lalpur	Gajana	49	Medium
842	Jamnagar	Lalpur	Daltungi	49	Medium
843	Jamnagar	Lalpur	Gala	49	Medium
844	Jamnagar	Lalpur	Mulila	50	Medium
845	Jamnagar	Lalpur	Jasapar	49	Medium
846	Jamnagar	Lalpur	Khengarpar	49	Medium
847	Jamnagar	Kalavad	Navania Khakharia	48	Medium
848	Jamnagar	Kalavad	Dudhala	49	Medium
849	Jamnagar	Lalpur	Rafudad Moti	49	Medium
850	Jamnagar	Kalavad	Virvav	48	Medium
851	Jamnagar	Lalpur	Memana	50	Medium
852	Jamnagar	Kalyanpur	Pindara	54	High
853	Jamnagar	Kalavad	Haripar (Khandhera	49	Medium

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
854	Jamnagar	Kalavad	Bhimanugam	48	Medium
855	Jamnagar	Lalpur	Sevak Bharudiya	49	Medium
856	Jamnagar	Kalavad	Beraja	49	Medium
857	Jamnagar	Kalavad	Banga	49	Medium
858	Jamnagar	Ohkamandal	Nana Bhavda	57	Very High
859	Jamnagar	Lalpur	Dabasang	49	Medium
860	Jamnagar	Lalpur	Sevak Dhuniya	49	Medium
861	Jamnagar	Kalavad	Vodisang	48	Medium
862	Jamnagar	Kalavad	Nagpur	49	Medium
863	Jamnagar	Lalpur	Rangpar	49	Medium
864	Jamnagar	Kalyanpur	Virpur	53	High
865	Jamnagar	Lalpur	Machhu Beraja	49	Medium
866	Jamnagar	Lalpur	Modpar	49	Medium
867	Jamnagar	Kalavad	Sarapadar	49	Medium
868	Jamnagar	Lalpur	Haripar	49	Medium
869	Jamnagar	Lalpur	Setalus	49	Medium
870	Jamnagar	Jamnagar	Vagadiya	49	Medium
871	Jamnagar	Kalavad	Satiya	48	Medium
872	Jamnagar	Kalyanpur	Asota Mota	53	High
873	Jamnagar	Lalpur	Arablus	49	Medium
874	Jamnagar	Lalpur	Meghavadar	49	Medium
875	Jamnagar	Kalavad	Khandhera	49	Medium
876	Jamnagar	Lalpur	Lakhiya Mota	48	Medium
877	Jamnagar	Jamnagar	Chandraga	49	Medium
878	Jamnagar	Lalpur	Mithoi	49	Medium
879	Jamnagar	Jamnagar	Dhudasiya	48	Medium
880	Jamnagar	Jamnagar	Bavariya	49	Medium
881	Jamnagar	Jamnagar	Lonthiya	49	Medium
882	Jamnagar	Jamnagar	Sumri (Bhalsan)	48	Medium
883	Jamnagar	Lalpur	Rasangpar	49	Medium
884	Jamnagar	Jamnagar	Makvana	48	Medium
885	Jamnagar	Lalpur	Meghnugam	49	Medium
886	Jamnagar	Lalpur	Lakhiya Nana	48	Medium
887	Jamnagar	Kalavad	Moti Matli	48	Medium
888	Jamnagar	Ohkamandal	Mevasa	57	Very High
889	Jamnagar	Ohkamandal	Rangasar	56	Very High
890	Jamnagar	Lalpur	Khatiya Beraja	48	Medium
891	Jamnagar	Jamnagar	Matva	48	Medium
892	Jamnagar	Lalpur	Padana	48	Medium
893	Jamnagar	Jamnagar	Changa	48	Medium
894	Jamnagar	Jamnagar	Chandragadh	48	Medium
895	Jamnagar	Jamnagar	Naghuna	48	Medium
896	Jamnagar	Lalpur	Kanalus	48	Medium
897	Jamnagar	Lalpur	Pipli	48	Medium
898	Jamnagar	Jamnagar	Khoja Beraja	48	Medium
899	Jamnagar	Lalpur	Zankhar	48	Medium
900	Jamnagar	Lalpur	Navagam	48	Medium
901	Jamnagar	Lalpur	Singach	48	Medium
902	Junagadh	Manavadar	Vadasda	55	High
903	Junagadh	Junagadh	Jhalansar	52	High
904	Junagadh	Junagadh	Choki	52	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
905	Junagadh	Bhesan	Sankrola	50	Medium
906	Junagadh	Junagadh	Vanandiya	52	High
907	Junagadh	Junagadh	Kerala	52	High
908	Junagadh	Junagadh	Bhiyal	52	High
909	Junagadh	Junagadh	Vadasimdi	53	High
910	Junagadh	Junagadh	Goladhar	53	High
911	Junagadh	Manavadar	Vekri	55	High
912	Junagadh	Bhesan	Bamangadh	51	High
913	Junagadh	Manavadar	Gana	55	High
914	Junagadh	Manavadar	Bhindora	55	High
915	Junagadh	Bhesan	Dholwa	50	Medium
916	Junagadh	Bhesan	Hadmatiya Khajuri	50	Medium
917	Junagadh	Junagadh	Kathrota	52	High
918	Junagadh	Bhesan	Chuda	50	Medium
919	Junagadh	Manavadar	Thaniyana	54	High
920	Junagadh	Bhesan	Bhatgam	51	High
921	Junagadh	Bhesan	Sukhpur	51	High
922	Junagadh	Junagadh	Makhiyala	52	High
923	Junagadh	Junagadh	Isanpur	52	High
924	Junagadh	Bhesan	Hadmatiya Vishal	51	High
925	Junagadh	Junagadh	Vadal	52	High
926	Junagadh	Bhesan	Barwala	50	Medium
927	Junagadh	Bhesan	Khambhaliya	51	High
928	Junagadh	Junagadh	Majevdi	53	High
929	Junagadh	Manavadar	Vada	55	High
930	Junagadh	Manavadar	Khadiya	54	High
931	Junagadh	Bhesan	Mendpara	51	High
932	Junagadh	Bhesan	Patla	52	High
933	Junagadh	Bhesan	Parab Vavdi	51	High
934	Junagadh	Manavadar	Chudva	54	High
935	Junagadh	Bhesan	Hadmatiya Khakhra	49	Medium
936	Junagadh	Manavadar	Indra	55	High
937	Junagadh	Junagadh	Chokli	52	High
938	Junagadh	Junagadh	Baliyavad	52	High
939	Junagadh	Bhesan	Kharachiya	51	High
940	Junagadh	Manavadar	Chikhlodra	56	Very High
941	Junagadh	Manavadar	Marmath	56	Very High
942	Junagadh	Bhesan	Galath	50	Medium
943	Junagadh	Manavadar	Saradiya	56	Very High
944	Junagadh	Manavadar	Sherdi	55	High
945	Junagadh	Manavadar	Limbuda	56	Very High
946	Junagadh	Junagadh	Patrapsar	53	High
947	Junagadh	Manavadar	Untadi	55	High
948	Junagadh	Junagadh	Sukhpur	52	High
949	Junagadh	Junagadh	Ambaliya	53	High
950	Junagadh	Bhesan	Ranpur	51	High
951	Junagadh	Junagadh	Bamangam	52	High
952	Junagadh	Junagadh City	Saragvada	53	High
953	Junagadh	Junagadh	Rupavati	54	High
954	Junagadh	Junagadh	Dervan	52	High
955	Junagadh	Junagadh	Galiyavada	53	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
956	Junagadh	Bhesan	Sardarpar	49	Medium
957	Junagadh	Bhesan	Dudhala	51	High
958	Junagadh	Junagadh	Virpur	53	High
959	Junagadh	Bhesan	Rafaliya	50	Medium
960	Junagadh	Bhesan	Malida	52	High
961	Junagadh	Bhesan	Bhesan	51	High
962	Junagadh	Vanthali	Dhandhusar	54	High
963	Junagadh	Bhesan	Kariya	51	High
964	Junagadh	Manavadar	Velva	55	High
965	Junagadh	Junagadh	Vadhavi	53	High
966	Junagadh	Bhesan	Morwada	50	Medium
967	Junagadh	Bhesan	Paswala	51	High
968	Junagadh	Junagadh	Taliyadhar	53	High
969	Junagadh	Bhesan	Juni Dhari Gundali	50	Medium
970	Junagadh	Junagadh City	Khamdhrol	53	High
971	Junagadh	Junagadh	Khalilpur	53	High
972	Junagadh	Manavadar	Rafala	56	Very High
973	Junagadh	Manavadar	Samega	56	Very High
974	Junagadh	Bhesan	Damrala	49	Medium
975	Junagadh	Vanthali	Barwala	54	High
976	Junagadh	Bhesan	Pipaliya Tadka	50	Medium
977	Junagadh	Bhesan	Navi Dhari Gundali	50	Medium
978	Junagadh	Manavadar	Sanosra	55	High
979	Junagadh	Bhesan	Chhodvadi	51	High
980	Junagadh	Vanthali	Bantiya	54	High
981	Junagadh	Vanthali	Zampodad	54	High
982	Junagadh	Manavadar	Ronki	55	High
983	Junagadh	Bhesan	Gorviyali	50	Medium
984	Junagadh	Junagadh	Dungar Thana	52	High
985	Junagadh	Manavadar	Jambuda	55	High
986	Junagadh	Manavadar	Dadva	56	Very High
987	Junagadh	Manavadar	Bhalgam	56	Very High
988	Junagadh	Vanthali	Navlakhi	54	High
989	Junagadh	Bhesan	Umrali	51	High
990	Junagadh	Bhesan	Chanaka	51	High
991	Junagadh	Vanthali	Balot	54	High
992	Junagadh	Manavadar	Eklera	56	Very High
993	Junagadh	Vanthali	Koyli	54	High
994	Junagadh	Junagadh City	Chobari	53	High
995	Junagadh	Bhesan	Vandarvad	51	High
996	Junagadh	Manavadar	Dagad	55	High
997	Junagadh	Manavadar	Galvav	55	High
998	Junagadh	Manavadar	Sultanabad	56	Very High
999	Junagadh	Visavadar	Pirvad	50	Medium
1000	Junagadh	Vanthali	Naredi	54	High
1001	Junagadh	Manavadar	Thapala	56	Very High
1002	Junagadh	Junagadh	Padariya	53	High
1003	Junagadh	Manavadar	Bodka	55	High
1004	Junagadh	Bhesan	Nava Vaghaniya	52	High
1005	Junagadh	Manavadar	Bhalechda	55	High
1006	Junagadh	Junagadh	Nava Pipaliya	51	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1007	Junagadh	Bhesan	Mota Gujariya	51	High
1008	Junagadh	Junagadh	Mandlikpur	52	High
1009	Junagadh	Visavadar	Shobhavadla Lash	50	Medium
1010	Junagadh	Junagadh	Sagdividi	53	High
1011	Junagadh	Visavadar	Pipaliya Hajani	51	High
1012	Junagadh	Visavadar	Kotda Mota	51	High
1013	Junagadh	Visavadar	Navaniya	51	High
1014	Junagadh	Vanthali	Meghpur	54	High
1015	Junagadh	Manavadar	Kothariya	55	High
1016	Junagadh	Vanthali	Vadla	54	High
1017	Junagadh	Manavadar	Katakpara	55	High
1018	Junagadh	Manavadar	Mitadi	56	Very High
1019	Junagadh	Manavadar	Khakhavi	56	Very High
1020	Junagadh	Junagadh	Bandhala	52	High
1021	Junagadh	Junagadh	Ivnagar	53	High
1022	Junagadh	Junagadh	Palasva	53	High
1023	Junagadh	Junagadh	Bhalgam	52	High
1024	Junagadh	Visavadar	Kanavadla	51	High
1025	Junagadh	Visavadar	Hadmatiya Mota	52	High
1026	Junagadh	Manavadar	Sarang pipli	55	High
1027	Junagadh	Junagadh	Mandanpara	52	High
1028	Junagadh	Visavadar	Pindakhai Nani	50	Medium
1029	Junagadh	Visavadar	Vichhavad	51	High
1030	Junagadh	Visavadar	Pindakhai Moti	51	High
1031	Junagadh	Junagadh	Ramnath	52	High
1032	Junagadh	Visavadar	Kotda Nana	51	High
1033	Junagadh	Visavadar	Bhalgam	50	Medium
1034	Junagadh	Visavadar	Shapar	50	Medium
1035	Junagadh	Junagadh	Dungarpur	53	High
1036	Junagadh	Manavadar	Sitana	56	Very High
1037	Junagadh	Vanthali	Dhanfuliya	54	High
1038	Junagadh	Vanthali	Kajaliya Nana	54	High
1039	Junagadh	Junagadh	Vijapur	53	High
1040	Junagadh	Vanthali	Ghudvadar	53	High
1041	Junagadh	Visavadar	Hadmatiya Nana	51	High
1042	Junagadh	Manavadar	Kothadi	55	High
1043	Junagadh	Junagadh	Toraniya	52	High
1044	Junagadh	Junagadh	Bilkha	52	High
1045	Junagadh	Junagadh	Sodvadar	53	High
1046	Junagadh	Junagadh	Umrala	52	High
1047	Junagadh	Manavadar	Koylana	55	High
1048	Junagadh	Manavadar	Bhitana	57	Very High
1049	Junagadh	Vanthali	Kanjhadi	54	High
1050	Junagadh	Vanthali	Kajaliya Mota	54	High
1051	Junagadh	Vanthali	Tikar-padardi	55	High
1052	Junagadh	Visavadar	Shirvaniya	51	High
1053	Junagadh	Mangrol(J)	Miti	57	Very High
1054	Junagadh	Manavadar	Mandodra	56	Very High
1055	Junagadh	Visavadar	Chhalda	51	High
1056	Junagadh	Vanthali	Bandhda	54	High
1057	Junagadh	Junagadh	Khadiya	53	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1058	Junagadh	Vanthali	Tinmas	54	High
1059	Junagadh	Junagadh	Patapur	53	High
1060	Junagadh	Vanthali	Akha	55	High
1061	Junagadh	Visavadar	Jambuda	51	High
1062	Junagadh	Visavadar	Rabarika	51	High
1063	Junagadh	Vanthali	Raypur	53	High
1064	Junagadh	Visavadar	Sudavad	50	Medium
1065	Junagadh	Visavadar	Lunghiya	50	Medium
1066	Junagadh	Vanthali	Bodka	54	High
1067	Junagadh	Junagadh	Navagam	52	High
1068	Junagadh	Vanthali	Gadoi	54	High
1069	Junagadh	Visavadar	Manganath Pipli	52	High
1070	Junagadh	Vanthali	Mahobatpur	54	High
1071	Junagadh	Manavadar	Vadala	56	Very High
1072	Junagadh	Vanthali	Thanapipli	54	High
1073	Junagadh	Visavadar	Virpur	52	High
1074	Junagadh	Visavadar	Desai Vadala	51	High
1075	Junagadh	Junagadh	Chorvadi	52	High
1076	Junagadh	Vanthali	Sukhpur	53	High
1077	Junagadh	Manavadar	Matiana	56	Very High
1078	Junagadh	Mangrol(J)	Langad	57	Very High
1079	Junagadh	Mendarda	Nagalpur	53	High
1080	Junagadh	Visavadar	Dhebar	51	High
1081	Junagadh	Visavadar	Vajdi	52	High
1082	Junagadh	Vanthali	Lushala	54	High
1083	Junagadh	Visavadar	Ishvariya Mandav	51	High
1084	Junagadh	Junagadh	Intala	53	High
1085	Junagadh	Vanthali	Bhatiya	54	High
1086	Junagadh	Junagadh	Salatha	53	High
1087	Junagadh	Vanthali	Sendarda	55	High
1088	Junagadh	Visavadar	Jhanjhesar	51	High
1089	Junagadh	Visavadar	Khambhaliya	52	High
1090	Junagadh	Visavadar	Sukhpur	51	High
1091	Junagadh	Junagadh	Avatadiya Nana	52	High
1092	Junagadh	Visavadar	Bhat Vavdi	50	Medium
1093	Junagadh	Manavadar	Ambaliya	56	Very High
1094	Junagadh	Visavadar	Javaldi	52	High
1095	Junagadh	Mangrol(J)	Hantarpur	57	Very High
1096	Junagadh	Vanthali	Khumbhdi	54	High
1097	Junagadh	Keshod	Mangalpur	55	High
1098	Junagadh	Mendarda	Khim Padar	53	High
1099	Junagadh	Keshod	Jonpur	55	High
1100	Junagadh	Junagadh	Anandpur	53	High
1101	Junagadh	Mangrol(J)	Fulrama	57	Very High
1102	Junagadh	Junagadh	Rameshvar	52	High
1103	Junagadh	Keshod	Indrana	56	Very High
1104	Junagadh	Mendarda	Khadpipli	54	High
1105	Junagadh	Keshod	Manekwada	55	High
1106	Junagadh	Visavadar	Mahudi	51	High
1107	Junagadh	Junagadh	Mevasa Khadiya	53	High
1108	Junagadh	Keshod	Bamnasa	55	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1109	Junagadh	Mangrol(J)	Bhathrot	57	Very High
1110	Junagadh	Visavadar	Kuba(Ravani)	51	High
1111	Junagadh	Visavadar	Leriya	52	High
1112	Junagadh	Keshod	Muliyasa	55	High
1113	Junagadh	Manavadar	Padardi	56	Very High
1114	Junagadh	Mangrol(J)	Bagasra-Ghed	57	Very High
1115	Junagadh	Vanthali	Vaspada	54	High
1116	Junagadh	Visavadar	Chavand Juni	52	High
1117	Junagadh	Mendarda	Chiroda	53	High
1118	Junagadh	Junagadh	Thumbala	52	High
1119	Junagadh	Keshod	Magharwada	54	High
1120	Junagadh	Junagadh	Bagdu	53	High
1121	Junagadh	Visavadar	Mahuda	51	High
1122	Junagadh	Visavadar	Ravani (Kuba)	51	High
1123	Junagadh	Vanthali	Nagadiya	54	High
1124	Junagadh	Visavadar	Ghodasan	51	High
1125	Junagadh	Keshod	Dervan	54	High
1126	Junagadh	Visavadar	Chhelanka	51	High
1127	Junagadh	Junagadh	Badalpur	52	High
1128	Junagadh	Keshod	Balagam	56	Very High
1129	Junagadh	Keshod	Pasvaliya	55	High
1130	Junagadh	Keshod	Agatrai	55	High
1131	Junagadh	Mendarda	Datrana	53	High
1132	Junagadh	Visavadar	Khijadiya	52	High
1133	Junagadh	Junagadh	Semrala	53	High
1134	Junagadh	Keshod	Madhda	55	High
1135	Junagadh	Vanthali	Khorasa	54	High
1136	Junagadh	Visavadar	Kankchiyala	51	High
1137	Junagadh	Mangrol(J)	Osa Ghed	57	Very High
1138	Junagadh	Visavadar	Ghantiyan	52	High
1139	Junagadh	Mendarda	Simasi	54	High
1140	Junagadh	Visavadar	Chaparda	52	High
1141	Junagadh	Junagadh	Sankhdavadar	52	High
1142	Junagadh	Visavadar	Moniya	52	High
1143	Junagadh	Mendarda	Alidhra	54	High
1144	Junagadh	Visavadar	Ambala	51	High
1145	Junagadh	Visavadar	Bhutdi	51	High
1146	Junagadh	Keshod	Sarod	56	Very High
1147	Junagadh	Keshod	Handla	55	High
1148	Junagadh	Keshod	Badodar	55	High
1149	Junagadh	Visavadar	Vadala Shetranj	52	High
1150	Junagadh	Visavadar	Monpari Nani	52	High
1151	Junagadh	Keshod	Padodar	55	High
1152	Junagadh	Visavadar	Jetalvad	51	High
1153	Junagadh	Visavadar	Mandavad	52	High
1154	Junagadh	Keshod	Sangarsola	54	High
1155	Junagadh	Keshod	Chandigadh	55	High
1156	Junagadh	Visavadar	Shobhavadla Gir	53	High
1157	Junagadh	Junagadh	Jamka	53	High
1158	Junagadh	Keshod	Chitri	54	High
1159	Junagadh	Mendarda	Barvala	54	High

S. No	District	Taluka	Village	Wind Speed in m/s (100 year Return Period)	Category
1160	Junagadh	Keshod	Akhodad	56	Very High
1161	Junagadh	Visavadar	Dadar	53	High
1162	Junagadh	Visavadar	Sarsai	52	High
1163	Junagadh	Mendarda	Gundala	53	High
1164	Junagadh	Visavadar	Kalavad	51	High
1165	Junagadh	Keshod	Panchala	56	Very High
1166	Junagadh	Keshod	Nonjhanvav	54	High
1167	Junagadh	Keshod	Movana	55	High
1168	Junagadh	Keshod	Fagli	55	High
1169	Junagadh	Keshod	Sutrej	57	Very High
1170	Junagadh	Mangrol(J)	Ghodadar	57	Very High
1171	Junagadh	Visavadar	Jambala	53	High
1172	Junagadh	Keshod	Dhrabavad	54	High
1173	Junagadh	Visavadar	Vekariya	50	Medium
1174	Junagadh	Visavadar	Baradiya	53	High
1175	Junagadh	Visavadar	Lalpur	51	High
1176	Junagadh	Visavadar	Monpari Moti	53	High
1177	Junagadh	Keshod	Isra	56	Very High
1178	Junagadh	Keshod	Pipli	55	High
1179	Junagadh	Keshod	Kaneri	55	High
1180	Junagadh	Mangrol(J)	Sandha	57	Very High
1181	Junagadh	Mendarda	Devgadh	54	High
1182	Junagadh	Mendarda	Dhandhawada	54	High
1183	Junagadh	Mendarda	Nani Khodiyar	53	High
1184	Junagadh	Visavadar	Ratang	53	High
1185	Junagadh	Keshod	Khamidana	56	Very High
1186	Junagadh	Mendarda	Najapur	53	High
1187	Junagadh	Visavadar	Ishvariya (Gir)	53	High
1188	Junagadh	Visavadar	Miya Vadla	53	High
1189	Junagadh	Mangrol(J)	Sharma	57	Very High
1190	Junagadh	Visavadar	Hasnapur	51	High
1191	Junagadh	Mendarda	Jhinjhuda	53	High
1192	Junagadh	Visavadar	Govindpara	51	High
1193	Junagadh	Keshod	Pransli	54	High
1194	Junagadh	Keshod	Raningpara	55	High
1195	Junagadh	Mendarda	Amargadh	54	High
1196	Junagadh	Visavadar	Bagoya	51	High
1197	Junagadh	Keshod	Khirsara	56	Very High
1198	Junagadh	Visavadar	Liliya	53	High
1199	Junagadh	Mangrol(J)	Samarda	57	Very High
1200	Junagadh	Mendarda	Itali	53	High
1201	Junagadh	Visavadar	Ravani Mundiya	51	High
1202	Junagadh	Visavadar	Limadhra	53	High
1203	Junagadh	Visavadar	Prempara	53	High
1204	Junagadh	Keshod	Moti Ghansari	56	Very High
1205	Junagadh	Mendarda	Manpur	54	High
1206	Junagadh	Mendarda	Nataliya	53	High
1207	Junagadh	Mendarda	Ambla	54	High
1208	Junagadh	Visavadar	Haripur	53	High
1209	Junagadh	Mendarda	Moti Khodiyar	53	High
1210	Junagadh	Mangrol(J)	Thali	57	Very High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1211	Junagadh	Mangrol(J)	Sarsali	56	Very High
1212	Junagadh	Visavadar	Khambha Gir	53	High
1213	Junagadh	Keshod	Nunarda	56	Very High
1214	Junagadh	Visavadar	Manandiya	52	High
1215	Junagadh	Visavadar	Jambudi	52	High
1216	Junagadh	Mendarda	Rajavad	54	High
1217	Junagadh	Keshod	Mesvan	55	High
1218	Junagadh	Mangrol(J)	Mekhadi	57	Very High
1219	Junagadh	Mangrol(J)	Divrana	56	Very High
1220	Junagadh	Mendarda	Kanthala Nes	53	High
1221	Junagadh	Mendarda	Kenadipur	54	High
1222	Junagadh	Mendarda	Vaniya Vav	54	High
1223	Junagadh	Visavadar	Rajpara	52	High
1224	Junagadh	Keshod	Kevadra	55	High
1225	Junagadh	Mendarda	Khijadiya	54	High
1226	Junagadh	Mangrol(J)	Virol	57	Very High
1227	Junagadh	Mendarda	Ambala	54	High
1228	Junagadh	Visavadar	Piyava Gir	53	High
1229	Junagadh	Mangrol(J)	Kankana	56	Very High
1230	Junagadh	Mendarda	Lilva	54	High
1231	Junagadh	Keshod	Rangpur	55	High
1232	Junagadh	Visavadar	Dudhala	52	High
1233	Junagadh	Keshod	Char	56	Very High
1234	Junagadh	Visavadar	Barvaniya Nes	53	High
1235	Junagadh	Keshod	Shergadh	55	High
1236	Gir Somnath	Talala	Jambuthala	53	High
1237	Junagadh	Mangrol(J)	Darsali	56	Very High
1238	Junagadh	Mangrol(J)	Kalej	56	Very High
1239	Junagadh	Mendarda	Gadhali	54	High
1240	Junagadh	Visavadar	Khambhda	52	High
1241	Junagadh	Keshod	Bhat Simroli	56	Very High
1242	Junagadh	Mangrol(J)	Antroli	57	Very High
1243	Junagadh	Mendarda	Malanka	54	High
1244	Junagadh	Mendarda	Patarama	54	High
1245	Junagadh	Keshod	Eklera	55	High
1246	Junagadh	Mendarda	Dedakiyal	54	High
1247	Junagadh	Keshod	Kalavani	55	High
1248	Junagadh	Keshod	Gelana	55	High
1249	Junagadh	Mangrol(J)	Chankhva	57	Very High
1250	Junagadh	Keshod	Koyalana Lathiya	55	High
1251	Junagadh	Mangrol(J)	Nagichana	56	Very High
1252	Junagadh	Maliya(J)	Bodi	54	High
1253	Junagadh	Mendarda	Karsangadh	54	High
1254	Junagadh	Mangrol(J)	Vadla	57	Very High
1255	Junagadh	Keshod	Bava Simroli	56	Very High
1256	Junagadh	Mendarda	Sasan	53	High
1257	Junagadh	Mangrol(J)	Chingariya	56	Very High
1258	Junagadh	Keshod	Pankhan	56	Very High
1259	Junagadh	Mangrol(J)	Bamanvada	57	Very High
1260	Junagadh	Mangrol(J)	Karamdi	56	Very High
1261	Junagadh	Maliya(J)	Ambalgadh	54	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1262	Junagadh	Mendarda	Gundiyali	54	High
1263	Junagadh	Keshod	Revadra	55	High
1264	Junagadh	Mendarda	Chandravadi	54	High
1265	Junagadh	Maliya(J)	Tarsingda	54	High
1266	Junagadh	Mangrol(J)	Zariyavada	57	Very High
1267	Junagadh	Mangrol(J)	Chandvana	56	Very High
1268	Junagadh	Mangrol(J)	Divasa	57	Very High
1269	Junagadh	Maliya(J)	Gangecha	55	High
1270	Junagadh	Mangrol(J)	Farangta	57	Very High
1271	Junagadh	Maliya(J)	Avaniya	55	High
1272	Junagadh	Maliya(J)	Bhankharvad	55	High
1273	Junagadh	Mendarda	Ranidhar	54	High
1274	Junagadh	Mangrol(J)	Nandarkhi	57	Very High
1275	Junagadh	Mendarda	Amrapur	54	High
1276	Junagadh	Mangrol(J)	Sangavada	57	Very High
1277	Junagadh	Mendarda	Surajgadh	54	High
1278	Junagadh	Maliya(J)	Panidhra	55	High
1279	Junagadh	Maliya(J)	Matarvaniya	55	High
1280	Junagadh	Visavadar	Suvardi	52	High
1281	Junagadh	Maliya(J)	Pikhor	56	Very High
1282	Junagadh	Mangrol(J)	Lathodra	55	High
1283	Junagadh	Maliya(J)	Amrapur Gir	54	High
1284	Junagadh	Mangrol(J)	Sultanpur	56	Very High
1285	Junagadh	Mangrol(J)	Talodra	57	Very High
1286	Junagadh	Mangrol(J)	Bhatgam	56	Very High
1287	Junagadh	Mangrol(J)	Kankasa	56	Very High
1288	Junagadh	Maliya(J)	Jalondar	54	High
1289	Junagadh	Mangrol(J)	Menanj	56	Very High
1290	Junagadh	Mendarda	Gadakiya	54	High
1291	Junagadh	Mendarda	Bhalchhel	54	High
1292	Junagadh	Mendarda	Najapur (Chhatariy)	54	High
1293	Junagadh	Maliya(J)	Vadala	55	High
1294	Junagadh	Maliya(J)	Virdi	55	High
1295	Junagadh	Visavadar	Rosali	52	High
1296	Junagadh	Mangrol(J)	Virpur	56	Very High
1297	Junagadh	Mangrol(J)	Juthal	56	Very High
1298	Junagadh	Mangrol(J)	Sakrana	56	Very High
1299	Junagadh	Mangrol(J)	Roodalpur	56	Very High
1300	Junagadh	Visavadar	Goradwala	53	High
1301	Junagadh	Mangrol(J)	Lohej	57	Very High
1302	Junagadh	Mangrol(J)	Dhelana	56	Very High
1303	Junagadh	Maliya(J)	Kalimbhda	55	High
1304	Junagadh	Maliya(J)	Katrasa	55	High
1305	Junagadh	Maliya(J)	Akala	55	High
1306	Junagadh	Mangrol(J)	Mankhetra	56	Very High
1307	Junagadh	Mangrol(J)	Rahij	57	Very High
1308	Junagadh	Maliya(J)	Galodar	56	Very High
1309	Junagadh	Visavadar	Kankai	52	High
1310	Junagadh	Maliya(J)	Devgam	55	High
1311	Junagadh	Mangrol(J)	Maktupur	57	Very High
1312	Junagadh	Mangrol(J)	Kotda Juna	56	Very High

S. No	District	Taluka	Village	Wind Speed in m/s (100 year Return Period)	Category
1313	Junagadh	Mangrol(J)	Chotilividi	56	Very High
1314	Junagadh	Maliya(J)	Kerala	55	High
1315	Junagadh	Maliya(J)	Vandarvad	55	High
1316	Junagadh	Maliya(J)	Dharampur	55	High
1317	Junagadh	Mangrol(J)	Shaikhpur	56	Very High
1318	Junagadh	Mangrol(J)	Sheriyakhan	56	Very High
1319	Junagadh	Maliya(J)	Sarkadiya	55	High
1320	Junagadh	Mangrol(J)	Kotda Nava	56	Very High
1321	Junagadh	Maliya(J)	Janadi	55	High
1322	Junagadh	Maliya(J)	Vadiya	55	High
1323	Junagadh	Maliya(J)	Babra	55	High
1324	Junagadh	Mangrol(J)	Jamvali	56	Very High
1325	Junagadh	Maliya(J)	Ambecha	56	Very High
1326	Junagadh	Maliya(J)	Itali	55	High
1327	Junagadh	Maliya(J)	Ghunghati	56	Very High
1328	Junagadh	Mangrol(J)	Husenabad	56	Very High
1329	Junagadh	Mangrol(J)	Shapur	57	Very High
1330	Junagadh	Maliya(J)	Khera	56	Very High
1331	Junagadh	Mangrol(J)	Sheriyaj	56	Very High
1332	Junagadh	Maliya(J)	Pankuva	56	Very High
1333	Junagadh	Maliya(J)	Gotana	56	Very High
1334	Junagadh	Mangrol(J)	Arena	56	Very High
1335	Junagadh	Maliya(J)	Dhanej Nani	56	Very High
1336	Junagadh	Maliya(J)	Dhanej Moti	56	Very High
1337	Junagadh	Maliya(J)	Jangar	55	High
1338	Junagadh	Maliya(J)	Chuldi	56	Very High
1339	Junagadh	Maliya(J)	Jhadka	56	Very High
1340	Junagadh	Maliya(J)	Patla	56	Very High
1341	Junagadh	Maliya(J)	Samdhiyala	56	Very High
1342	Junagadh	Maliya(J)	Kukasvada	56	Very High
1343	Junagadh	Mangrol(J)	Khodada	57	Very High
1344	Junagadh	Maliya(J)	Lachhadi	56	Very High
1345	Junagadh	Maliya(J)	Akala Gir	56	Very High
1346	Junagadh	Maliya(J)	Visanvel	56	Very High
1347	Junagadh	Maliya(J)	Pipalva	56	Very High
1348	Junagadh	Maliya(J)	Khambhaliya	57	Very High
1349	Junagadh	Maliya(J)	Jhunjharpur	57	Very High
1350	Junagadh	Maliya(J)	Danderi	56	Very High
1351	Junagadh	Maliya(J)	Shantipura	56	Very High
1352	Junagadh	Una	Umej	51	High
1353	Kachchh	Lakhpat	Tahera	45	Low
1354	Kachchh	Lakhpat	Rodasar Lakki	45	Low
1355	Kachchh	Lakhpat	Gugariyana	46	Low
1356	Kachchh	Lakhpat	Mori	45	Low
1357	Kachchh	Lakhpat	Pipar	46	Low
1358	Kachchh	Lakhpat	Murchbana	45	Low
1359	Kachchh	Lakhpat	Kharoda	45	Low
1360	Kachchh	Nakhatrana	Dador	45	Low
1361	Kachchh	Nakhatrana	Jalu	45	Low
1362	Kachchh	Abdasa	Hothiay	46	Low
1363	Kachchh	Lakhpat	Dedrani	45	Low

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1364	Kachchh	Nakhatrana	Charakhada	46	Low
1365	Kachchh	Nakhatrana	Haripar (Hirapar)	45	Low
1366	Kachchh	Nakhatrana	Bhimsar	46	Low
1367	Kachchh	Lakhpat	Gunau	46	Low
1368	Kachchh	Nakhatrana	Oriro	45	Low
1369	Kachchh	Nakhatrana	Vamrapadar	46	Low
1370	Kachchh	Nakhatrana	Akadna	46	Low
1371	Kachchh	Nakhatrana	Ulat	46	Low
1372	Kachchh	Nakhatrana	Devsar	46	Low
1373	Kachchh	Abdasa	Mohadi	47	Low
1374	Kachchh	Nakhatrana	Ranara Mota	46	Low
1375	Kachchh	Abdasa	Piyoni	47	Low
1376	Kachchh	Abdasa	Bitta	48	Medium
1377	Kachchh	Bhuj	Purasar	46	Low
1378	Kachchh	Abdasa	Sudadhro Moti	48	Medium
1379	Kachchh	Abdasa	Bela Vandh	48	Medium
1380	Kachchh	Abdasa	Naliya	48	Medium
1381	Kachchh	Abdasa	Kandhay	48	Medium
1382	Kachchh	Abdasa	Vandhwali Vandh	48	Medium
1383	Kachchh	Abdasa	Sudadhro Nani	48	Medium
1384	Kachchh	Abdasa	Jakhau	49	Medium
1385	Kachchh	Abdasa	Sarguara	48	Medium
1386	Kachchh	Abdasa	Kunathia	48	Medium
1387	Kachchh	Abdasa	Dhufi Nani	48	Medium
1388	Kachchh	Abdasa	Balachod Moti	48	Medium
1389	Kachchh	Abdasa	Hothi Vandh	48	Medium
1390	Kachchh	Abdasa	Kala Talav	48	Medium
1391	Kachchh	Abdasa	Jasapar	49	Medium
1392	Kachchh	Abdasa	Sanosara	48	Medium
1393	Kachchh	Abdasa	Raydhanpar (Moti a	48	Medium
1394	Kachchh	Abdasa	Kukadau	49	Medium
1395	Kachchh	Abdasa	Bhachunda	49	Medium
1396	Kachchh	Abdasa	Vingaber	49	Medium
1397	Kachchh	Abdasa	Bhanada	49	Medium
1398	Kachchh	Abdasa	Mothala	49	Medium
1399	Kachchh	Abdasa	Khirsara(Kothara)	49	Medium
1400	Kachchh	Abdasa	Nandhra Nana	48	Medium
1401	Kachchh	Abdasa	Bhadu Vandh	49	Medium
1402	Kachchh	Abdasa	Kanakpar	49	Medium
1403	Kachchh	Abdasa	Vadapaddhar	49	Medium
1404	Kachchh	Abdasa	Naredi	49	Medium
1405	Kachchh	Abdasa	Nandhra Mota	48	Medium
1406	Kachchh	Abdasa	Lala	49	Medium
1407	Kachchh	Bhuj	Saiyedpar	46	Low
1408	Kachchh	Abdasa	Darad Vandh	49	Medium
1409	Kachchh	Abdasa	Prajau	50	Medium
1410	Kachchh	Abdasa	Nani Vandh	49	Medium
1411	Kachchh	Abdasa	Budiya	49	Medium
1412	Kachchh	Abdasa	Dadamapar	49	Medium
1413	Kachchh	Abdasa	Gadhvala Vada	49	Medium
1414	Kachchh	Abdasa	Nagor	49	Medium

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1415	Kachchh	Abdasa	Fulay Vandh	49	Medium
1416	Kachchh	Nakhatrana	Bhojraj Vandh	49	Medium
1417	Kachchh	Nakhatrana	Jesarvandh	48	Medium
1418	Kachchh	Abdasa	Kalar Vandh	49	Medium
1419	Kachchh	Abdasa	Hingania	49	Medium
1420	Kachchh	Nakhatrana	Jarjok	49	Medium
1421	Kachchh	Nakhatrana	Bhitara	49	Medium
1422	Kachchh	Nakhatrana	Danana	48	Medium
1423	Kachchh	Nakhatrana	Kotda (Roha)	49	Medium
1424	Kachchh	Abdasa	Nodevandh	50	Medium
1425	Kachchh	Abdasa	Hajapar	49	Medium
1426	Kachchh	Abdasa	Miyani	49	Medium
1427	Kachchh	Abdasa	Bhedi (pay)	50	Medium
1428	Kachchh	Mandvi(K)	Devpar	48	Medium
1429	Kachchh	Abdasa	Vanku	50	Medium
1430	Kachchh	Abdasa	Amar	50	Medium
1431	Kachchh	Abdasa	Kothara	50	Medium
1432	Kachchh	Mandvi(K)	Makda	49	Medium
1433	Kachchh	Abdasa	Khirsara (Vinjhan)	50	Medium
1434	Kachchh	Mandvi(K)	Ludva	48	Medium
1435	Kachchh	Abdasa	Daha	50	Medium
1436	Kachchh	Mandvi(K)	Mau Nani	49	Medium
1437	Kachchh	Abdasa	Vinjhan	50	Medium
1438	Kachchh	Abdasa	Reladiya Manjal	50	Medium
1439	Kachchh	Abdasa	Naranpar	50	Medium
1440	Kachchh	Mandvi(K)	Rajpar	48	Medium
1441	Kachchh	Abdasa	Vandi Nani	50	Medium
1442	Kachchh	Bhuj	Chunadi	48	Medium
1443	Kachchh	Mandvi(K)	Poladiya	49	Medium
1444	Kachchh	Abdasa	Shiru Vandh	50	Medium
1445	Kachchh	Abdasa	Suthari	50	Medium
1446	Kachchh	Mandvi(K)	Kotdi	50	Medium
1447	Kachchh	Abdasa	Vandi Moti	50	Medium
1448	Kachchh	Abdasa	Dumra	50	Medium
1449	Kachchh	Abdasa	Karodiya Mota	50	Medium
1450	Kachchh	Mandvi(K)	Asarani	49	Medium
1451	Kachchh	Mandvi(K)	Dhunai	48	Medium
1452	Kachchh	Abdasa	Sandhan	51	High
1453	Kachchh	Abdasa	Karodiya Nana	50	Medium
1454	Kachchh	Mandvi(K)	Sherdi	49	Medium
1455	Kachchh	Mandvi(K)	Kojachora	49	Medium
1456	Kachchh	Mandvi(K)	Nagrecha	50	Medium
1457	Kachchh	Mandvi(K)	Vandh	49	Medium
1458	Kachchh	Mandvi(K)	Hamla	49	Medium
1459	Kachchh	Mandvi(K)	Sabhrai Moti	50	Medium
1460	Kachchh	Mandvi(K)	Punadi	49	Medium
1461	Kachchh	Abdasa	Lathedi	51	High
1462	Kachchh	Mandvi(K)	Bhojay	50	Medium
1463	Kachchh	Mundra	Tumbadi Nani	48	Medium
1464	Kachchh	Mandvi(K)	Ratadiya Mota	50	Medium
1465	Kachchh	Abdasa	Khuado	51	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1466	Kachchh	Mundra	Tumbadi Moti	48	Medium
1467	Kachchh	Mandvi(K)	Bhadai Moti	50	Medium
1468	Kachchh	Mandvi(K)	Asambiya Nana	49	Medium
1469	Kachchh	Mandvi(K)	Bhadai Nani	50	Medium
1470	Kachchh	Mandvi(K)	Undoth Nani	50	Medium
1471	Kachchh	Mandvi(K)	Undoth Moti	50	Medium
1472	Kachchh	Mandvi(K)	Goniyasar Nana	49	Medium
1473	Kachchh	Mandvi(K)	Kokaliya	51	High
1474	Kachchh	Mandvi(K)	Dhokda	50	Medium
1475	Kachchh	Abdasa	Dhunvai	51	High
1476	Kachchh	Mandvi(K)	Asambiya Mota	49	Medium
1477	Kachchh	Abdasa	Chhachhi	51	High
1478	Kachchh	Mundra	Bocha	48	Medium
1479	Kachchh	Mandvi(K)	Rajda	50	Medium
1480	Kachchh	Mandvi(K)	Changdai	51	High
1481	Kachchh	Mandvi(K)	Undoth Brahmanvali	50	Medium
1482	Kachchh	Mandvi(K)	Don	50	Medium
1483	Kachchh	Mandvi(K)	Godhra	51	High
1484	Kachchh	Mandvi(K)	Bambhadai	51	High
1485	Kachchh	Mandvi(K)	Layja Mota	51	High
1486	Kachchh	Mundra	Depa	49	Medium
1487	Kachchh	Mandvi(K)	Bada	51	High
1488	Kachchh	Mundra	Gelda	49	Medium
1489	Kachchh	Mundra	Deshalpar	49	Medium
1490	Kachchh	Mandvi(K)	Bhinsara	51	High
1491	Kachchh	Mundra	Baraya	48	Medium
1492	Kachchh	Mandvi(K)	Durgapar	51	High
1493	Kachchh	Mundra	Moti Bhujpar	49	Medium
1494	Kachchh	Mandvi(K)	Vada	51	High
1495	Kachchh	Mandvi(K)	Bidada	50	Medium
1496	Kachchh	Mandvi(K)	Rayan Moti	50	Medium
1497	Kachchh	Mundra	khakhar Moti	49	Medium
1498	Kachchh	Mandvi(K)	Marau	51	High
1499	Kachchh	Mandvi(K)	Rajpar Timbo	50	Medium
1500	Kachchh	Mandvi(K)	Nani Khakhar	50	Medium
1501	Kachchh	Mundra	Samagoga	48	Medium
1502	Kachchh	Mandvi(K)	Rayan Nani	51	High
1503	Kachchh	Mundra	Mangra	48	Medium
1504	Kachchh	Mundra	Sadau	48	Medium
1505	Kachchh	Mandvi(K)	Bag	50	Medium
1506	Kachchh	Mandvi(K)	Shirva	51	High
1507	Kachchh	Mandvi(K)	Maska	51	High
1508	Kachchh	Mundra	Kandagara Mota	50	Medium
1509	Kachchh	Mandvi(K)	Bhada	52	High
1510	Kachchh	Mandvi(K)	Layja Nana	52	High
1511	Kachchh	Mundra	Nani Bhujpar	49	Medium
1512	Kachchh	Mundra	Shiracha	50	Medium
1513	Kachchh	Mundra	Nana Kapaya	48	Medium
1514	Kachchh	Mundra	Pratappar	49	Medium
1515	Kachchh	Mundra	Borana	49	Medium

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1516	Kachchh	Mundra	Baroi	48	Medium
1517	Kachchh	Mundra	Jarpara	49	Medium
1518	Kachchh	Mandvi(K)	Mota Bhadiya	50	Medium
1519	Kachchh	Mundra	Dhrab	49	Medium
1520	Kachchh	Mundra	Goersama	48	Medium
1521	Kachchh	Mundra	Navinal	49	Medium
1522	Kachchh	Mundra	Tunda	50	Medium
1523	Kachchh	Mandvi(K)	Tragadi	50	Medium
1524	Kachchh	Mandvi(K)	Gundiyali	51	High
1525	Porbandar	Porbandar	Rojhivada	52	High
1526	Porbandar	Porbandar	Bhomiyavadar	53	High
1527	Porbandar	Porbandar	Sisli	54	High
1528	Porbandar	Porbandar	Vadala	54	High
1529	Porbandar	Ranavav	Kathiyo Nes	54	High
1530	Porbandar	Porbandar	Bharvada	55	High
1531	Porbandar	Ranavav	Ashiyapat	54	High
1532	Porbandar	Porbandar	Vinjhrana	54	High
1533	Porbandar	Ranavav	Jarera Nes	54	High
1534	Porbandar	Porbandar	Palkhada	55	High
1535	Porbandar	Kutiyana	Dhruvala	54	High
1536	Porbandar	Ranavav	Dolatgadh	54	High
1537	Porbandar	Ranavav	Aniali	55	High
1538	Porbandar	Kutiyana	Vadala	54	High
1539	Porbandar	Kutiyana	Helabeli	55	High
1540	Porbandar	Kutiyana	Daduka	54	High
1541	Porbandar	Kutiyana	Khunpur	55	High
1542	Porbandar	Kutiyana	Bildi	55	High
1543	Porbandar	Kutiyana	Mahobatpara	55	High
1544	Porbandar	Porbandar	Zavar	56	Very High
1545	Porbandar	Kutiyana	Chauta	55	High
1546	Porbandar	Kutiyana	Choliyana	55	High
1547	Porbandar	Kutiyana	Baloch	55	High
1548	Porbandar	Kutiyana	Mandva	55	High
1549	Porbandar	Ranavav	Bapodar	55	High
1550	Porbandar	Ranavav	Thoyana	55	High
1551	Porbandar	Kutiyana	Thepda	56	Very High
1552	Porbandar	Kutiyana	Kotda	55	High
1553	Porbandar	Ranavav	Bhoddar	55	High
1554	Porbandar	Kutiyana	Katwana	56	Very High
1555	Porbandar	Ranavav	Jambu	55	High
1556	Porbandar	Kutiyana	Paswali	56	Very High
1557	Porbandar	Ranavav	Mahira	55	High
1558	Porbandar	Ranavav	Nerana	56	Very High
1559	Porbandar	Kutiyana	Segras	56	Very High
1560	Porbandar	Porbandar	Keshod (Lushala)	56	Very High
1561	Porbandar	Kutiyana	Moddar	56	Very High
1562	Porbandar	Porbandar	Erada	56	Very High
1563	Porbandar	Porbandar	Delodar	56	Very High
1564	Porbandar	Porbandar	Tukda Gosa	56	Very High
1565	Porbandar	Kutiyana	Kavalka	56	Very High
1566	Porbandar	Kutiyana	Chhatrava	56	Very High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1567	Porbandar	Porbandar	Bhad	57	Very High
1568	Porbandar	Kutiyana	Bhogsar	56	Very High
1569	Porbandar	Porbandar	Mitrala	56	Very High
1570	Porbandar	Kutiyana	Kansavad	56	Very High
1571	Porbandar	Kutiyana	Dharsan	56	Very High
1572	Porbandar	Porbandar	Rajpar	57	Very High
1573	Porbandar	Kutiyana	Gadhvana	56	Very High
1574	Porbandar	Kutiyana	Jamra	56	Very High
1575	Porbandar	Kutiyana	Revadra	56	Very High
1576	Porbandar	Kutiyana	Mahiyari	57	Very High
1577	Porbandar	Kutiyana	Tarkhai	57	Very High
1578	Porbandar	Porbandar	Garej	57	Very High
1579	Porbandar	Kutiyana	Kadegi	57	Very High
1580	Porbandar	Kutiyana	Junej	57	Very High
1581	Porbandar	Kutiyana	Farer	57	Very High
1582	Porbandar	Kutiyana	Bhadula	57	Very High
1583	Porbandar	Kutiyana	Amipur	57	Very High
1584	Porbandar	Porbandar	Balej	57	Very High
1585	Porbandar	Porbandar	Mander	57	Very High
1586	Porbandar	Porbandar	Pata	57	Very High
1587	Rajkot	Rajkot	Chanchadiya	45	Low
1588	Rajkot	Lodhika	Nadhu Pipaliya	48	Medium
1589	Rajkot	Kotda Sangani	Noghanchora	48	Medium
1590	Rajkot	Kotda Sangani	Kalambhdi	48	Medium
1591	Rajkot	Kotda Sangani	Ambaliala	48	Medium
1592	Rajkot	Kotda Sangani	Anida	49	Medium
1593	Rajkot	Jamkandorna	Dadvi	49	Medium
1594	Rajkot	Jamkandorna	Kanavadala	50	Medium
1595	Rajkot	Gondal	Kolithad	48	Medium
1596	Rajkot	Gondal	Ambardi	49	Medium
1597	Rajkot	Gondal	Betavad	49	Medium
1598	Rajkot	Jamkandorna	Pipaliya Agency	50	Medium
1599	Rajkot	Jamkandorna	Rajpara	50	Medium
1600	Rajkot	Jamkandorna	Satudad	50	Medium
1601	Rajkot	Jamkandorna	Thorala	51	High
1602	Rajkot	Gondal	Garnala	49	Medium
1603	Rajkot	Upleta	Vadali	51	High
1604	Rajkot	Jamkandorna	Bardiya	50	Medium
1605	Rajkot	Jamkandorna	Pipaliya Maljibhi	50	Medium
1606	Rajkot	Gondal	Trakuda	49	Medium
1607	Rajkot	Jamkandorna	Meghavad	50	Medium
1608	Rajkot	Gondal	Daiya	49	Medium
1609	Rajkot	Jamkandorna	Khijadiya Moj	51	High
1610	Rajkot	Jamkandorna	Chitravad	51	High
1611	Rajkot	Jamkandorna	Chitravad Pati	51	High
1612	Rajkot	Gondal	Mespar	50	Medium
1613	Rajkot	Upleta	Khirsara	51	High
1614	Rajkot	Gondal	Gundala	48	Medium
1615	Rajkot	Jamkandorna	Rampar	50	Medium
1616	Rajkot	Jamkandorna	Charel	51	High
1617	Rajkot	Upleta	Makhiyala	52	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1618	Rajkot	Upleta	Padvala	52	High
1619	Rajkot	Kotda Sangani	Detadiya	47	Low
1620	Rajkot	Jamkandorna	Pipardi	50	Medium
1621	Rajkot	Jamkandorna	Sajadiyali	50	Medium
1622	Rajkot	Gondal	Vekri	49	Medium
1623	Rajkot	Jamkandorna	Belda	50	Medium
1624	Rajkot	Gondal	Jamvali	48	Medium
1625	Rajkot	Jamkandorna	Boriya	50	Medium
1626	Rajkot	Upleta	Satvadi	52	High
1627	Rajkot	Jamkandorna	Khatli	51	High
1628	Rajkot	Jamkandorna	Padariya	51	High
1629	Rajkot	Upleta	Timbadi Jam	51	High
1630	Rajkot	Gondal	Chordi	48	Medium
1631	Rajkot	Gondal	Padavala	49	Medium
1632	Rajkot	Gondal	Charakhdi	49	Medium
1633	Rajkot	Upleta	Sajdiyali	51	High
1634	Rajkot	Jamkandorna	Rangpar	50	Medium
1635	Rajkot	Jamkandorna	Khajurda	51	High
1636	Rajkot	Jamkandorna	Ujala	51	High
1637	Rajkot	Gondal	Vorakotda	48	Medium
1638	Rajkot	Jetpur	Haripar	50	Medium
1639	Rajkot	Gondal	Gomta	49	Medium
1640	Rajkot	Jamkandorna	Anchvad	51	High
1641	Rajkot	Upleta	Kalaria	51	High
1642	Rajkot	Jetpur	Mevasa	50	Medium
1643	Rajkot	Gondal	Bandra	48	Medium
1644	Rajkot	Jamkandorna	Sodvadar	51	High
1645	Rajkot	Upleta	Hariyasan	53	High
1646	Rajkot	Gondal	Devachadi	48	Medium
1647	Rajkot	Jamkandorna	Rodhel	51	High
1648	Rajkot	Gondal	Navagam	49	Medium
1649	Rajkot	Upleta	Bhankh	52	High
1650	Rajkot	Jamkandorna	Hariyasan	51	High
1651	Rajkot	Gondal	Shivrajgadh	48	Medium
1652	Rajkot	Jamkandorna	Raydi	51	High
1653	Rajkot	Jetpur	Rabarika	50	Medium
1654	Rajkot	Upleta	Mojira	52	High
1655	Rajkot	Gondal	Lilakha	49	Medium
1656	Rajkot	Upleta	Gadhala	52	High
1657	Rajkot	Dhoraji	Zanzmer	52	High
1658	Rajkot	Upleta	Jal	53	High
1659	Rajkot	Jetpur	Seluka	50	Medium
1660	Rajkot	Gondal	Kamarkotda	48	Medium
1661	Rajkot	Gondal	Masitala	49	Medium
1662	Rajkot	Upleta	Kharachia	53	High
1663	Rajkot	Upleta	Charelia	53	High
1664	Rajkot	Jetpur	Kagvad	49	Medium
1665	Rajkot	Upleta	Kerala	52	High
1666	Rajkot	Gondal	Dhudashiya	48	Medium
1667	Rajkot	Jetpur	Pithadiya	50	Medium
1668	Rajkot	Jamkandorna	Adval	51	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1669	Rajkot	Upleta	Khakhi Jalia	52	High
1670	Rajkot	Upleta	Sevantra	52	High
1671	Rajkot	Gondal	Mota Sakhpar	48	Medium
1672	Rajkot	Gondal	Bhandariya	49	Medium
1673	Rajkot	Jetpur	Lunagiri	51	High
1674	Rajkot	Jetpur	Sardharpur	50	Medium
1675	Rajkot	Jetpur	Panchpipla	51	High
1676	Rajkot	Dhoraji	Umarkot	51	High
1677	Rajkot	Jetpur	Vadasada	49	Medium
1678	Rajkot	Gondal	Devla	49	Medium
1679	Rajkot	Upleta	Navapara	52	High
1680	Rajkot	Upleta	Vadekhan	54	High
1681	Rajkot	Gondal	Khambhalida	49	Medium
1682	Rajkot	Dhoraji	Vegdi	51	High
1683	Rajkot	Gondal	Sultanpur	48	Medium
1684	Rajkot	Gondal	Vinzivad	48	Medium
1685	Rajkot	Jetpur	Monpar	50	Medium
1686	Rajkot	Dhoraji	Bhukhi	52	High
1687	Rajkot	Jetpur	Derdi	50	Medium
1688	Rajkot	Jetpur	Pedhla	51	High
1689	Rajkot	Jetpur	Amarnagar	49	Medium
1690	Rajkot	Jetpur	Khirsara	50	Medium
1691	Rajkot	Jetpur	Mota Gundala	51	High
1692	Rajkot	Dhoraji	Bhutvad	51	High
1693	Rajkot	Upleta	Mervadar	54	High
1694	Rajkot	Upleta	Murakhada	53	High
1695	Rajkot	Upleta	Varjang Jalia	53	High
1696	Rajkot	Jetpur	Champrajpur	50	Medium
1697	Rajkot	Jetpur	Station Vavdi	49	Medium
1698	Rajkot	Dhoraji	Chhadvavadar	52	High
1699	Rajkot	Dhoraji	Bholgamda	53	High
1700	Rajkot	Dhoraji	Bhola	52	High
1701	Rajkot	Jetpur	Jetalsar	51	High
1702	Rajkot	Jetpur	Thana Galol	50	Medium
1703	Rajkot	Upleta	Chikhalia	53	High
1704	Rajkot	Upleta	Tanasva	54	High
1705	Rajkot	Dhoraji	Fareni	51	High
1706	Rajkot	Upleta	Nilakha	53	High
1707	Rajkot	Jetpur	Juni Sankali	51	High
1708	Rajkot	Upleta	Hadfodi	53	High
1709	Rajkot	Upleta	Gadha	53	High
1710	Rajkot	Dhoraji	Jamnavad	52	High
1711	Rajkot	Upleta	Samadhiyala	53	High
1712	Rajkot	Jetpur	Charaniya	50	Medium
1713	Rajkot	Dhoraji	Pipaliya	53	High
1714	Rajkot	Upleta	Ganod	54	High
1715	Rajkot	Jetpur	Charan Samadhiyala	50	Medium
1716	Rajkot	Jetpur	Navi Sankali	51	High
1717	Rajkot	Jetpur	Dedarva	51	High
1718	Rajkot	Dhoraji	Nagalkhada	53	High
1719	Rajkot	Jetpur	Rupavati	51	High

S. No	District	Taluka	Village	**Wind Speed in m/s** (100 year Return Period)	Category
1720	Rajkot	Dhoraji	Nani Parabdi	52	High
1721	Rajkot	Jetpur	Amrapar	50	Medium
1722	Rajkot	Dhoraji	Moti Parabdi	52	High
1723	Rajkot	Dhoraji	Toraniya	52	High
1724	Rajkot	Dhoraji	Hadmatiya	53	High
1725	Rajkot	Upleta	Kundhech	53	High
1726	Rajkot	Upleta	Kathrota	53	High
1727	Rajkot	Jetpur	Pipalva	51	High
1728	Rajkot	Jetpur	Kharachiya	51	High
1729	Rajkot	Jetpur	Arab Timbdi	51	High
1730	Rajkot	Jetpur	Reshamdi Galol	50	Medium
1731	Rajkot	Upleta	Meli	54	High
1732	Rajkot	Jetpur	Bheda Pipaliya	51	High
1733	Rajkot	Jetpur	Bava Pipaliya	51	High
1734	Rajkot	Dhoraji	Udakiya	53	High
1735	Rajkot	Jetpur	Devki Galol	51	High
1736	Rajkot	Jetpur	Akala	52	High
1737	Rajkot	Dhoraji	Velariya	53	High
1738	Rajkot	Dhoraji	Bhader	53	High
1739	Rajkot	Dhoraji	Chhatrasa	54	High
1740	Surendranagar	Muli	Asundrali	53	High
1741	Surendranagar	Sayla	Hadala	50	Medium

Note: The categorization has been done as per the wind speed (100 years return period) explained as under:

45m/s -47m/s – Low (35 Villages)
48m/s -50 m/s - Medium (638 Villages)
51m/s – 55m/s – High (847 Villages)
56m/s and Over – Very High (221 Villages)

Annexure 3

List of the equipments provided to various Districts, Municipal Corporations, Municipalities and GIDC Estates

Annexure 3 A - Vehicles/Equipment provided to Municipal Corporation

S. No.	Equipments	Ahmedabad	Vadodara	Surat	Rajkot	Jamnagar	Bhavnagar	Junagadh	Gandhinagar
1	Portable Inflatable Emergency Lighting Systems	5	5	7	5	7	7	5	2
2	Motorcycle Mounted Water Mist	4	2	2	3	3	1	3	3
3	Trolley Mounted Water Mist	5	5	5	5	5	5	2	3
4	Water Bowser	1	1	1	1	1	1	1	1
5	Mini Fire Tender	0	0	0	1	1	1	1	0
6	Life Jacket	250	250	250	250	120	120	50	0
7	Life Buoy	250	250	250	250	120	120	50	0
8	PP Rope (100 ft)	50	50	150	50	24	24	10	0
9	PP Rope (200 ft)	25	25	75	25	12	12	5	0
10	FRP Boat	9	7	7	2	2	1	1	0
11	Inflatable/ Rubber Boat	6	10	8	6	1	0	1	0
12	Under Water Search Camera	1	1	1	1	1	0	1	0
13	Under Water Breathing Apparatus	12	0	0	0	0	0	0	6
14	Rapid Response Vehicle	1	0	0	0	0	0	0	0
15	Resent skid/ trailer	2	0	0	0	0	0	0	0

Vehicles/Equipment provided to ERCs (under Municipal Corporations)

Sr. No.	Equipments	Gandhinagar	Gandhidham	Rajkot	Surat	Vadodara
Vehicle						
1	Multi Functional vehicle with Crane	2	1	1	1	2
2	High capacity pump	4	2	2	5	4
3	Water Tanker	4	2	2	4	4
4	Foam Nurser	2	1	1	2	2
5	Emergency Rescue vehicle	3	3	2	3	2
6	Water Transport Unit	0	1	1	0	0
7	Pickup Truck	1	1	2	2	1
8	Command Vehicle	1	1	2	1	1
	Vehicles - Total - A	**17**	**12**	**13**	**18**	**16**
Container						
1	USAR Container	1	2	2	1	2
2	Medical Mass Casualty container	1	1	1	1	1
3	Hook Arm Truck	2	2	2	2	2
	Containers - Total - B	**4**	**5**	**5**	**4**	**5**
Equipments						
1	Self Contained Clean Air Breathing Apparatus	5	4	4	5	6
2	Personal Protection Suit	15	12	12	12	12
3	Spare Cylinders	1	0	1	1	1
4	Airline Equipment	1	0	1	1	1
5	Positive Pressure Ventilator	1	0	1	1	1
6	Gas Tight Suits	7	5	5	7	9
7	Inflatable Decontamination System	1	0	1	1	1
8	Leak Sealing Equipment	2	2	2	2	2
9	Non Sparking tools	1	1	1	1	1
10	Multi Gas Detector	2	1	1	1	2
11	Emergency Lighting System	4	2	3	3	2
12	Under Water Search Camera	1	0	1	1	1
	Equipments-Total-C	**41**	**27**	**33**	**36**	**39**

*** Vehicles/equipment for Gandhinagar ERC has been handed over to Ahmedabad Fire & Emergency Services, Ahmedabad Municipal Corporation, Ahmedabad**

Annexure 3 B - Vehicles/equipment provided to District Collectorate

Sr. No.	Dist. Collector	Portable Inflatable Emergency Lighting Systems	Life Jacket	Life buoy	PP Ropes 26 mm		Boats		MFT	Temporary Instant Shelter	LDPE Tent	Portable Generator Set (Honda)
					100 ft.	200 ft.	FRP	Inflatable				
1	Ahmedabad	2	1800	1500	300	450	0	0	0	2500	2500	0
2	Anand	3	1750	1250	250	425	0	0	0	0	0	0
3	Kheda	3	2000	1500	300	450	0	0	0	0	0	0
4	Vadodara	2	3250	2750	550	875	0	0	0	1500	1500	0
5	Bharuch	3	2750	2250	450	675	0	0	0	0	0	0
6	Surat	2	3250	2850	400	800	0	0	0	1850	1850	0
7	* Navsari	3	1500	1100	200	250	0	0	**1**	0	0	0
8	Narmada	3	450	250	50	25	0	0	0	0	0	5
9	Valsad	3	2000	1600	300	450	0	0	0	0	0	0
10	Dang	3	50	50	10	5	0	0	2	0	0	2
11	Gandhinagar	3	250	250	50	25	0	0	0	0	0	5
12	Surendrenagar	3	250	250	50	25	0	0	0	0	0	0
13	Kutch	3	120	120	24	12	0	0	0	1500	1500	0
14	Junagadh	2	250	250	50	25	0	0	0	0	0	0
15	Jamnagar	2	250	250	50	25	0	0	0	0	0	0
16	Bhavnagar	2	750	250	50	25	0	0	0	0	0	0
17	Amreli	3	250	250	50	25	0	0	0	0	0	0
18	Porbandar	3	250	250	50	25	0	2	0	0	0	0
19	Mehsana	3	120	120	24	12	0	0	0	1500	1500	11

Sr. No.	Dist. Collector	Portable Inflatable Emergency Lighting Systems	Life Jacket	Life buoy	PP Ropes 26 mm		Boats		MFT	Temporary Instant Shelter	LDPE Tent	Portable Generator Set (Honda)
					100 ft.	200 ft.	FRP	Inflatable				
20	Sabarkantha	3	120	120	24	12	0	0	0	0	0	16
21	Banaskantha	3	250	250	50	25	0	0	0	0	0	0
22	Panchmahal	3	250	250	50	25	0	0	0	0	0	13
23	Dahod	3	250	250	50	25	0	0	0	0	0	9
24	Rajkot	2	750	250	50	25	0	0	0	1150	1150	0
25	Patan	3	120	120	24	12	0	0	0	0	0	0
26	Tapi	3	0	0	0	0	0	0	0	0	0	0
27	Morbi	3	0	0	0	0	0	0	0	0	0	0
28	Devbhumi Dwarka	3	0	0	0	0	0	0	0	0	0	0
29	Gir Somnath	3	0	0	0	0	0	0	0	0	0	0
30	Aravali	3	0	0	0	0	0	0	0	0	0	0
31	Chota Udaipur	3	0	0	0	0	0	0	0	0	0	0
32	Botad	3	0	0	0	0	0	0	0	0	0	0
33	Mahisagar	3	0	0	0	0	0	0	0	0	0	0

*** A Mini Fire Tender has been provided to Vansada Gram Panchayat of Navsari District on 06/02/2014**

Annexure 3 C -Vehicles/Equipment provided to Municipalities

S. No.	Municipality	District	Portable Inflatable Emergency Lighting Systems	Motor-cycled Mounted Water Mist	Trolley Mounted Water Mist	Water Bowser	Mini Fire Tender	FRP Boat
1	Bareja	Ahmedabad	1	0	0	0	1	0
2	Barvala		1	0	0	1	**2**	0
3	Bavla		1	1	0	1	1	0
4	Dhandhuka		1	1	0	2	1	0
5	Dholka		1	1	0	2	1	0
6	Sanand		1	1	0	2	1	0
7	Viramgam		1	1	0	2	1	0
8	Amreli	Amreli	2	1	0	2	1	1
9	Babra		2	0	0	0	1	0
10	Bagsara		2	1	0	1	1	0
11	Chalala		2	0	0	0	1	0
12	Damnagar		2	0	0	0	0	0
13	Jafrabad		2	1	0	1	1	0
14	Lathi		2	0	0	1	1	0
15	Rajula		2	1	0	1	1	0
16	Savarkunda		2	1	0	1	1	0
17	Aaklav	Anand	2	0	0	0	0	0
18	Anand		2	3	2	1	1	1
19	Boriyavi		2	0	0	0	0	0
20	Borsad		2	1	0	1	1	0
21	Karamsad		2	1	0	1	0	0
22	Khambhat		2	1	0	1	1	0
23	Oad		2	0	0	0	0	0
24	Petlad		2	1	0	1	1	0
25	Sojitra		2	0	0	1	1	0
26	Umreth		2	1	0	1	1	0
27	Vallabh-vidhyanagar		2	1	0	1	1	0
28	Bhadhar	Banaskantha	1	0	0	0	1	0
29	Deesa		1	1	0	1	1	0
30	Dhanera		1	0	0	1	1	0
31	Palanpur		1	3	2	1	1	0
32	Thara		1	0	0	0	0	0
33	Tharad		1	0	0	1	1	0
34	Amod	Bharuch	2	0	0	0	1	0
35	Ankhleshwar		2	1	0	1	1	0
36	Bharuch		2	3	2	2	2	2
37	Jambusar		2	1	0	1	1	0
38	Botad	Bhavnagar	2	3	2	2	2	0
39	Gadhda		2	1	0	1	1	0

S. No.	Municipality	District	Portable Inflatable Emergency Lighting Systems	Motor-cycled Mounted Water Mist	Trolley Mounted Water Mist	Water Bowser	Mini Fire Tender	FRP Boat
40	Gariyadhar		2	1	0	1	1	0
41	Mahuva		2	1	0	1	1	0
42	Palitana		2	1	0	1	1	0
43	Sihor		2	1	0	1	1	0
44	Talaja		2	1	0	1	1	0
45	Vallabhipur		2	0	0	1	0	0
46	Dahod	Dahod	1	1	0	1	1	0
47	Devgarh Baria		1	0	0	1	0	0
48	Jhalod		1	1	0	1	1	0
49	Dehgam	Gandhinagar	1	1	0	1	1	0
50	Kalol		1	3	2	2	1	0
51	Mansa		1	1	0	1	1	0
52	Pethapur		1	0	0	0	0	0
53	Bhanvad	Jamnagar	2	0	0	1	1	0
54	Dhrola		2	0	0	1	1	0
55	Dwarka		2	1	0	1	1	0
56	Jamjodhpur		2	0	0	1	1	0
57	Jam-rawal		2	0	0	1	0	0
58	Kalavad		2	0	0	1	1	0
59	Khambadia		2	1	0	1	1	0
60	Okha		2	1	0	1	1	0
61	Salaya		2	1	0	1	1	0
62	Sikka		2	0	0	0	1	0
63	Batava	Junagarh	2	0	0	0	1	0
64	Chorwad		2	0	0	0	1	0
65	Keshod		2	1	0	1	1	0
66	Kodinar		2	1	0	1	1	0
67	Manavadar		2	1	0	1	1	0
68	Mangrol		2	1	0	1	1	0
69	Sutrapada		2	0	0	0	1	0
70	Talala		2	0	0	0	0	0
71	Una		2	1	0	1	0	0
72	Vanthali		2	0	0	0	0	0
73	Veraval		2	3	2	2	1	0
74	Visavadar		2	0	0	0	0	0
75	Balasinor	Kheda	1	1	0	1	1	0
76	Chaklasi		1	1	0	0	0	0
77	Dakor		1	0	0	1	1	0
78	Kanjari		1	0	0	0	0	0
79	Kapadvanj		1	1	0	1	1	0
80	Kathlal		1	0	0	0	0	0

S. No.	Municipality	District	Portable Inflatable Emergency Lighting Systems	Motor-cycled Mounted Water Mist	Trolley Mounted Water Mist	Water Bowser	Mini Fire Tender	FRP Boat
81	Kheda		1	0	0	1	1	0
82	Mahudha		1	0	0	0	0	0
83	Mehmdabad		1	1	0	0	2	0
84	Nadiad		1	3	2	3	2	2
85	Thasra		1	0	0	0	0	0
86	Anjar	Kutch	2	1	0	1	1	0
87	Bhachau		2	0	0	1	1	0
88	Bhuj		2	1	0	2	2	0
89	Gandhidham		2	3	2	1	2	0
90	Mandvi		2	1	0	1	1	0
91	Rapar		2	0	0	1	1	0
92	Kadi	Mehsana	1	1	0	3	3	0
93	Kheralu		1	0	0	0	0	0
94	Mehsana		1	3	2	2	1	1
95	Unjha		1	1	0	1	1	0
96	Vadhnagar		1	1	0	1	1	0
97	Vijapur		1	0	0	0	1	0
98	Visnagar		1	1	0	1	1	0
99	Rajpipla	Narmada	2	1	0	2	1	0
100	Bilimora	Navsari	2	1	0	2	1	0
101	Gandevi		2	0	0	1	1	0
102	Navsari		2	3	2	2	2	1
103	Vijalpore		2	1	0	0	1	0
104	Godhra	Panchmahal	1	3	2	2	1	2
105	Halol		1	1	0	1	1	0
106	Kalol		1	0	0	1	1	0
107	Lunawada		2	1	0	1	1	0
108	Sahera		2	0	0	0	0	0
109	Santrampur		2	1	0	1	1	0
110	Chansama	Patan	1	0	0	1	1	0
111	Harij		1	0	0	0	1	0
112	Patan		1	3	2	2	2	1
113	Radhapur		1	1	0	1	1	0
114	Siddhpur		1	1	0	1	1	0
115	Chhaya	Porbandar	2	1	0	0	1	0
116	Kotiyana		2	0	0	1	1	0
117	Porbandar		2	3	2	2	1	1
118	Ranavav		2	0	0	1	1	0
119	Bhayavadar	Rajkot	2	0	0	0	0	0
120	Dhoraji		1	1	0	1	1	0
121	Gondal		1	1	0	1	1	0
122	Jasdan		1	1	0	1	1	0

S. No.	Municipality	District	Portable Inflatable Emergency Lighting Systems	Motor-cycled Mounted Water Mist	Trolley Mounted Water Mist	Water Bowser	Mini Fire Tender	FRP Boat
123	Jetpur		1	3	2	2	1	0
124	Madiya Miyana		2	0	0	0	1	0
125	Morbi		2	3	2	2	2	0
126	Upleta		2	1	0	2	1	0
127	Wankaner		1	1	0	2	1	0
128	Bayad	Sabarkantha	1	0	0	0	1	0
129	Himmatnagar		1	1	0	2	1	1
130	Idar		1	1	0	2	1	0
131	Khedbrahma		1	1	0	1	1	0
132	Modasa		1	1	0	1	1	0
133	Prantij		1	0	0	1	1	0
134	Talod		1	0	0	0	1	0
135	Vadali		1	0	0	0	1	0
136	Bardoli	Surat	2	1	0	1	1	0
137	Kansad		2	0	0	0	0	0
138	Mandvi		2	0	0	1	1	0
139	Tarsadi		2	0	0	0	1	0
140	Chotila	Surendranagar	2	0	0	0	1	0
141	Dhangadra		2	1	0	1	1	0
142	Hadvad		2	0	0	0	1	0
143	Limbdi		2	1	0	1	1	0
144	Patdi		2	0	0	0	1	0
145	Surendranagar		2	3	2	2	1	0
146	Thangadh		2	1	0	1	1	0
147	Vadhwan		2	1	0	1	0	0
148	Songarh	Tapi	2	0	0	1	1	0
149	Vyara		2	1	0	2	1	0
150	Chota Udaipur	Vadodara	2	0	0	1	1	0
151	Dabhoi		2	1	0	1	1	0
152	Karjan		2	1	0	1	1	0
153	Padra		2	1	0	1	1	0
154	Savli		2	0	0	1	0	0
155	Dharampur	Valsad	2	0	0	1	1	0
156	Pardi		2	1	0	1	1	0
157	Umargam		2	0	0	1	0	0
158	Valsad		2	3	2	1	1	2
159	Vapi		2	3	2	2	2	0

Annexure 3 D - Vehicles provided to GIDCs

Sr. No.	GIDC	Water Bowser	Mini Fire Tender
1	Bharuch	3	3
2	Rajkot	1	1
3	Surat	1	0
4	Vadodara	1	1
5	Valsad	2	1
6	Vapi Ind. Association	1	0

Annexure 4 Cyclone Warning Dissemination System (CWDS) Stations in Gujarat State

NO.	STATIONS	ADDRESS
1.	Ahmedabad	Director, Met. Center, Ahmedabad (Monitoring Station)
2.	Gandhinagar	Director of Relief, Sachivalaya Gandhinagar (State Head Quarter)
3.	Surat	Collector Office, Surat Dist. Surat
4.	Bharuch	Collector office Bharuch Dist. Bharuch
5.	Bhavnagar	Collector Office Bhavnagar Dist. Bhavnagar
6.	Mahuva	Mamlatdar Office Mahuva Dist. Bhavnagar
7.	Veraval	Mamlatdar Office Veraval Dist. Junagadh
8.	Porbandar	Collector Office Porbander Dist. Porbander
9.	Dwarka	Mamlatdar Office, Dwarka Dist. Jamnagar
10.	Mandvi	Mamlatdar Office, Mandvi Dist. Kutch
11.	Okha	Police Station, Okha Dist. Jamnagar
12.	Jamnagar	Civil Defence Office, Jamnagar Dist. Jamnagar
13.	Mangrol	Mamlatdar Office, Mangrol Dist. Junagadh
14.	Jafrabad	Mamlatdar Office, Jafrabad Dist. Amreli
15.	Khambhat	Mamlatdar Office, Khambhat Dist. Anand
16.	Baroda	Collector Office Vadodara Dist. Vadodara
17.	Valsad	Collector Office, Valsad Dist. Valsad
18.	Gandhidham	Civil Defence Office, Gandhidham Dist.Kutch
19	Kandla Port	Dist.Kutch

Annexure 5 System of storm warning signals to port

A uniform system of storm warning signals was introduced at all ports in India from 1st April 1898 and is still in vogue with very little change. The system consists of:

(i) General System

A General System with 11 signals; the first two of which (signals No. I and II) indicate the existence of distant disturbed weather, the next eight (signals III to X) indicate that the port itself is threatened by bad weather and the last one (signal No. XI) Indicates that the communication with the ACWC/CWC had broken down and that in the opinion of the local Port Officer, there is danger of bad weather. Signal No. I and II are called Distant Signals and the rest Local signals. The ports where this system of signals is in use are called General ports.

(ii) Extended System

In an Extended System, in addition to the 11 signals of the General System, six section signals are there to indicate the location of the disturbance. These additional signals are hoisted along with Distant Signals. This system is a special case of the General System and is in use only at a few ports on the east coast (Bay of Bengal). These ports are: Sagar Island, Kakinada, Chennai, Cuddalore and Nagapattinam. These ports are called extended ports. There is no port under the Extended System on the west coast.

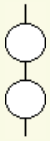
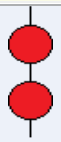
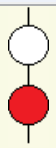
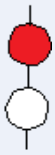
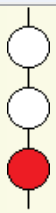
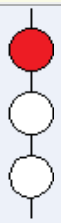
(iii) Brief System

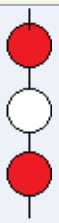
A Brief System consists of only five signals of the General Systems (viz. Signal Nos. III, IV, VII, X and XI). These are hoisted in association with prospects of bad weather at the port itself caused by disturbances out at sea. This system of signals is in use in ports frequented mainly by smaller vessels engaged in local traffic and these ports are called Brief Ports.

(iv) Ports without Signals

In addition, there are some minor ports where no signals are hoisted but which get a special type of warning message; are called Ports without signals. For purposes of warning, these ports are treated as Brief ports and corresponding port warnings are issued when adverse weather threatens them although no signals are advised to be hoisted. These warning messages will contain information on the location and direction of movement of the disturbance and the expected weather over the port.

Port Storm Warning Signals

NUMBER	DAY SIGNAL	NIGHT SIGNAL	MEANING
1			DISTANT CAUTIONARY (There is a region of squally weather in which a storm may be forming.)
2			DISTANT WARNING (A storm has formed.)
3			LOCAL CAUTIONARY (The port is threatened by squally weather.)
4			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.)
5			DANGER (The port will experience severe weather from a cyclone expected to move keeping the port to the left of its track.)
6			DANGER (The port will experience severe weather from a cyclone expected to move keeping the port to the right of its track.)
7			DANGER (The port will experience severe weather from a cyclone expected to move over or close to the port.)
8			GREAT DANGER (The port will experience severe weather from a severe cyclone expected to move keeping the port to the left of its track.)

9			GREAT DANGER (The port will experience severe weather from a severe cyclone expected to move keeping the port to the right of its track.)
10			GREAT DANGER (The port will experience severe weather from a severe cyclone expected to move over or close to the port.)
11			FAILURE OF COMMUNICATIONS (Communications with the Meteorological Warning center have broken down and the local officer considers that there is danger of bad weather.)

Annexure 6 General Terminology Used in Weather Bulletins

(A).	Intensity of Rainfall		Terminology Used.
1.	0.1.mm to 2.4 mm	(24 hrs)	Very light rain
2.	2.5 mm to 7.5 mm	"	Light rain.
3.	7.6 mm to 34.9 mm	"	Light to Moderate rain
4.	35.0 mm to 64.9 mm	"	Moderate rain
5.	65.0 mm to 124.9mm	"	Heavy rain
6.	Exceeding 125 mm.	"	Very Heavy rain.

(B) Special distribution of weather phenomenon.

Percentage Area Covered		Terminology Used
1.	1 to 25	Isolated
2.	26 to 50	Few Places
3.	51 to 75	Many Places
4.	76 to 100	At most Places

(C) Emergency Situation

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

(D) Evacuation

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

Annexure 7 Do's and Don't at Pre, During and Post Cyclone

(i) Before the Cyclone season:

- Check the house; secure loose tiles, carry out repair works for doors and windows
- Remove deadwood or dying trees close to the house; anchor removable objects like lumber piles, loose tin-sheds, loose bricks, garbage cans, sign-boards etc. which can fly in strong winds
- Keep some wooden boards ready so that glass windows can be boarded if needed
- Keep a lantern filled with kerosene, battery operated torches and enough dry cells on hand.
- Demolish condemned buildings
- Keep some extra batteries for transistors
- Keep some dry non-perishable food always ready for emergency use

(ii) When the cyclone starts

- Listen to the radio (All India Radio stations give weather warnings).
- Keep monitoring the warnings to prepare for cyclone emergency.
- Pass on the information to neighbours/others.
- Ignore rumours and do not spread them; this will help to avoid panic situations.
- Believe official information
- When a cyclone alert is on for your area, continue normal working but stay alert to the radio warnings.
- Remember that a cyclone alert means that the danger is within 24 hours. Stay alert.
- When your area is under cyclone warning get away from low-lying beaches or other low-lying areas close to the coast
- Leave early before your way to high ground or shelter gets flooded
- Do not delay and run the risk of being marooned
- If your house is securely built on high ground take shelter in the safer part of the house. However, if asked to evacuate do not hesitate to leave the place.
- Board up glass windows or put storm shutters in place.
- Provide strong suitable support for outside doors.
- If you do not have wooden boards handy, paste paper strips on glasses to prevent splinters. However, this may not avoid breaking windows.
- Get extra food which can be eaten without cooking. Store extra drinking water in suitably covered vessels.
- If you are to evacuate the house move your valuable articles to upper floors to minimize flood damage.
- Have lantern, torches or other emergency lights in working conditions and keep them handy.
- Small and loose things which can fly in strong winds should be stored safely in a room.
- Be sure that a window and door can be opened only on the side opposite to the one facing the wind.
- Make provision for children and adults requiring special diets.
- If the centre of the cyclone is passing directly over your house there will be a lull in the wind and rain lasting for half and hour or so. During this time do not go out; because immediately after that very strong winds could blow from the opposite direction.
- Switch off electrical mains in the house.
- Remain calm.

(iii) When Evacuation is instructed

- Pack essentials for yourself and your family to last you a few days, including medicines, special foods for babies and children or elders.
- Head for the proper shelter or evacuation points indicated for your area.
- Do not worry about your property
- At the shelter follow instructions of the person in charge.
- Remain in the shelter until you have been informed to leave

(iv) Post-cyclone measures

- Remain secure in shelter until given instructions to return to your home.
- Get inoculated immediately.
- Keep away from loose or dangling wires from the lamp posts.
- Drive carefully.
- Clear debris immediately from your premises.
- Report correct loss to appropriate authorities.

Annexure 8 Emergency Contact Directory

1. 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

2. Govt. of India (Home Ministry)

Sr. No.	Designation	Office	Resi.	Mobile
1	Home Minister	011-23092462 011-23017256	-	-
2	Home Secretary	011-23092989 011-23093031 23093003 (F)	23013058	-
3	Secretary (BM)	011-23092440 23092717 (F)	24602518	-
4	Joint Secretary (DM)	011-24638206 24610906 (F)	24103663	-
5	Director (DM-1)	011-24642853	26266708	
6	Dy. Secretary (NDM-III)	011-24642381	26117043	-
7	Director (NDM-IV)	011-24622543	-	-
8	Under Secretary (NDM-III)	011-24642380 24640391	-	-
9	Under Secretary (NDM-IV)	011-24640391		
10	T.O.	011-24642379	-	-
11	National Seismic Advisor	011-23702442	-	9818997029
12	Consultant NDM	011-24642379	-	-

3. District Collectors

S. No	District Name	Code	Name	Office	Resi.	Mobile	Fax
1	Ahmedabad	079	Roopwantsinh	27551681	22863598	9978406201	27552144
2	Amreli	02792	Ajaykumar	222307	222301	9978406202	222710
3	Anand	02692	Rahul Gupta	262271	261000	9978406203	261575
4	Arvalli	02775	B J Bhatt	247800		9978405935	247801
5	Banaskantha	02742	M.S.Patel	257171	257007	9978406204	252740
6	Bharuch	02642	Avantika Singh	240600	223701	9978406205	240602
7	Bhavnagar	0278	P.K. Solanki	2428822	2568866	9978406206	2427941
8	Botad	02849	V.C Varma	231305		9978405931	
9	Dahod	02673	D.A.Satya	239001		9978406207	239005
10	Devbhumi Dwaraka	02833	D.P.Joshi	223804		9978405933	232102
11	Chhotaudepur	02669	Jenu Devan	233001	232001	9978405937	233002
12	Gandhinagar	079	P.Swaroop	23259029 23259030	23254884	9978406209	23259040
13	Gir Somnath	02876	C.P. Patel	243344		9978405934	243300
14	Jamnagar	0288	Nalin Upadhyay	2555869	2554059	9978406210	2555899
15	Junagadh	0285	Alok Kumar Pandey	2636100	2650203	9978406211	2635599
16	Kheda	0268	K.K.Nirala	2553334		9978406212	2553358
17	Kutch	02832	Harshad Patel	220020	250350	9978406213	250430
18	Mahisagar	02674	S K Pandya	250666	253555	9978405936	250655
19	Mehsana	02762	R.K.Benival	222200 222211	253365	9978406214	222202
20	Morbi	02822	S.B Raval	240701	227712	9978405932	241602
21	Narmda	02640	Rakesh Shankar	222161	222162	9978406216	222171
22	Navsari	02637	Sandhya Bhullar	244999 250556	246000	9978406215	281540
23	Panchmahal	02672	Manisha Chandra	242800	242900	9978406217	242899
24	Patan	02766	H N Thakkar	233303	233300	9978406218	233055
25	Porbandar	0286	M.A.Gandhi	2221800	2243801	9978406219	2222527
26	Rajkot	0281	Rajenderkumar	2473900	2742900	9978406220	2453621
27	Sabarkantha	02772	Banchhanidhi Pani	241001	223001	9978406221	241611
28	Surat	0261	Jaiprakash Shivhare	2652525 2655151	2669080	9978406222	2655757
29	Surendranagar	02752	K.B.Bhatt	282200	282201	9978406223	283862
30	Tapi	02626	Ranjeethkumar J.	224460	220221	9978405364	221281
31	The Dang	02631	G.R.Chudhary	220201	220202	9978406208	220294
32	Vadodara	0265	Vinod Rao	2423100	2333999	9978406224	2431093
33	Valsad	02632	Vikrant Pandey	243417 253613	253060	9978406225	243417

4. District Development Officers

Sr. No	District Name	Code	Name	Office	Resi.	Mobile	Fax
1	Ahmedabad	079	Ravishankar	25506487		9978406226	25511289 25507762
2	Amreli	02792	Sujeetkumar	222313	222431	9978406227	222378
3	Anand	02692	Kuldip Aary	241110		9978406228	243895
4	Arvalli	02775	M Nagarajan (I/c)	242350	242351	9978406246	240872
5	Banaskantha	02742	H.K.Patel	254060	253029	9978406229	252063
6	Bharuch	02642	Anand B Patel	240603	245880	9978406230	240951
7	Bhavnagar	0278	H.R.Suthar	2426810	2565955	9978406231	2430295
8	Botad	02849	H.R.Suthar (I/c)	2426810	2565955	9978406231	24288864
9	Dahod	02673	D.K.Pravina	239066	233622	9978406232	239138
10	Devbhumi Dwarka	02833	Vijay Kharadi	2553901	2552402	9978406235	2552394
11	Chhotaudepur	02669	Ravikumar Arora (I/c)	2432027	23328476	9978406249	2431036
12	Gandhinagar	079	V.B.Mekwan	23222618	23243779	9978406234	23223266
13	Gir Somnath	02876	Dilip Rana	2651001	2651202	9978406236	2651222
14	Jamnagar	0288	Vijay Kharadi	2553901	2552402	9978406235	2552394
15	Junagadh	0285	Dilip Rana	2635315	2651202	9978406236	2636317
16	Kheda	0268	Sandipkumar Sangle	2557262	2532802	9978406237	2557567
17	Kutch	02832	R. G. Bhalara	250080	250052	9978406238	250355
18	Mahisagar	02674	Ratankunvar Gadhavi	253377	253399	9978406242	253350
19	Mehsana	02762	Narendkumar Meena	222331		9978406239	222304
20	Morbi	02822	Dhaval Patel (I/c)	2477008	2477144	9978406245	2479128
21	Narmda	02640	Ku.S.Chhakchhuvak	222081	222471	9978406241	222085 222086
22	Navsari	02637	S.M Patel	244299 248120	248144	9978406240	230475
23	Panchmahal	02672	Ratankunvar Gadhavi	253377	253399	9978406242	253350
24	Patan	02766	Gaurav Dahiya	223440 232936	231446	9978406243	234294
25	Porbandar	0286	B.C.Patni	2243804	2213224	9978406244	2211806
26	Rajkot	0281	Dhaval Patel	2477008	2477144	9978406245	2479128
27	Sabarkantha	02772	M Nagarajan	242350	242351	9978406246	240872
28	Surat	0261	Remya Mohan	2422160	2667453	9978406247	2412543
29	Surendranagar	02752	J.K.Astik	283752	283501	9778406248	283402
30	Tapi	02626	K.B.Upadhyay	222141	220222	9978405263	222142
31	The Dang	02631	Bipin Thakkar	220254	220235	9978406233	220444
32	Vadodara	0265	Ravikumar Arora	2432027	2338476	9978406249	2431036
33	Valsad	02632	Udit Agarwal	253184	253086	9978406250	248315

5. Municipal Commissioners of the State

No.	City	Name	(O)	(R)
1	Ahmedabad	Guruprasad Mohapatra	25352828, 27551122 (F) 25354638	26420600
2	Vadodara	Manish Bhardwaj	2433344 (F) 2433060	2785700
3	Rajkot	Ajay Bhadoo	2224133, 2239973 (F)2224258	2465859
4	Surat	Manoj Kumar Das	2422244 (F)242110/2451935	2258393
5	Jamnagar	Anupam Anand	2552321 (F) 2554454	2552372
6	Bhavnagar	V. P. Patel	2510532 (F) 2518841	2568866
7	Junagadh	J.B. Vora	233301, 2650450 (F) 2651510	2652988
8	Gandhinagar	J. G. Hingrajia	257171	

6. Chief Fire Officer

#	Name	Municipal Corporation	M. No.
1	Shri M F Dastoor	Ahmedabad	93270 38754 98254 07701
2	Shri Hitesh Tapariya	Vadodara	98796 15020
3	Shri Pankaj Patel	Surat	97243 45234
4	Shri K V Dhela	Rajkot	96247 18284
5	Shri Bishnoi	Jamnagar	98795 31101
6	Shri Vikramsinh Gohil	Bhavnagar	98252 89222
7	Shri Jentibhai Ghetiya	Junagadh	95588 12297
8	Shri Mahesh Modh	Gandhinagar	94279 55551 98988 32222

7. Police Commissioners and DIG's

No.	City	Name	(O)	(R)
1	Gujarat	Director General and Inspector General of Police	23246333 (F)23246338	23254201 26420008
2	Ahmedabad	Commissioner of Police	25633636	26423997
3	Vadodara	Commissioner of Police	0265-2431414 2431515	2324020 2322000
4	Rajkot	Commissioner of Police	0281-2459888	2450888
5	Surat	Commissioner of Police	0261-2244440	2666777 2668555
6	Ahmedabad Range	IGP	079-26890597	23248464
7	Gandhinagar Range	IGP	079-23260171	26630025
8	Vadodara Range	DIGP	0265-2432400 2432500	2353899
9	Surat Range	IGP	0261-2668666	2666777
10	Rajkot Range	DIGP	0281-2477511	2477522
11	Junagadh Range	IGP	0285-2650401	2650602
12	Border Range	DIGP	02832-232335 232366	252224

8. Army, Air Force and Coast Guard

No.	City	Name	(O)
1	Ahmedabad	Army Exchange	22856251
2	Ahmedabad	Lt.Col. Chetan or Major Lama	(O)22852444 (R)22852682 (F)22856251
3	Ahmedabad	Col. Vinay Bahal	(O)22852403 (R)22852433 (F)22861902
4	Ahmedabad	Air Traffic Control	22869251
5	Gandhinagar	Air Force Exchange	23242600
6	Delhi	Air Force	011-23010231, 25687194-97
7	Gandhinagar	Coast Guard	(O) 079-23243264, 23243283 (Operation Center) 23243147 (F) 079-23241717
		P.V. Gopal, Dy. Comdt.	(O) 079-23243241 (M) 9377858901
8	Mumbai	Coast Guard	(O)022-24372472, 24333727 (F)022-24333727, 24372920

9. 6Bn, 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

10. Air Force Gandhinagar

1	Wing Commander, Air-II for Air Commander-in-Chief, Sector-9, Gandhinagar	23242600/5241 (F)23240076/88

11. Western Railway

No.		Designation	(O)	(R)
1	Mumbai Central	Divisional Manager	022-22395941	22020304
2	Vadodara	Divisional Manager	0265-22641144	
3	Bhavnagar	Divisional Manager	0278-22445477	2445051
4	Rajkot	Divisional Manager	0281-22477006	2477007
5	Ahmedabad	Divisional Railway Manager	079-24114588	22865625

Western Railway - Ahmedabad Division

Degination	Mobile No.
DRM	9426415000
ADRM	9426490500
CONTROL ROOM	079-22111413
SR.DOM (Operating Dept.)	9426402509
SR.DCM (Commercial Dept.)	9426402504
SR.DEN/HQ (Engineering Dept.)	9426402502

Western Railway - Headquarter Office (Mumbai)

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

12. India Meteorological Department and Observatories

No.	Designation	(O)	(R)	(F)
1	D.G.M., New Delhi	011-24611842	24633692	24611792
2	D.D.G.M.(C.W.) New Delhi-3	011-24611068	24644937	24619167
3	Director (Seismo)	011-24611305	2622827	
4	D.D.G.M.(Seismo) New Delhi-3	011-24629770	24648067	24629770
5	Director (EREC) New Delhi-3	011-24619943	24634714	
6	Director (C.W.C) New Delhi	011-24631913, 24629798	26196225	24643128 246266815
7	Director (N.H.A.C.) Delhi	011-24619167		246110068
8	D.D.G.M. (SI) Pune	020-25535411	27442954	25533201
9	DDGM (ag.) Pune	020-25533420	25535953	
10	D.D.G.M. (RMC Mumbai-5)	022-22150517	22150517	22150517
11	Dir. Meterology Center Ahmedabad	22865165 (M)9978406424	26852615	22865449
12	Meteorologist Weather Forecasting A'bad	22861413	26852615	22865449
13	Institute of Seismological Research, Gandhinagar	23252703 23259100		23259192
14	Asst. Meteorologist II IMD, Bhuj	02832-250575	223051	250575
15	Kevadia Observatory	02640- 232122, 232041	231137	232122
16	IMD (Seismo) New Delhi	011-24619943		
17	IMD , Ahmedabad (MET)	079-22865012		22865449
18	Director (I/c), A'bad	079-22865165		
19	Met. (I/c), A'bad	079-22861413		22865449
20	Duty Officer, CWC, A'bad	079-22865012		22867206

13. IMD Regional Offices

No.	Location	Phone
1	CDR Bhuj	02832-220007, 250575
2	Veraval	02876-220004
3	Vadodara	0265-2482228
4	Deesa	02744-221178
5	Okha	02892-262129
6	Rajkot	0281-2451296
7	Keshod	02871-236110
8	Porbandar	0286-2220955
9	Dwarka	02892-234437
10	Bhavnagar	0278-2209440
11	Surat	0261-2725092
12	Naliya	02831-222201
13	Kandla (Port)	02836-257905
14	Bhavnagar (Seismo)	0278-2209440

14. Telecommunication

No.	Name	Desi.	(O)
1	SICN (Sachivalaya Internal Communication Network)	TATA Helpline	23256000, 23251499, 23256789
2	Rakesh Desai	BSNL Gandhinagar Area Manager	23229191
3	V.B. Soni	BSNL Gandhinagar Divi. Eng.	23225005
4	Parmar	BSNL Gandhinagar Commercial	23240999

15. SEOC Important Telephone Numbers - (079)

No.	Name	Designation	Office	Mobile No.
1	G.C.Vaghela	Director of Relief & D.S.	23251611-12	9978406087
2	B.G.Patel	Dy. Collector (DM)	23251900	9978405741
3	N.B.Rathod	Mamalatdar	23251907	9923002294
4	N.S.Yogi	Dy.Mamalatdar	23251914	9978405747
5	S.A.Rabari	Dy.Mamalatdar	23251914	9978405305
6	G.A.Modi	Dy.Mamalatdar	23251914	9978405304
7	J.Z.Desai	Dy.Mamalatdar	23251914	9978405748
	e-mail	revcontrol1@gujarat.gov.in / revcontrol2@gujarat.gov.in		
	SEOC	23251902, 23251907	(Office) Fax	23251912
		23251914 / 23251908		23251916

16. Gujarat State Disaster Management Authority, (GSDMA)

No.	Name	Designation	(O)	(R)	(M)
1	V. Thiruppugazh, IAS	CEO	23259276/502 23259275(F)	23254900	9978405655
2	Dhananjay Dwivedi, IAS	Addl. CEO	23259217		
3	Anish Mankad, IAS	Addl. CEO	23259451		
4	S.M.Sangada	Director	23259219	23226212	9978407006
5	H.N. Gamit	Director (Finance)	23259278	26642486	9978407007
6	B.M.Malivad	Executive Engineer	23259287	26826003	9377366857
7	R.N.Damor	Assistant Director (Accounts)	23259304	27439525	9909894994

17. Mamlatdars (Disaster Management)

Sr. No	District Name	Code	Name	Office	Mobile	Fax
1	Ahmedabad	079	Shri C.B.Prajapati (I/c)	27560511	9825266192	27552144
2	Amreli	02792	D.V.Vithlani (I/c)	230735	9428953251	221600
3	Anand	02692	N.S.Joshi	243222	9428674361	241575
4	Arvalli	02775	Pathik Patel (I/c)	249039	9925155936	230100
5	Banaskantha	02742	Shri R.G.Chohan (I/c)	250627	9727811191	252740
6	Bharuch	02642	N.H.Ataliwal	242300	9408703201	251900
7	Bhavnagar	0278	K.S.Limbani (I/c)	2521554 2521555	8000284545	2437700
8	Botad	02849	Shri P.P.Yadav		9825656251	
9	Dahod	02673	Y.C.Guptey (I/c)	239277	9825268791	239277
10	Dang	02631	C. V. Vaishnav	220347	8980035034	220347
11	Devbhumi Dwarka	02833	N.G.Kupavat (I/c)	234113	9974718833	234113
12	Chhotaudepur	02669	K H Parmar (I/c)	232010	9426066855	2431093
13	Gandhinagar	079	Shabera.N.Malek	23256720 23256639	7567001166	23245878
14	Gir Somnath	02876	K.C. Solanki (I/c)	243344	8530113343	243300
15	Jamnagar	0288	N.G.Bhanderi	2553404	9426226615	2541485
16	Junagadh	0285	J.A. Parsaniya (I/c)	2633446	9426164334	2633449
17	Kheda	0268	A.J.Varsat	2553357	9727511191	2553356
18	Kutch	02832	P.N.Suvera	252347	9586408593	224150
19	Mahisagar	02674	A N Bamaniya	250666	9879481157	250655
20	Mehsana	02762	Dashrthbhai Patel (I/c)	222220 222299	9427475585	222202
21	Morbi	02822	D.B.Radiya	241599	9909491851	241602
22	Narmda	02640	A.M.Vyas	224001 224911	9879197183	224719
23	Navsari	02637	Smt.Kanan Shah (I/c)	259401	9601268033	281540
24	Panchmahal	02672	Hitesh Raval	242536	9825220025	242536
25	Patan	02766	D C Joshi (I/c)	224830	9427647036	233055
26	Porbandar	0286	R.B.Siyani (I/c)	2245800	9429614969	2245800
27	Rajkot	0281	J.P.Paliya (I/c)	2471573	9427207292	22471574
28	Sabarkantha	02772	Pathik Patel (I/c)	249039	9925155936	230100
29	Surat	0261	M.U.Vasawa	2663200	9427132917	2664800
30	Surendranagar	02752	P.L.Dave (I/c)	283400	8734971212	283400
31	Tapi	02626	K.V.Valvi	222018	7567007247	221281
32	Vadodara	0265	T.S.Bhuriya (I/c)	2427592	9879244992	2431093
33	Valsad	02632	M.J.Lakhara	243238	9825220336	249335

18. District Project Officer - GSDMA

No	Name	District	Mobile	Office	Fax
1	Prashant Makwana	Ahmedabad	9825498315	079-27560511	27552144
2	Madhav A. Hathi	Ahmedabad City	9099298532	079-26580952	
3	Kratu Trivedi	Amreli	9426969236	02792-230735	221600
4	Darshana Paghadar	Anand	9974772343	02692-243222	243222
5	Kanaiyalal Patel (I/c)	Arvalli	9426341785		
6	Kamlesh Patel (I/c)	Banaskatha	9426533915	02742-250627	252740
7	Bhavesh Govil	Bharuch	9824468110	02642-242300	251900
8	Dimpal Teraiya	Bhavnagar	9824438275	0278-2521554	2521555
9	Prashant Makwana (I/c)	Botad	9825498315		
10	Pravinsinh Rathod	Dahod	9904388750	02673-239277	239277
11	Yashwant Parmar (I/c)	Devbhumi Dwaraka	9426950783		
12	Hiren Thaker (I/c)	Chhotaudepur	9426760771		
13	Chetnaba Rajput (I/c)	The Dang	9909069606	02631-220347	220347
14	Varsha Patel	Gandhinagar	9824502718	079-23256720	
15	Yakin Shivani (I/c)	Gir Somnath	9427433979		
16	Yashwant Parmar	Jamnagar	9426950783	0288-2553404	2541485
17	Yakin Shivani	Junagadh	9427433979	0285-2633446	2633449
18	Amy Joseph	Kheda	9726011067	0268-2553357	2553358
19	Khima Chetariya	Kutch	9427760669	02832-252347	224150
20	Rakesh Solanki (I/c)	Mahisagar	9724734209		
21	Anjela R. Gamadia	Mehsana	9898283817	02762-222220	222202
22	Suneel Tiwari (I/c)	Morbi	9426171920		
23	Hetashree Brahmbhatt	Narmada	9898657557	02640-224001	224719
24	Adnan Rehman Turak	Navsari	9601614393	02637-259401	281540
25	Rakesh Solanki	Panchmahal	9724734209	02672-242536	
26	Kamlesh Patel	Patan	9426533915	02766-224830	
27	Haresh Dodia	Porbandar	9825664254	0286-2220800	2220800
28	Suneel Tiwari	Rajkot	9426171920	0281-2471573	2471574
29	Kanaiyalal Patel	Sabarkantha	9426341785	02772-249039	230100
30	Virbhadra Jadeja	Surendranagar	9726772661	02752-284300	283400
31	Hina Patel	Surat	8980015843	02642-2663200	2664800
32	Bhupendra Chaudhari	Tapi	9726733431	02626-223332	221281
33	Hiren Thaker	Vadodara	9426760771	0265-247592	2431093
34	Chetnaba Rajput	Valsad	9909069606	02632-243238	249335

19. Information and Communication

No.	Media	Code No.	Office	Fax
1.	All India Radio, Ahmedabad	079	27541195	27541195
2.	AIR, Vadodara	0265	2643843	
3.	AIR, Bhuj	02832	254310	250853
4.	AIR, Godhra	02672	241478	
5.	AIR, Ahwa	02631	220295	
6.	AIR, Daman	0260	2242966	
7.	AIR, Rajkot	0281	2385602	
8.	AIR, Surat	0261	2234450	
9.	NDTV	079	26929618	
10.	DDK, Ahmedabad	079	26853816	
11.	Aaj Tak		9879810101	
12.	Star News	079	26872529 9825025400	
13.	Zee News	079	26857880 9825021413	

20. Gujarat Maritime Board

Sr. No.	Name of Ports	STD Code	Office	Fax No
1	Head Office, Gandhinagar	079	23238346-48	23234704
2	Magdalla VTMS	0261	2721700	2721700
3	Magdalla Port Office	0261	2474825	2475645
4	Hazira Port Pvt. Ltd., Hazira	0261	3051165 (Port Control)	3051158
5	Bharuch (Dahej)	02642	241772	243140
6	Petronet LNG Ltd., Dahej	02641	300325	257252
7	Bhavnagar	0278	2210221	2211026
8	Alang PO	02842	235621	235955
9	Jafrabad	02794	245443	245165
10	Gujarat Pipavav Port Ltd., Pipavav	02794	302666	302667
11	Veraval	02876	220001	243138
12	Porbandar	0286	2242408	2244013
13	Jamnagar (Bedi)	0288	2755106	2756909
14	Okha	02892	262001	262002
15	Navalakhi (Adm. at Morbi)	02829	283752	
16	Morbi for Navlakhi Port	02822	220435	232470
17	Mandvi Port Office	02834	223033	230033
18	Mundra (Asst. Conservetor)	02838	222136	222136
19	Gujarat Adani Port Ltd. (GAPL), Mundra	02838	289221-289371	289270 289170
20	Jakhau (Asst. Conservetor)	02831	287261	287261
21	I.M.D. Ahmedabad	079	22861413/ 22865012	22867206

21. GSWAN Network

GSWAN Control (Help)		777
Sr. No.	**District Name**	**Code**
1	Ahmedabad	2000
2	Amreli	2200
3	Anand	2300
4	Banaskantha	2400
5	Bharuch	2500
6	Bhavnagar	2600
7	Dahod	2700
8	Dang	2800
9	Gandhinagar	2900
10	Jamnagar	3000
11	Junagadh	3100
12	Kheda	3200
13	Kutch	3300
14	Mehsana	3400
15	Narmda	3500
16	Navsari	3600
17	Panchmahal	3700
18	Patan	3800
19	Porbandar	3900
20	Rajkot	6000
21	Sabarkantha	6100
22	Surat	6200
23	Surendranagar	6300
24	Vadodara	6400
25	Valsad	6500

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

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

22. Satellite Phone Numbers - EOCs

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

23. Important Websites

Sr.No.	Department	Website
1.	MHA	www.mha.nic.in
2.	NDMA	www.ndma.gov.in
3.	GSDMA	www.gsdma.org
4.	NIDM	www.nidm.net
5.	IDRN	http://idrn.gov.in
6.	SDRN	http://117.239.205.164/sdrnguj/
7.	IMD	www.imd.gov.in
8.	ISR, Gujarat	http://dst.gujarat.gov.in/isr.htm
9.	BISAG	http://www.bisag.gujarat.gov.in
10.	GSWAN	http://www.gswan.gov.in

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