District Disaster Management Plan

Porbandar district

2019-20

(Volume: II)

Collector Office

Disaster Management Cell

Porbandar

Gujarat State Disaster Management Authority

District Disaster Management Plan

Year: 2019-20

(Volume: II)

Name of District : **Porbandar**

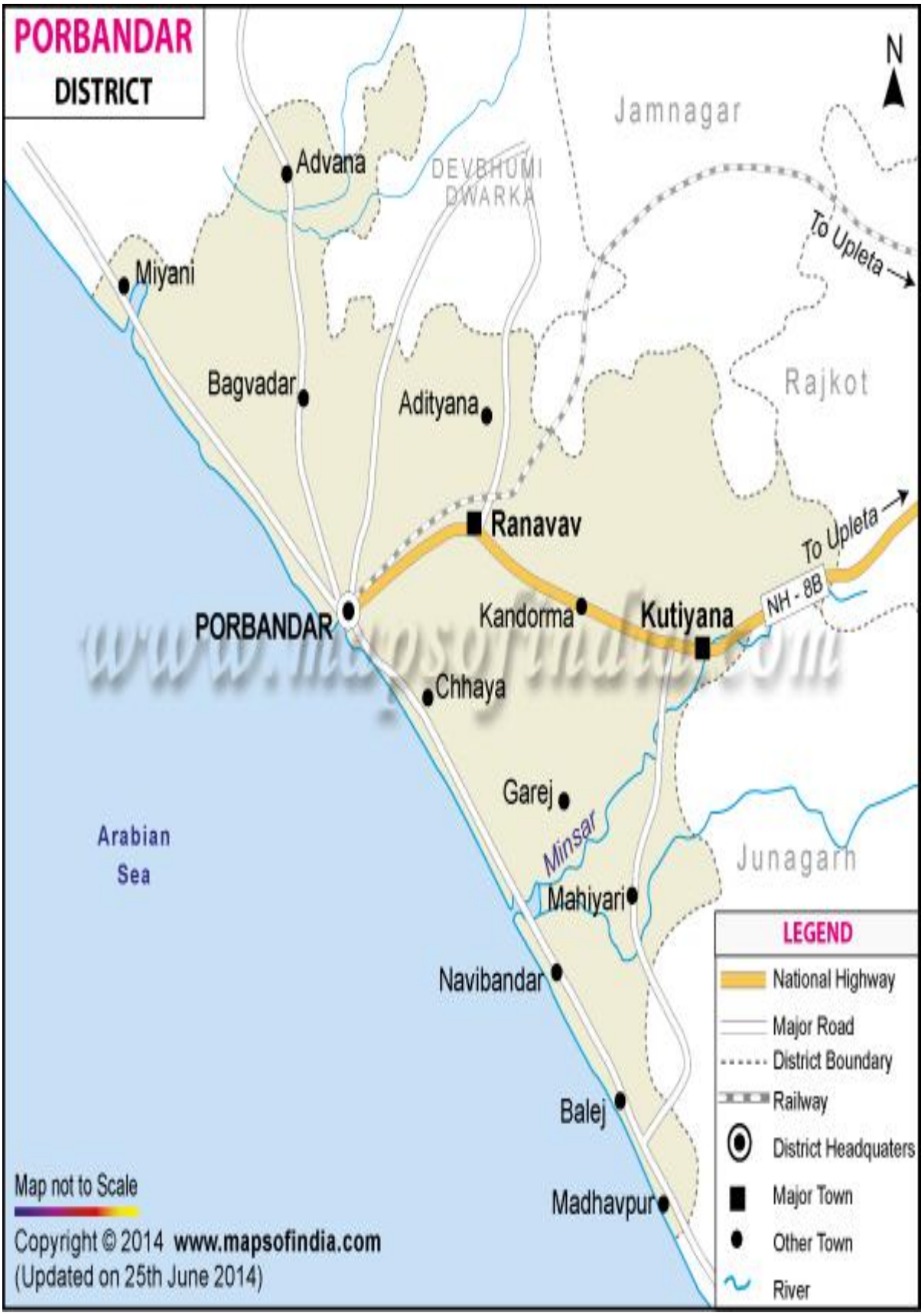
Name of Collector : **Mr M.A. Pandya (IAS)**

Date of submission : **08/05/2019**

Collector office

Disaster Management Cell

Porbandar


PORBANDAR
DISTRICT
N
Jamnagar
Advana
DEVBHUMI
DWARKA
To Upleta
Miyani
Bagvadar
Adityana
Rajkot
Ranavav
To Upleta
NH - 8B
PORBANDAR
Kandorma
Kutiyana
Chhaya
Garej
Minsar
Arabian
Sea
Junagarh
Mahiyari
Navibandar
Balej
Madhavpur
LEGEND
National Highway
Major Road
District Boundary
Railway
District Headquaters
Major Town
Other Town
River
Map not to Scale
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(Updated on 25th June 2014)

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CHAPTER I

INTRODUCTION

Disaster refers to a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

Disaster management is a process or strategy that is implemented when any type of catastrophic event takes place. Sometimes referred to as disaster recovery management, the process may be initiated when anything threatens to disrupt normal operations or puts the lives of human beings at risk. Governments on all levels as well as many businesses create some sort of disaster plan that make it possible to overcome the catastrophe and return to normal function as quickly as possible.

Porbandar district administration has used a **multi-disaster management approach (**all disasters are covered by one plan) while developing disaster management plan for the district.The importance of plan will be a full proof communication, authentic and accurate database, documented and rehearsed to be activated in the shortest possible time with minimum simple orders and procedures ensuring active participation by administration, panchayati raj institutions, communities and volunteers at all levels making optimal utilization of available human and material resources with no gaps or overlaps to prevent or minimize loss to lives and propertyand to ensure fastest restoration of the situation.

1.1 Aims and Objectives

- To determine the risk and vulnerabilities associated with various hazards.
- To identify the hazardous areas and to create appropriate strategies to address the issues at those areas.
- To develop appropriate strategies for effective prevention and mitigation of disasters.
- To build the capacity of people working in the field of disaster management.
- To aware the citizens.
- To define and assign roles and responsibilities to various stakeholders associated with disaster management for pre-disaster and post-disaster phases.
- To develop and maintain arrangements for accessing resources, equipment, supplies and funding in preparation for disasters.
- To defines the risks and vulnerabilities of the citizens of the district to different disasters.
- To identifies the private and public sector parties with prime and supporting responsibilities to reduce or negate these vulnerabilities.
- For mainstreaming the disaster management practices into the developmental planning process.

- To define actions to be taken by these parties to avoid or mitigate the impact of possible disasters in the district.

1.2 Evolution of the Plan

Gujarat Act No. 20 of 2003, The Gujarat State Disaster Management Act, 2003 clearly stated to mandatory provision of the DM plan as per the following clause & sections:

Clause 15 of Chapter VI

1. The authority shall develop or cause to be developed guidelines for the preparation of disaster management plans and strategies and keep them update and shall assist such departments of Government, local authorities and person, as may be specified by the authority in preparation of plans and strategies and coordinate them.
2. The plan preparing authority while preparing the plan under subsection (1) shall make suitable provisions in the plan after considering the following, namely:-

(a) The types of disaster that may occur and their possible effects;
(b) the communities and property at risk;
(c) provision for appropriate prevention and mitigation strategies;
(d) inability to deal with disasters and promote capacity building;
(e) the integration of strategies for prevention of disaster and mitigation of its effects with development plans, programme and such other activities in the State;
(f) provision for assessment of the nature and magnitude of the effects of a disaster;
(g) contingency plans including plans for relief, rehabilitation and reconstruction in the event of a disaster, providing for.
(i) allocation of responsibilities to the various stakeholders and coordination in carrying out their responsibilities;
(ii) procurement of essential goods and providing essential services;
(iii) establishment of strategic communication links;
(iv) dissemination of information; and
(v) other matters as may be provided for in the regulations.
(h) any other matter required by the Authority.

3. The Authority shall prepare, or cause to be prepared, and maintained a master plan for the State/District.

1.3 Authority for the plan

The Gujarat State Disaster Management Act of 2003, authorizes the collector to secure cooperation and assistance from other parties to prevent or reduce the impact of disasters.
The collector (specifically) and the Government authorities (generally) are responsible for managing potential hazards and disasters with the support from GSDMA, the Relief Commissioner and other public and private parties as may be needed.

1.4 Stakeholders and their responsibilities

At the district level, District Collector is responsible for responding any disaster situation in consultation with other line departments at district HQ are responsible to deal with all phases of disaster management within district.
Technical institutions, NGOs, Local authority, private sector, Community groups, volunteer agencies and citizens.

According to Disaster Management Act-2003, Stakeholders and their responsibilities are:

District Collector:

During the period, an area is an affected area the Collector may issue directions to the officers of the departments of the Government and the local authority in the affected area, to provide emergency relief in accordance with the disaster management plans.

The District Collector may:

1. Make arrangements for release and use of available resources
2. Control and restrict traffic to, from and within the area affected by a disaster
3. Control and restrict the entry into, movement within and departure from any disaster area or part of it
4. Remove debris
5. Conduct search and rescue operations
6. Make arrangements for the disposal of the unclaimed dead body, by appropriate means
7. Provide alternative shelter
8. Provide food, medicines and other essentials
9. Require experts and consultants in the matters relevant to the disaster to provide relief under his direction and supervision
10. To take possession and make use of any property, vehicles, equipment, buildings and means of communication on such terms and conditions as may be prescribe
11. Procure exclusive or preferential use of amenities as and when required
12. Construct temporary bridges or other structures
13. Demolish unsafe structures which may endanger the public.

14. Coordinate with non-governmental organizations and ensure that such entities carry out their activities in an equitable manner
15. Disseminate information to the public to deal with the disaster
16. Direct and compel evacuation, of all or part of the population from any affected area for the purpose of preservation of life and for such evacuation, and for such evacuation use such force as may be necessary
17. authorize any person, to make any entry into any place, to open or cause to be opened, any door, gate or other barrier, if he considers such an action is necessary for preservation of life and property, if the owner or occupier is absent, or being present, refuses to open such door, gate or barrier.

The Collector may exercise the powers contained in subsection (2) to the extent only that this is necessary for the purpose of –

(a) Assisting and protecting the community
(b) Providing relief to the community
(c) Preventing or combating disruption
(d) Dealing with the destructive and other effects of the disaster

The Collector may issue such directions to any person or government agency and take such other steps, as may be necessary to curtail the escalation of the disaster or to alleviate, contain or minimize the effects of disaster.

Role and responsibility:

The Collector

- Facilitate and, coordinate with, local Government bodies to ensure that pre and post - disaster management activities in the district are carried out.
- Assist community training, awareness programmers and the installation of emergency facilities with the support of local administration, non-governmental organizations, and the private sector.
- Take appropriate actions to smoothen the response and relief activities to minimize the effect of disaster.
- Recommend CoR and State Government for declaration of disaster.

Local Authority

- Provide assistance to GSDMA, COR and Collector in disaster management activities.
- Ensure training of its officers and employees and maintenance of resources so as to be readily available for use in the event of a disaster.

- Ensure that all construction projects under it conform to the standards and specifications lay down.
- Each department of the Government in a district shall prepare a disaster management plan for the district. Carry out relief, rehabilitation and reconstruction activities in the affected area within its jurisdiction.

Private Sector

- The private sector should ensure their active participation in the pre-disaster activities in alignment with the overall plan developed by the GSDMA or the Collector.
- They should also adhere to the relevant building codes and other specifications, as may be stipulated by relevant local authorities.

Community Groups and Voluntary agencies

- Local community groups and voluntary agencies including NGOs should actively assist in prevention and mitigation activities under the overall direction and supervision of the GSDMA or the Collector.
- They should actively participate in all training activities as may be organized and should familiarize themselves with their role in disaster management

Citizen

It is a duty of every citizen to assist the Collector or such other person entrusted with or engaged in disaster management whenever his aid is Damanded generally for the purpose of disaster management.

1.5 Approval of the Plan

The line departmennts and other stakeholders of the district submit a copy of updated departmental disaster management plan to the collector for approval of the plan.
The collector will submit a copy of updated district disaster management plan to the State Disaster Management Authority and Relief Commissioner for approval of the plan.

1.6 Plan review and Updation

All line departments and stakeholders of district should periodically review and update the disaster management plan and submit the updated plan to the collector office. The same compiled DDMA should be reviwed and updated periodically and a copy should be submitted to District Disaster Management Authority and State Relief Commissioner for review of the plan.

Normally, the District Disaster Management Plan is update twice in a year for review and updation. It should be prepared in pre-monsoon phase in the month of may and it is to be update d in post-monsoon phases i,e in the month of November every year.

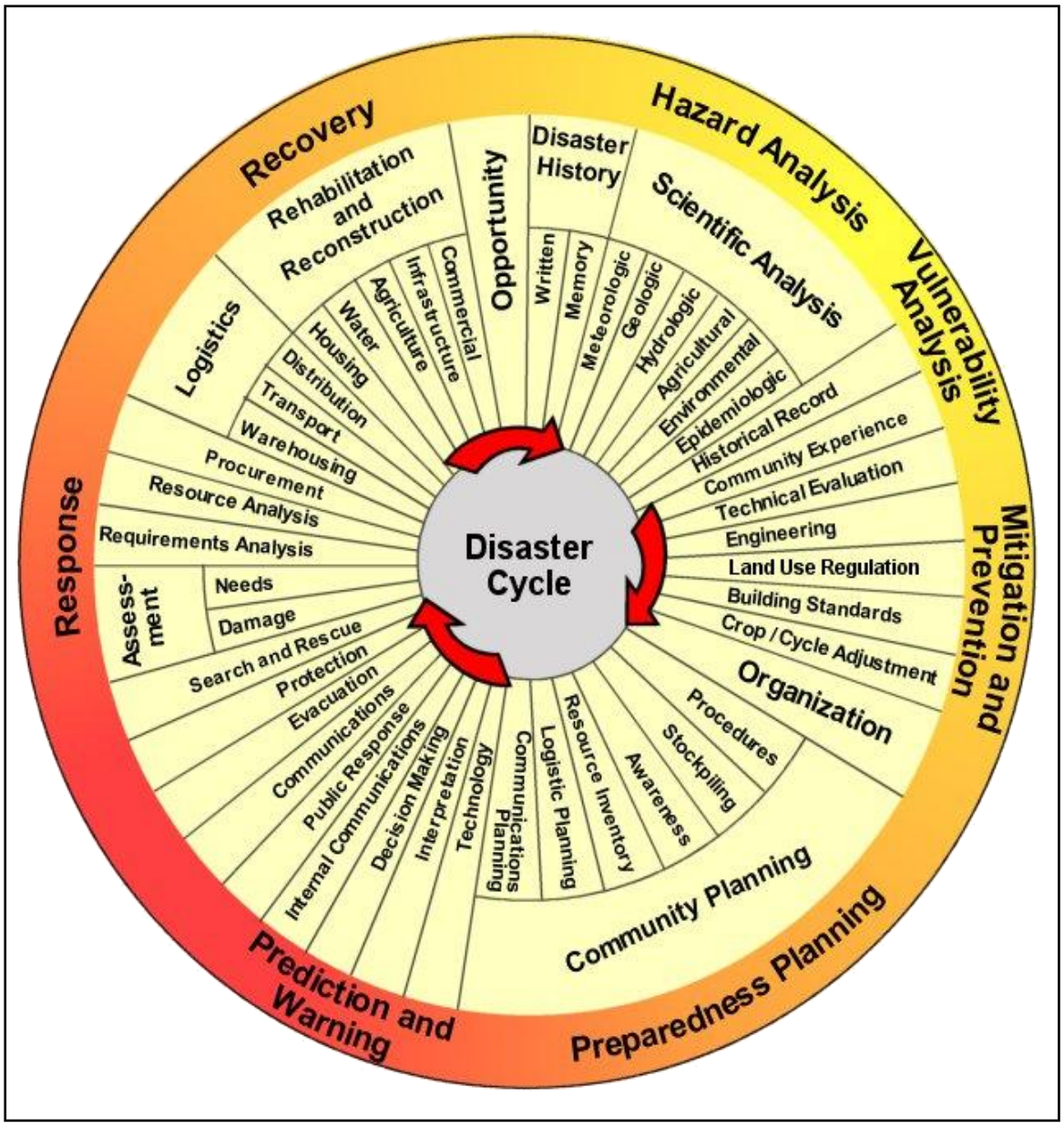


Figure 1.1: Showing Disaster Management Cycle

1.7 District Profile of Porbandar

Introduction

Porbandar district in Gujarat state is located at 21°67' N latitude and 69°81'E longitude. This district came into existence on 2nd October 1997, earlier it was a part of Junagadh district. It is surrounded by Jamnagar and Devbhoomi Dwarka district to the north, Junagadh and Rajkot district to the east and the Arabian Sea to the west and south.

The famous "Barda" hill is situated in Porbandar district. The lower plains of Ghed area is also the part of Porbandar district, which is known as Sorathi and Barada Ghed. Ghed is water logged for a long time during monsoon due to flood in rivers due to its unique situation. This district has also sea coastline of 106 km stretching from Madhapur to Miyani in the Porbandar Taluka.

Area & Administration:

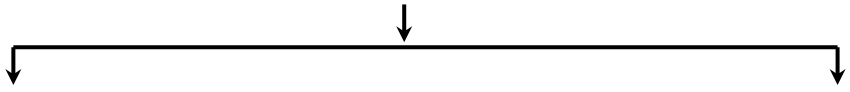
The district covers an area of 2,316 square k.m. and has **total population 5,85,449.**

It has 3 Taluka (under two Sub-divisions) shows in Table No: 1.1.

		Village Area		
Sr. No.	**Name of Taluka**	**Number of Villages**	**Number of Towns**	**Population**
1	Porbandar	75	02	384660
2	Ranavav	30	01	114568
3	Kutiyana	47	01	86221
Total		**152**	**04**	**585449**

Table: 1.1 showing taluka wise population distribution.

Porbandar District with Two Sub-Division



Porbandar

Kutiyana
Ranavav

Porbandar town is district head-quarter and the district has 4 towns (including Porbandar). The information of municipality is as under. Khapat and Bokhira is included in Porbandar town whereas, Adityana included in Ranavav town.

Climate:

The Climate of Porbandar district can be regarded as one of extreme kind with normal weather. The air is humid due to coastal location. The details of **coastal villages** are as under:

Sr. No.	Taluka	Number of Villages
1	Porbandar	28
2	Ranavav	-
3	Kutiyana	-
TOTAL		**28**

Table no: 1.2 showing coastal villages.

The temperature at Porbandar district headquarters ranges from 43.6 degree centigrade higher in the summer and 9.5 degree centigrade lowest in the winter.

Table 1.3 : EXTREME WEATHER EVENTS IN THE MONTH OF APRIL.

Year	Temperature(^{o}C)		Rainfall (mm)	
	Highest Maximum(Date)	Lowest Minimum(Date)	24 Hours Highest (Date)	Monthly Total
2016	38.2(28)	20.8(08)	000.0(--)	000.0
2015	42.8(23)	20.5(01,06)	000.0(--)	000.0
2014	39.6(23)	18.4(10)	000.0(--)	000.0
2013	38.8(26)	16.6(07)	000.0(--)	000.0
2012	37.7(02)	19.6(07)	000.0(--)	000.0
2011	40.2(08)	19.2(03)	000.0(--)	000.0
2010	38.6(10)	20.0(05)	000.0(--)	000.0
2009	43.5(28)	18.4(09)	TRACE(06)	TRACE
2008	39.8(26)	19.9(02)	000.0(--)	000.0
2007	42.2(06)	20.4(03)	000.0(--)	000.0
ALL TIME RECORD	44.0(26,1979)	15.0(02,1996)	005.9(15,1983)	006.1(1983)

Average Weekly Temperature (Degree Celcius)									
Block	Period								
	Summer (April-May)			Winter (Oct-March)			Rainy (June-Sept)		
	Min.	Max.	Mean	Min.	Max.	Mean	Min.	Max.	Mean
Porbandar	20.55	38.65	29.60	13.15	36.42	24.78	23.98	34.18	29.08

Table 1.4 : Average weekly temperature
Source: IMD, Gandhinagar

Climatological table:

PERIOD: 1981-2010

Table 1.5: climatological table (1981-2010)

Month	Mean Temperature(°C)		Mean Total Rainfall (mm)	Mean Number of Rainy Days	Mean Number of days with			
	Daily Maximum	Daily Minimum			HAIL	Thunder	FOG	SQUALL
Jan	29.3	14.2	001.1	00.1	0.0	0.0	0.5	0.0
Feb	30.5	15.8	001.1	00.1	0.0	0.0	0.2	0.0
Mar	32.9	19.5	000.0	00.0	0.0	0.0	0.7	0.0
Apr	33.5	22.6	000.0	00.0	0.0	0.1	0.8	0.0
May	33.5	26.2	002.5	00.2	0.0	0.1	0.1	0.0
Jun	33.3	27.9	098.3	03.3	0.0	1.7	0.0	0.0
Jul	31.4	26.8	249.5	09.4	0.0	1.4	0.0	0.0
Aug	30.3	25.9	155.4	07.7	0.0	0.9	0.0	0.0
Sep	31.7	25.0	077.6	03.0	0.0	1.2	0.0	0.0
Oct	34.7	22.6	007.6	0.9	0.0	0.6	0.4	0.0
Nov	33.9	19.1	013.1	0.5	0.0	0.1	0.1	0.0
Dec	31.0	15.8	000.7	0.2	0.0	0.0	0.5	0.0
Annual	32.2	21.8	606.8	25.4	0.0	06.1	3.3	0.0

Sr. No	Name of district	Area (in Ha)	Normal Annual Rainfall (mm)	Average Monthly rainfall (mm)	No of rainy days (No.)
1	Porbandar	2,27,200	606.80	145.20	25.40

Table 1.6: showing Average rainfall in Porbandar district.
Source: PMKSY, District Irrigation Plan, Porbandar

The average annual rainfall recorded in Porbandar district was 428 mm during monsoon 2018.

Soil:

The soils of Porbandar district can be classified into three main categories:

- Shallow to Medium black soil
- Deep black soil (Ghed area)
- Coastal alluvial soil

Mainly, Shallow to medium black soils are found almost in three taluka which comprises 75 % of the area. This soils are more productive and rich in lime, magnesia and alumina but, poor in phosphorous, nitrogen and organic matters. This soil can retain considerable moisture and are suitable for agriculture.

Coastal alluvial soils are found mainly in coastal part of the Porbandar taluka, where the soils are less productive because of salinity.

The last 23 years taluka wise rainfall data of Porbandar district is provided in the Table :1.6

Table 1.7: RAINFALL DATA OF PORBANDAR DISTRICT (1995 to 2018)

Sr. No	Year	Taluka		
		Porbandar	**Ranavav**	**Kutiyana**
Rain fall average (In year of 1986-2015)		**646**	**712**	**719**
1	**1995**	**521**	**546**	**625**
2	**1996**	**452**	**487**	**341**
3	**1997**	**841**	**662**	**787**
4	**1998**	**1101**	**976**	**880**
5	**1999**	**157**	**314**	**354**
6	**2000**	**435**	**369**	**537**
7	**2001**	**612**	**773**	**550**
8	**2002**	**271**	**270**	**137**
9	**2003**	**666**	**912**	**650**
10	**2004**	**477**	**546**	**725**
11	**2005**	**903**	**735**	**844**
12	**2006**	**803**	**1100**	**1008**
13	**2007**	**1349**	**1316**	**1218**
14	**2008**	**557**	**624**	**801**
15	**2009**	**1497**	**1699**	**919**
16	**2010**	**1482**	**1690**	**1843**
17	**2011**	**779**	**1070**	**962**
18	**2012**	**211**	**220**	**266**

19	**2013**	**936**	**1198**	**1480**
20	**2014**	**645**	**985**	**1045**
21	**2015**	**324**	**516**	**327**
22	**2016**	**501**	**588**	**784**
23	**2017**	**627**	**675**	**644**
24	**2018**	**446**	**421**	**418**

River & Dams:

The district has three major non-perennial rivers named as Bhadar, Ozat and Minsar which falls into the Arabian Sea in the west. Besides, minor rivers named as Sorthi, Vartu, Kalindri and Bilganga flows in the district. There are no major dams but, five medium and minor dams are under the control of the state irrigation department and one minor dam is controlled by the district panchayat. There are 4 tidal regulator scheme and one reservoir scheme and 1 minor project are under control of salinity control division, Porbandar.

Ports & Fisheries:

Out of 1600 Km coast-line of Gujarat, the coastal belt of Porbandar district is blessed with 106 Km extending from Madhupur village in the south to Miyani (Harshad) village in north. There is 1 port in the Porbandar district, which is cargo and fisheries port. This port handle the import of commodities like coal, date-palm, LPG, Butane, steel, building materials, animal feed and edible oil and the export includes commodities like fish, cement ground-nut cakes, soyabean cakes, edible oil, bauxite, onion, garlic and building materials. There are 6 fishing villages and the fishermen population is 32,641 and out of which 10,546 are active fishermen. In total 5,207 mechanical/ no- mechanical boats of different capacity are available with them.

Agriculture & Livestock:

The geographical area of Porbandar district is 2,29,500 hectare. The net sown area of the district is 1,00,685 hectare.The area under irrigated and non-irrigated land is 12,300 hectare and 88,385 hectare respectively. The major crops cultivated in the district are ground-nut, cotton, Bajra, Jowar, castor, sesame seeds, chick-pea, cumin seeds and vegetables.
There are total 61,145 farmers in the district where Porbandar, Ranavav and Kutiyana taluka have 32,249, 17,294 and 11,602 farmers respectively.
The cropping pattern of the district during the year 2018-19 is described in the following table:

Cropping pattern and season						
Kharif			Rabi		Summer	
Sl no	Crop	Net sown area (in hectare)	Crop	Net sown area (in hectare)	Crop	Net sown area (in hectare)
1	Groundnut	76200	Dhain	1405	Sesame seeds	0
2	Sesame seeds	0	Chick-pea	5235	Moong dal	30
3	Cotton	10670	Cumin seeds	3305	Bajra	20
4	Divela	290	Coriander leaves	1115	Urad dal	20
5	Moong dal	0	Jowar (ravi)	25500	Vegetables	175
6	Urad dal	0	Divela(ravi)	10	Fodder	590
7	Vegetables	435	Vegetables	255	-----	------
8	Fodder	12550	Fodder	12980	-----	-------

Table 1.8: showing cropping season and pattern of Porbandar district.
(source: District Agriculture Office, Zila panchayat, Porbandar)

The livestock rearing is also an important livelihood for certain communities in the district. The livestock available in district are cows, buffaloes, sheep, goats, horses, mules, donkeys, camels, dogs and rabbits. According to the livestock census-2012, the Taluka wise total livestock of Porbandar, Ranavav and Kutiyana are 150545, 62779 and 60510 respectively. Total number of poultry is 14,605 in the district.

Industries:

The district has mainly cement, chemical, metallurgical and ship building and fishing industries. Availability of minerals such as lime stone, chalk amd bauxite help to develop several mineral based and cements industries. The important industries in the district are Saurashtra chemicals, Saurashtra cement, Orient abraisive ltd and S.H.V. Energy pvt ltd (super gas terminal). There are also many minor industries developed in the district.

Road, Railway & Airway:

The district has 670 Km length of pakka roads connecting to 133 villages/towns in the district. 7 villages are connected by kachha roads and 13 villages can be accessed only in fair weather conditions.

Out of the total 153 inhabited villages, all villages are connected by state road transport facilities.

There is broad gauge railway line in the district with length of 33 km and has four railway stations and district is well connected with Rajkot, Surat, Vadodara, Surendranagar, Jamnagar, Ahmedabad, Mumbai and delhi by western railways.

It has also an airpport which connect the district with Mumbai and Rajkot.

Health:

The district has 1 Hospital, 4 Community Health Centres (CHCs), 17 Primary Health Centres (PHCs) and 89 Sub centers in the district for the community. The major hospital in the district is Bhavshinji Civil Hospital. Locations of the CHCs and PHCs in different Taluka are as follows.

Sr.	Taluka/ City	Civil Hos.	Name of CHCs	Name of PHCs
1	Porbandar	Civil (Bhavshinji Hospital Porbandar)	1. Advana 2. Madhavpur	1. Bakharla 2. Vishavada 3. Garej 4. Simar 5. Kadachh 6. Modhvadha 7. Shubhashnagar 8. Chhaya 9. Kadiyaplot 10. Shitala Chok
2	Ranavav		1. Ranavav	1. Bileshwar 2. Adityana 3. Ranakandorna 4. Ranavav
3	Kutiyana		1. Kutiyana	1. Devada 2. Mahiyari 3. Kutiyana

Table 1.9: showing health facilities in Porbandar.

CHAPTER II

HAZARD VULNERABILITY AND RISK ASSESMENT

2.1 Matrix of Past disasters in the district

Porbandar district is located at the sea shore of Arabian sea. The district is in multi hazard prone area. The threat (risk) and possible impact (vulnerability) which can be actualized from these hazards ranges from minor impacts affecting one village to events impacting larger than the state alone.

District History-a statistical overview

Sr No	Flood	Cyclone	Earthquake	Drought
1	1983	1918	2001	1987-1988
2	2007	1962		1998-1999
3	2013	1975		1999-2000
4		1976		2000-2001
5		1978		2002-2003
6		1981		
7		1982-83		
8		1998		
9		2005		
10		2006		

Table 2.1: disaster history of Porbandar district.

(A). Report of damaged caused by severe cyclone storm in Porbandar district in 1998.

Sr no	Year	Details of Cyclone	Details of damages & loss due to Cyclone						Damage to govt. property	Damage of t property
			Total No. of human death	Paid Assistance	Cattle death	Paid Assistance	Damaged houses	Total assistance		
1	2	3	4	5	6	7	8	9	10	11
1	1998	Dt.9/6/98 with speed 80- 90 km per hour	27	24, 20,000/	737	12, 19,450/	29369	207 lakh	10,341 Lakh	6,701 Lakh

Table 2.2: showing report of damage.

Sl no	Date/Year	Category of cyclone	Landfall and relevant information
1	9-13 june, 1964	Severe Cyclonic Storm	Crossed Gujarat coast just west of Naliya during the late forenoon on 12 june. Maximum wind speed for Porbandar: 74 km/hr
2	19-24 October, 1975	Very Severe Cyclonic Storm	Crossed Saurashtra coast about 15 km to the northwest of Porbandar at 1500 hours IST of 22 October. Maximum wind speed for Porbandar was 110 km/hr Surge height: 4-6 mtr Loss and damage: People killed:85, several thousands of houses were damaged, many trees/electric/telephone poles/roof tops blew; a train was also blow off its rail, loss of property was estimated to be rs 75 crores.
3	4-10 June 1998	Very Severe Cyclonic Storm	Crossed Gujarat coast near Porbandar between 0630 and 0730 hrs IST of 9 June Surge height: 2-3 mtr

Table 2.3: Past disaster and its impact.
Source: http://www.rsmcnewdelhi.imd.gov.in/images/pdf/sop.pdf

(B) Details about total assistance provided during drought in 2002-03

Sr No.	No. of affected villages			Total no. of human working days	Details of Completed work	Total grain distributed	Total no. of expenditure
	Totally affected villages	**Partially affected**	**Total**				
1	46	109	155	1807076	558	3365.65 tonne	576.11 Lakh

Table 2.4: details of assistance provide during drought in 2002-03.

Table 2.5: Detail about Flood in 2013 Dt: - 26/9/2013 and 27/9/2015

Sr. no	No of Taluka affected	Human death detail	Animal Death	Normal damage to Houses	Assistance to affected People	Damage to Crops (in Hect.)
1	**3**	**2** Ranavav-1 Kutiyana-1	**12**	**22** **14 – Kaacha** **8 -- Pacca**	**Human Death-4 Lacks** **Cash dolls-1600 Person Covered-Rs.120000/-** **In House damage-Rs-18400/- Paid in 14 cases.**	**Porbandar-1995** **Ranavav –** **20** **Kutiyana -4800**

Table 2.6: Temporary evacuation at City and village level (27/9/2013)

Sr.No	Name of Taluka	Name of Village/City	Total No of Person
1	**Porbandar**	**Garej**	**200**
2		**Bhad**	**1200**
3		**Delodar**	**465**
4		**Erda**	**650**
5		**Keshod-Lusala**	**282**
6		**Mitrala**	**650**
7	**Kutiyana**	**Kachabad**	**250**
8		**Kotada**	**150**
9		**Amipur**	**22**
10	**Kutiyana-City Area**	**Chunala Vash**	**20**
Total			**3889**

(C) Details about Earthquake – 2001 and assistance distributed during earthquake-2001.

Table: 2.7 details about relief and assistance provided post earthquake-2001.

Sr. No.	Name of the Taluka	Death		Total	Assistance paid in Lacks	No. of Injured Person	Assistance paid to injured persons	Cash dolls paid to beneficiaries	Fully damaged houses	Partially damaged	Assistance paid Rs. in Lacks
		Adult	Minor								
1	2	3	4	5	6	7	8	9	10	11	12
1	Porbandar	2	1	3	2.60	31	2.04	21.63	1602	6379	467.23
2	Ranavav	1	2	3	2.20	10	0.37	16.87	534	6305	234.73
3	Kutiyana	3	-	3	3.00	38	0.98	15.49	1291	7815	301.75
	Total	**6**	**3**	**9**	**7.80**	**79**	**3.39**	**53.99**	**3427**	**20499**	**1003.71**

2.2 Hazard, Vulnerability and Risk Assesment- Authority that carried out HRVA

The Porbandar district is prone to number of hazards like Cyclone, Flood, Tsunami, Fire, Lightning, Earthquake, Heat wave, Road accidents, Boat sinking, Epidemic and Industrial accidents which poses a potential risk for the vulnerable population.
All the three taluka i,e Porbandar, Ranavav and Kutiyana of the districts are vulnerable for the Cyclone and 28 coastal villages of Porbandar taluka are most vulnerable for Cyclone and Tsunami.

At this point, the capacity or resources available within the areas or with the population help them to cope with or reduce the risk. The potential hazards in Porbandar district poses different level of risks depending upon various factors such as frequency of disaster occurrence, probable impact.

The Risk and Vulnerability analysis of the district is shown in the following tables:

Table 2.8: Risk and Vulnerability Analysis (Porbandar District)

Hazards	Probability Rating	Impact Rating	Vulnerability Ranking	Vulnerable Areas/Talukas	Vulnerable Population
High Wind (Cyclone)	4	4	16 (high)	Very high damage risk zone B (50 m/s): Porbandar, Ranavav & Kutiyana.	3.15 lakh Population (79 villages in the district likely to be affected.), also 28 village near the sea-coast are the most vulnerable. (including two town i, e. Porbandar and Chhaya) and Porbandar port area, Birla factory and Supergas terminal at Zavar are also

					the most vulnerable location.
Flood	5	3	15 (moderate)	may occur due to heavy rail fall, cyclone, sea surge or dam failure	mainly water logging problem found near wetland and marshy land of urban land rural region and at Ghed area comprised of 35 villages.
Sea surge	4	4	16 (high)	Coastal taluka i.e., Porbandar	2.50 lakh 38 villages
Thunder storm/lightning	5	3	15 (moderate)	Three taluka i,e Porbandar, Ranavav and Kutiyana	Rural population
Drought	4	3	12 (moderate)	whole district	
Fire	3	3	9 (moderate)	Mostly in urban pockets such as port area, industrial areas, ware-houses, Godowns (including rural areas)	
Industrial Accidents	4	2	8 (moderate)		tycoon and population residing near the Industries.
Earthquake	2	4	8 (moderate)	**Zone- III :** Porbandar Ranavav Kutiyana	Urban population are more vulnerable.
Boat sinking	2	1	2 (Low)	Porbandar taluka	Porbandar
Building collapse	1	2	2 (Low)		

Land slides / Mud flows	1	1	1 (Low)		
Epidemic	1	1	1 (Low)		Skin diseases are reported among Ghed people, due to water-logging problem.
Animal disease	1	1	1 (Low)		
Food poisoning	1	1	1 (Low)		
Dam failure	1	1	1 (Low)	District has no major dams but has 6 medium / minor dams	
Civil unrest	1	1	1 (Low)		

The district has special plans for flood affected areas. There are 35 inaccessible villages during monsoon known as **durgam vistar in Ghed regions.** For these villages, food and **civil supplies are provided two months well in advance** before the onset of monsoon.

2.3 Hazard seasonality mapping of the Porbandar district

Sl no	Hazard	Probable months of occurence											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Flood												
2	Lightning												
3	Cyclone												
4	Drought												
5	Earthquake												
6	Fire												
7	Tsunami												
8	Heatwave												
9	Industrial disaster												

Table: 2.9 Hazard seasonality mapping.

2.4 Tool and methodology used for HRVA

All events or activities carry some risk and are associated with some level of vulnerability. Risk and vulnerability ranking is the process of assigning scores to the risk and possible impact of hazards to be able to compare the likely vulnerability and make informed management decisionsabout which hazards are of greatest concern and when planning and preparation efforts should be directed. A risk and vulnerability ranking process has accomplished in five steps.

Step 1: Identify the Hazards of Concern

Identify the hazards of the district considering the past experiences, history of disaster event and technological intervention. (refers the table:2.8)

Step 2: Assign the Probability ratings

Assess the probability or "likelihood" of each hazard by reaching a consensus on probability and then assign each hazard a "Probability Level," as indicated in the following table. Enter the score for each hazard in the probability column of the table 2.8.

Probability	Score	Description
Almost certain	5	A regular event, on the average at least once in a 12 month period
Likely	4	Will occur at least once every two years.
Moderate	3	Will occur at least once every 5 years.
Unlikely	2	Will occur sometime in a 25 years period.
Rate	1	Can be expected to occur sometime in a 100 year period

Step 3: Assign the Impact ratings

Assess the potential magnitude or impact of each hazard and assign each an "Impact Level" as in the following table. Enter the impact score for each hazard in the table 2.8.

Impact	Scope	Description
Catastrophic	5	Massive insecurity, substantial loss of life likely. Large and generalized assistance urgently needed for large segments of population. Additional management, administrative, and technical expertise urgently needed. Large volumes of materials inputs needed.
Major	4	Security threatened for large segments of population; substantial impacts on vulnerable groups likely. Some loss of life likely. Life-saving programs likely needed to handle impact of emergency situation. Large volumes of material inputs and additional administrative staff and technical expertise likely to be needed.
Moderate	3	Security is threatened for potential target groups, some interventions may be needed, particularly for groups who likely face increase in vulnerability. Organization can likely respond with existing country/regional management structures.
Minor	2	Momentary insecurity local groups able to respond adequately to those in need. Some technical assistance by organization may be helpful to local respondents, although not urgently needed.
Insignificant	1	Little or no significant change in conditions, no expected loss of life, injuries or significant loss of property for usual target groups as the result of the hazard Normal operations continue.

Table 2.10: Impact rating

Step 4: Assign the "Vulnerability" Ranking

Multiply the probability and the impact scores in the table 2.8. The resulting score indicates crude vulnerability. Scores above 15 indicate high vulnerability; sores between 7 and 15 indicate medium vulnerability and scores below 7 indicate low vulnerability.

Probability Rating: Class and (score)	Impact Rating: Class and (score)				
	Insignificant (1)	**Minor (2)**	**Moderate (3)**	**Major (4)**	**Catastrophic (5)**
Almost certain (5)	Low-5	Moderate-10	Moderate -15	High-20	High-25
Likely (4)	Low-4	Moderate-8	Moderate -12	High-16	High-20
Moderate (3)	Low-3	Low-6	Moderate -9	Moderate -12	Moderate -15
Unlikely (2)	Low-2	Low-4	Low-6	Moderate -8	Moderate -18
Rare (1)	Low-1	Low-2	Low-3	Low-4	Low-5

Table: 2.11 Vulnerabillity ranking

These three classes related to the immediate vulnerability to disaster and provide guidance on disaster response planning. Assessing risk and vulnerability to low likelihood but high impact hazards (e.g., earthquakes) requires a different, more long-term focused, assessment process.

Note that the rating process presumes that:

- Populations are better able to respond to disaster which more likely and do not have severe (major) impacts and,
- Steps taken to prepare for moderate or high vulnerability events will also improve the ability to respond to low vulnerability events.

The divisions between low, moderate and high crude vulnerability can be changed but should be used consistently for all similar assessments in the state.

Step 5: Identify Areas with Highest Vulnerability

Once vulnerability ranks have been identified, the locations and populations considered most vulnerable should be identified. This aids in knowing where disaster assistance may be most needed, as well as providing a quick indication of where vulnerability reduction efforts could be most productive.

CHAPTER III

INSTITUTIONAL ARRANGEMENTS:

3.1 Organizational structure in the state

The GSDMA (Gujarat State Disaster Management Authority) is the apex body for disaster management at state level headed by the Chief Minister. It lays down policies, plans and guidelines for disaster management and coordinates their enforcement and implementation for timely and effective disaster response and also promotes good disaster management and mitigation practices in the state. Government of Gujarat has established a framework for implementing the disaster management activities which required multi-coordination of stake holders and agencies. (Refers the figure: 3.2)

3.2 DM organizational structure at district level

During any kind of disaster collector will be main responsible and incident commander of the district authority. The district collector will be looking after all over co-ordination of disaster management activities at district level. The district disaster management Authority shall approve a disaster management planning and review of all measure relating to preparedness, mitigation and response again various disaster. The organizational structure is provided in given figure: 3.2.

Figure 3.1: DM organizational structure at district level

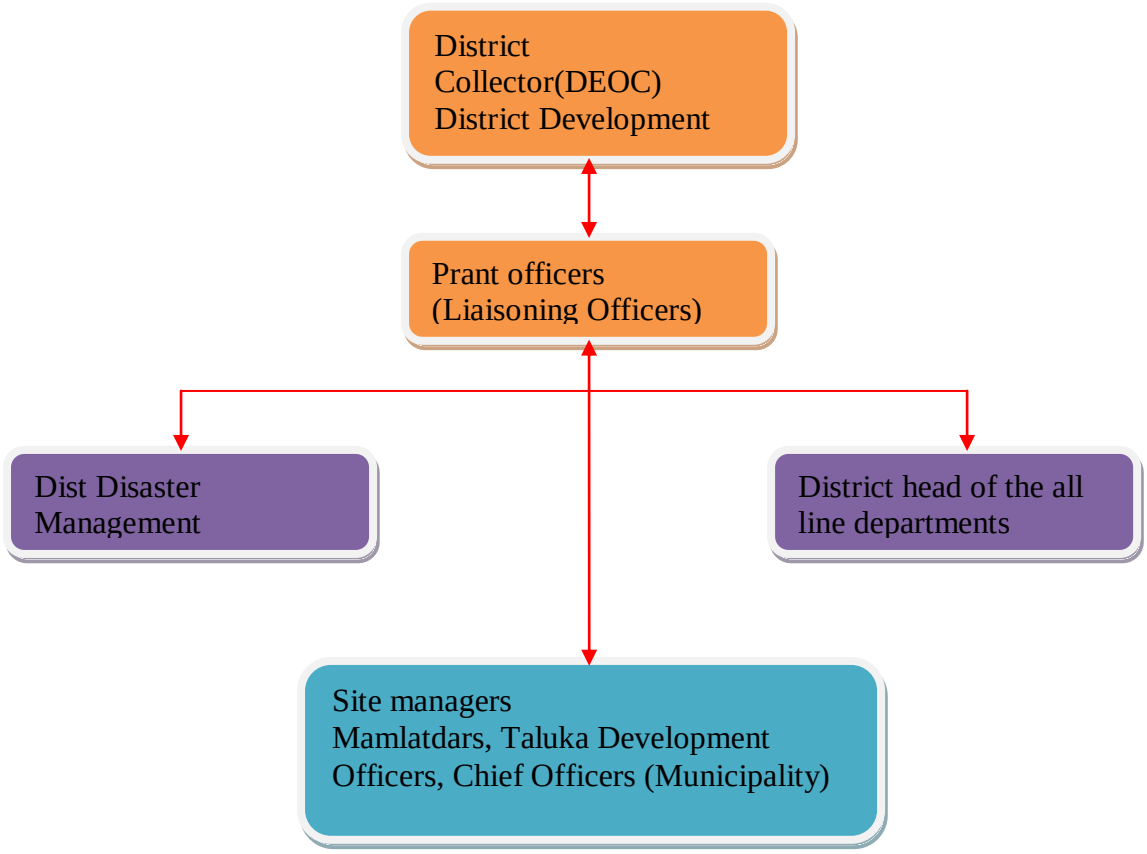
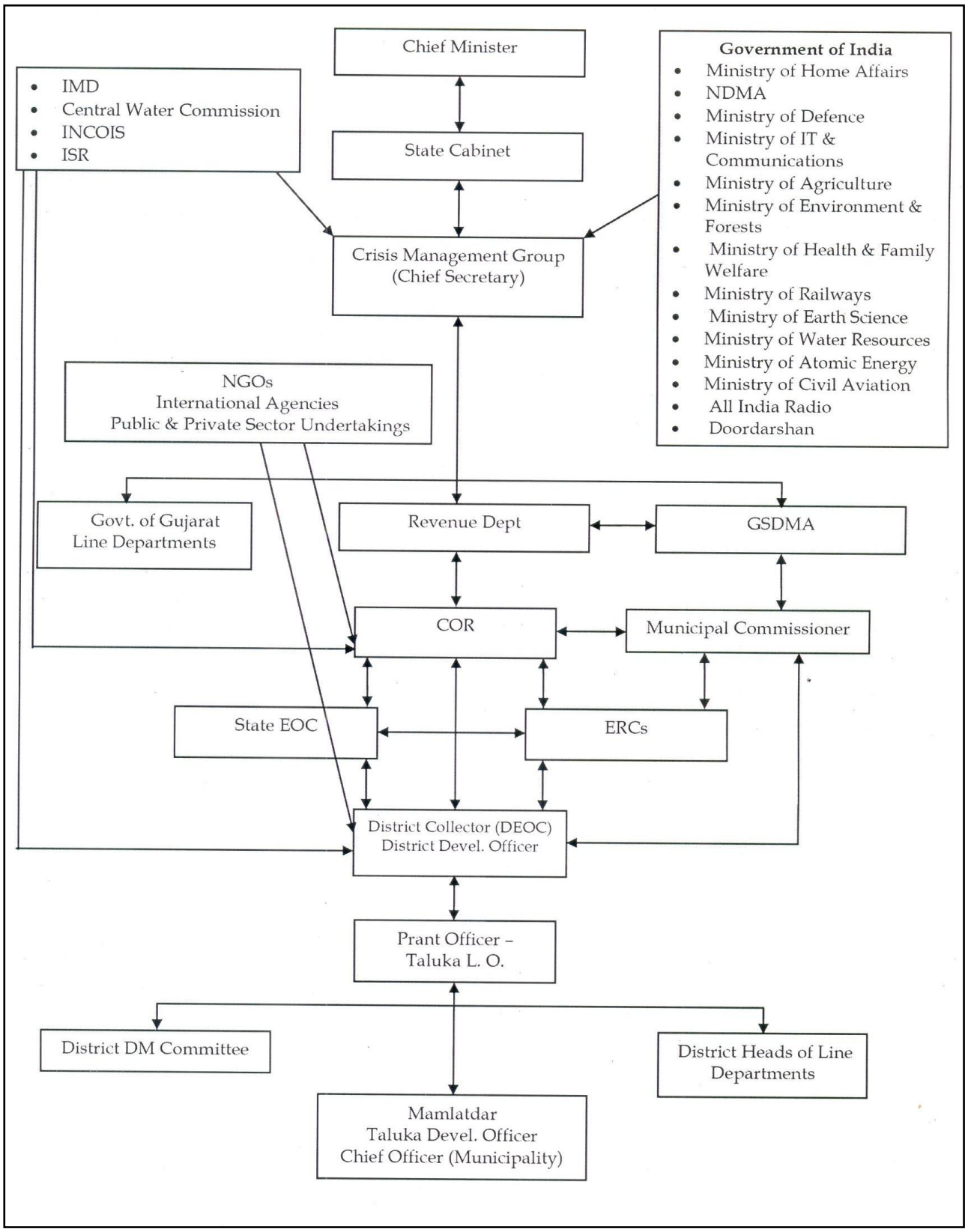


Figure 3.2: Disaster Management Structure in the State



3.3 District Crisis Management Group (Taskforce)

District Crisis Management Group (Taskforce) is provided with responsibility for specific functional tasks such as Search & Rescue operation, Sheleter management and providing facilities for drinking water supply and providing relief materials. Porbandar district has identified 15 Task forces to carry out the tasks.

Sl no	Emergency Taskforces	Functions and Responsibility
1	Coordination and Planning	Coordinate early warning, response and recovery operations
2	Administration and Protocol	Support disaster management operations by efficiently completing paper work and other administrative work needed for effective response to disaster.
3	Warning	Collection and dissemination of warning of probable disaster.
4	Law and Order	Ensure the execution of all laws and orders in the area affected with disaster.
5	Search and Rescue	Provide human and material resources needed for local evacuation, search and rescue operation.
6	Public work (Reconstruction)	Provide the human and material resources for re-constructing the damaged critical infrastructures.
7	Water supply	Ensure the adequate drinking water facilities for the human and animal consumption. If required, make provision of water for agricultural and industrial use.
8	Food and relief supplies	Ensure the provision of basic food and relief supplies in the
9	Power supply	Provide human and material resources to restoration of power supplies in the affected communities.

10	Public health, Sanitation and Hygiene	Provide human and material resources for setting temporary medical camp, health care and sanitation facilities for affected communities.
11	Animal health and welfare	Provision of health care facilities to animals affected by a disaster.
12	Shelter management	Provide materials and resources for setting temporary shelter for affected communities.
13	Logistics	Provide air, water and land transport facilities for evacuation activities and for the storage facilities and for distribution of relief supplies in coordination with other taskforces and competent authorities.
14	Damage survey and assessment	Collect and analyse data on the impact of disaster, develop estimates of required resources and relief plans and compile reports on disaster as required for district and state authorities and other agencies.
15	Telecommunications	Coordinate and make sure the operation of all communication systems (i,e Radio, T.V., Telephones, wireless) required for early warning and post disaster operation.
16	Media	Coordinate and communicate with the print and electronic media on early warning and post disaster reporting concerning to disaster.

Table 3.1: showing Emergency task forces and their role & responsibility

The specific response roles and responsibilities of the taskforces indicated above is that these roles and responsibilities will be executed and coordinated through the Incident Response

System. For example, in flood, search & rescue would come under the Operations section, Transport would come under the Logistics Section and Public Information under the Public Information Unit.

Table 3.2: District Crisis Management Group and Composition of the Taskforces

Sl no	Taskforce	Taskforce leader	Supporting members/organizations
1	Planning and Coordination	Collector	DDO, DSP,RAC, Mamlatdar and Chief officer
2	Administration and Protocol	Collector	DDO, DSP,RAC, Mamlatdar and Chief officer
3	Warning	RAC	Disaster mamlatdar, DEOC, Dist. Information Officer
	Law and Order	DSP	Dy. SP, Home Guards Commandant, NGOs, Paramilitary and Armed Forces
	Search and Rescue	Dy Collector Civil defence	Mamlatdar, TDO, Police, Executive Engr., Fire Brigade, RTO, State transport, Health Dept.
	Public works	Ex. Engr. R&B (State)	Ex. Engr.R&B (panchayat), Irrigation, GWSSB, Panchayat, municipalities, Home guards and Police.
	Water supply	Ex. Engineer, GWSSB	Dy. Ex. Engr., Mamlatdar, TDO, Health and Talati
	Food and Relief supply	Dist. Supply Officer	FPS, PDS, Mamlatdar, NGOs, RTO, State transport, Municipality, DRDA, Police, Home guard
	Power supply		
	Public health, sanitation and hygiene	Chief District Health Officer	Superitendent Govt. Hospitals, Muncipality, PHCs, CHCs, Indian Red Cross, Fire brigade, Civil defence, R&B, NGOs, Doctors, TDO and Mamlatdar
	Animal health and welfare	Dy Director, Animal husbandry	Veterinary Inspector, NGOs
	Shelter management	Dist. Primary Education Officer	School's principal, Teachers, Health dept, PHC, State transport, RTO, Water supply,

			Mamlatdar, TDO
	Logistics	DDO	RTO, DSO, FPS, Public and Private sector, Mamlatdar, Municipal water supply board, Dist. Supply Mamlatdar
	Damage survey and assesment	Collector	District Industries Centre, Dy.DDO, Ex. Engineer R&B, DAO, Fishries dept
	Telecommunications	RAC	Dy Mamlatdars, Mobile operators, TV, Radio, Port officer, GMB, Police, Forest department
	Media	District Information Officer	Information department, Print media, Electronic media, Journalists, NGOs

3.4 District Disaster Management Committee

Sr. No.	Designation	Position in DDMC
1	Collector/ District Magistrate	Chairman
2	District Development officer	Member
3	District Superitendent of Police	Member
4	Resident Additional Collector	Member Secretary
5	District Supply Officer	Member
6	Exe. Engineer-R&B State	Member
7	Exe. Engineer-R&B Panchayat	Member
8	Exe. Engineer-R&B State Irrigation	Member
9	Exe. Engineer-R&B State salinity	Member
10	Superitendent Engineer- PGVCL	Member
11	District Home guard commandant	Member
12	Superitendent, Civil Hospital	Member
13	Port Officer	Member
14	District Forest Officer	Member
15	Dy. Director, Information Department	Member
16	District Municipality Officer	Member
17	Regional Officer-GPCB	Member
18	District Agriculture Officer	Member
19	S D M, Porbandar and Kutiyana	Member
20	Regional Transport officer	Member
21	Divisional Controller-State transport	Member
22	Dy. Controller, Civil Defense	Member

23	District Education Officer	Member
24	District Primary Education officer	Member
25	NGO Member	Member
26	Media Person	Member

Table 3.3: showing members of DDMC

Also, there will be formulation of committee at Taluka, City and village level. All this committee works under the instruction of Chairman (District Collector) before, during and post disaster activities. The disaster management committee at taluka, city and village level is described below:

Taluka Disaster Management Committee (TDMC)

- Taluka in charge Dy. Collector/Dy. District Development Officer
- Mamlatdar
- Taluka Development Officer
- Dy. Executive Engineer- R & B (State)
- Dy. Executive Engineer- R & B (Panchayat)
- Dy. Executive Engineer – Irrigation
- Dy. Executive Engineer –GEB
- Dy. Executive Engineer – Water Supply
- Junior Engineer-Telecom
- Medical Officer (PHC)
- Police Inspector/ Police Sub Inspector
- Taluka Home Guard Commandant
- Taluka Education Officer
- Godown Manager- Civil Supply Corporation
- Depot Manager – S.T.
- Port Officer
- Range Forest Officer (Head Quarter)
- Pramukhshri-Taluka Panchayat.
- MLA
- Chairman- Social Justice Committee (Taluka Panchayat)
- Woman member - Taluka Panchayat
- NGO representative
- NGO representative

CDMC-: City Disaster Management Committee (CDMC)

- Dy. Collector/ SDM/Dy. DDO
- Chief Officer
- Chief fire officer
- Mamlatdar
- Town planning Head
- Dy. Exe. Engineer-R&B state
- Dy. Exe. Engineer-State-Irrigation
- Dy. Exe. Engineer- PGVCL
- Dy. Exe. Engineer-GWSSB
- Junior Engineer Telecom
- Medical Officer-C.H.C.
- Medical Officer Municipality Health Centre
- Head Transport committee
- PI/PSI
- Taluka Home Guard Commandant
- Education Officer Municipality Education committee
- Port officer
- Range forest Officer-Extension
- President Municipality
- Member of Parliament
- Member of Legislative assembly
- Chairman- Standing Committee committee
- Chairman-Water Supply committee
- Chairman City planning committee
- Chairman Construction Committee
- Women member of Municipality
- Scheduled caste member of municipality
- Local N.G.O.
- Other members as decided by CDMC

Village Disaster Management Committee (VDMC)

- Sarpanch
- Talati
- School teacher
- PHC Doctor/Health worker
- Chairmen, Milk Cooperative
- Chairman, Seva Cooperative
- Gram Sevak
- Aaganwadi worker
- Community Rep 1
- Community Rep 2
- Community Rep 3
- Fair Price shop holder

3.5 Incident Response System in states

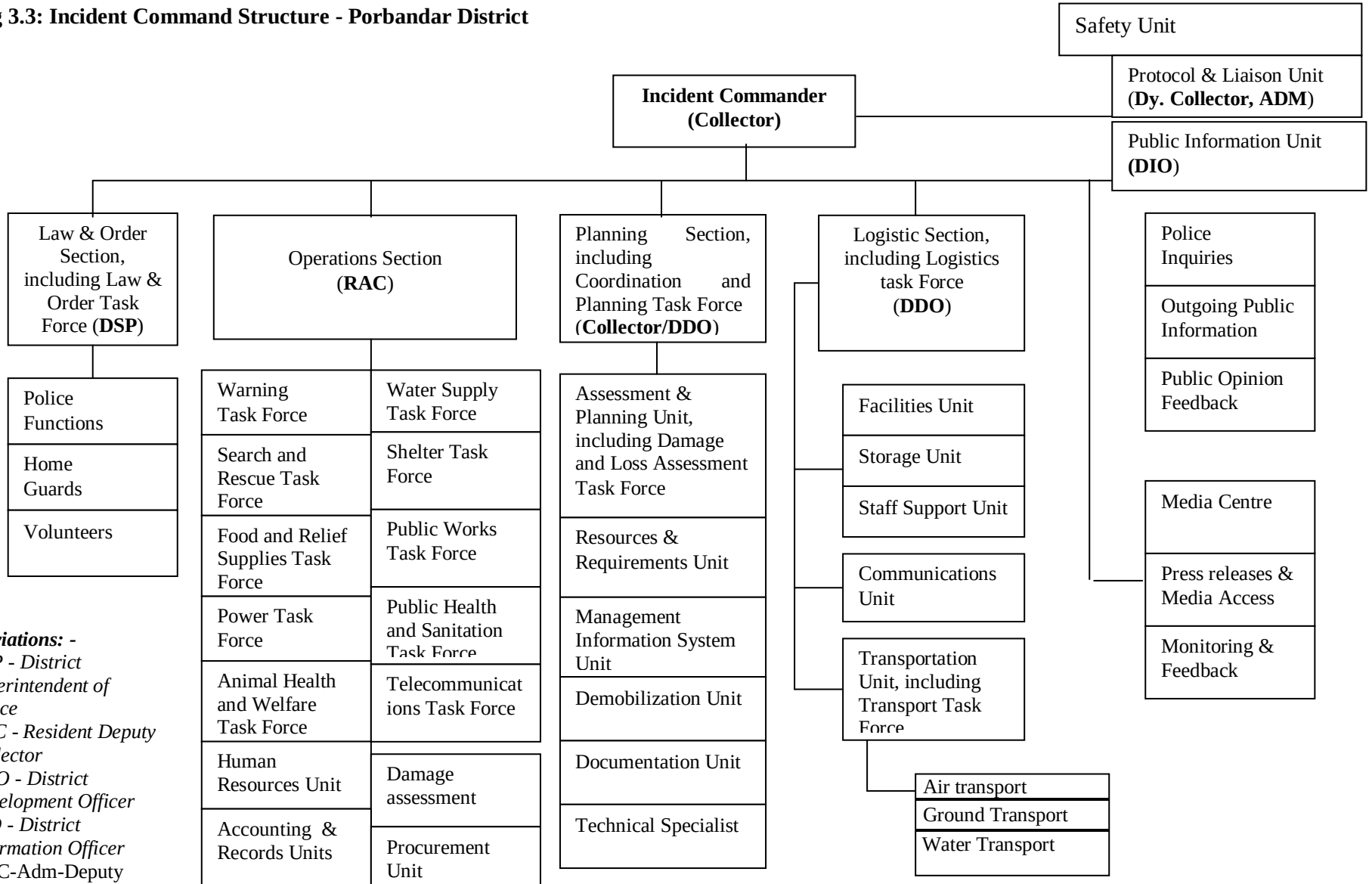
In any disaster response, the initial efforts would always be taken by the district administration. However, when Districts are overwhelmed in any situation, the support necessarily has to come from the State level. There is a formal Incident Response System in the State. The GSDM Act 2003 empowers Commissioner of Relief to be the Incident Commander in the State and District Collector in the respective districts.

3.4 Incident Response System in district

The ICS (Incident Command System) is a management system and on-scene, all risk, flexible modular system adaptable for natural as well as man made disasters.
The primary ICS management function includes:

- Command
- Operations
- Logistics
- Planning
- Finance / Administration

Fig 3.3: Incident Command Structure - Porbandar District



Abbreviations: -

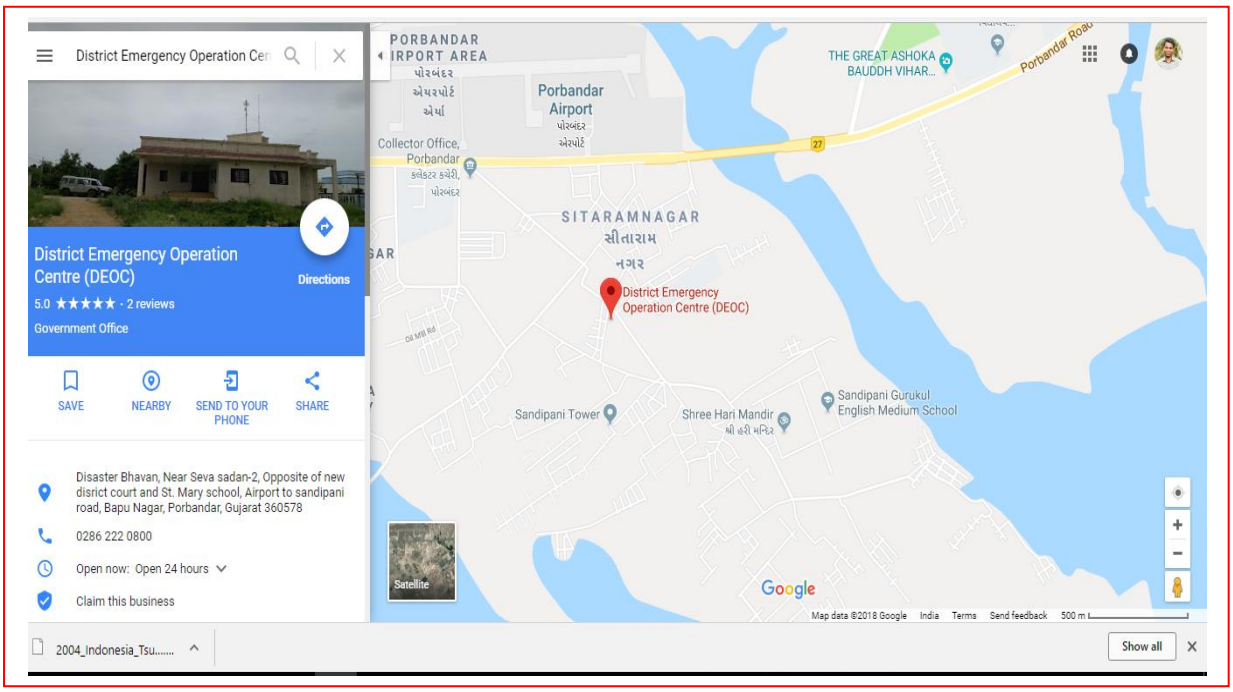
DSP - District Superintendent of Police
RDC - Resident Deputy Collector
DDO - District Development Officer
DIO - District Information Officer
DC-Adm-Deputy Collector (Administration)

3.6 EOC set up and facilities available with the location

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

The DEOC normally called as District Control Room is located at District Collector's Office.DEOC, Porbandar is located near seva sadan 2. (Refers the map) It is also the central point for information gathering, processing and decision making more specifically to combat the disaster. Most of the strategic decisions are taken in this control room with regard to the management of disaster based on the information gathered and processed. The Incident Commander takes charge at the District Control Room and commands the emergency operations as per the Incident Command System organizational chart.

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



3.7 Facilities available at District Emergency Operation Centre

District Emergency Operation centre is equipped with the following items:

- 2 Telephone lines and 1 Fax machine
- Portable Radio set and Base stations and T.V
- One Isatpro-2 satellite phone (in working condition)
- Two PC with internet connection and 3 printers
- Conference table with Chairs and white board
- Two portable emergency light
- Scanner-1
- Laptop-1
- Two projector with white screen
- 2 Vehicles (Tata Sumo and Bolero)
- District Disaster Management Plan and other relevant documents

3.8 Alternate EOC if available and its location

Taluka Level Control Room (TLCR)

The Taluka level control rooms are located at the Office of Mamlatdar. The Liaison Officers of the respective Taluka take charge of the Control Room. The respective Liaison Officers shall coordinate between the task group members working at disaster sites and Taluka Flood Control Room/ Taluka Emergency Operation Centre for mobilization of resources and dissemination of instructions received from DEOC.

3.9 Public and Private emergency service facilities available in the district

Porbandar district has the following public and private emergency service facilities:

- 108 EMRI Ambulance service has deployed the ambulance services at every taluka headquarter and at the towns.
- Four municipality has fire-fighting equipments and staffs.
- Other department such as Road and Building, State Transport, Forest, GWSSB, Irrigation, Health and Police department have limited emergency services to coordinate during any kind of emergency situations.

3.10 Forecasting and Warning Agencies

On the receipt of warning of alert from any such agency which is competent to issue such warning, or on the basis of reports from Divisional Commissioner/ District Collector of the occurrence of a disaster, all community preparedness measures including counter-disaster measures will be put into operation. The Chief Secretary/ Relief Commissioner will assume the role of the Chief of Operations for Disaster Management.

It is assumed that the district administration would be one of the key organizations for issuing warnings and alert. Additionally, the following agencies competent for issuing warning or alert are given below.

Srn o	Disaster	Agency
1	Earthquakes	IMD/Institute of Seismological Research (ISR)
2	Floods	IMD/Irrigation department/CWC
3	Cyclones	IMD
4	Heatwave	IMD
5	Road accidents	Police/RTO/NHAI
6	Industrial and chemical accidents	Industry and DISH
7	Fire	Fire brigade/Police
8	Epidemic	Public Health Department
9	Thunderstorm	IMD
10	Drought	Agriculture and Revenue Dept.
11	Tsunami	Indian National Centre for Ocean Information Services (INCOIS), IMD

Table 3.4: showing disaster forcasting & warning agency

CHAPTER IV

PREVENTION AND MITIGATION MEASURES

4.1 Prevention measures in development plans and programs

- **Sujalam Sufalam Jal Abhiyan**

  The water conservation programme recently launched by the Honorable Chief minister in Gujarat for the one-month i,e before the monsoon season is implemented in Porbndar district. The activities under Sujalam Sufalam Jal Abhiyan includes de-silting and reviving of existing water bodies such as dam, pond, river channel by excavating with human and material resources so that these water bodies collect more rain water. The programme is implemented with efforts and contribution from government, NGOs and community. Desilting and Excavation of water bodies will help to increase the water storage capacity, Groundwater recharge and will reduce the dam overflow. The long-term implementation of the programme directly or indirectly helps to reduce the water crisis which leads to drought like situation.

- **At individual or community level**

Prevention and Mitigation measures are to be taken before a disaster to reduce the likelihood of a disaster (risk reduction) or the level of damage (vulnerability reduction) expected from a potential disaster. Vulnerability reduction is given priority over a risk reduction. The district can avail itself of four mechanisms (individual or together) to reduce risk and vulnerability.

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

The Collector, assisted by the District Development Officer, is responsible for developing plans and activities to implement prevention, mitigation and preparedness measures using the mechanism noted above.

On the basis of interim assessment of risk and vulnerabilities, the district will focus on the following areas for mitigation, preparedness and prevention;

- Build disaster resilient infrastructures for lifeline system (water, power and communications)
- Reduction in disaster impact on health care facilities, schools and roads.

- Vulnerability reduction in flood-prone areas.
- Vulnerability reduction to high winds and storm surge.
- Improvement of off-site preparedness near hazardous industrial sites.

- **Mahatma Gandhin National Rural Employment Guarantee Schemes (MGNREGS)**

The MGNREGS is the flagship scheme for rural development and employment. The MGNREGS activities such as water conservation and harvesting, afforestation, rural connectivity, flood control and protection such as construction and repair of embankments will help for disaster risk reduction. Digging of new tanks/ponds, percolation tanks and construction of small check dams are also given importance, which can reduce the water crisis. The job holders are provided work such as land leveling, tree plantation, etc. which can be used for the benefit of the population that are vulnerable and are likely to be affected with disasters. Following are the key points mentioned for disaster risk reduction.

- Construction of elevated tube wells can be done.
- Building of Roads for places which are not connected to other parts of the district.
- Leveling of low lying areas during flood to a higher level to prevent those areas.
- Construction of check dams and embankments and drainage systems to prevent flooding of those areas.

- **Pradhan Mantri Awas Yojana (PMAY)**

Under this Programme, the construction of pucca houses with safety norms and building codes considering the disaster vulnerability will help the community for safe shelter during cyclone and earthquake at village and urban level. This Programme can be also used for the rehabilitation of disaster affected community.

Figure 4.1: showing definition of prevention.

4.2 Hazard wise Structural and Non-structural mitigation measures

The structural and non-structure measures are significant for prevention and mitigation of any kind of disaster at different level. Structural mitigation measures include the construction of engineering and non-engineering structure to reduce hazard risk. While, Non-structural mitigation measures includes inculcating the culture of preparedness and safety measures into the community, officials and other stakeholders through community outreach aawareness and capacity building at official and community level, formulation of new plans and overall promoting a commitment for safety.

Mitigation Measures

Table 4.1: Structural mitigation measures for Flood (Identified works of concerned departments)

Probable mitigation measures	**Implementing departments**	**Convergence with scheme/ programme**
Desilting and deepening of water channel and dam.	Irrigation /Water Supply , Rural Development, GWRDC, GLDC	Departmental Scheme and Suzlam Suflam programme.
Construction of embankments/ protection wall	Irrigation/Rural development, Forest/NGO	Departmental programme & MGNREGS, watershed and ATVT Programme
Repair of embankments/ protection wall	Rural Development, R & B, Irrigation and other concerned department	Departmental Scheme and under ATVT Programme & MGNREGS
Repair and maintenance of flood Channels, canals, natural drainage, storm water lines	Irrigation /Water supply , Rural development,GWRDC,GLDC	Departmental or special plan and under Development Planning.Also implement under ATVT Programme
Construction of safe shelters (new construction through Indira Awas, Sardar Awas and Ambedkar Awas)	Collectorate and R&B department	NCRMP (total 10 villages are selected under this programme)
Protection wall and planting of mangroves and vegetative cover against sea level intrusion and land erosion	Forest and Rural develo pment department	Department schemes, MGNREGS, IWMP and ATVT programme and other programme
Desilting of water bodies	Irrigation department, DDO	MGNREGA and Land

Probable mitigation measures	Implementing departments	Convergence with scheme/ programme
like river and ponds	and Rural development	Development Agency Scheme, ATVT Programme and newly launched Suzlam Suflam Programme.

Table 4.2: Non-structural mitigation measures for Flood

Non-Structural measures	Implementing Departments	Convergence with agency/program
Safety audit of existing and proposed housing stock in risk prone areas	DDO, Rural development/Muncipality	IRDA/ Sardar Awaas and other rural housing schemes and include in annual budget.
Promotion of traditional, local and innovative practices like bamboo/plastic bottle rafts etc	DDMC, SHGs and youth groups, NGOs	Training and capacity building plan for disaster management/ include in annual Budget and under ATVT Programme.
Capacity building of volunteers and technicians	DDMC	Training and capacity building plan for disaster management and ATVT programme.
Awareness generation on health and safety of livestock	veterinary officer, Rural development department	Concerned departmental Scheme and collaboration with NGO.

Table 4.3: Structural mitigation measures for Cyclone

Structural measures	Identified Locations and Villages	Implementing Departments	Convergence with Scheme/Program
Plantations of mangroves and Shelter belt in the coastal area	Cyclone prone villages (Total 28 villages and 2 city area)	Forest department, Port Authority, DIC, TDO, Rural development department/NOG AND GEC	Departmental schemes, MGNREGS and Envirionment Protection Scheme
Identification and repair/ retrofitting of houses and buildings unsafe for cyclone		R & B (Zila Panchayat) and ATVT Programme officer	Departmental Scheme/ under development work plan

Construction of safe shelters (new construction through Indira Awas, Sardar Awas and Ambedkar Awas)	NCRMP (Total 10 are villages selected under this programme)	Collectorate and R&B department	NCRMP (Total 10 villages are selected under this programme)

Table 4.4: Non-structural mitigation measures for Cyclone

Non-Structsral measures	**Location/ coverage area**	**Implementing Departments**	**Convergence with agency/ program**
Strengthening of Early warning mechanisms	Cyclone prone villages	DDMC	Under Port area development Scheme and DEVELOPMENT Scheme.
Training and awareness generation for use of safety jackets/rings/buoys/rope etc for fisher folks		DDMC, TDMC, VDMC	TDMP/CDMC/ Annual Paln and under State Grant
Enforcing strict compliance to coastal regulation zone		Department of Environment & Forest	Under Environment Protection and Development Work
Registration of fishing boats		Fisheries Department	As per the Provision
Regulate and issue orders for poor quality hoardings/buildings or any other objects		R & B department and other line departments	As per annual budget and developmetal Grant and ATVT programme

Table 4.5: Structural mitigation measures for Earthquake

Structural measures	**Implementing Departments**	**Convergence with Scheme/ Program**
Retrofitting (if required) of public utility buildings like offices, schools/ banks/ markets etc	R & B (State and Panchayat), DDO, Rural department	Provosion Should be made unnder annual Budget and ATVT Programme
Retrofitting of unsafe rural houses	DDMC	Rural housing schemes and departmental programs

Identifying and safely dismantling unsafe structures	R & B department	Under annual Budget and ATVT programme

Table 4.6: Non-structural mitigation measures for Earthquake

Non-Structural measures	Implementing Departments	Convergence with agency/program
Capacity building of architects, engineers and masons on earthquake resistant features	R & B (State and Panchayat), DDMC	Under Annual budget and ATVT programme and disaster management progarmme
Registration of trained and certified mason	R & B (State and Panchayat), DDMC	Under Annual budget and ATVT programme and disaster management progarmme
Strict enforcement of guideline pertaining to seismic safety for government rural housing	DDO	Under Annual budget and ATVT programme and disaster management progarmme and rural housing scheme
Mock-drills for Schools, Hospitals and, Public Buildings and trainings for mason, engineers and architects	DDMC, Schools	DDMC/TDMC/CDMC

Table 4.7: Structural mitigation measures for Drought

Structural measures	Implementing Departments	Convergence with Scheme/ Program
Development of Pasture land in common property, seed farms and trust land	Forest, Rural Development, Panchayat	Departmental Scheme/GLDC/GWSSB
Rain Water Harvesting storage tanks at household level and public buildings	GWSSB, (WASMO), Rural Development,	MGNREGS, Swajaldhara
Structures for water harvesting and Ground wate recharging measures for wells, ponds, checkdams, farm ponds, etc	DDO, Rural development, irrigation department	MGNREGS , Watershed program, departmental schemes
Development of fodder plots/banks	DDMC, Forest department, Animal husbandry department	

Structural measures	Implementing Departments	Convergence with Scheme/ Program
Repair and maintenance, de-silting of water bodies, check dams, hand pumps etc.	Irrigation, Rural Development	MGNREGS, Watershed

Table 4.8: Non-Structural Mitigation Measures for Drought

Non-structural measures	Implementing Departments	Convergence with agency/ programme
Listing/developing shelf of work for drought proofing/scarcity works including identification of potential sites of water bodies.	Rural development	MGNREGS
Farmer education to practice drought resistant crops and efficient water use.	Agriculture & Horticulture department	Departmental schemes
Set up control mechanism for regulated water use (ponds, small dams, check dams) on the early unset.	Panchayats	

Table 4.9: Industrial (Chemical) Structural Measures (in coordination with LCG, DCG district and state level authorities)

Structural measures	Activities	Implementing Departments
Monitoring impact of industries on NRM (land, water and air)	Data collection of impact on natural resources (ground water monitoring wells, air quality test, etc)	DDMC, DCG GPCB
Safety assessment	Carry out structural safety inspection/audit	DISH, DCG (Asst.Director. Industrial safety and health)

Table 4.10: Industrial (Chemical) Non-Structural Measures (in coordination with LCG, DCG, district and state level authorities)

Non - structural Measures	Activities	Implementing Departments
Planning	Prepare an onsite and offsite emergency plan	Occupier, DISH
	Conduct mock drills as per the regulations	DISH and LCG

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

At the District level, the District Crisis Management Group (DCG) is an apex body to deal with major chemical accidents and to provide expert guidance for handling them. DCG has a strength of 34 members which includes District Collector, SDM and Dy. Collector, DDO, Dy. Director – Industrial Safety & Health, DSP, PI, Fire officer, Municipality, Chief District Health Officer, Civil Surgeon, SE, Chief Officer, Dy. Chief Controller of Explosives, Commandant – SRPF, Group-I, Dy. Director – Information to name a few. At Taluka level, Local Crisis Management Group (LCG) is formed for coordination of activities and executing the operations.

Table 4.11: Structural Mitigation Measures for Tsunami

Structural measures	Implementing Departments	Convergence with Scheme/ Program
Constructing shelter belts in coastal areas and planting of mangroves	Rural Development	Departmental programs, MGNREGS

Table 4.12: Non-Structural Mitigation Measures for Tsunami

Non-Structural measures	Locations/ coverage area	Implementing Departments
Provisions of Coastal Regulation Zone to be effectively implemented	Tsunami prone 16 villages	Department of Environment & Forest
Capacity building of task forces in coastal villages		DDMC/TDMC/TDMC/VDMC

4.3 Specific projects for vulnerable groups

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

Gujarat is being prone to cyclones, it is the topmost priority of the State Government to reduce the vulnerability to cyclone and minimize the loss to property and lives in the coastal regions of the state through building disaster resilient infrastructure and also making people resilient to disaster.. Gujarat has therefore been included in the NCRMP initiated by the National Disaster Management Authority and funded by the World Bank. The table :4.2 shows the list of villages where Cyclone shelters will be constructed in Porbandar district under the NCRMP.

Sr.No.	Taluka	Village name 0f NCRMP site	VRTs member
1	Porbandar	Tukada Gosa	50
2		Gorsar-Mocha	45
3		Palkhada	50
4		Balej	50
5		Pata	50
6		Untada	0
7		Mander	0
8		Miyani Bhavapara	0
9		Ratiya	0
10		Kadach	0

Table 4.13: showing NCRMP site villages

- **Gujarat School Safety Programme**

Under this programme, GSDMA has provided all the government schools (Primary, Secondary and Higher Seconadary) of Porbandar district with ISI marked portable water and Co2 type fire extinguishers. For the fire safety, students and teachers are made aware with awareness vedio, poster, pamphlets and fire-safety demonstration and mock-drill.
Every year, Gujarat celebrates the School Safety Week to inculcate the culture of preparedness and safety to different disasters in to the daily life of students and teachers. In this Programme, Student and Teachers are oriented and aware to do and don'ts of various disasters through disaster management activities and trained them through mock-drill such as shake-out and Fire safety mock drill. School disaster management plan is also made as per the preparedness to any kind of disasters. Last year, School Safety Week was successfully celebrated in the 391 schools of the Porbandar district both in primary and secondary schools.

CHAPTER V

PREPAREDNESS MEASURES

5.1 Identification of stakeholders involved in disaster response

Preparedness measures are the activities and measures taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations.The identified stakeholders for disaster response can be categorized at different level:

State level

At the state level, Search & Rescue teams will be constituted from the State Police and will be provided with state-of-the-art equipment for immediate response. The State Home Department will designate the units for conversion into Specialist Response Teams (SRTs). The State will also designate training centres for training the SRTs and nominate key personnel within the Police Training Colleges and Fire Training Institutes as trainers and train them at the national level. These trainers will then impart training to the SRTs.

District level

Specialized Response Teams at the district level will be designated from the district level Police and Fire Service personnel and equipped for immediate response in any disaster within the district. There are 17 Aapdamitra volunteers which are trained with advance search and rescue skill will also help the district administration in disaster response activities.

5.2.Formation of Persons and training for:

Porbandar district has identified various stakeholders from the line departments, Ex Army servicemen, NGOs, Community club and volunteers in disaster risk management activities. Students, Police personnel, NCC and NSS students were also involved in disaster management training. Besides, government officials and community were also oriented to disaster management. So, during the disaster emergency all the stakeholders will contribute for effective disaster response and management.

5.2.1 Search & Rescue:

It is the duty of the DDMA to provide specialized life saving assistance to district and local authorities. In the event of a major disaster or emergency its operational activities include locating, extricating and providing on site medical treatment to victims trapped in collapsed structures. In the event of any disaster the Home Guards along with the support of the Police dept. form teams to locate injured and dead and try to rescue the ones in need. There are other bodies too that help these departments in this work, like the PWD, Health dept, Fire dept and also the people that voluntarily form teams to help the ones in need. Proper training for search and rescue process needs to be undertaken so as to minimize the time taken in rescuing someone. Proper methodology and resources are also needed to carry out a search & rescue mission.

The tactics used in the search & rescue process vary accordingly with the type of disaster that we are dealing with. In case of flood, a boat and trained swimmers are a must while in case of an earthquake sniffer dogs and cutting tools with trained manpower is a binding requirement. The household register that is maintained by the warden should be maintained for every village as it proves to be of great help in case of a disaster like an earthquake. Because in case of the aforementioned disaster people get trapped in the debris of buildings and houses and it becomes difficult to estimate how many people are present in the debris. But if a household register is maintained then the task becomes quite easy and effective to find out almost correctly that how many people would be present in any building/house at any given time. Thus, he resources can be justifiably distributed and more lives can be saved. This kind of process is highly recommended in this particular district which lies in moderate earthquake prone region.

For the flood situation, it is recommended that the boats that are used should be light weight and the motor should be of ‘luma’ type, so that it becomes easy for the rescue team to lift the boat and carry it to the spot.

Search & Rescue Team

S.No.	Designation of trained S&R Team member
	The Search & Rescue team is formed as and when required and the members & equipments are taken according to the nature of the disaster (and also on their availability). • Police Officers (2 or more) • Home guards (2 or more) • Swimmers (In case of flood) • A construction engineer (From P.W.D.) • Driver (For Every vehicle) • Any person with the prior experience of the disaster (From Home Guard/Police Dept.) • A doctor or nurse or at least a person having first aid training • A Class IV Officer (Health Dept.)

Table 5.1: Search and Rescue Team criteria

5.2.2 Early Warning:

The early warning systems for different disasters should be in place so that the concerned administrative machinery and the communities can initiate appropriate actins to minimize loss of life and property. These should give an indication of the level of magnitude of the mobilization required by the responders. The goal of any warning system is to maximize the number of people who take appropriate and timely action for the safety of life and property. All warning systems start with the detection of the event and with their timely evacuation. Warning systems should encompass three equally important elements viz detection and warning, dissemination of warning down to the community level and the subsequent quick response.

The State acknowledges the crucial importance of quick dissemination of early warning of impending disasters and every possible measure will be taken to utilize the lead-time provided for preparedness measures. As soon as the warning of an impending calamity is received, the EOCs at the State, District and Block levels will be on a state of alert. The Incident Commander will take charge of the EOC and oversee the dissemination of warning to the community. The District Collector will inform the District Disaster Management Committees who will alert the lock and Village level DMCs and DMTs to disseminate the warning to the community. On the basis of assessment of the severity of the disaster, the State Relief Commissioner (Incident Commander) shall issue appropriate instructions on actions to be taken including evacuation to the District Collector, who will then supervise evacuation. In situations of emergency, the District Collector will use his own discretion on the preparedness measures for facing the impending disaster.

5.2.3 Evacuation:

Evacuation is a risk management strategy, which may be used as a means of mitigating the effects of an emergency or disaster on a community. It involves the movement of people to a safer location. However, to be effective, it must be correctly planned and executed. The process of evacuation is usually considered to include the return of the affected community.
Shelter provides for the temporary respite to evacuees. It may be limited in facilities, but must provide protection from the elements as well as accommodate the basic personal needs, which arise at an individual level in an emergency.

The plan must allocate responsibility for management of each of the elements of shelter. Considering the wide range of services, agencies and issues to be managed, it becomes essential for 'shelter' to be managed within a structure, which facilitates the coordination of agencies and services and support of emergency workers. The following factors may need consideration:

- Identification of appropriate shelter areas based on safety, availability of facilities, capacity and number of victims.
- Approaches to the shelter location in light of disruption due to hazard impact and traffic blockades.
- Temporary accommodation
- Provision of essential facilities like drinking water, food, clothing, communication, medical, electrical and feeding arrangements, etc.
- Security
- Financial and immediate assistance
- First-aid and counseling

Types of evacuation

For the purpose of planning, all evacuations may be considered to be one of two generic types:
(a) Immediate evacuation, which allows little or no warning and limited preparation time as in the case of earthquakes and air accident.
(b) Pre-warned evacuation resulting from an event that provides adequate warning and does not unduly limit preparation time as in the case of flood and cyclones.

Principles of Evacuation Planning

- Establishment of a management structure for organization, implementation, coordination and monitoring of the plan.
- Determination of legal or other authority to evacuate.
- Clear definition of rules and responsibilities.
- Development of appropriate and flexible plans.
- Effective warning and information system.
- Promoting awareness and encouraging self-evacuation.
- Assurance of movement capability.
- Building confidence measures and seeking cooperation of the affected community.
- Availability of space for establishment of relief camps having requisite capacity and facilities.

- Priority in evacuation to be accorded to special need groups like women, old and sick, handicapped and children.
- For effective evacuation, organization and running of relief centers, cooperation and involvement of all agencies viz. Community, volunteers, NGOs, NCC / NSS, Home guards and civil defense, district and village bodies be ensured.
- Security arrangement and protection of lives and property.
- Preparation and updating of resource inventories.
- Appropriate welfare measures throughout all stages
- Test exercise of prepared plans and recording of lessons learnt
- Documentation.

Stages of Evacuation

There are five stages of evacuation as under:

- Decision of authorities to evacuate victims
- Issue of warning and awareness
- Ensuring smooth movement of victims to designated relief camps
- Ensuring provision of all requisite facilities like security, safe-housing, feeding, drinking-water, sanitation, medical and allied facilities
- Safe return of personnel on return of normalcy

Decision to Evacuate

Vulnerability analysis may indicate that for certain hazards and under certain conditions, sheltering in place could well be the best protection. Available lead-time may influence the decision to evacuate the public before the impact of emergency (e.g. floods) and reducing the risk to lives and property. Decision would also be dependent on factors like ready availability of suitable accommodation, climatic condition, and severity of likely hazard and time of the day.

The Collector would be the authoritative body to issue directions for evacuation. The OIC of DECR would convey directions to Desk Officers of concerned agencies, which are responsible to execute evacuation.

Basic consideration for Evacuation

The DCG will define area to be evacuated as also the probable duration of evacuation on the basis of meteorological observations and intimations by the concerned forecasting agencies. It should also identify number of people for evacuation, destination of evacuees, lead-time available, welfare requirements of evacuees as also identify resources to meet the needs of victims, viz. manpower, transport, supplies equipments, communications and security of the evacuated area.

The evacuating agency should set priorities for evacuation in terms of areas likely to be affected and methodology to execute evacuation:

- Delivery of warning
- Transport arrangement
- Control and timing of movement
- Fulfill welfare needs including medical treatment
- Registration of evacuees

All agencies involved in evacuation operation like Home guards, Police, PWD, PHED, etc. will coordinate in field. They will remain in touch with the Desk officials in the DECR for issuing warning, information and advise the public.

Evacuation Warning

An evacuation warning must be structured to provide timely and effective information. Factors, which may influence the quality and effectiveness of warning, include time, distance, visual evidence, threat characteristic and sense of urgency e.g. the more immediate the threat, the greater the resilience of people to accept and appropriately react to the warning.

The warning should be clear and target specific. The warning statement issued to the community should be conveyed in a simple language. The statement should have mentioned:

- The issuing authority, date and time of issue
- An accurate description of likely hazard and what is expected
- Possible impact on population, area to be in undated or affected due to earthquake
- Need to activate evacuation plan
- Do's and Don'ts to ensure appropriate response
- Advise to the people about further warnings to be issued, if any

5.2.4 Damage & Loss Assessment

Immediately after the disaster there is an urgent need of damage assessment in terms of loss of life, injury and loss of property. The objectives of damage assessment are to mobilize resources for better rescue and relief, to have detailed information of damage extent and severity of disaster and to develop strategies for reconstruction and restoration facilities.

Damage is assessed with regard to building stock, standing crops, agricultural area, livestock lost, forest cover decimated, vital installations etc. In damage assessment of building stock, generally three types of flags are used; green, yellow and red. The green colour is given to the buildings that are safe and require 2-3 days to return to their original function. Yellow flags depict the considerable damage to the buildings and considered to be unsafe for living, as they require proper structural repairs and careful investigation. The red flag is assigned to buildings that are partially or completely collapsed. Immediately after a disaster event, damage assessment will be conducted in two phases i,e Rapid Damage Assessment and Detailed Damage Assessment.

5.3 Training need analysis

Training Analysis is most often used as part of the system development process. Due to the close tie between the design of the system and the training required, in most cases it runs alongside the development to capture the training requirements. GIDM has analysed education, training and information needs through interviews and conversations with stakeholders in different parts of Gujarat. The training need analysis is done considering variable factors of intensity, affected population and severity of damage need to be quickly assessed based on which government and non-government agencies can allocate and deploy relief. All the government line departments who have a stake in different phases of the disaster management will have to identify their roles and carry out training need analysis of their personnel.

5.4 Arrangement of Training and Capacity building:

Training on search and rescue, rehearsals, evaluation and inventory updation for response activities will be carried out during normal time. District collector will ensure that all the DDMC members acquires knowledge and skills to perform their assigned role through regular refresher trainings. Basic and detailed training modules in disaster preparedness have been incorporated along with training methodologies for trainers, for community preparedness and manuals for training at district, block, panchayat and village levels. For capacity building several Search & Rescue and First aid trainings organized for benificiaries, disaster management teams and committee members to be trained at district, taluka, village and city level. The following table describes the training needs and responsibility of department who should provide the training.

Sr.	Task	Activity	Responsibility
1	Trainig	Training to civil defence personal in various aspect of disaster management	□ Home Dept. □ District Home Guards Commandant
2		Training to home Guards personal in various aspect of disaster management including search and rescue	□ Civil Defence departrment
3		Training to NCC and NSS personal in various aspect of disaster management	□ Education Institute □ NCC committee □ Collector Office
4		Training to educational and training institutions personal in various aspect of disaster management	DDMC/ (also Saurces of partnership with local NGO)
5		Training to civil society, CBOs and corporate entities in various aspect of disaster management	DDMC
6		Training to fire and emergency service personal in various aspect of disaster management	Fire Dept DDMC
7		Training to police and traffic personal in various aspect of disaster management	DDMC Police Dept.
8		Training to media in various aspect of disaster management	DDMC Information Dept.
9		Training to govt. officials in various aspect of disaster management	DDMC
10		Training to engineers, architects, structural engineers, builders and masons in various aspect of disaster management	DDM

Table 5.2: showing training need analysis of departments

5.5 Activation of Incident Response System in the District and identification of quick response team

ICS-Basic Functions

The basic functional descriptions for key elements in the district Incident Command System are described below. Not all these functions need to be filled (activated) in every disaster. But the ensemble of these functions represents all the key tasks which need to be accomplished in a well planned manner and executed in effective and cost efficient disaster response effort.

I. Incident Commander:

Responsible for overall management of an incident based on clearly stated mandate from higher authority and based on focused objectives responding to the immediate impact of the incident.

The Incident command is led by an Incident Commander, who can be assisted by a Dy. Incident Commander. In each incident will have as many as many commanders and other staff as there are shifts in the incident operation. Shifts will normally not exceed 12 hours at a time and should be standardized to 8 hours each as soon as possible after the start of the incident.

II. Command Staff Units

Safety unit:

Responsible for ensuring the safe accomplishment of all activities undertaken in response to the incident. This task is accomplished through developing incident specific safety guidance documents, reviewing and advising on the safety of plans and monitoring actual operations to ensure safety of personnel and survivor

A. Protocol and Liaison unit:

Responsible for all official visits as well as liaison between the incident command and organizations providing personnel or material support being used to manage the incident. The first point of contact for NGOs and others coming to the disaster as well as responsible for managing coordination meetings (some of which may actually be held by taskforces or sections).

B. Public Information Unit:

Responsible for all media and public information tasks related to the incident. To accomplish its task, the unit can have the following sub units:

- **public inquiries**: to handle non media requests for information
- **outgoing public information**: to handle public information dissemination
- **Public opinion feedback**: to collect information from the public (incident survivors and the non-affected)
- **Media center:** to provide a single point of contact for all media involved in the incident.

- **Press release and media access**: produce all releases and provide a single point ofcontact to arrange media access to the incident.
- **Monitoring and Feedback**: to monitor media reports and provide feedback to the incident management on coverage of the incident and to also take corrective measures and issue contradictions if required.

C. Law and Order Section

Responsible for assuring the execution of all laws and maintenance of order in the area affected by the incident. The law and order section incorporates law and order taskforce which may be created to deal with a disaster.

Police functions: as determined by the normal mandate for and special duties assigned to the police service

Home guard: as determined by the normal mandate for and special duties assigned to the home guard

Volunteers: supporting police and home guards in non-enforcement tasks, such as patrolling, monitoring and evacuations

D.Operation Section

Responsible for assuring specific operations according to objectives and plans to address the immediate impacts of the incident. Taskforces under the operation section will deal with specific functional tasks, such as search and rescue, the provision of water or shelter. The composition and size of these taskforces depends on the nature of the incident

E. Planning Section

Responsible for collecting and analyzing information and developing plans to address the objectives set to address the incident. The overall work of the planning section will include efforts undertaken by any planning and coordination taskforce which is established as part of the response to a disaster. Units under the section include:

1. Assessment and planning
2. Resources and Requirements
3. Management information system
4. documentation
5. Demobilization and
6. Technical specialists

F. Logistic section

Responsible for all task and functions related to provision of material and other resources needed for operations and the physical and material support and operation of the incent management team. This section include transportation taskforce established to support disaster operations. Logistics tasks are through the following units:

1. storage and supply
2. Facilities
3. staff support
4. communications
5. transportation (include ground, air water):

G. Finance And Administration

Responsible for managing all financial and administrative tasks related to incident field operations. These tasks may , but would not usually include disbursement of financial aid to those affected by an incident. The task of this section are accomplished through following units: 1. Human resources; 2. procurement; and 3. accounting and records

5.6 Protocol for seeking help from other agencies-example-state government, government of india, other state governments, NDRF, SDRF,Army, Navy and Air Force

For the management and control of the adverse consequences of any disaster will require coordinated, prompt and effective response systems at the central and state government levels, especially at the district and the community levels.

There are various agencies / organizations / departments and authorities that constitute a core network for implementing various disaster management related functions / activities. It also includes academic, scientific and technical organizations which have an important role to play in various facets of disaster management. These agencies (State Government, Govt. of India, NDRF, SDRF, Army, Navy and Air Force) shall be called upon to assist the civil administration only when the situation is beyond the coping capability of the State Government.

5.7 Operational check-up for Emergency Operation Centre

At the district level, Porbandar district has a District Emergency operation Centre (DEOC) located at near seva sadan-2, opposite to new district court, airport to ssandipani road, Chhaya which is 24*7 operational and equipped with sophisticated communication equipments and required technology for disaster management. The Resident Additional Collector (RAC) of the Porbandar is empowered as Nodal officer of DEOC and is responsible for operational check-up for Emergency Operation Centre which includes following points:

- Ensure that all equipments in the EOC are in working condition.
- Collection data on routine basis from line departments for disaster management.
- Develop status reports of preparedness and mitigation activities in the district.
- Ensure appropriate implementation of District Disaster Management Plan.
- Maintenance of disaster data base with regular updating.
- Activate the Response mechanism on receipt of disaster warning/occurrence of disaster.

5.8 NGOs and other stakeholders coordination

Local community groups and voluntary agencies including NGOs should actively assist inprevention and mitigation activities under the overall direction and supervision of the Collector. They should actively participate in all training activities as may be organised and should familiarise themselves with their role in disaster management. It is a duty of every citizen, NGOs and stakeholders to assist the Collector or such other person entrusted with or engaged in disaster management whenever his aid is demanded generally for the purpose of disaster management. NGOs of District are working on targeted community or limited to certain specific areas. They are coordinating with district EOC only on direct approch or on allocation of specific tasks.On the basis of their fundamental function of NGOs and Community Based Organizations, they are supporting theistrict administration for relief and rehabilation activities. **(Sources: Annexure-16)**

5.9 Seasonal preparedness for seasonal disasters like flood and cyclone

According to the history of floods and cyclones and past disaster experiences, Community develops the seasonality calendar for the possibility of occurrence of seasonal disasters. The following table shows the seasonality calendars for Cyclone and Flood monthwise.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Flood						√	√	√	√			
Cyclone				√	√	√				√	√	

Table 5.3: showing seasonal calendar of disaster.

Seaonal Preparedness measures are:

- Putting the signage of HFL(Highest Flood Level) and flood prone area mapping make aware the community to be prepare for Flood situation.

- A hazard map for the cyclone at vulnerable villages and town with the map showing the evacuation plans, location of the shelters.

- Land use regulation will reduce risk of damages of property and human loss. Flood plain must be avoided for human settlement or activities instead of it wetland conservation should be given importance with planting trees, mangroves. In areas where people already have built their settlements, measures should be taken to relocate to better sites so as to reduce vulnerability. No major development should be permitted in the areas which are subjected to high flooding.

- Construction of engineered structures in the flood plains and strengthening of structures to withstand flood forces and seepage. The buildings should be constructed on an elevated area. If required build stilts or elevated platform. They

should be wind and water resistant. Protect river embankments. Communication lines should be installed underground. Provide strong halls forcommunity shelter in vulnerable locations.

- Flood Control aims to reduce flood damage. Measures such as reforestation, protection of vegetation, clearing of debris, conservation of ponds and lakes, etc.

- Structural measures include storage reservoirs, flood embankments, drainage channels, anti-erosion works, detention basins, etc. and non-structural measures include flood forecasting, flood proofing, disaster preparedness, etc

5.10 Community awareness, education and Preparedness

Community is the first responder to any disasters so, they must be oriented, aware about the potential disasters where they live. Mainly community awareness programme involves disaster management awareness stall at the local village fair, awareness about do and don'ts of disaster through poster, hoarding and pamphlets, exhibition, demonstration, street play, campaigning in schools such as this year the disaster branch set up a disaster management awareness stall at five days Madhapur mela.

If the preparedness measures are considered, then every year village disaster management plan are updated with information on disaster resources, contact information, health facilities, evacuation and shelter plans. It also includes role and responsibility of Village Response Teams and Village Disaster Management Committee. This plan must be implemented and preparedness measures should be included are construction of earthquake resistant buildings, construction of embankments in flood prone area, evacuation and shelter management plan, retrofitting of vulnerable buildings and rehabilitation of vulnerable population to a safer location. Preparedness to disaster includes:

- Orientation programme of key officer regarding need of plan and preparation of plan.
- Formation of committee at all levels (District /Taluka/city and Village level) (chapter:3)
- Preparation of manuals and guidelines (based on role and resposibility)
- Development of the Disaster Management Plan
- Use of IEC materials for awareness generation for preparedness, risk reduction and mitigation.
- Data updation on IDRN/SDRN website

Community awareness and training programme on disaster management (15 days programme) was organized by National Disaster Response Force coordinated with Porbandar district administration from 22th November 2016 to 9th December 2016 at 3 cities and 12 villages of the district.the details of the awreness programme is listed in following table:5.3

Table 5.4: NDRF Team Disaster Management Awareness cum- training programme

Sr. No.	Date	Taluka	Village/City	Venue of Programme	Total Participants
1	22/11/2016	Ranavav	Thoyana	Primary School Thoyana	161
2	23/11/2016	Ranavav	Bordi	Primary School Bordi	370
3	24/11/2016	Ranavav	Amardad	Primary School Amardad	492
4	25/11/2016	Ranavav	Adityana	Primary School Adityana	346
5	28/11/2016	Ranavav	Ranavav	Government High school,	327
6	29/11/2016	Porbandar	Kuchhadi	Primary School, Kuchhadi	298
7	30/11/2016	Porbandar	Bhad	Primary School, Bhad	322
8	01/12/2016	Porbandar	Mitrada	Primary School, Mitrada	168
9	02/12/2016	Porbandar	Keshod Lushada	Primary School, Keshod Lushada	111
10	03/12/2016	Porbandar	Chhaya	Swaminarayan high school, Chhaya	383
11	05/12/2016	Kutiyana	Chhatrava	Primary School Chhatrava	210
12	06/12/2016	Kutiyana	Kutiyana	Government High school, Kutiyana	201
13	07/12/2016	Kutiyana	Kasabad	Primary School Kasabad	169
14	08/12/2016	Kutiyana	Pashvari	Primary School Pashvari	217
15	09/12/2016	Kutiyana	Devada	Primary School Devada	251
Total				**15**	**4026**

Mock Drill on Disaster Management

Mock drill is one of main component of disaster management. "Practice makes man perfect". Mock drills are organized to sensitize, facilitate, and train each individual or a particular community, include school, college, high rise building, etc in order to test various elements included in their prepared Disaster Response Plan and in their Emergency Management Systems. Mock drills should ideally test all the phases of Disaster Management.

Objective: -

1. To know the response of district administration and different task force function
2. To find out the alertness and response time of the personnel involved in the Drill.
3. To find out the effectiveness of the communication system
4. To check the coordination of reactions and response of emergency services
5. To find out the clarity in role and responsibilities
6. To educate and create awareness among the villagers
7. Testing emergency support systems through standard operating procedures

5.11 Community Warning System-Early Warning System (EWS)

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

Early Warning Action Plan

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

Table 5.5: showing Early warning action plan

5.12 IDRN/SDRN updation

5.12.1 SDRN (State Disaster Resource Network)

The State Disaster Resource Network (SDRN) system has three document namely Village Disaster Management Plan (VDMP), Taluka Disaster Management Plan (TDMP) and City Disaster Management Plan(CDMP). The data are updated in this network after the collection of the data on a standard format provided by the GSDMA.

The centrally stored database in the server located at GSDMA, Gandhinagar can be accessedthrough the link http://117.239.205.164/sdrn_new and GSDMA web site (www.gsdma.org). Each user of all talukas of the State has been given unique username and password through which they can perform data entry, data updation on SDRN for their Village, Taluka or City. Status reports are also generated showing the status that how many forms, records are entered on SDRN. The Village level officers should be contacted to know the status of the shelters and capacity of shelters and other facilities available like toilet, electricity and drinking water supply.

5.12.2 IDRN (Indian Disaster Resource Network)

IDRN is 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. 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.

5.13 Protocol and arrangement for VIP Visit

It is important to immediately inform VIPs and VVIPs on impending disasters and current situation during and after disasters. Appeals by VIPs can help in controlling rumours and chaos during the disaster. Visits by VIPs can lift the morale of those affected by the disaster as well as those who are involved in the response. Care should be taken that VIP visits do not interrupt rescue and life saving work. Security of VIPs will be additional responsibility of local police and Special Forces. It would be desirable to restrict media coverage of such visits, in which case the police will liaise with the government press officer to keep their number to minimum.

5.14 Media Management/information dissemination

Media management is significant to disseminate the true information of the disaster impact and relief measures being taken and generate goodwill among community and other stakeholders. Ensure that the information about progress of rescue and relief is provided to media/public in an organized manner at least twice a day. Establish help lines for facilitating communication between the victims and their relatives residing outside the affected area/s. Establish Information Centers at strategic locations for providing information about persons evacuated to the relief centres/hospitals. Establish Media/Press Centre for media management and information dissemination. Ensure that the information to media/general public about the response of the State Government is released in an organized manner along with following points:

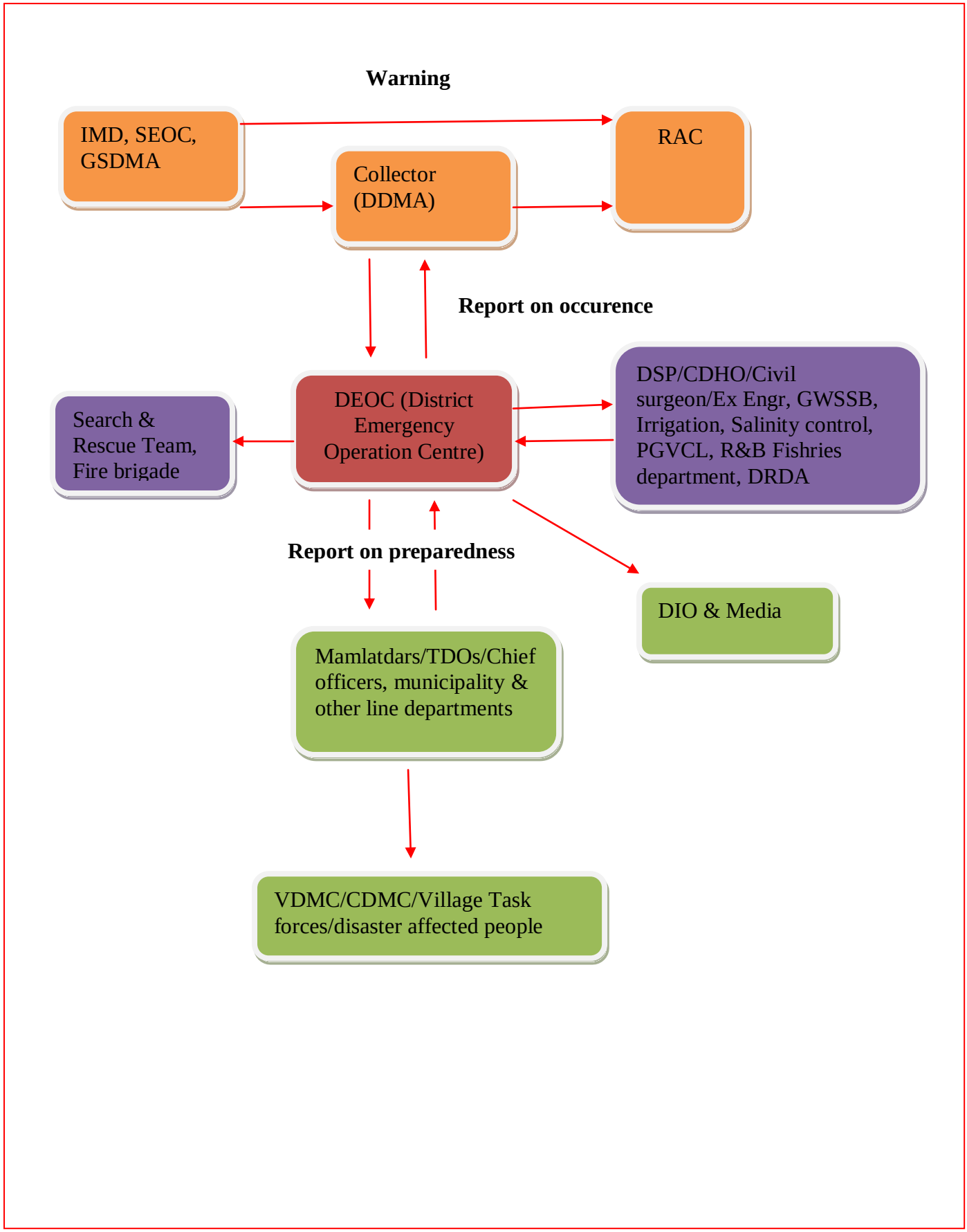
1. Broadcast programmes to public on preventive measures for disasters.
2. Develop news sources in emergency situation
3. Publicize station frequency
4. Broadcast public planning meetings.
5. Compile local knowledge on signs of impending disaster and share it with community
6. Broadcast emergency evacuation announcements.
7. Broadcast all the important announcement effectively and calmly without making any panic.

CHAPTER VI

RESPONSE MEASURES (Multi Hazard)

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 District EOC, ERCs and other control rooms at the District level should be activated with full strength.

6.1 Disaster Response flow chart

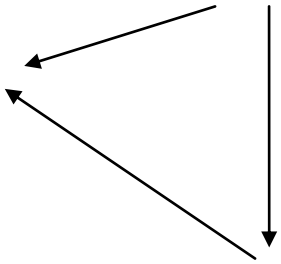


Specific disaster response flow chart:

Flood Response Flow chart

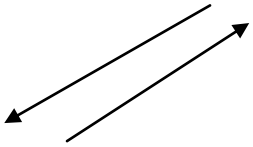
Irrigation department/SEOC/IMD

Relief and rescue team

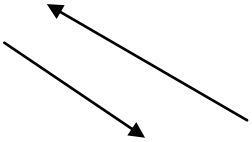


District Emergency Operation Center

Department



1. Concerned department
like Ex. Engineer Water Supply, Irrigation, salinity control
2. Fishries → **Fisherman/Boat Association**
3. Road and Building
(Panchayat and state)
4. PGVCL
5. Nagar palika
6. Fire
8. Defence
9. Local Relief and Rescue Team
10. Information Department
11. Local Media
12. Local NGOs



Liaision Officer and Nodal Officer of the Respective Department

↓

Taluka EOC
(Use local team and Media)
(Use relavance material for awareness)

↓

Village Disaster Management Committee / Disaster Management Team
respective vulnerable area (Use Local resources)

↓

Affected People

Cyclone Response Flow chart

Irrigation department/SEOC/IMD

Relief and rescue team at state level

District Emergency Operation Center

Department

1. Concerned department
like Ex. Engineer Water Supply, Irrigation, salinity control
2. Fishries → Fisherman/Boat Association
3. Road and Building
(Panchayat and state)
4. PGVCL
5. Nagar palika
6. Fire
8. Defence
9. Local Relief and Rescue Team
10. Information Department
11. Local Media
12. Local NGOs

Liaision Officer and Nodal Officer of the Respective Department

↓

Taluka EOC
(Use local team and Media)
(Use relavance material for awareness)

↓

Village Disaster Management Committee / Disaster Management Team respective vulnerable area (Use Local resources)

↓

Affected People

6.2 Warning and alert

On the receipt of warning and alert from the agency which listed in the table no: and on the basis of disaster occurrence report of Collector, the response mechanism of the district administration will be put into operation. The collector assisted with Resident Additional Collector will assume the role of the Chief of Operation during emergency situation in the district. The following table shows the details of agency which has authority to issue the warning or alert pertaining to different disasters:

Srl no	Disaster	Agency
1	Earthquake	IMD/ISR
2	Flood	IMD/Irrigation Department/CWC
3	Cyclone	IMD
4	Epidemic	Public Health Department
5	Road accidents	Police/RTO/NHAI
6	Industrial and Chemical accidents	Industry, DISH
7	Fire	Fire brigade/Police
11	Drought	Agriculture and Revenue department
12	Tsuanmi	INCOIS/IMD/ISR

Table 6.1: Disaster warning and Forcasting agency

6.3 District CMG meeting

The Collector & District Magistrate is responsible to held regular CMG meetings on disaster management including government, NGOs and private sectors. The CMG Committee held various meeting and had detailed interaction with members and management of Crisis. The Porbandar district level Pre-Monsoon and CMG Meeting for all District level departmental heads along with Mamlatdars, Chief Officers and TDOs helds every year before the monsoon season.

6.4 Activation of EOC

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.

The EOC is a nodal point for the overall coordination and control of relief work. In case of a level one (L1) disaster the The Local Control room will be activated, in case of a level two (L2) disaster DEOC will be activated along the coordination with SEOC.

Other line department EOC/Control Room should be activated for response against disaster.

- ✓ **TEOC**
- ✓ **Nagar palika**
- ✓ **Irrrigation department**
- ✓ **PGVCL**
- ✓ **Water Supply**
- ✓ **Fishries**
- ✓ **Port**
- ✓ **GWSSB**
- ✓ **District Panchayat**
- ✓ **Police**
- ✓ **Home Guard**
- ✓ **Information Department**
- ✓ **Salinity Control**
- ✓ **Forest**
- ✓ **S.T**

6.5 Media Management

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

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

Media Can play crucial role during response time. Media management to ensure precise communication of the impact of disaster and relief measures being taken and generate goodwill among community and other stakeholders;

6.6 Role & responsibilities of each department. (Line departmental plan incorporated in DDMP)

Agriculture:

Prevention Activities:

- Awareness generation regarding various plant diseases, alternate cropping practices in disaster-prone areas, Crop Insurance, provision of credit facilities, proper storage of seeds, etc.
- Hazard area mapping (identification of areas endemic to pest infections, drought, flood, and other hazards)
- Develop database village-wise, crop-wise, irrigation source wise, insurance details, credit etc.
- Regular monitoring at block level; the distribution and variation in rainfall
- Prepare the farmers and department officers to adopt contingency measures and take up appropriate course of action corresponding to the different emerging conditions.
- Detail response manuals to be drawn up for advising the farmers for different types of disasters, e.g., rain failure in July or September & development of a dynamic response plan taking into account weekly rainfall patterns.
- Develop IEC materials to advise the farming communities on cropping practices and precautionary measures to be undertaken during various disasters

- Improving irrigation facilities, watershed management, soil conservation and other soil, water and fertility management
- Measures keeping in mind the local agro climatic conditions and the proneness of the area to specific hazards.
- Promotion of alternative crop species and cropping patterns keeping in mind the vulnerability of areas to specific hazards
- Surveillance for pests and crop diseases and encourage early reporting.
- Encourage promotion of agro service outlets/enterprise for common facilities, seed and agro input store and crop insurance.

Preparedness Activities before disaster seasons

- Review and update precautionary measures and procedures, especially ascertain that adequate stock of seeds and other agro inputs are available in areas prone to natural calamities.
- Review the proper functioning of rain gauge stations, have stock for immediate replacement of broken / non-functioning gadgets/equipments, record on a daily basis rainfall data, evaluate the variation from the average rainfall and match it with the rainfall needs of existing crops to ensure early prediction of droughts.

Response Activities:

1. Management of control activities following crop damage, pest infestation and crop disease to minimize losses
2. Collection, laboratory testing and analysis of viruses to ensure their control and eradication
3. Pre-positioning of seeds and other agro inputs in strategic points so that stocks are readily available to replace damage caused by natural calamities.
4. Rapid assessment of damage to soil, crop, plantation, irrigation systems, drainage, embankment, other water bodies and storage facilities and the requirements to salvage, replant, or to compensate and report the same for ensuring early supply of seeds and other agro inputs necessary for re-initiating agricultural activities where crops have been damaged.
5. Establishment of public information centers with appropriate and modern means of communication, to assist farmers in providing information regarding insurance, compensation, repair of agro equipments and restarting of agricultural activities at the earliest.

Recovery Activities

1. Arrange for early payment of compensation and crop insurance dues.
2. Facilitate provision of seeds and other agro inputs.
3. Promotion of drought and flood tolerant seed varieties
4. Review with the community, the identified vulnerabilities and risks for crops, specific species, areas, which are vulnerable to repetitive floods, droughts, other natural

hazards, water logging, increase in salinity, pest attacks etc. and draw up alternative cropping plans to minimize impacts to various risks.

5. Facilitate sanctioning of soft loans for farm implements.
6. Establishment of a larger network of soil and water testing laboratories
7. Establishment of pests and disease monitoring system
8. Training in alternative cropping techniques, mixed cropping and other agricultural practices which will minimize crop losses during future disasters

Health Department:

Disaster events

Prevention Activities:

- Assess preparedness levels at State, District and Block levels.
- Identification of areas endemic to epidemics and natural disasters.
- Identification of appropriate locations for testing laboratories.
- Listing and networking with private health facilities.
- Developing a network of volunteers for blood donation with blood grouping data.
- Strengthening of disease surveillance, ensuring regular reporting from the field level. workers (ANMs / LHV etc) and its compilation and analysis at the PHC and District levels, on a weekly basis (daily basis in case of an epiDamic or during natural disasters), forwarding the same to the State Disease Surveillance Cell and monthly feedback from the State to the district and from the district to the PHC.
- Formation of adequate number of mobile units with trained personnel, testing facilities, communication systems and emergency treatment facilities.
- Identification of locations in probable disaster sites for emergency operation camps.
- Awareness generation about various infectious diseases and their prevention.
- Training and IEC activities.
- Training of field personnel, Traditional Birth Attendants, community leaders, volunteers,
- NGOs and CBOs in first aid, measures to be taken to control outbreak of epiDamics during and after a disaster, etc
- Arrangement of standby generators for every hospital.
- Listing of vehicles, repair of departmental vehicles that will be requisitioned during emergencies for transport of injured.

Preparedness Activities before Disaster

For heat wave:

Preparation and distribution of IEC materials, distribution of ORS and other life-saving drugs, training of field personnel on measures to be taken for management of patients suspected to be suffering from heatstroke;

For flood and cyclone:

- Assessment and stock piling of essential medicines, anti snake
- Venom, halogen tablets, bleaching powders. ORS tablets, Pre-positioning of mobile units at vulnerable and strategic points

Response activities:

- Stock piling of life-saving drugs, detoxicants, anesthesia, Halogen tablets in vulnerable areas.
- Strengthening of drug supply system with powers for local purchase.
- Situational assessment and reviewing the response mechanisms in known vulnerable pockets.
- Ensure adequate availability of personnel in disaster site.
- Review and update precautionary measures and procedures.

Sanitation

- Dispensing with post-mortem activities during L-1, L-2 and L-3 when the relatives and/or the competent authority are satisfied about cause of death
- Disinfections of water bodies and drinking water sources
- Immunization against infectious diseases
- Ensure continuous flow of information

Recovery Activities

- Continuation of disease surveillance and monitoring.
- Continuation of treatment, monitoring and other epidemic control activities till the situation is brought under control and the epidemic eradicated.
- Trauma counseling.
- Treatment and socio-medical rehabilitation of injured or disabled persons.
- Immunization and nutritional surveillance.
- Long term plans to progressively reduce various factors that contribute to high level of vulnerability to diseases of population affected by disasters.

Epidemic

Preventive Activities:

- Supply of safe drinking water, water quality monitoring and improved sanitation
- Vector Control programme as a part of overall community sanitation activities
- Promotion of personal and community latrines
- Sanitation of sewage and drainage systems
- Development of proper solid waste management systems
- Surveillance and spraying of water bodies for control of malaria
- Promoting and strengthening Primary Health Centers with network of para medical professionals to improve the capacity of surveillance and control of epidemic.
- Establishing testing laboratories at appropriate locations to reduce the time taken for early diagnosis and subsequent warning

- Establishing procedures and methods of coordination with the Health Department, other local authorities/departments and NGOs to ensure that adequate prevention and preparedness measures have been taken to prevent and / or minimize the probable outbreak of epidemics
- Identification of areas prone to certain epidemics and assessment of requirements to control and ultimately eradicate the epidemic
- Identification of appropriate locations and setting up of site operation camps for combating epidemics
- Listing and identification of vehicles to be requisitioned for transport of injured animals.
- Vaccination of the animals and identification of campsites in the probable areas
- Promotion of animal insurance
- Tagging of animals
- Arrangement of standby generators for veterinary hospitals
- Provision in each hospital for receiving large number of livestock at a time
- Training of community members in carcasses disposal

Preparedness activities before disaster seasons

- Stock piling of water, fodder and animal feed
- Pre-arrangements for tie-up with fodder supply units
- Stock-piling of surgical packets
- Construction of mounds for safe shelter of animals
- Identification of various water sources to be used by animals in case of prolonged hot and dry spells
- Training of volunteers & creation of local units for carcass disposal
- Municipalities / Gram Pranchayats to be given responsibility for removing animals likely to become health hazards.

Response Activities:

- Control of animal diseases, treatment of injured animals, Protection of lost cattle.
- Supply of medicines and fodder to affected areas.
- Ensure adequate availability of personnel and mobile team.
- Disposal of carcasses ensuring proper sanitation to avoid outbreak of epidemics.
- Establishment of public information centre with a means of communication, to assist in providing an organized source of information.
- Mobilizing community participation for carcass disposal.

Recovery Activities:

- Assess losses of animal's assets and needs of persons and communities.
- Play a facilitating role for early approval of soft loans for buying animals and ensuring insurance coverage and disaster proof housing or alternative shelters/ mounds for animals for future emergencies.
- Establishment of animal disease surveillance system

Water Supplies and Sanitation (GWSSB):

Prevention Activities:

- Provision of safe water to all habitats
- Clearance of drains and sewerage systems, particularly in the urban areas
- Assess preparedness level
- Annual assessment of danger levels & wide publicity of those levels
- Identify flood prone rivers and areas and activate flood monitoring mechanisms
- Provide water level gauge at critical points along the rivers, dams and tanks
- Identify and maintain of materials/tool kits required for emergency response
- Stock-pile of sand bags and other necessary items for breach closure at the Panchayat level

Preparedness Activities for disaster seasons

- Prior arrangement of water tankers and other means of distribution and storage of water.
- Prior arrangement of stand-by generators
- Adequate prior arrangements to provide water and halogen tablets at identified sites to used as relief camps or in areas with high probability to be affected by natural calamities.
- Rising of tube-well platforms, improvement in sanitation structures and other infrastructural measures to ensure least damages during future disasters
- Riser pipes to be given to villagers

Response Activities:

- Disinfections and continuous monitoring of water bodies.
- Ensuring provision of water to hospitals and other vital installations.
- Provision to acquire tankers and establish other temporary means of distributing water on an emergency basis.
- Arrangement and distribution of emergency tool kits for equipments required for dismantling and assembling tube wells, etc.
- Carrying out emergency repairs of damaged water supply systems.
- Disinfection of hand pumps to be done by the communities through prior awareness activities & supply of inputs.
- Monitoring flood situation.
- Dissemination of flood warning.
- Ensure accurate dissemination of warning messages to GPs & Taluka with details of flow.
- Monitoring and protection of irrigation infrastructures.
- Inspection of bunds of dams, irrigation channels, bridges, culverts, control gates and overflow channels.
- Inspection and repair of pumps, generator, motor equipments, station buildings. Community mobilization in breach closure

Recovery Activities:

- Strengthening of infrastructure.
- Sharing of experiences and lessons learnt.
- Training to staff, Review and documentation.
- Development of checklists and contingency plans.
- Strengthening of infrastructure and human resources.
- Review and documentation.
- Sharing of experiences and lessons learnt.
- Training of staff.
- Development of checklists and contingency plans.

Police department:

Prevention Activities:

- Keep the force in general and the RAF in particular fighting fit for search, rescue, evacuation and other emergency operations at all times through regular drills.
- Procurement and deployment of modern emergency equipments while modernizing existing infrastructure and equipments for disaster response along with regular training and drills for effective handling of these equipments.
- Focus on better training and equipments for RAF for all types of disasters.
- Rotation of members so that the force remains fighting fit.
- Ensure that all communication equipments including wireless are regularly functioning and deployment of extra wireless units in vulnerable pockets.
- Ensure inter changeability of VHF communication sets of police and GSDMA supplied units, if required.
- Keeping close contact with the District Administration & Emergency Officer.
- Superintendent of Police be made Vice Chairperson of District Natural Calamity Committee.
- Involvement of the local army units in response planning activities and during the preparation of the contingency plans, ensure logistics & other support to armed forces during emergencies.

Response Plan:

- Security arrangements for relief materials in transit and in camps etc.
- Senior police officers to be deployed in control rooms at State & district levels during L3
- Deploy personnel to guard vulnerable embankments and at other risk points.
- Arrangement for the safety.
- Coordinate search, rescue and evacuation operations in coordination with the administration
- Emergency traffic management
- Maintenance of law and order in the affected areas
- Assist administration in taking necessary action against hoarders, black marketers etc.

Civil Defence:

Prevention Activities

- Organize training programmers on first-aid, search, rescue and evacuation.
- Preparation and implementation of first aid, search and rescue service plans for major public events in the State.
- Remain fit and prepared through regular drills and exercises at all times.

Response Activities

- Act as Support agency for provision of first aid, search and rescue services to other emergency service agencies and the public.
- Act as support agency for movement of relief.
- Triage of casualties and provision of first aid and treatment.
- Work in co-ordination with medical assistance team.
- Help the Police for traffic management and law and order.

Fire Services:

Prevention Activities:

- Develop relevant legislations and regulations to enhance adoption of fire safety measures.
- Modernization of fire-fighting equipments and strengthening infrastructure.
- Identification of pockets, industry , etc. which highly susceptible to fire accidents or areas, events which might lead to fires, building collapse, etc. and educate people to adopt safety measures. Conduct training and drills to ensure higher level of prevention and preparedness.
- Building awareness in use of various fire protection and preventive systems.
- Training the communities to handle fire emergencies more effectively.
- VHF network for fire services linked with revenue & police networks.
- Training of masons & engineers in fireproof techniques.
- Making clearance of building plans by fire services mandatory.

Response Activities:

- Rescue of persons trapped in burning, collapsed or damaged buildings, damaged vehicles, including motor vehicles, trains and aircrafts, industries, boilers, trenches & tunnels.
- Control of fires and minimizing damages due to explosions.
- Control of dangerous or hazardous situations such as oil, gas and hazardous materials spill.
- Protection of property and the environment from fire damage.
- Support to other agencies in the response to emergencies.
- Investigation into the causes of fire and assist in damage assessment.

Civil Supplies:

Preventive Activities

- Construction and maintenance of storage goods storage at strategic locations
- Stock piling of food and essential commodities in anticipation of disaster.
- Take appropriate preservative methods to ensure that food and other relief stock are not damaged during storage, especially precautions against moisture, rodents and fungus infestation.

Response Activities

- Management of procurement
- Management of material movement
- Inventory management

Recovery Activities

Conversion of stored, unutilized relief stocks automatically into other schemes like Food for Work. Wherever, it is not done leading to damage of stock, it should be viewed seriously.

Public Works/ Rural Development Departments:

Prevention Activities:

- Keep a list of earth moving and clearing vehicles / equipments (available with Govt. Departments, and private contractors, etc.) and formulate a plan to mobilize those at the earliest
- Inspection and emergency repair of roads/ bridges, public utilities and buildings

Response Activities

- Clearing of roads and establish connectivity. Restore roads, bridges and where necessary make alternate arrangements to open the roads to traffic at the earliest
- Mobilization of community assistance for clearing blocked roads
- Facilitate movement of heavy vehicles carrying equipments and materials
- Identification and notification of alternative routes to strategic locations
- Filling of ditches, disposal of debris, and cutting of uprooted trees along the road
- Arrangement of emergency tool kit for every section at the divisional levels for activities like clearance (power saws), debris clearance (fork lifter) and other tools for repair and maintenance of all disaster response equipments.

Recovery Activities:

- Strengthening and restoration of infrastructure with an objective to eliminate the factor(s) which caused the damage.
- Sharing of experiences and lessons learnt.
- Training to staff, Review and documentation.
- Development of checklists and contingency plans.

Electricity: PGVCL

Prevention Activities:

- Identification of materials/tool kits required for emergency response.
- Ensure and educate the minimum safety standards to be adopted for electrical installation and equipments and organize training of electricians accordingly.
- Develop and administer regulations to ensure safety of electrical accessories and electrical installations.
- Train and have a contingency plan to ensure early electricity supply to essential services during emergencies and restoration of electric supply at an early date.
- Develop and administer code of practice for power line clearance to avoid electrocution due to broken / fallen wires.
- Strengthen high-tension cable towers to withstand high wind speed, flooding and earthquake, modernize electric installation, strengthen electric distribution system to ensure minimum damages during natural calamities.
- Conduct public/industry awareness campaigns to prevent electric accidents during normal times and during and after a natural disaster.

Response Activities:

- Disconnect electricity after receipt of warning.
- Attend sites of electrical accidents and assist in undertaking damage assessment.
- Stand-by arrangements to ensure temporary electricity supply.
- Prior planning & necessary arrangements for tapping private power plants like those belonging to ICCL, NALCO, RSP during emergencies to ensure uninterrupted power supply to the Secretariat, SRC, GSDMA, Police Headquarters, All India Radio, Doordarshan, hospitals, medical colleges, Collector Control Rooms and other vital emergency response agencies.
- Inspection and repair of high tension lines /substations/transformers/poles etc.
- Ensure the public and other agencies are safeguarded from any hazards, which may have occurred because of damage to electricity distribution systems.
- Restore electricity to the affected area as quickly as possible.
- Replace / restore of damaged poles/ salvaging of conductors and insulators.

Fisheries department:

Prevention Activities

- Registration of boats and fishermen.
- Building community awareness on weather phenomena and warning system especially on Do's and Don'ts on receipt of weather related warnings.
- Assist in providing life saving items like life jackets, hand radios, etc.
- Certifying the usability of all boats and notifying their carrying capacities.
- Capacity building of traditional fishermen and improvisation of traditional boats which can be used during emergencies.
- Train up young fishermen in search & rescue operation and hire their services during emergency

Response Activities

- Ensure warning dissemination to fishing communities living in vulnerable pockets.
- Responsible for mobilizing boats during emergencies and for payment of wages to boatmen hired during emergencies.
- Support in mobilization and additional deployment of boats during emergencies.
- Assess the losses of fisheries and aquaculture assets and the needs of persons and communities affected by emergency.

Recovery Activities

Provide compensations and advice to affected individuals, community.

Forest Department:

Prevention activities

- Promotion of shelter belt plantation
- Publishing for public knowledge details of forest cover, use of land under the forest department, the rate of depletion and its causes
- Keep saws (both power and manual) in working conditions
- Provision of seedling to the community and encouraging plantation activities, promoting nurseries for providing seedlings in case of destruction of trees during natural disasters

Transport department:

Prevention Activities

- Listing of vehicles which can be used for emergency operation.
- Safety accreditation, enforcement and compliance
- Ensuring vehicles follow accepted safety standards.
- Build awareness on road safety and traffic rules through awareness campaign, use of different IEC strategies and training to school children.
- Ensure proper enforcement of safety regulations Response Activities.
- Requisition vehicles, trucks, and other means of transport to help in the emergency operations.
- Participate in post impact assessment of emergency situation
- Support in search, rescue and first aid.
- Cooperate and appropriation of relief materials.

Recovery Activities

- Provision of personal support services e.g. counseling.
- Repair/restoration of infrastructure e.g. roads, bridges, public amenities.
- Supporting the GPs in development of storage and in playing a key role and in the coordination of management and distribution of relief and rehabilitation materials.
- The G.P. members to be trained to act as an effective interface between the community, NGOs and other developmental organizations.

- Provide training so that the elected representatives can act as effectives supportive agencies for reconstruction and recovery activities.

Panchayati Raj Institutions:

Preventive Activities

- Develop prevention/mitigation strategies for risk reduction at community level.
- Training of elected representatives on various aspects of disaster management
- Public awareness on various aspects of disaster management
- Organize mock drills
- Promote and support community-based disaster management plans.
- Support strengthening response mechanisms at the G.P. level (e.g., better communication, local storage, search & rescue equipments, etc.).
- Clean drainage channels, trimming of branches before cyclone season.
- Ensure alternative routes/means of communication for movement of relief materials and personnel to marooned areas or areas likely to be marooned.
- Assist all the government departments to plan and priorities prevention and preparedness activities while ensuring active community participation.

Response Activities

- Train ups the G.P. Members and Support for timely and appropriate delivery of warning to the community.
- Clearance of blocked drains and roads, including tree removal in the villages.
- Construct alternative temporary roads to restore communication to the villages.
- PRls to be a part of the damage survey and relief distribution teams to ensure popular participation.
- Operation emergency relief centers and emergency shelter.
- Sanitation, drinking water and medical aid arrangements.
- IEC activities for greater awareness regarding the role of trees and forests for protection during emergencies and also to minimize environmental impact which results owing to deforestation like climate change, soil erosion, etc.
- Increasing involvement of the community, NGOs and CBOs in plantation, protection and other forest protection, rejuvenation and restoration activities.
- Plan for reducing the incidence, and minimize the impact of forest fire.

Response Activities:

- Assist in road clearance.
- Provision of tree cutting equipments
- Units for tree cutting and disposal to be put under the control of GSDMA, ERC, Collector during Level 1.
- Provision of building materials such as bamboos etc for construction of shelters

Recovery Activities:

Take up plantation to make good the damage caused to tree cover.

Information & Public relations department:

Prevention Activities

- Creation of public awareness regarding various types of disasters through media campaigns.
- Dissemination of information to public and others concerned regarding do's and don'ts of various disasters
- Regular Liasoning with the media

Response Activities

- Setting up of a control room to provide authentic information to public regarding impending
- emergencies
- Daily press briefings at fixed times at district level to provide official version
- Media report & feedback to field officials on a daily basis from Level 1 onwards
- Keep the public informed about the latest emergency situation (area affected, lives lost, etc).
- Keep the public informed about various post-disaster assistances and recovery programmers.

Revenue Department:

- Co-ordination with Govt. of Gujarat Secretariat and Officers of Govt. of India
- Overall control & supervision
- Damage assessment, finalization of reports and declaration of Level 1/Level 2 disasters
- Mobilization of finance

Home Department:

- Requisition, deployment and providing necessary logistic support to the armed forces
- Provide maps for air dropping, etc.

Gujarat Disaster Rapid Action Force:

Response

- To be trained and equipped as an elite force within the Police Department and have the capacity to immediately respond to any emergency.
- Unit to be equipped with life saving, search & rescue equipments, medical supplies, security arrangements, communication facilities and emergency rations and be self-sufficient.
- Trained in latest techniques of search, rescue and communication in collaboration with international agencies

6.7 Warning dissemination

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

- Warning dissemination will be done to all the important stakeholders (as given below in the information dissemination format) at the Panchayat level in rural areas an Nagarpalika level in urban areas for early warning communication.
- Making use of the fastest means to communicate the message in the most lucid manner so as to prevent spread of rumor and panic among the masses.
- Bulk Voice SMS Service is the best means of communication to large masses without any effort and within no time. A voice recorded message from the District Magistrate from official number shall be sent to the database of numbers identified for information dissemination with the help of Mobile service providers & Telephone department.
- DEOC will incorporate to arrange dissemination of information through various means of communication such as Radio, TV, Cable Network, and SMS about warnings to districts/areas which are likely to be hit by disasters.
- Dist. Collector and Information Dept.will Ensure dissemination of information to remote areas by local means. They will also ensure that local TEOC help lines are opened andeffectively managed for public information, guidance and rumor control.

As soon as the warning of an impending calamity is received, the EOCs at the State, District and Block levels will be on a state of alert. The Incident Commander will take charge of the EOC and oversee the dissemination of warning to the community.
The District Collector will inform the District Disaster Management Committees who will alert the lock and Village level DMCs and DMTs to disseminate the warning to the community.

6.8 Resource Mobilization

Taluka authority will try their best to contain the situation with the available localresources. However, if they find that the situation is beyond their control and the district level resource mobilization is required, they will seek the help of their superiors or call the meeting of Disaster Management Committee.

Thruogh online SDRN and IDRN computerized and web based IT solutions can be used for resource mobilization and deployment of trained members. This decentralized system presents many advantages such as the easy availability of the resources and plans at all levels, minimum duplication and time saving and finally the visual data reports generation that assists in gap analysis and resource mobilization.

6.9 Emergency Response Functions

Effective response planning requires realistic identification of likely response functions, assignment of specific tasks to individual response agencies, identification of equipment, supplies and personnel required by the response agencies for performing the assigned tasks. Response functions essentially outline the strategy, resources needed, evacuation, search & rescue, etc.

Evacuation:

In many emergencies, local authorities would set up public shelters in schools, municipalbuildings and places of worship. While they often provide water, food, medicine and basic sanitary facilities.

Search and Rescue:

At district level whatever help would be required during disaster that will be immediately informed to the various departments by the district collector and possible support NGOs and other line agencies in the district would be tapped up. If the District Collector thinks that it cannot cope with the disaster then he can ask help from the defence and paramilitary force.

Cordoning the area:

SDM and Police department will cordoning off affected areas for restricting entries of rail or road traffic and instruct to cordon affected areas and setting up of check posts to control entry and exit. The DSP will send instructions for the cordoning off of the area. People should not be allowed access anywhere close to the site of the disaster.

Traffic control:

The Superintendent of Police will co-ordinate the work of Traffic control and Traffic arrangements towards the disaster affected areas. Traffice cell also has responsibility for the ground transportation of personnel, supplies, and equipment and make alternate arrangements to open the roads to traffic at the earliest.

Law & order and safety measures:

Collectorate and SP office is responsible for assuring the execution of all laws and maintenance of order in the area affected by the incident. The law and order section incorporates law and order taskforce which may be created to deal with a disaster with sufficient safety measures. It will arrange law and order against theft in the disaster affected area and co-ordinate with the search and rescue operations. It will also arrange for security at the relief camps/relief material storages. It is also responsible to maintain law and order at the time of distribution of relief material.

Dead body disposal:

The health department will immediately start the procedure for post mortem of the dead persons as per the rules. Disposal of dead bodies is to be carried to prevent the outbreak of epidemics. Arrangement should be made to issue death certificates of the deceased to the relatives.

Carcass disposal:

The animal husbandry departments with necessary equipments in case of cattle death are there in the affected areas for the disposal of carcass with a view to restoration of public life and result oriented work.

Roles and Responsibilities of Taskforces

The actual plans and SOPs developed by prime and supporting organizations for eacdisaster may result in a variation in the actual composition of each taskforce.

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

The tables below describe the taskforce action plans are intended to identify key actions

Before the disaster occurence (which includes at the receipt of warning, when disaster occurs and period from: 12 to 48 hrs, 48 to 72 hrs and after the 72 hrs and post disaster)

The action plans serve as quick reference guide to individual task force members, the coordination and planning taskforce and Authorities at the state level; as to what specific taskforces expect to be doing at a specific stage before and after a disaster. This information will improve coordination within and between taskforces and with authorities outside Porbandar district.

To facilitate coordination of actions between task forces a cross taskforce action) also included. This matrix can be used by

- Individual taskforces to identify actions by other taskforces in which they are involved.
- The coordination and planning taskforce as an aid in coordinating activities across the response to a disaster.

6.10 Responsibility matrix for response functions

TASKFORCE ACTION PLANS (Table 6.2)

Coordination and Planning:

Coordinate early warning, response and recovery operations.

Task Force Leader: Collector

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Before a Disaster		
Establish a disaster management structure to the village level. (DDMC)	Links to State level and establishment of ICS structure	On-going
Develop disaster plans at all levels down to the village level. (DDMC)		On-going
Hold regular meetings on disaster management including government, NGOs and private sectors. (DDMC)		Quarterly
Continual training, including public awareness. (DDMA and Media Task Force)	Involvement of GSDMA	On-going
Check warning, communications and other systems (DDMC), including the use of drills		On-going
Warning		
Hold Crisis Management Committee (Collector)	Communications between Districts and with State Control Room	On receipt of warning.
Mobilize task forces at all levels (District, Taluka, village depending on disaster) (CMC, Telecommunications, Media Task Forces)	Communications systems and procedures	As decided by CMC.
Disseminate Information (CMC, Media Task Force)		As decided.
Mobilize resources to be positioned near vulnerable points depending on type of disaster.	Telecommunications systems, plans	As decided.
Establish alternate communications system (Telecommunications Task Force)		As decided.
Start Search, Rescue and Evacuation activities. (CMC)	SAR Task Force operational	Immediately
Begin Collecting Information on extent of damage and areas affected. (CMC)	Assessment teams have communications and	Started in 4 hours

	transport	

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Disaster	Information on damage and needs	Started in 5 hours
Provide Public Information(CMC, Media Task Force)		should be started in 6 hours)
12 Hours		
Begin regular reporting on actions taken and status by Task Forces. (Task Forces)	Operating communications system	Started at 12 hours
Reassess damage information, resources, needs and problem areas/activities. (CMC)		Started at 12 hours
Begin rotation of staff (CMC)		Start at 12 hours
Establish regular liaison with State Control Room.	Working communications systems	Start at 12 hours
Shift focus of efforts to relief. (CMC)		Open
Restore key infrastructure (CMC through Public Works and other Task Forces)		Before 48 hours
48 hours		
Continue review and reassessment of operations (CMC)	Information on operations	
Conduct broad damage assessment (CMC and Damage Assessment Task Force)		
Establish Temporary Rehabilitation Plan (CMC)		
Begin Damobilization based on situation. (CMC)		
Focus on creating a sense of normalcy. (CMC)		Before 72 hours
72 hours		
Start Rehabilitation activities. (CMC)	Plan	
Conduct detailed survey of damage and needs. (CMC and Damage Assessment Task Force)		
Begin regular reporting on operations	Information on operations	As early as possible
Restore all public and private sector services (CMC)		As early as possible
Lessons Learned meeting. (CMC and others)		After 2 weeks
Final Report/Case Study (CMC)		After activities completed

Warning:

Collection and Dissemination of Warnings of Potential Disasters

Task Force Leader: Resident Additional Collector

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

Law and Order:

Assure the execution of all laws and maintenance of order in the area affected by the incident.

Task Force Leader: District Superintendent of Police

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Before a Disaster		
Evaluate expected disaster needs verses normal resources. (Task Force)		Completed in 8 days.
Estimate personnel and resources needed for disasters. (Task Force)	Based on standard for number of security personnel per population depending on severity of disaster	Completed in one week
Planning and coordination with Revenue Dept. (Task Force)		
Conduct drills, including public awareness raising. (Task Force)	Includes participation of Media Task Force	Every 45 days

Action and (Who Should Take It)	Requirements or Conditions to be met for the action can occur.	Timeframe
Warning		
Verify communications system. (Wireless Inspector)		1-2 hours of warning
Alert police and other Task Force members (Superintendent of Police)		1-2 hours of warning
Implement duty distribution SOP for personnel and other resources. (Superintendent of Police)		1-2 hours of warning
Develop preliminary estimate of requirements to support other Task Forces. (Superintendent of Police)		1-2 hours of warning
Disaster		
Get orders on deploying personnel from Control Room. (Superintendent of Police)	Operating communications system	Immediately
Determine status of staff and facilities. (Superintendent of Police)	Operating communications system	1-2 hours of disaster
Deploy additional staff. (Superintendent of Police)	Transport available	2-3 hours of disaster
Monitor resources. (Superintendent of Police)		1 hour of disaster
Establish VVIP unit. (Superintendent of Police)		Immediately
Request additional resources, if needed. (Superintendent of Police)	Operating communications system	4 hours of disaster
12 hours		
Institute regular reporting. (Task Force)	Operating communications systems	At start of period
Begin staff rotation. (Task Force)		At start of period
Address crowd control problems. (Task Force)		As needed
Implement anti-looting/anti-theft SOP. (Task Force)		As needed
Establish rumor control. (Task Force)	Involves Collector, Media Task Force, NGOs, and local	As needed

	eminent persons	

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Provide information to public, e.g., road status. (Task Force)	Involves Control Room, Media Task Force, and Deputy Magistrate	As needed.
48 hours		
Implement a Force Management Plan (increase, reduction, redeployment, of forces). (Superintendent of Police)		From start of period
Plan for return to normal ((Superintendent of Police, Task Force, Control Room)		From 72 hours after the disaster
Conduct Lessons Learned Session (Task Force with input from other parties.)		1 week after the disaster
Final Report		2 weeks after the disaster

Search and Rescue (including evacuation):
Provide human and material resources to support local evacuation, search and rescue efforts.

Task Force Leader: Deputy Commander (Civil Defense) /Chief Fire Officer

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

operations. (Task Force)	Force	
Develop Rescue SOP. (Task Force)		Before warning

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Warning		
Mobilize Task Force and SAR teams. (Task Force)		On warning
Verify equipment is ready. (Task Force)		On team activation
Confirm transport is ready. (Task Force)	Logistics Task Force.	On warning
Undertake precautionary evacuation. (Task Force)	Logistics and Shelter Task Forces	As directed.
Re-deploy teams and resources, if safe. (Task Force)	Logistics Task Force	Based on conditions
Start public awareness patrols. (Task Force)	Media, Law and Order and Logistics Task Forces.	As required
Disaster		
Assure safety of staff.		Immediately
Restore own communications. (Task Force)		Immediately
Dispatch rescue/evacuation teams based on assessments. (Task Force)	Input from Control Room.	Immediately
Call for additional resources if needed. (Task Force)	Communications systems in operation	3-4 hours of disaster
Provide reports on operations. (Task Force)		Starting at 3-4 hours
Begin handling of deceased per SOP. (Task Force)	Various Revenue officers and Police involved.	Starting at 3-4 hours
12 Hours		
Begin staff rotation system. (Task Force)		Starter at 12 hours
Begin specialized rescue (may begin earlier). (Task Force)	May require outside resources, coordination with Logistics Task Force	Started at 12 hours
Begin debris removal in cooperation with Public Works Task Force.	Focus on critical infrastructure. Liaison with Control	Start at 12 hours

	Room	
Secure additional resources (e.g., fuel, personnel) for continued operations. (Task Force).		Start at 12 hours.

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
48 hours		
Damolish/Stabilize damaged buildings in cooperation with Public Works Task Force.	Logistics Task Force, workers, equipment.	Starting at 48 hours.
Damobilization, reconditioning, repair and replace equipment and other resources. (Task Force)		Based on nature of disaster.
Remain on stand-by for additional operations, particularly related to safety of recovery work. (Task Force).		As needed.
72 hours		
Lessons Learned meeting. (Task Force and others)		After 2 weeks.
Final Report. (Task Force)		After major activities completed.

Public Works:

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

Task Force Leader: Executive Engineer, Roads and Buildings

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Before a Disaster		
Inventory of personnel, equipment and status of infrastructure. (Task force)	Link to UNDP project data based development.	One week before warning.
Identify critical infrastructure. (Task Force)	Need to define what critical infrastructure is.	Before warning.
Identify alternate transport routes and publish map. (Task Force)		Before warning.
Plan for prioritized post-disaster inspection of infrastructure. (Task Force)		

Establish and maintain a resources and staffing plan. (Task Force)		
Plan to provide sanitation and other facilities for shelters. (Task Force)		

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Warning		
Establish Control Room. (Task Force)		No later than 6 hours from warning
Mobilize Task Force and personnel.	Requires communications	No later than 6 hours from warning
Liaise with District Control Room. (Task Force)		No later than 6 hours from warning
Verify status and availability of equipment and re-deploy if appropriate and safe. (Task Force)	Coordination with Logistics Task Force and Control Room.	24 hours from warning
Review plans. (Task Force)		No later than 6 hours from warning
Disaster		
Begin damage assessment and inspections. (Task Force)	Coordination with Damage Assessment Task Force.	Within 12 hours of disaster
Develop operations plan and communicate to Control Room.		Within 12 hours of disaster
Mobilize and dispatch teams based on priorities. Teams will (1) repair, (2) replace, (3) Build temporary structures (e.g., rest facilities, shelters).	Coordination with Logistics, Water, Power Task Forces and Control Room.	Within 12 hours of disaster
Collaborate with other Task Forces.		Continuous
12 Hours		
Begin staff rotation system and manpower planning. (Task Force)		Starter at 12 hours
Mobilize additional resources based on expected duration of operations. (Task Force).	Coordination with Logistics Task Force, Contractors. May need additional funding.	Started at 12 hours
Assure safety. (Task Force		Start at 12 hours
Establish security arrangements. (Task Force)	Law and Order Task Force.	Start at 12 hours.

Provide public information on roads, access and infrastructure. (Media Task Force)	Coordination with Control Room	Start at 12 hours.
48 hours		
Start detailed survey. (Task Force)	In cooperation with Damage Assessment Task Force	Starting at 48 hours.

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

Water Supply:

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

Task Force Leader: Executive Engineer, Gujarat Water Supply Board

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Before a Disaster		
Establish water availability, capacities, reliabilities and portability. (Task Force)	Standard of 20 liters of drinking water per person per day.	3 months before warning.
Plan for alternate water delivery and storage (Task Force)	May need tankers, tanks, generator set.	3 months before warning.
Secure new and additional equipment. (Task	Requires funding.	

Force)		
Secure extra stocks of chemicals, expendable supplies and equipment. (Task Force)	May require additional funding.	3 months before warning.
Open Water Control Room in Monsoon. (Task Force)		Done.

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Warning		
Establish staff rotation and shift system. (Task Force)		No later than 24 hours from warning
Provide public awareness on use of water. (Task Force)	Media Task Force.	No later than 24 hours from warning
Provide instructions to government and private sectors on protection of water supplies. (Task Force)		No later than 24 hours from warning
Mobilize Task Force members		24 hours from warning.
Mobilize additional personnel and vehicles. (Logistics Task Force)	May be difficult to locate additional personnel locally. Recourse to outside or contractor sources may be required.	24 hours from warning.
Coordinate activities with Power and other Task Forces.	Involves District Control Room.	24 hours from warning.
Verify water source status and protection. (Task Force).		No later than 24 hours from warning.
Disaster		
Plan and prioritize supply of water to users. (Task Force)	Requires information on needs, damage and Damand.	Completed by 24 hours into disaster.
Assess status and damage to water systems. (Task Force)	Coordination with Damage Assessment Task Force.	Completed by 24 hours into disaster.
Mobilize water tankers. (Task Force)	Coordination with Logistics Task Force and Control Room.	Started by 24 hours into disaster.
Repair/restore water systems, based on plan.	Coordination with Power	Started by 24

(Task Force)	and Logistics Task Forces.	hours into disaster.
Assure supply point/distribution security. (Law and Order Task Force)		Started as soon as distributions begin.
Coordinate distribution of water and storage and provision of information on safe water use. (Task Force).	Coordination with Media Task Force and Control Room	Started by 24 hours into disaster.

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
12 Hours		
Establish temporary water systems. (Task Force)		Up to 72 hours from disaster.
Move toward permanent water supply system. (Task Force)		After 72 hours.
Complete long term recovery plan and needs. (Task Force)		After 72 hours.
Begin reporting and documentation. (Task Force)		From 48 hours.
Begin Damobilization. (Task Force)	Coordinated with Control Room.	From 48 hours.
Lessons Learned meeting. (Task Force and others)		After 2 weeks.
Final Report. (Task Force)		After major activities completed

Food and Relief Supplies:

Assure the provision of basic food and other relied needs in the affected communities.

Task Force Leader: District Supply Officer

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Before a Disaster		
Establish procedures and standards. (Task Force)	Need standards.	On-going.
Maintain two months stock of essential		Done.

supplies. (Task Force)		
Develop transportation plan. (Task Force)	In cooperation with Logistics Task Force.	Completed in 8 days
Develop list of NGOs. (Task Force)		Done
Plan staffing for disaster. (Task Force)		Done
Identify locations, which can be isolated and increase stock as needed. (Task Force)		On-going.
Identify food preparation locations. (Task Force)		Done

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Warning		
Pass on warning. (Task Force)		Within 12 hours of receipt of warning.
Alert NGOs to prepare food. (Task Force)	Contact with NGOs.	Within 12 hours of receipt of warning.
Verify stock levels and make distribution plan. (Task Force)	Possible cooperation with Logistics Task Force.	Within 48 hours of receipt of warning.
Alert transport contractors to prepare for transport. (Task Force)	Coordinate with Logistics Task Force.	Within 5 hours of receipt of warning.
Mobilize staff. (Task Force)		Within 6 hours of receipt of warning.
Disaster		
Receive and respond to instructions from Control Room. (Task Force)		As received.
Monitor conditions of stocks and facilities. (Task Force)	Need for communications.	
Develop distribution plan. (Task Force)	Need information on needs and locations.	As requested by Control Room.
Order food packets and provide supplies as needed. (Task Force)	Coordination with Logistics Task Force.	Per distribution plan.
Establish relief supplies receptions centers. (Task Force)	Coordinate with Control Room and Logistics Task Force.	As required.
12 Hours		

Start distribution operations. (Task Force)	In coordination with Logistics and Shelter Task Forces.	At beginning of period.
Formalize reporting, communications and monitoring. (Task Force)		Completed by 48 hours.
Start staff rotation system. (Task Force)		At beginning of period.
Begin mobilizing and managing additional supplies.	Coordination with Logistics and, Control Room.	Underway in 48 hours.
Establish security for all sites. (Law and Order Task Force)		At beginning of period.

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Begin public announcement of distribution plan and standards. (Media Task Force)		Underway in 48 hours.
48 Hours		
Shift to normal operations. (Task Force)		Within 1 week.
Reconcile receipts and distribution records. (Task Force)		Within 30 days.
Continue providing relief to special areas/populations. (Task Force)		For 15 days from the disaster
72 Hours		
Restore Public Distribution System. (Task Force)		From 1 week after the disaster.
Lessons Learned meeting.		Within 14 days

Power:

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

Task Force Leader: Superintending Engineer, Gujarat Electricity Board

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Before a Disaster and Warning Phases		
Develop inventory of current status of power system and resources. (Gujarat Electricity Board – GEB)		

Establish minimum stock levels and procure necessary additional stocks. (GEB)		
Conduct monthly meetings. (GEB)		On-going
Develop contact lists. (GEB)		
Conduct informal hazard and risk assessment. (GEB)		Completed.
Develop disaster plan. (GEB)		
Disaster		
Assess impact according to SOP. (GEB)	Coordinate with Control Room and Damage Assessment Task Force.	
Prioritize response actions. (GEB)	Need to establish priorities.	
Collect more information. (GEB)		
Mobilize additional resources. (GEB)	Coordination with Control Room and other Task Forces.	
Check for unforeseen contingencies.		
12 Hours		
Revise plans based on feedback and assessments. (GEB)		Continuous
Monitor status of actions. (GEB)		Continuous
Begin staff rotation plan. (GEB)		At beginning of period.
Disseminate public information. (Media Task Force)		At beginning of period.
Secure support for staff (food, lodging) from NGOs. (GEB)		
Assure security as needed. (Law and Order Task Force)	Coordinate with Control Room.	
Establish constant communications on needs, requirements and resources with Control Room and GEB/HQ.		
48 Hours		
Look for improvements in efforts. (GEB)		
Reinforce central coordination. (GEB)		
Conduct regular coordination meetings with other actors. (GEB)		
Begin formal documentation of efforts. (GEB)		
72 Hours		
Review shift plan for safety. (GEB)		
Plan for return to normal, including additional security if needed. (GEB)	Involvement of Law and Order Task Force.	

Public Health and Sanitation

(Including first aid and all medical care**):**

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

Task Force Leader: Chief District Health Officer

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Before a Disaster		
Develop inventory of personnel, resources and facilities. (Task Force)		1 week.
Training. (Task Force)	Coordination with GSDMA	6 months.
Establish Control Room.		Completed.
Prepare for specific diseases by season (e.g., monsoon)		Completed.
Establish EpiDamiological Reporting System (ERS). (Task Force)		Completed.
Identify disease vulnerable areas. (CDHO)		Completed.
Improve public awareness. (Media Task Force)		
Warning		
Send out warning to health facilities. (Task Force)		As received.
Mobilize health teams to possible disaster areas. (Task Force)	In coordination with Control Room.	As needed.
Activate Task Force for whole district. (CDHO)		On warning.
Disaster		
Begin first aid efforts. (Task Force)		Within 1 hour of disaster.
Establish status of health care system. (Task Force)	Requires communications.	Within 6 hours of disaster.
Begin referral of injured to upper-level facilities. (Task Force)		Within 1 hour of disaster.
Implement SOP for management of deceased. (Task Force)	Involves cooperation with Law and Order and SAR Task Force.	Within 1 hour of disaster.
Coordinate efforts with Control Room and other Task Forces.		Within 2-3 hours of disaster.

12 Hours		
Begin to call in outside resources. (Task Force)	Involves Telecommunications and Logistics Task Forces and Control Room.	Within 3 hours.
Establish temporary medical facilities where needed. (Task Force)	Coordination with Public Works, Power, Water, and Law and Order Task Forces.	Within 24 hours.
Expand surveillance of health status. (Task Force)		Within 24 hours.
Establish shift system for staff. (Task Force)		At beginning
Visit and review health status in shelters.		Within 24 hours.
Develop health care system recovery plan.	In coordination with CR	2-3 hours.
48 Hours		
Establish formal health care system reporting.		At beginning of period.
Start solid waste and vector control management SOP.		
Start waste water management SOP. (Task Force)		
Focus health status surveillance on children 0 to 5		Implements in one week.
Establish public awareness and IEC efforts. (Task Force and Media Task Force)		At beginning of period.
72 Hours		
Develop Damobilization plan.		By beginning
Lessons Learned meeting.		Within 14 days
Final Report		Within 14 days

Animal Health and Welfare:

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

Task Force Leader: Deputy Director, Veterinary and Animal Husbandry

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Before a Disaster		
Update animal list. List of staff & training for disposal of carcass. (Task Force)		Done.
Stock medical supplies and vaccines. (Task Force)		Done

Warning		
Alert staff (by phone). (Task Force)		As warnings received.
Distribute supplies to vulnerable areas. (Task Force)		During warning period.
Contact Control Room. (Task Force)		As required.
Disaster		
Remove and destroy carcasses. (Task Force)	Need fuel and logistics.	As soon as possible.
Treat injured animals. (Task Force)		As soon as possible.
Issue certification of death. (Task Force)	For insurance purposes.	Within 48 hours.
Call in staff from other districts as needed. (Task Force)		As needed.
Assist local authorities in survey of damage and reconciliation of records.		As required.
48 Hours and Beyond		
Assist local authorities in providing fodder as needed.		As required.
Collect feedback. (Task Force)		
Final Report. (Task Force)		In 15 days.

Shelter:

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

Task Force Leader: District Primary Education Officer

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

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

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Provide support and assistance to occupants. (Task Force)	Liaise with Animal Task Force on management of animal and with Health Task Force on health care.	
12 Hours		
Continue operations. (Task Force)		Continuously
Monitor shelter status and movement of people. (Task Force)		Continuously
Mobilize additional resources. (Task Force)	Coordinate with Control Room and Logistics Task Force.	Continuous.
48 Hours and Beyond		
Begin Damobilization as appropriate. (Task Force)		
Begin reconditioning/repairs to shelters. (Task Force)	In cooperation with Public Works Task	As needed.

	Force.	
Lessons Learned session. (Task Force)	Involvement of other Task Forces and evacuees.	14 days after completion of operations.
Final Report. (Task Force)		1 month after completion of activities.

Logistics:

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

Task Force Leader: District Development Officer

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

Disaster		
Take action based on instruction from Control Room. (Task Force)		Within 2 hours of receiving warning.

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Continually review requirements and resources. (Task Force)		Continuous.
Develop operations plan. (Task Force)	Coordinate with Control Room and Food and Relief Supplies Task Force.	Within 2 hours of receiving warning.
Strengthen liaison with Control Room and key Task Forces. (Task Force)		Within 2 hours of receiving warning.
Verify quality of service. (Task Force)	Requires set standard of service and information on operations.	Daily.
12 Hours		
Respond to increased Damand for logistics. (Task Force)		Continuous.
Begin rotation of staff. (Task Force)		At start of period.
Establish logistics bases as needed. (Task Force)	Coordinate with Control Room and Food and Relief Supplies Task Force.	Continuous.
Review plans and communicate with other Task Forces. (Task Force)		Continuous.
Begin regular reporting and documentation. (Task Force)		At start of period.
48 Hours		
Reassess needs and requirements. (Task Force)		Continuous.
Begin Damobilization as appropriate. (Task Force)		
72 Hours		
Lessons Learned meeting.	Include Shelter, Food and Relief Supplies in meeting.	Within 14 days of disaster.

Final Report		Within 14 days of disaster.

Damage Assessment and Survey:

Collect and analyze data on the impact of the disaster, develop estimates of resource needs and relief plans, and compile reports on the disaster as required for District and State authorities and other parties as appropriate.

Task Force Leader: Resident Additional Collector

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Before a Disaster		
Establish assessment procedures and forms. (Task Force)	Collaboration with GSDMA and COR.	
Compile baseline data. (Task Force)	Collaboration with GSDMA project.	
Establish assessment groups and teams. (Task Force)		
Develop an assessment coordination plan. (Coordination and Planning Task Force)		
Develop a communications plan. (Task Force)	In cooperation with Telecommunications Task Force	
Warning		
Mobilize Task Force. (Task Force)		Within 6 hours of warning.
Review Plan. (Task Force)		Within 6 hours of warning.
Consider pre-disaster impact assessment. (Task Force)	Based on expected nature of disaster.	Within 6 hours of warning.
Active village-level assessment teams. (Task Force)		Within 6 hours of warning.
Disaster		
Consider safety of assessment teams. (Task Force)		Immediately.
Start planning for assessment. (Task Force)		As initial impact information is available.
Begin initial assessment procedures. (Task		When conditions

Force)		allow.
Communicate assessment plans to Control Room. (Task Force)		Once initial plan is developed.

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
12 Hours		
Publicly disseminate assessment plans and reports. (Media Task Force)		As available.
Initiate continual up-dating of assessment information. (Task Force)	Coordinate with Coordination and Planning Task Force.	
Initiate continual up-dating of assessment plans. (Task Force)	Coordinate with Coordination and Planning Task Force.	
Coordinate with other Task Forces. (Task Force)		
Begin staff rotation and secure more staff as needed.		At beginning of period.
48 Hours		
Prepare detailed damage, losses, needs assessment and long term recovery plans. (Task Force)	Coordinate with other Task Forces.	3-5 days after disaster.
Coordination of requirements, plans and activities.	Working through Control Room and Coordination and Planning Task Force.	Continuous.
72 Hours		
Lessons Learned meeting.	Include Shelter, Food and Relief Supplies in meeting.	Within 14 days of disaster.

Telecommunications:

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

Task Force Leader: Resident Additional Collector

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Before a Disaster		
Develop telecommunications inventory and SOPs. (Task Force)	Telecommunications training.	
Coordinate with other Task Forces. (Task Force)		
Identify sites of vulnerable system components (e.g., switches). (Task Force)		
Ensure redundancy in communications systems. (Task Force)	May require close liaison with private sector providers.	

Action and (Who Should Take It)	**Requirements or Conditions to be met for the action can occur.**	**Timeframe**
Training in communication skills and methods. (Task Force)		
Warning		
Verify communication systems are working. (Task Force)		Within 24 hours of warning.
Mobilize Task Force.		Within 24 hours of warning.
Repair down systems and establish alternate communications systems. (Task Force)	Coordinate with Control Room.	Within 24 hours of warning.
Mobilize resources. (Task Force)		Within 24 hours of warning.
Facilitate telecom Damands of other Task Force members. (Task Force)		
Disaster		
Check status of communications systems. (Task Force)		In 2-3 hours.
Identify damage to systems. (Task Force)		First information available in 2-3 hours.

Contact Control Room and other Task Forces on telecom needs. (Task Force)		In 2-3 hours.
Start repairs. (Task Force)		In 2 hours.
12 Hours		
Mobilize outside resources (may start earlier). (Task Force)		Continuous.
Complete plans for repairs and re-establishment of systems. (Task Force)	Coordinate with Control Room.	Continuous.
Liaise with Control Room and other Task Forces.		
Start shift system for staff. (Task Force)		At beginning of period.
48 Hours and Beyond		
Continue to assist other Task Forces. (Task Force)		
Continue repair work. (Task Force)		
Begin Damobilization. (Task Force)		
Lessons Learned meeting.	Include Shelter, Food and Relief Supplies	Within 14 days of disaster.
Final Report. (Task Force)	Involve other Task Forces.	Within one months of end of operations.

6.11 Best Practices/Success story

Network of Local Rescue Groups: Porbandar District

Porbandar is a coastal district having a large fishing industry with fishing communities having small and big boats. A very large proportion of the district belongs to the low-lying **Ghed land**, which remains inundated for a long period after the monsoon rain. The district is prone to multiple hazards of coastal flooding, flooding from monsoon, cyclone and storm surge. In the *ghed* areas, usually during monsoon many of the villages tend to be marooned due to the flooding. According to information gathered from district authorities, there are 37 villages in the flood-prone *ghed* area. The overflow from **two dams i,e Bhadar-1 (Gondal Taluka) and Bukhi in (Upleta Taluka) and the Minsar river** causes flooding in these areas. It does not seem very feasible to maintain sufficient number of rescue boats at a central location for dispatching to distant vulnerable locations at the time of a crisis. However, since fishing is a major economic activity in the district, there are large number of rugged boats and highly capable people to operate them in the district.

Taking note of the capabilities of the fishing community and their legacy of bold initiatives to help and rescue people in distress, the DEOC has established good rapport with leaders of the fishing community at different locations along the coast. The DEOC has identified clusters of villages that can be supported by the local fishing community in case of emergencies where rescue boats are needed. In each cluster, at least one group of 5 to 10 fishermen have been identified who can help the disaster management efforts of the DEOC. At present, there are five such groups enlisted by DEOC from the North to South:

1) Miyani
2) Porbandar
3) Gosa
4**)** Navi Bandar and
5) Madhavpur

This is an informal arrangement that has now become somewhat institutionalized increasing its reliability in a crisis.

The success of this approach was demonstrated on 27 September 2013 when the fishermen's group from Gosa rescued eight people who were at risk of getting drowned as they were trapped in a dangerous location in a place known as koribal na timba. The team of fishermen of the Ismailbhai Dimmer family consisting of Shri Lakhabhai, Shri Hasambahi and Shri Punabhai carried out the rescue using medium-sized Fibre-Reinforced Plastic (FRP) boat (locally called as hodi) powered by a 8-HP outboard motor. They had kept another two boats as standby in the Gosa village. The Dimmer family takes great pride in their tradition of undertaking brave rescue efforts. Their great grandfather is famous for many such efforts and the community is keen on carrying on the tradition. They now work closely with the DEOC and respond to emergency calls from the DPO.

Porbandar District

The flooding of Bhadar River inundated vast stretches of land in Porbandar district. Nine persons (1 woman, 3 children and 5 men) were stranded in Kutiyana Taluka because of the flooding. To save themselves from floodwaters, five persons (3 children, 1 woman and 1 man) on the outskirts of Kutiyana town had taken shelter in the top floor of two-storey farmhouse. Besides, four men were marooned in Chouta village close to Bhadar River. The river was flowing so rapidly that it was not possible to carry out rescue operations using boats. Under these circumstances, the District Collector sought the help of Indian Coast Guard (ICG). The people were stranded with very little food. Though there was no immediate threat to life, had the flooding continued unabated they would have been in serious danger in less than 24 hours. The stranded persons were in touch with the officials and the officials ensured that morale of the stranded people was maintained.

Figure 6.2: Rescue work in Kutiyana, Dist:-Porbandar

Figure 6.3: Rescued person brought to safe location by ICG helicopter, Kutiyana, Dist:-Porbandar

After the Regional HQ (NW) of ICG at Gandhinagar received the request from the District administration in the evening of 26 September 2013, an aerial reconnaissance was carried out using the advanced light helicopter in the early hours next morning as soon as there was sufficient visibility. They identified the locations and established a drop zone at a highway passing through Kutiyana Village. There were some difficulties in identifying the particular spots where the two groups were stranded as out of curiosity people began to gather at various places seeing a low-flying helicopter. The stranded persons were then instructed through the mobile phones to wave brightly colored clothes such as a *saree* or bed-sheet to draw the attention.

CHAPTER VII

RECOVERY MEASURE

Today, most emergency managers and researchers view recovery as a process, defined as a series of stages, steps, and sequences that people, organizations, and communities move through at varying rates. FEMA defines short-term efforts as those that return "vital life support systems to minimum operating standards." Short-term recovery efforts usually include a transition from response activities to recovery efforts. Response activities focus on saving lives, including search and rescue; providing food, shelter, and clothing; and moving into activities that expedite the transition to long-term recovery. Key transitional activities usually center on managing donations and volunteers, conducting damage assessments, securing temporary housing, restoring lifelines, and clearing debris. Long-term recovery activities include debris management, the environment, historical preservation, housing, businesses, critical infrastructure (roads, bridges, ports), lifelines (power, electricity, sewer), psychological recovery, and the public sector.

7.1General Policy Guidelines

The approach to re-construction and recovery is guided by the National Disaster Management Policy 2009 of which salient clauses / sections are stated in the following para:

Section 9.1.1 of the NPDM states that - the approach to the reconstruction process has to be comprehensive so as to convert adversity into opportunity. Incorporating disaster resilient features to 'build back better' will be the guiding principle. The appropriate choice of technology and project impact assessment needs to be carried out to establish that the projects contemplated do not create any side effects on the physical, socio-cultural or economic environment of the communities in the affected areas or in their neighborhood. Systems for providing psycho-social support and trauma counseling need to be developed for implementation during reconstruction and recovery phase.

Section 9.2.1 of NPDM states that - Reconstruction plans and designing of houses need to be a participatory process involving the government, affected community, NGOs and the corporate sector. After the planning process is over, while owner driven construction is a preferred option, contribution of the NGOs and corporate sector will be encouraged. Reconstruction programme will be within the confines and qualitative specifications laid down by the Government.

Section 9.3.1 states - Essential services, social infrastructure and intermediate shelters/camps will be established in the shortest possible time. For permanent reconstruction, ideally, the work including the construction of houses must be completed within two to three years.

Concerned Central Ministries/Departments and the State Governments should create dedicated project teams to speed up the reconstruction process.

Section 9.3.2of NDMP states - that - Contingency plans for reconstruction in highly disaster prone areas need to be drawn out during the period of normalcy, which may include architectural and structural designs in consultation with the various stakeholders.

As per the section 9.5.1 of NPDM – the State governments will have to lay emphasis on the restoration of permanent livelihood of those affected by disasters and special attention to the needs of women-headed households, artisans, farmers and people belonging to marginalised and vulnerable sections.

7.2 Detailed damage and loss assessment

A detailed assessment must be conducted before commencing reconstruction and rehabilitation activities. The relevant Government departments and local authorities shall initiated detailed assessment at their respective level for damages sustained in housing, industry/services, and infrastructure, agriculture, health / education assets in the affected regions. Immediate recovery can continue from a day to two months, depending upon the extent of damage. The assessment teams are to report the following information to the Disaster Management
Department in the Office of Collectorate for further action.

- Boundaries of the disasters and Access points to the disaster area.
- Status of the transportation and communication system.
- Disaster casualty information.
- Status of medical systems.
- Shelter / mass care information.
- Damage to utility system and status of critical facilities.
- Status of security within the affected areas.
- Information on the humanitarian organisations within the areas.

Conducting detailed damage and loss assessment in the aftermath of sever incident includes, Individual damage assessment as well as Public Damage assessment which includes (but not limited to)

1. Damage to road, streets and bridges (critical infrastructures)
2. Damage to water control facilities such as drainage system, water channel etc.
3. Damage to public buildings, equipments, utilities and places like parks, recreational sites.
4. Managing Debris.

7.3 Short-term recovery programme

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

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

- Roads and Bridges: This covers construction of all critical roads and bridges necessary to provide connectivity with immediate effect.

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

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

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

- Reconstruction & Repair of Lifeline Buildings: Lifeline buildings are those necessary to keep the administrative machinery functioning despite the damage by disaster have to be repaired on priority.

- Rehabilitation: In case there is a major damage from earthquake or flooding, a large segment of the population may have to be rehabilitated to new locations on temporary basis. Communities will have to be supported with relief shelter.

- Mass Care/Sheltering and Housing: The management of relief shelters is continued from the response phase to the immediate recovery phase. During this period, the number of victims must be identified for whom construction of houses under Indira Aawas Yojna Sardar Awas Yojna shall be sanctioned.

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

- Debris Removal and Disposal of Dead Bodies: Removal of debris or trees from transportation routes for effective rescue and relief measures.

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

- Health Care: First Aid and Emergency Health care has to be provided at the earliest. In case the health care centers are affected by the disaster, temporary medical relief camps need to be installed while the building is retrofitted or reconstructed.

- Mobile Medical units have to be pushed into action for immediately health care close to the community.

7.4 Long-term Community Recovery

Some individuals, families and communities that are especially hard hit by a disaster may need more time and specialized assistance to recover, and a more formalized structure to support them. Specialized assistance may be needed to address unique needs that are not satisfied by routine disaster assistance programs. It may also be required for very complex restoration or rebuilding challenges. Long-term community recovery addresses these ongoing needs by taking a holistic, long-term view of critical recovery needs, and coordinating the mobilization of resources at the federal, state, and community levels.

Table 7.1: Showing short term and long term recovery time table

SHORT TERM AND LONG TERM RECOVERY TIMETABLE Recovery and Reconstruction		
Activity/Action	Estimate of Duration	Estimate of Duration
	Short-Term	**Long-Term**
Warning	Hours to a few days	
Response/Operations	**Ongoing**	Ongoing
Emergency	**1-15 days**	1-60 days
Preparation of damage assessment	**1-4 days**	4-8 days
Disaster declaration (state or federal)	**1-10 days**	0-30 days
Federal/State mitigation Strategy	**1-15 days**	15-30 days
Recovery	**7-150 days**	150-365 days
Temporary building moratorium	**<=30 days**	<=60 days
Letter of intent to submit HM Grant	**<=60 days**	<=60 days
Short-term reconstruction	**<= 1 year**	200-365 days
State mitigation	**<= 180 days**	365 days
HMGP proposal	**70-200 days**	200-365 days
Long-term reconstruction	**100 days to 5 years**	5 to 10 years

CHAPTER VIII

FINANCIAL ARRANGEMENTS

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

8.1 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.

8.2 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.

8.3 District Planning Fund

For preparedness, mitigation, capacity building and recovery fund can be raised from MP or MLA grant as received for developmental work through departmentally arrangement. Budget planning is a comprehensive exercise for annual financial planning. For Disaster Management, there can be two categories of budget heads i,e a. Line department's own fund through various schemes and programmes; and b) Additional budget required particularl for DM activities.

8.4 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.

Centrally Sponsored scheme

Name	**Purpose**	**Finance Arrangements**	**Activities that can be take under scheme**	**Nodal Agency**
NDRF (NCCF)	Relief Assistance	100% Central Govt	Cash and kind relief	Revenue Department
SDRF (CRF)	Relief Assistance	75% Centre, 25% State	Cash and kind relief	Revenue Department
Planning Commission (13 Finance commission) Year 2011-15	Capacity Building	100% Centre	Trainings Awareness Generation IEC material Mockdrills	Revenue Department

Table 8.1: showing centrally sponsored scheme

CHAPTER IX

MAINTENANCE OF PLAN

9.1 Authority for maintaining and reviewing the plans

The DDMA, Porbandar will be responsible for the maintaining and reviewing of the DDMP. This needs constant review and updation based on the following requirements:

1. Major change(s) in the operational activities and location and valuable inputs from actual disasters.
2. Lessons learnt from trainings and Inputs from mock drills/simulation exercises.
3. Lessons learnt from near-miss incidents
4. Changes in disaster profile of Gurgaon
5. Technological developments/ innovations in identifying potential hazards or mitigating them.
6. Changes in regulatory requirements.
7. Change in demography of population of Porbandar district and nearby places.
8. Changes in geo-political environment
9. Inventory of equipments in the distric.
10. Human Resources, their addresses and contact numbers.

9.2 Schedule for updation & revision of plan

DDMC shall compile its learning and proposed new mechanisms for improvement in updation of plan for the capacity to deal with disasters.
Every year as a part of pre-monsoon, DDMC will update plan in the month of May-June and will revise in the month of October-November every year.

9.3 Schedules for Mock Drills

The district police department, Home guards, Civil Defence personnel, Fire Service officials, SRTs, QRTs, DMCs and DMTs will undergo periodic mock drills for different disasters, coordinated by the District Collector at the district level and by the Relief Commissioner at the State level. It is mandatory to have mock-drills at least twice in a year for Cyclone, Earthquake, Flood, Tsunami and Fire.

ANNEXURES

ANNEXURE:1

Cyclone:

In Porbandar district all the villages will be affected due to cyclone, but the highly cyclone prone area will be the coastal villages and towns.

List of Cyclone prone villages

Sr. No.	Taluka	Village	Population (2011)
1	Porbnadar	Visavada	3472
2		Miyani	3239
3		Bhavpara	1915
4		Tukda Miyani	1924
5		Ratdi	1815
6		Kantela	1289
7		Kuchhadi	4348
8		Palakhada	1190
9		Javar	990
10		Madhavpur	20241
11		Chikasa	909
12		Navibandar	1193
13		Ratiya	3679
14		Untada	1165
15		Balej	6392
16		Mocha	1016
17		Gorsar	1138
18		Mander	4683
19		Kadach	5130
20		Pata	3320
21		Bokhira	16754
22		Oddar	5379
23		Ratanpar	1243
24		Tukda-gosa	1821
25		Gosa	2250
26		Rajpar	1190
27		Bharvada	2115
28		Keshod (Lushada)	437
29		Erada	986
30		Delodar	996
31		Bhad	2663
32		Mitrada	1077
33		Garej	3726
34		Rojivada	2215

35		Bhomiyavadar	1719
36		Sisali	1798
37		Vadala	1916
38		Vijarana	1084
39		Kathiyo Nes	73

40	Ranavav	Ashiyapat	428
41		Jarera Nes	420
42		Dolatgadh	1703
43		Aniali	1771
44		Bapodar	1757
45		Thoyana	2506
46		Bhodadar	1757
47		Jambu	1057
48		Mahira	677
49		Nerana	738
50	Kutiyana	Druvala	1116
51		Vadala	1209
52		Helabeli	847
53		Daduka	655
54		Khunpur	196
55		Bildi	1042
56		Mahotbatpara	2110
57		Chauta	3113
58		Choliyana	800
59		Baloch	957
60		Mandva	2558
61		Thepada	1105
62		Kotada	2778
63		Katvana	562
64		Pashvari	1926
65		Segrash	1402
66		Moddar	1480
67		Kavalka	912
68		Chhatrava	1323
69		Bhogshar	478
70		Kansavad	1094
71		Dharsan	843
72		Gadhvana	281
73		Jamara	968
74		Revadra	470
75		Mahiyari	4001

76		Tarkhai	957
77		Kadegi	2042
78		Junej	671
79		Farer	1739
80		Amipur	1266
Total	**3**	**80**	**172205**

City Area

Sr. No.	**City**	**Village**	**Population**
1	Porbandar	Porbandar	285826
2	Chhaya	Chhaya	47783
Total			**333609**

PORT SIGNAL

બંદર ઉપર વાવાઝોડા પરિસ્થિતિ સમયેની સંકેત નિશાનીઓ (બંદર સીગ્નલ્સ)

સીગ્નલ નંબર	સંકેતની વિગત	દિવસની નિશાની	રાત્રિની નિશાની
1	હવા તોફાની અથવા સપાટી વાળી છે કે નથી. વાવાઝોડુ આવશે કે નહી? તેની ચેતવણી		
2	વાવાઝોડુ થયું છે. સીગ્નલ નં. ૧ અને ૨ બતાવે છે. નં. ૨ બતાવે છે કે બંદર છોડયા પછી વહાણોને બળનો સામનો કરવો પડશે.		
3	સપાટી વાળી હવાથી બંદર ભયમાં છે.		
4	વાવાઝોડાથી બંદર ભયમાં છે પરંતુ અત્યાર સુધી ભય એવો ગંભીર જણાતો નથી, કે જેના માટે સાવચેતીના કોઈ પગલા લેવાની જરૂર પડે.		
5	થોડા અથવા સાધારણ પ્રકારનું વાવાઝોડુ બંદરથી દક્ષિણ દિશા તરફ કીનારાઓ ઓળંગવાનો સંભવ છે. જેથી બંદરમાં ભારે હવાનો સંભવ છે.		
6	(ભય) થોડા અથવા સાધારણ પ્રકારનું વાવાઝોડુ બંદરથી ઉતર તરફનો કીનારો ઓળંગવાનો સંભવ છે. જેથી બંદર ઉપર ભારે હવાનો અનુભવ છે.		
7	(ભય) પાતળા અથવા સાધારણ પ્રકારનું વાવાઝોડુ બંદર નજીક અગર બંદર ઉપર થઈને પસાર થવાનો સંભવ છે. જેમાંથી બંદરે ભારે તોફાની હવાનો સામાનો કરવો પડે.		
8	(મહા ભય) ભારે જોરવાળું વાવાઝોડુ બંદરથી દક્ષિણ તરફ કિનારો ઓળંગવાનો સંભવ છે. જેથી બંદરે બહુજ તોફાની હવાનો અનુભવ થશે.		
9	(મહા ભય) ભારે જોરવાળું વાવાઝોડુ બંદરથી ઉતર તરફ કિનારો ઓળંગવાનો સંભવ છે. જેથી બંદરે બહુજ તોફાની હવાનો અનુભવ થાય.		
10	(મહા ભય) ભારે જોરવાળું વાવાઝોડુ બંદરથી અગર બંદર ઉપર થઈને પસાર થવાનો સંભવ છે. આથી બંદરને ભારે તોફાની હવાનો અનુભવ થવાની શકયતા છે.		
11	તાર વ્યવસ્થા બંધ કોલાબા હવા ચેતવણીના કેન્દ્ર સાથેનો તાર વ્યવહાર ખોરવાઈ ગયેલ છે. કે જેથી સ્થાનીક અધીકારીનું માનવું છે કે ખરાબ હવામાનનો ભય છે.		

વાવાઝોડા સમયે બંદર ઉપરથી થતી સાયરેનની નિશાનીઓ

ANNEXURE: 2

Flood:

There are three major rivers such as Bhadar, Ozat, and Minsar which affect the 47 low-lying villages of Ghed area of Porbandar District.

List of 47 low-lying flood prone villages

Sr. No.	Name of Taluka	Name of River	Name of Village
1	Porbandar	Bhadar, Ozat & Minsar	Chikasa
2			Navi Bandar
3			Bhad
4			Mitrada
5			Delodar
6			Keshod-Lushala
7			Erda
8			Garej
9			Kadachh
10			Mander
11			Chhaya
12			Tukada Gosa
13			Gosa
14			Rajpara
15			Pata
16			Chingariya
17	Ranavav	Bhadar, Ozat & Minsar	Jambu
18			Kerala
19			Padardi
20			Bapodar
21			Thoyana
22			Bhodadar
23			Mokar
24			Mahira
25			Nerana
26			Khijdal
27	Kutiyana	Bhadar, Ozat & Minsar	Chauta
28			Pasvari
29			Mahiyari
30			Amipur
31			Segaras
32			Kansabad
33			Chhatrava

34			Bhogasar
35			Dharsan
36			Gadhvana
37			Kavalaka
38			Katvana
39			Kantol
40	Porbandar	Vartu-2 Bhenakvad (Taluka- Bhanavad) :	Morana
41			Paravada
42			Bhomiyavadar
43			Majivana
44			Fatana
45			Sodhana
46			Sisli
47			Visavada

ANNEXURE-3

List of water logging village/ city area in Porbandar district

Sr. No.	Taluka	Village	Population
1	Porbandar	Chhaya(Porbandar)	217307(47783 Chhaya-Khapat-16754)
2		Bhad	2663
3		Mitrala	1077
4		Delodar	996
5		Keshod lushala	437
6		Erda	986
7		Garej	3726
8		Kadachh	5130
9		Mander	4683
10		Chikasa	909
11		Navibandar	1193
12	Ranavav	Padardi	704
13		Mahira	677
14		Nerana	738
15		Jambu	1057
16		Bholdar	1757
17	Kutiyana	Segras	1402
18		Kansabad	1094
19		Chhatrava	1323
20		Bhogsar	478
21		Dharsan	843
22		Gadhvana	281
23		Kavalka	912
24		Katvana	562
25		Pasvari	1926
26		Jamra	968
27		Revadra	470
28		Junej	671
29		Farer	1739
30		Mahiyari	4001
31		Amipur	1266
32		Tarkhai	957
33		Kadegi	2042
34		Kantol	884

ANNEXURE: 4 (List of villages which can be affected with dam)

ક્રમ નં.	ડેમનું નામ	તાલુકાનું નામ	નોર્મલ સપાટી	ભયજનક સપાટી	અસરપામતા ગામો
૧	૨	૩	૫	૬	૮
૧	ખંભાળા ડેમ	ખંભાળા તા.રાણાવાવ	૩૯.૬૩ મી. (૧૩૦ . ૯૯ ફુટ)	૪૧.૧૫ મી. (૧૩૫.૯૯ ફુ ટ	(તા.રાણાવાવ) વાડોત્રા, કંડોરણા, ખીરસરા, ખીજદડ, ઠોયાણા, ઓડદ ર, મહીરા, નેરાણા, જાંબુ, કેરાળા, પાદરડી, બાપોદર, રામગઢ, બોરડી, દોલતગઢ, અજીયારી, વડવાળા
૨	ફોદાળા ડેમ	બિલેશ્વર તા. રાણાવાવ	૯૩.૫૮મી. (૩૦૭.૯૯ ફુટ)	૯૬.૬૩ મી. (૩૧૭.૦૪ ફુટ)	(તા. રાણાવાવ) બીલેશ્વર, હનુમાનગઢ, આશીયાપાટ, કાટીયાનેશ, સાજણ વાડીનેશ, ખીરસરા, વાડોત્રા, કંડોરણા, ખીજદડ, ઠોયાણા, ભોડદર, મહીરા, નેરાણા, જાંબુ, કેરાળા, પાદરડી, બાપોદર
૩	અડવાણા ડેમ (ઘોકળ)	અડવાણા તા.પોરબંદર	૨૪.૦૦મી. (૭૮.૭૨ ફુટ)	૨૫.૫૦ મી. (૮૩..૬૬ ફુટ)	(તા. પોરબંદર) અડવાણા, સોઢાણા, ભેટકડી, ફટાણા, શીંગડા, શીશલી, મીયાંણી
૪	સોરઠી પોરબંદરના અડવાણા નજીક	તા.કલ્યાણપુર જિ. જામનગર	૮૫.૫૯ મી. (૩૧ ૩.૩% ફુટ)	૮૭.૭% મી. (૩%૪.૩૧ ફુટ)	(તા. પોરબંદર) અડવાણા, સોઢાણા, ભેટકડી, ફટાણા, શીંગડા, શીશલી, મીયાંણી
૫	અમીપુર ડેમ	અમીપુર તા.કુતિયાણા	૫.૬૪ મી. (૧૮.૫૦ ફુટ)	૬.૩૪ મી. (૨૦.૭૯ ફુટ)	(તા. પોરબંદર) ગરેજ, (તા. કુતિયાણા) અમીપુર, કુતિયાણા
૬	કાલીન્દ્રીડેમ	ઈશ્વરીયા તા. કુતિયાણા	૫૨.૨૨ મી. (૧૬૧.૨૭ ફુટ)	૫૪.૯૬ મી. (૧૭૯.૩૯ ફુટ)	(તા. કુતિયાણા) ઈશ્વરીયા, બાવળાવદર, માલ, કોટડા, બાલોચ, ચોલીયાણા
૬	વર્તુ-૨ ડેમ	ભેનકવડ તા.ભાણવડ જિ. જામનગર	૩૮.૮૫ મી. (૧૩ ૧.૯૬ ફુટ)	૪૯.૫૫ મી. (૧૩૩.૯૯ ફુટ)	(તા. પોરબંદર) સોઢાણા, ભેટકડી, મીયાંણી, કુણવદર, મોરાણા, ભારવાડા, રોજીવાડા, ભોમીયાવદર, ઈશ્વરીયા
૭	ભાદર-૨ ડેમ	ભુખી તા.ધોરાજી જિ. રાજકોટ	૫૩.૧૯ મી. (૧૬૪.૨૨ ફુટ)	૫૩.૧૯ મી. (૧૬૪.૨૨ ફુટ)	(તા. પોરબંદર) મીત્રાળા, ગરેજ, ભડ, ચીકાસા, નવીબંદર, રાજપર, કેશોદ - (લુશાળા), રાતિયા, (તા. રાણાવાવ) નેરાણા, મહીરા, જાંબુ, ભોડદર, પાદરડી, કેરાળા, પસવારી, સેગરસ, ચૈાટા, થેપડા, માંડવા, બીલડી, છત્રાવા, કુતિયાણા,ભોગસર,કટવાણા,રોઘડા (તા. કુતિયાણા)
૮	ડાયમિણસાર	સતાપર, જામજોધપુર જિ. જામનગર	૮૧.૭૯ મી. (૩૯૧.૧૯ ફુટ)	૮૩.૭૯ મી. (૩૯૬. ફુટ)	(તા. પોરબંદર) એરડા, મોરાણા, પારાવાડા,સોઢાણા (તા. રાણાવાવ) ખીરસરા, કંડોરણા,ખીજદડ, મહીરા (તા. કુતિયાણા) બાલોચ, દેવડા
૯	બાટવા ખારો	બાટવા, તા.માણાવદર જિ. જુનાગઢ	૧૬.૨૫મી. (૫૩.૩૯ ફુટ)	૧૬.૨૫મી. (૫૩.૩૯ ફુટ)	(પોરબંદર) ગરેજ,રાતીયા,નવી બંદર,ચીકાસા (તા. કુતિયાણા) તરખાઈ, રેવા, ગઢવાણા અને ઘરસણ, મૈયારી,કાસાબડ,છ ત્રાવા,ભોગસર,જમરા
૧૦	સારણ ડેમ	તા.કુતિયાણા ખૂનપુર	૩૭.૦૦મી. (૧૨૧.૪૦ ફુટ)	૩૭.૦૦મી. (૧૨૧.૪૦ ફુટ)	(તા. કુતિયાણા) ખૂનપુર,ટેરી,ચૈાટા,ગોકરણ

ANNEXURE: 5

General terminology used in weather or disaster bulletins

Specification for description of rainfall:

Rain fall amount in (MM)	Descriptive term used in forecast
0.0	NO RAIN
0.1 TO 2.4	VERY LIGHT RAIN
2.5 TO 7.5	LIGHT RAIN
7.6 TO 34.9	MODERATE RAIN
35.0 TO 64.9	RATHER HEAVY RAIN
65.0 TO 124.9	HEAVY RAIN
EXCEEDING 125.0	VERY HEAVY RAIN
WHEN THE AMOUNT IS A VALUE NEAR ABOUT THE HIGHEST RECORDED RAIN FALL AT OR NEAR THE STATION FOR THE MONTH OR SEASON. IN REGIONS WHERE THE HEAVIEST RAIN FALL. EVER RECORDED IS LESS THAN 12 CM. THE TERM WILL NOT BE USED.	EXCEPTIONALLY HEAVY RAIN.

Terminology for rainfall distribution:

OLD TERMINOLOGY	NEW TERMINOLOGY WITH EFFETE FROM APRIL-1998	SPATIAL DISTRIBUTION
ALMOST ALL PLACES	ALMOST ALL PLACES	ABOVE 75%
AT MANY PLACES	AT MANY PLACES	51% TO 75%
AT A FEW PLACES	AT A FEW PLACES	26% to 50%
AT ONE OR TWO PLACES	ISOLATED	01% TO 25%

Important weather forcast website:

1. www.imd.gov.in
2. www.imdahm.gov.in
3. www.accuweather.com
4. www.skymetweather.com
5. www.weather.gov
6. www.noaa.gov
7. worldweather.wmo.int
8. www.usno.navy.mil

Criteria for classification of Cyclonic disturbances over the North Indian Ocean

SL	Type of disturbance	Associated maximum sustained wind (MSW)
1	Low Pressure Area	Not exceeding 17 knots **(<31 kmph)**
2	Depression	17 to 27 knots **(31-49 kmph)**
3	Deep Deepression	28 to 33 knots **(50-61 kmph)**
4	Cyclonic Storm	34 to 47 knots **(62-88 kmph)**
5	Severe Cyclonic Storm	48 to 63 knots (**89-117 kmph)**
6	Very Severe Cyclonic Storm	64 to 119 knots **(118-221 kmph)**
7	Super Cyclonic Storm	120 knots and above **(≥222 kmph)**

Note: 1 Knot is equal to 1.852 km.

FAX : 0286 – 2210 559
TELE : 0286 – 2244 056

FAX

HEADQUARTERS
NO 1 COAST GUARD DIST GUJ)
POST BOX NO 25
PORBANDAR - 360 575

FOR	THE COLLECTOR, PORBANDAR	FAX	0286 – 2220 800
FILE	701	DATE	30 MAY 13
SUB	**ASSISTANCE TO CIVIL ADMIN DURING NATURAL DISASTER**	PAGE	01

WITH REFERENCE TO DISCUSSIONS HELD IN THE MEETING ON DISASTER MANAGEMENT IN YOUR ESTEEMED OFFICE, LIST OF ITEMS HELD IN COAST GUARD INVENTORY AND RELIEF SERVICES PROVIDED BY INDIAN COAST GUARD DURING NATURAL DISASTER LIKE FLOOD ETC TO AID CIVIL ADMINISTRATION IS AS FOLLOWS:

(A) LIFE SAVING BOATS WITH DIVERS CAN BE PROVIDED FOR SEARCH & RESCUE OPERATIONS, SUBJECT TO WEATHER PERMITS.

(B) SERVICES OF HELO FOR LOCATING AND RESCUING PEOPLE IN CASE OF FLOOD.

(C) MEDICAL CAMP WITH MEDICAL OFFICER & MEDICAL ASSISTANT FOR PROVIDING MEDICAL COVER.

(D) DROPPING OF FOOD/ MEDICINE/ FRESH WATER PACKETS USING CG HELICOPTER.

(PN ANOOP)
COMMANDANT (JG)
DIST OPS AND PLANS OFFICER
FOR COMMANDER
NO. 1 COAST GUARD DIST (GUJ)

ANNEXURE: 6

Public and Private Emergency Recourses available in the district

List of important resources inventory available at Taluka EOC.

Sr. No	Taluka (TEOC)	Phone Number	Important Resources					
			Life Jacket	Boyas	Ropes, 100(M)	Ropes 200(M)	Generator	Boat
1	Porbandar	0286-2220925	43	62	22	13	1	----
2	Ranavav	02801-230622	65	75	10	5	1	----
3	Kutiyana	02804-261226	64	75	10	10	1	----
4	Shri ram Swimming Club Porbandar	9825283941	3	3	5	-	-	1
Total			175	215	47	28	3	1

List of important resources inventory Available at DEOC and DSP Office

Sr. No	Name of Office	Phone Number	Important Resources		
			Life Jacket	Rope (100 m)	Portable Emergency Light
1	DSP office	0286-2211222	35	12	00
2	DEOC	0286 2220800	0	1	03
		Total	35	13	03

List of important resources inventory available at Nagarpalika Area

Sr. No	Important Resources	Name of Nagarpalika				
		Porbandar	Chhaya	Ranavav	Kutiyana	Total
1	J.C.B	1	1	1	1	4
2	Tractor	7	4	4	3	18
3	Portable Em. Light	2	2	2	2	8
4	Mini Bus	3	0	0	0	3
5	Water Bowser	2	0	1 (Not functional)	1	4
6	Mini Fire Tender	1	1	1	3	5
7	Dumper	1	0	0	0	1
8	Louder Mini	1	1	1	1	4
9	Ambulance	1	0	1	1	3
10	Boat	3	0	0	0	3
11	De-watering Pump	9	1	0	0	10
12	Life Jacket	26	0	4	0	30
13	Boyas	21	0	0	0	21
14	Ropes, 100 (M)	2	0	0	0	2
15	Motor Cycle Water Mist	3	1	0	0	4
16	Sewer pump	420	27	8	-	455
17	Spade	124	20	8	18	170
18	Small and big size hoe	750	18	6	-	774
19	Hand gloves	630	15	20	-	665
20	Gumboot (bag)	90	15	7	-	112

List of resources available with Private contractor (R&B State and Panchayat)

Sl no	Contractor's name	Resources			Location area	Contact no
		JCB	Dumper	Tractor		
1	Ketan construction company, kutiyana	(2) G.25B.1974 & G.25B.5768	(8) (highwav) GJ-25-U-1001 to 8008	(3) GJ-25-B-4787, GS-Y-9073 & GTW-156	Kandorana	9978333133
2	Mahendra Kumar & Co, Porbandar	(1) GJ-25-B-4814	(4) GJ-7-H-161, GJ- 7-H-162, GJ-7-H-163, GJ-7-X-9707	-	Advana	9426219480
3	A.T. Odedera	(1) GJ-25B-2321	(4)	(1)	Kandorana	9909062877
4	K.M. Gareja	(1) GJ-10-K-2748	(4)	(4)	Advana	9099085207
5	Arjun construction & Co	(1) GJ-11-AD-4108	(4)	-	Kandorana	9825347803
6	M.C. Odedera	(2)		(3)	Ranavav	9427286699
7	Sutreja & Co-Junagadh	(2)	(2)			
8	Rockhill enterprise-Junagadh		(2)	(3)		9727714577

List of Dewatering Pumping Station

Sl.	Offic	Place of Pump	H.P	Pump type	Number of Pump
1	Porbandar Nagarpalika	Central pumping station, Near Godhaniya college	50 H.P.	Sewage submersible	2
2		Near Tran Maliya centre, Porbandar	50 H.P.	Sewage submersible	1
3		Near Birala Factory wall, Porbandar	50 H.P.	Sewage submersible	4
4		Near Modha school	15 H.P.	Sewage submersible	1

ANNEXURE: 7

Health Facility and Emergency Services:

The district has 1 Hospital, 17 PHCs and 4 CHCs in the District to cater the people. Major hospital is Govt. Bhavsinhji Hospital is in Porbandar. Location of the CHCs and PHCs in different Taluka is as follows.

Taluka	Hospital	Community Health Centre	Primary Health Centres	Sub-centres
Porbandar	Civil Hospital Porbandar	Advana Madhapur	1.Bakharla	8
			2.Visavada	7
			3.Garej	9
			4.Simar	9
			5.Kadachh	10
		Urban	6.Modhvada	6
		Urban	7.Subhasnagar	-
		Urban	8.Chhaya	-
		Urban	9.Kodiya plot	-
		Urban	10.Shitla Chowk	-
		Ranavav	1.Bileshwar	8
			2.Ranakondarna	7
		Urban	3.Ranavav	6
		Kutiyana	1.Devda	6
			2.Khageshri	7
			3.Mahiyari	6
		Urban	4.Kutiyana	-

Hospital/ C.H.C	Bed	Emergency ward	I.C.U	Oxygen	Defebrilater	E.C.G	X-Ray	Sonography	Contact no
Bhavsinhji General Hospital	198	8	4	36	3	9	2	2	0286-2240923 0286-2242910
C.H.C, Advana	30	1	-	2	-	1	-	-	0286-2276355
C.H.C, Ranavav	10	-	-	1	1	-	1	-	02801-230641
C.H.C,Kutiyana	11	-	-	2	-	1	1	-	02804-261234
C.H.C, Madhapur	10	-	-	3	-	1	-	-	0286-2272278

Hospitals (Governments and Private and charitable) in the district

(1) Porbandar Taluka

Sr. No.	Name of the Hospital	No. of Beds	Emergency Ward	ICU	Oxygen Cylinder	ECG	Office	Mobile
1	Bhavsinji Hospital Govt.	198	8	4	36	9	2240923 2242910	90990 79101
2	CHC Advana	30	1	0	2	2	0286 2276355 75678 76197	
3	CHC Madhupur	10	0	0	3	1	0286 2271178	
4	Thakarar Hospital Pvt.	40	1	4 bed	0	3	2243819 2251313	94291 58540
5	Critical Care Unit	10	0	8	Central	1	0286 2246108	
6	Asha Children Hospital	50	1	1	3	0	2210522 2246911 2242901	98792 52299
7	Dhamecha Hospital	34	0	0	0	0	2243336	94272 47420
8	V.V. Hospital	16	0	0	0	0	2241098	98252 30485
9	Jay Hospital	45	0	0	0	0	2246223	98252 30223
10	Nuri Hospital (Eye)	4	0	0	0	0	2204056	98255 90018
11	Manan Hospital (Gynec)	10	0	0	0	0	2240772	96620 13883
12	Krishna Hospital	12	0	0	0	0	2241084	98255 66188
13	Arpan Hospital	6	0	0	0	0	2241082	96012

	(Gynec)							57997
14	Dr. Jadeja's Hospital	16	0	1	1	0	2241104	98252 31458
15	Dr. Sanjay Joshi's Hospital	15	0	0	0	0	2241924	99250 41371
16	Global multi speciality hospital	40	1	12 bed	3	0	2212108	-
17	Dr. M. K. Lakhani	10	0	0	2	0	2245778	97247 20266
18	Visva Hospital(Ortho)	20	0	0	0	0	2247169	93767 90900
19	Sahyog Hospital	20	0	0	0	0	2245525	94289 54045
20	Suruchi Hospital	6	0	0	0	0	2247700	93278 00727
21	Mavtar Hospital & Charitable Trust	10	0	0	0	0	2211119	94272 18274
22	Avi Hospital	10	0	1	0	1	2252827	98242 06160
23	Astha Hospital	12	0	0	0	0	2252977	

(2) Ranavav Taluka

Sr. No.	Name of the PHC/CHC / Private / Charitable	No. of Beds	Contact No.		
			Office	Resident	Mobile
1	C.H.C. Hospital Govt.	26	02801-230641		9537717601 9028653148
2	Saurashtra Cement Ltd.	4	02801-304223	02801- 2248063	9328187800
3	Shakti Hospital	8	02801-230823	02801-230823	9426933540

(3) Kutiyana Taluka

Sr. No.	Name of the PHC/CHC / Private / Charitable	No. of Beds	Contact No.		
			Office	Resident	Mobile
1	C.H.C. Govt. Hospital	30	02804-261234	02804-261995	9909989646

Blood banks and their contact numbers

Sr. No.	Name of the PHC/CHC / Private / Charitable	Name of Taluka	Contact No.		
			Office	Resident	Mobile
1	Bhavsinhji Hospital Blood Bank, At. Porbandar	Porbandar	2240923 2242910	2203101 2243882	9099079101 9825193699
2	Asha Hospital, At. Porbandar	"	2210522 2210521	2246911	9426995722
3	Shri Ram Blood Bank At. Porbandar	"	2240092	-	8128987109 9427426099

Ambulance services

Sr. No.	Name of the Hospital / Trust / Person	No. of ambulance	Contact No.		
			Office	Resident	Mobile
1	Govt. of Gujarat at. Lion's Hospital, Porbandar	2	**108** 2246906	-	8238083620 9426716786
2	Govt. Bhavsinhji Hospital	1	2240923 2242910	2252177	9099079101
3	Nagarpalika Porbandar	1	2240936 2249850 101	2213656	9825148355 9879931251
5	Sagar Seva Shakti Sangh	1	2243078	-	9898983087
6	Advana C.H.C.	1	2276355	-	9567876197 9824565790
7	Ranavav Saurashtra Cement,	1	02801-304223	02801 230831	9979848762 9428086653
8	Nagarpalika Ranavav	1	02801-230624	-	9879562894
9	Kutiyana C.H.C.	1	02804 261234	02804-261995	9909989646
10	Nagarpalika, Kutiyana	1	02804-261251	-	9879333759
11	Saurashtra Chemicals Ltd. Porbandar	1	0286-2242479	-	7574884730
12	108 EMRI, Porbandar City	2			9925265108
13	108 EMRI, Madhavpur	1			9924495291
14	108 EMRI, Advana	1			9687956605
15	108 EMRI, Kutiyana	1			9979391675
16	108 EMRI, Ranavav	1			7359454902
17	108 EMRI, Arogya Sanjibani van	1			9687956605
23	Thakrar Hospital	1			9426716581

Bhavashiji Hospital, Porbandar, Medical equipments

Sr. No.	Name of Item	Number of item Available	Address	Landline No.	Mobile No.
1	ABC Type Fire Ex.	26	Bhavashiji Hospital, Porbandar	0286-2242910	90990 79101
2	CO2 TYPE Fire Ex.	32			
3	Camera Digital	1			
4	TLD	7			
5	Port able Oxygen Cylinder	30			
6	Portable ECG	9			
7	Port able suction Unit	16			
8	Mechanical Ventilator	3			
9	Deviator	3			
10	4 Wheel drive and Vehicals	6			
11	Stricture Normal	10			
12	CT SCAN	1			
13	First Aid Kit	-			
14	General Physician	1			
15	Surgeon	1			
16	Anesthetist	2			
17	Radiologists	1			
18	Paramedics	2			
19	Lab Technicians	1			
20	OT Assistance	1			
21	Bronchodilators	NA			
22	Vaccines	As Par Need			
23	Anti snake Venom	As Par Need			
24	Chlorine Tablets	Sufficient			

ANTI-EPIDEMIC MEDICINE STOCK (UPTO APRIL, 2019)

Sl no	Name of Medicine	Opening stock	Quantity found during the month	Total Quantity	Usage at the Sub centre /P.H.C	Balance amount stock			
						at district level	at P.H.C.	at Sub-centres	**Total stock**
1	**Tab. Chlorine**	231000	0	31000	37000	90000	58000	46000	**194000**
2	**TCL Powder. (bag)**	91	0	91	16	64	11	0	**75**
3	**ORS Packets.**	30300	0	30300	9800	15000	5500	0	**20500**
4	**Tab. Cipro**	14500	0	14500	3000	9000	2500	0	**11500**
5	**Cap. Doxycline**	20400	0	20400	1400	13000	6000	0	**19000**
6	**Tab. Sul + Trimo**	44000	0	44000	5500	23000	15500	0	**38500**
7	**Tab. Amoxicilin e Kid.**	98000	0	98000	14000	38000	18000	28000	**84000**
8	**Inj. Ringer Lectate**	1098	0	1098	63	83	952	0	**1035**
9	**Inj. Ciproflox acin**	0	0	0	0	0	0	0	**0**
10	**Syp. TMP**	1850	0	1850	240	800	810	0	**1610**
11	**Chloroscope**	114	0	114	0	6	0	108	**114**
12	**Ortho toludine reagent (in Ltr)**	80	0	80	1	1	0	78	**79**

ANNEXURE: 8

Food Goddown in the district

Sr. No.	Name of Goddown and its official	Official's name	Contact No.		
			Office	Mobile	
1	Goddown manager,Porbandar goddown	Shri A.K. Bhatt	0286-2249933	9825461022	gdm-porbandar-gscsc@gujarat.gov.in
2	Asst. depot manager,Porbandar goddown	Shri A.K. Bhoye	0286-2249933	8140887912	gdm-porbandar-gscsc@gujarat.gov.in
3	Asst. depot manager, Ranavav goddown (Goddown mgr I/C)	Shri K.P.Prajapati	02801 230625	9016115888	gdm-ranavav-gscsc@gujarat.gov.in
4	Goddown mgr(I/C), Kutiyan goddown	Shri M.R. Kelecha	02804 261218	9427733532	gdm-kutiana-gscsc@gujarat.gov.in
5	Asst depot manager, Kutiyana goddown	Shri N.R. Mokwana	02804-261218	7211113911	gdm-kutiana-gscsc@gujarat.gov.in

ANNEXURE: 9

Boat Information for Rescue Operation

Sr. No.	Name of Taluka	Name of Boat	Owner of Boat	Address	Contact No.
1	Porbandar	FRP BOAT	L.V. Gohel	Port Area, Porbandar	Fisheries Office. 2243078(Madhi) 2240949 9429868733
2	Porbandar	FRP BOAT	M. M. Lodhari	Port Area, Pbr	9825230477
3	Porbandar	FRP BOAT	Savji Mavji Kishore	Subhas nagar, Porbandar	
4	Porbandar	FRP BOAT	Ramesh Mohan Samdiya	,,	
5	Porbandar	FRP BOAT	Mamd Umar Pateliya	Madhavpur	9624817390
6	Porbandar	FRP BOAT	Ibrahim Jafar Patelia	,,	8347493205
7	Porbandar	FRP BOAT	Haji Harun Patelia	,,	9913025400
8	Porbandar	FRP BOAT	Alarkha Gafur Patelia	,,	9586865810
9	Porbandar	FRP BOAT	Ramesh Haji Parmar	Miyani	9909689338
10	Porbandar	FRP BOAT	Manoj Daya Parmar	Miyani	9824840588
11	Porbandar	FRP BOAT	Pravin Keshav Parmar	Miyani	9574983219
12	Porbandar	FRP BOAT	Jagdish Khimaji	Miyani	9726439466
13	Porbandar	FRP BOAT	Kanji budhabhai Kishore	Navibandar	9725551237
14	Porbandar	FRP BOAT	Naranbhai Dayalbhai Kankiya	Navibandar	9723716546

(Note:- FRP full-form is Fiber Reinforced Plastic)

ANNEXURE: 10

Department vise Resources available

Name of Department: Gujarat Maritime Board

Phone Number: - 0286-2242408, 2242438, 2242412- 9638112186 Fax No. : 0286-2244013

Sr.	Description	Quantity	Location
1	Helmet	06 Nos.	W/S
2	Hand gloves	13 Pairs	W/S
3	Emergency standby signal & siren	04 Nos.	W/S, G/O, M/G,B/J
4	Bolero Camp. GJ 25 U 42	01 No.	W/S
5	Crane S-1610 (16 tonne) only port area.	01 No.	W/S
6	Water Tanker - 10 tonne	01 No.	M & R
7	Drill Machine - 3 H.P.	01 No.	W/S
8	Drill Machine Elect. Portable 230 V	01 No.	W/S
9	Hecso Machine - 3 H.P.	01 No.	W/S
10	Branch Grinding Machine Elect. 0.5 H.P.	01 No.	W/S
11	Hand Grinder - 0.5 H.P.	01 No.	W/S
12	Cutter cable hydraulic wire	01 No.	W/S
13	Welding Transformer	01 No.	W/S
14	Oxy. - Acetylene Gas Cutting Set.	01 No.	W/S
15	Air Compressor	01 No.	W/S
16	Pump Set Diesel - 5 H.P. Trolley mounted	02. Nos.	W/S
17	Emergency Patrol boat-108	01	Dry dock
18	Emergency vehicle GJ 25A 1686	1 Nos.	GMB complex

List of resources & equipments available at Department of Police, Porbandar

Sr. No.	Item Name	Name of Person	Number of Item Available	Contact Number	Mobile number
1	Search light	Superintendent of Police	1	2240922	99784 05079
2	Mini bus	Superintendent of Police	1		
3	4 wheel drive vehicle	Superintendent of Police	4		
4	Light ambulance van	Superintendent of Police	1		
5	Water tanker (large capacity)	Superintendent of Police	1		
6	V H F Sets (static)	Superintendent of Police	20		
7	V H F Sets (mobile)	Superintendent of Police	10		
8	Walkie talkie Sets	Superintendent of Police	30		
9	Life Jacket	Superintendent of Police	30		
12	HF SETS	Superintendent of Police	2		

AIRPORT FIRE SERVICE, AIRPORTS AUTHORITY OFINDIACIVILAIRPORT PORBANDAR

PHONE: (0286) 2222234, 2222173, FAX : (0286) 2220031

Sr.	Name of Items	Numbers of Item Available
01	BOLT CUTTER	02
02	HYDRAULIC UNIT	01
03	WATER MIST EXTINGUISHER	01
04	SLEDGE HAMMER	02
05	ROPE	04
06	BLANKET	02
07	INFLATABLE LIGHT	01
08	FIRE PROXINMITY SUIT	11
09	BA SET	05
10	EXTENSION LADDER	03
11	CHENMICAL HAZARD EQP.	02
12	DCP EXTINGUISHERS	24
13	ACFT	02+01
14	STRETCHER	08
15	FIRST AID KIT	04
16	STATIC TANK / OVER HEAD TANK	01/01
17	AMBULANCE	01
18	WALKIE TALKIE SET	03
19	AFFF	6015 LTRS
20	DSU	04
21	AVIATION FIRE FIGHTING TEAM	08 + 12
22	MEDICAL FIRST RESPONDER (FIRST AID)	08
23	LIFTING & PULLING MACHINE	03
24	POWER DRIVEN SAW	02
25	BA REFILLLING MACHINE	01 + 01
26	CHEMICAL HAZARD SUIT	01
27	COFFIN BAG	100
28	OXYGEN CYLINDER	07

List of Generator (serviceable D. G. Sets) of PGVCL, Porbandar

Sr no.	Supplier	Location	Contact no.	Capacity	Number
1	Rajnath electricals, c/o. Usha sound service	Chhaya road, Porbandar	9824230406	10 KVA	1
2	Rajnath electricals, c/o.usha sound Sec	Chhaya road, Porbandar	9824230406	15 KVA	1
3	Sudama decoration	Opp. Devdarshan apptt. Porbandar. Phn no: 2212620	9426467549 9825562629	8 KVA	1
4	Sudama decoration	Opp. Devdarshan apptt. Porbandar.P.No.2212620	9426467549 9825562629	5 KVA	1
5	Hanifbhai decoration	Opp. Jetpur godown galaxy decoration	9879503007	30 KVA	1
6				50KVA	1
7				250KVA	1
8				350KVA	1
9	Kalyani sound service.(harshadbhai joshi)	SVP road, opp. Parag std, Porbandar	9879856865 (0286 2245596 2220710)	5KVA	1
10	Kalyani sound service.(harshadbhai joshi)	SVP road, opp. Parag std, Porbandar	9879856865 (0286-2245596/ 2220710)	7.5KVA	1

ANNEXURE:11

Industrial Resources

Name of Industry: - Saurashtra Chemicals, Division of Nirma Ltd.

Address: Birla Sagar, Saurashtra Chemicals, Porbandar 360576

E-mail: safety@saukemindia.com

D.S. Chandrakar:- (0286) 2242479, 9328411280

Y.M. Chotai:- 2242480, 2242481, 7534884743

Sr. No.	Name of Item	Numbers of Item available
1.	Gas cutter	1
2.	Electric drill	1
3.	Sledge hammer	1
4.	Chain tackle	1
5.	Slotted screwdrivers	1
6.	Blankets	1
7.	Lifting tackle 3 Tonne	1
8.	Chain 6 feet, 3 tonne	1
9.	Electric generator	0
10.	Escort Hydra	1
11.	Clothing PVC suit	1
12.	Self-Contained Breathing Apparatus	3
13.	CO_2 type fire extinguisher	116
14.	Foam type fire extinguisher	61
15.	DCP type fire extinguisher	54
16.	Stretcher normal	5
17.	Stretcher medical evacuation	1
18.	First Aid kits	8
19.	Portable Oxygen cylinders	1
20.	Water filter	1
21.	Water Tank	1
22.	Reservoir treatment tank	1
23.	Four Wheel drive Vehicles	3
24.	Mini Bus	1
25.	Light Ambulance Van	1
26.	Water tank mini	1
27.	Mobile Phone GSM	40
28.	General Physician	2
29.	Radiologist	1
30.	Paramedical	5

31.	Lab technician	1
32.	Medical First responder	3
33.	Fire Fighting Foam	30 Kg
34.	Dry Chemical Powder	50 Kg

Name of Industry: - Super Gas Ltd. Javar

Address: Jawar village, Post Box no 50, Porbandar
Mr. Ramesh Karmur (Terminal Manager)
Mob no: 9879523253, Office: 7622005055/7622005085

Sr. No.	Name of Item	Numbers of Item available (Nos.)
1	Electric Drill	2
2	Chipping Hammer	6
3	Steel cutter/Grinder	1
4	Jack with 5 ton lift	1
5	Sledge hammer	1
6	Heavy axe	1
7	Gloves rubber, Tested upto 11KV	1
8	Stretcher harness (set)	1
9	Blankets	1
10	Helmet	25
11	Hacksaw	2
12	Hand Tool Set	2
13	SCBA sets	2
14	Fire hose/hose fitting	60
15	250 KVA DG set	2
16	Flame proof torch	4
17	ABC Type	24
18	CO2 Type	4
19	DCP Type	14
20	Suit-fire proximity	1
21	Extension ladder	1
22	Aluminium ladder	1
23	First aid kits	3
24	Water tank 1000 ltr	4
25	4 wheel drive vehicle	2
26	VHF sets mobile	7
27	VHF sets static	1
28	Camera digital	1
29	LEL metre	2
30	Non sparking tool	1
31	Traffic cones	2

Name of Industry: - Orient Abrasives Ltd

Address: GIDC Industrial Area, Porbandar
E-mail : orientabrasives@oalmail.co.in Website: www.orientabrasives.com
Mr Nishit Vyas, Tele: 0286-2221788/9 Fax: 0286-2222719

Sr. No.	Name of Item	Numbers of Item available (Nos.)
1	Gas Cutters	Oxy Acetylene 02 sets
2	Electric Drill	1
3	Jack with 5 Tons Lift	2
4	Heavy Axe	3
5	Set of Rope Tackle (3 sheave-2 sheave)	1-sheave rope pulley-03sets
6	Chains-6 feet (3 tons lift)	3
7	Search Light	3
8	Electric Generator	1 set
9	Earth Movers/Loaders	2
10	Extension Ladder	1
11	ABC Type	15
12	CO2 Type	50
13	Foam Type	5
14	First Aid Kits	15
15	Mobile Medical Van	1
16	Tarpaulin	5Set
17	Plastic sheets	1 Set
18	4 wheel drive vehicle	2 no
19	Tractor	2
20	Water Tanker – Medium Capacity	1 (5000 litre)

ANNEXURE: 12

AAPDA MITRA LIST

Sl no	Name	Taluka/district level	Adhar no	Mobile no
1	Shyam Rajshi Bagiya	Porbandar taluka	5469 1130 2868	95585 89893
2	Vivek Gopalbhai Kotia	Porbandar taluka	6629 8701 4499	81403 71777
3	Kodiyatar Kana sarman	Porbandar taluka	6136 0428 0175	99252 29935
4	Parmar Pratap dudabhai	Porbandar taluka	6296 7634 2910	9979757654
5	Agath Mayur Laxman	Porbandar taluka	3651 5997 2526	8264177059
6	Daki Lakhman Virambhai	Porbandar taluka	7752 2998 5792	8264408102
7	Kubavat Kishan Pravin	Ranavav taluka	5756 5322 2010	9574787547
8	dodiya Sanjay devji	Ranavav taluka	4716 6792 4571	99139 62253
9	Vala Manish Rameshbhai	Kutiyana taluka	7636 0097 4076	7096203023
10	Chudasama Pankaj Rameshbhai	Kutiyana taluka	4731 8251 2358	8980197506
11	Chudasama Bhavesh Rameshbhai	Kutiyana taluka	2311 9710 4190	8141916511
12	Kasta Abhay Mahileshbhai	Porbandar dist.	9192 5730 0952	8320443399
13	Kotia Jay kanjibhai	Porbandar dist.	9100 8220 3279	8866649252
14	Motivaras Jay Pravin	Porbandar dist.	4004 6143 1648	8530593776
15	Ankit L. Soneri	Porbandar dist.	3339 4163 0327	8140982575
16	Akshay Mayurbhai Raninga	Porbandar dist.	9886 6382 1307	8460820850
17	Keban B. Machhvara	Porbandar dist.	7780 4518 3086	8320266608

ANNEXURE: 13

List of Swimmer & Rescuer, District Homeguard, Porbandar

Srl no	Name of the unit	Homeguards member/officer's name	Roll no	Contact no
1	Porbandar	Shri J.D. Jadeja	877	9426355305
2	Porbandar	Shri H.B. Solanki	1012	9427379958
3	Porbandar	Shri A.R. Purohit	1023	9638050057
4	Porbandar	Shri S.M. Kuchhdiya	1036	9714559606
5	Porbandar	Shri L.K. Mokwana	1047	8511855383
6	Porbandar	Shri D.D. Mokwana	1243	9537818676
7	Porbandar	Shri K.H. Ramdati	1321	9724344562
8	Porbandar	Shri J.K. Chouhan	1327	9925036164
9	Porbandar	Shri K.G. Shilu	1337	8758382098
10	Porbandar	Shri U.K. Pandya	1345	9586754598
11	Porbandar	Shri J.M. Odedera	1349	8469380192
12	Porbandar	Shri K.D. Dave	1377	9904715149
13	Porbandar	Shri D.B. Rathod	1413	9638516973
14	Ranavav	Shri D.M. Vadukar	470	-
15	Ranavav	Shri M.K. Chudasama	510	-
16	Ranavav	Shri A.P. Ramkabir	508	-
17	Ranavav	Shri M.V. Purohit	436	-
18	Ranavav	Shri H.S. Purohit	464	-
19	Ranavav	Shri J.R. Amrutya	460	-
20	Ranavav	Shri S.V. Pathak	513	-
21	Ranavav	Shri K.J. Parmar	512	-
22	Madhavpur	Shri Govind naran Mavdiya	130	9978056254
23	Madhavpur	Shri Daya Rama Keshwala	133	8347608233
24	Madhavpur	Shri Ramde naran Ranavaya	152	9537341845
25	Madhavpur	Shri Babu banchun Mavdiya	156	9913803140
26	Madhavpur	Shri Kar sajan	216	9377174548
27	D.C. unit	Shri T.N. Thakkar	2	9426477455

List of Swimmers (Fishermen) for Rescue Operation

Sl no	Taluka name	Swimmer's name	Adress	Contact no
1	Porbandar	Premji Khimji Postriya	Bhavsinhji vyamshala	2243078
2	Porbandar	Narshibhai Singhav	Bhavsinhji vyamshala	2243078
3	Porbandar	Chhagan Bavan Baridun	Bhavsinhji vyamshala	2243078
4	Porbandar	Deva Manji Chamdiya	Subhasnagar	9712704084
5	Porbandar	Babu Naran Pavniya	Subhasnagar	-
6	Porbandar	Narshi China Chouhan	Subhasnagar	-
7	Porbandar	Kankiya Jentibhai Jethabhai	Navibandar	9974121241
8		Tumbdiya Kanjibhai Ranchhodbhai	Navibandar	8758158512
9		Ramesh Babu Parmar	Miyani	9825997485
10		Dhanji Narshi Parmar	Miyani	9979775371
11		Manoj Daya Parmar	Miyani	9824840588
12		Ismail Jafar Pateliya	Madhavpur	9601147540
13		Mamadbhai umar Pateliya	Madhavpur	9624817390
14		Suleman Osman Pateliya	Madhavpur	

Annexure-14

List of Trained personnels

Special Flood Rescue Training Programme at Jamnagar

Dt.:-27/10/2014 to 1/11/2014

Sr. No	Name	Taluka	District	Department	Remarks Mobile no.
1	Mr. Lodhiya Sachin M	Porbandar Madhavpur	Porbandar	Home Guard	8866667576
2	Mr. Janak G. Mavadiya	Porbandar Madhavpur	Porbandar	Home Guard	7698231776
3	Harshal N. Khandheriya,	Porbandar Madhavpur	Porbandar	Volunteer	9537244350
4	Hardik N. Khandheriya	Porbandar Madhavpur	Porbandar	Volunteer	9537244350
5	Gaurav B. Bhadrecha	Porbandar	Porbandar	Volunteer	8866236989
6	Prashant A. Gohil,	Porbandar	Porbandar	Volunteer	
7	Dilip B. Gangadiya	Porbandar	Porbandar	Volunteer	
8	Abhay K. Jebar,	Porbandar	Porbandar	Volunteer	
9	Ramesh D. Vadar,	Kutiyana	Porbandar	Nagar Palika Kutiyana	9723644420
10	Sarman K. Mori,	Kutiyana	Porbandar	Nagar Palika Kutiyana	02804261251
11	Keshu G. Parmar	Ranavav	Porbandar	Nagar Palika Kutiyana	9099967051
12	Masriji D. Odedra	Ranavav	Porbandar	Nagar Palika Kutiyana	9925933025
13	Meraman R. Agath	Chaaya	Porbandar	Nagara Palika Chaaya	9624449636
14	Makanji H. Thanki,	Chaaya	Porbandar	Nagara Palika Chaaya	9099014416
15	Sanjay K. Balas,	Porbandar (Madhavpur)	Porbandar	Volunteer	9426998588

Fire Staff, Porbandar trained under Urban Fire and Rescue Training at Jamnagar

Sr. No	Name	Taluka	District	Department/ Nagar Palika	Remarks Mobile no.
1	Visana Devasi Jetha	Porbandar	Porbandar	Chhaya	9727708728
2	Duda Bhai P Odedara	Ranavav	Porbandar	Ranavav	9978126706
3	Raju Bhai B Odedara	Ranavav	Porbandar	Ranavav	9427447142
4	Ashok Gagu Odedara	Ranavav	Porbandar	Ranavav	9979053795
5	Vadar Ramesh D	Kutiyana	Porbandar	Kutiyana	9724565426
6	Tulasi Bhai Kana Bhai	Kutiyana	Porbandar	Kutiyana	9725437595
7	Dharmesh K.vadriya	Porbandar	Porbandar	Porbandar	9638313918
8	Prakash Vinja Kotiya	Porbandar	Porbandar	Porbandar	9033156571

ANNEXURE:15
List of Flood Control room in Porbandar district

Sl.	Office name	Control room phone no	Incharge duty officer's name, designation and mobile no			Remarks
			Name	Designation	Mobile	
1	DSP, Porbandar	0286-2240922	Shri Parthraj singh Gohel	Superitendent of Police	99784 05079	
2	Irrigation dept. (State), Porbandar	0286-2222897	Shri B.K. Valgotar	Ex. Engineer	94269 62313	
3	Irrigation dept. (Panchayat), Porbandar	0286-2212667	Shri R.A. Odedera	Dy.Ex. Engineer(I/C)	94274 23598	
4	Road and Building department (state), Porbandar	0286-2240948	Shri S.R. Patel	Ex. Engineer	97120 17210	
5	Salinity Control department, Porbandar	0286-2242429	Shri T.T. Zala	Ex.Engineer	94269 62313	
6	GWSSB, Porbandar	0286-2242528	Shri B.R. Chaniyara	Ex. Engineer (I/C)	99784 06854	
7	PGVCL, Porbandar	99789 36122	Shri D.B. Kodiyat	Suptd. Engineer	98256 03182	
8	Dy Conservator of Forest, Porbandar	0286-2242551	Shri D.J. Pandya	Assistant Conservator of forest	94295 51267	
9	CDHO, Porbandar	0286-2212083	Dr. Yashvant Dodiya	Epidemic Medical Officer	97121 15405	
10	Civil surgeon, Bhavsinhji hospital, Porbandar	0286-2240923	Dr. Manjari B. Mankodi	CDMO cum Civel surgeon	90990 79101	
11	Depot	0286-2240949	Shri	Traffic	99131	

	manager, S.T. dept., Porbandar		**Samirbhai Mori**	**Inspecter**	**31559**	
12	**Fishries dept, Porbandar**	**0286-2242491/2215013**	**Shri A. sikotariya**	**Superitendent senior**	**88666 46675**	
13	**GMB, Porbandar**	**0286-2242404**	**Capt A.K. Mishra**	**Port officer**	**90996 94747**	
14	**Mamlatdar, Porbandar**	**0286-2220543**	**Not appointed**	**Dy Mamlatdar-monsoon**	**-**	**Appoint by Esta. branch**
15	**Mamlatdar, Ranavav**	**02801-230622**	**Not appointed**	**Dy Mamlatdar-monsoon**	**-**	
16	**Mamlatdar, Kutiyana**	**02804-261226**	**Not appointed**	**Dy Mamlatdar-monsoon**	**-**	
17	**Porbandar Nagarpalika**	**0286-2249850**	**Shri Lalitbhai Joshi**	**Fire brigade officer**	**97277 51800**	
18	**Chhaya Nagarpalika**	**0286-2245271**	**Shri A.H. Thanki**	**Head clerk**	**98257 18306**	
19	**Rananvav Nagarpalika**	**02801-230624**	**Shri Dilipbhai Joshi**	**Senior clerk**	**81404 12248**	
20	**Kutiyana Nagarpalika**	**02804-261251**	**Shri Vipulbhai Joshi**	**O.S.**	**97262 66036**	

ANNEXURE: 16

List of NGOs/CBOs/Youth organizations in the district

No.	Name of Organizations	Contact No.	Specify their focus areas
1	Shri Ram Krishna Mission, Porbandar	0286-2242231 9427737311 2214677 Swami Atama Dipanand	Working on Relief work during any events occurrence in whole District
2	Swami Narayan Gurukul Chhaya	2245973 9825230451 9427286162	
3	Leo Club, Porbandar	9825230234	
4	Arya Samaj Porbandar	0286-2247495	9879530325
5	Maher Supreme Council	0286-2210666 fax 0286-2251111 9428015611	Working on Relief work during Disaster
6	Rotary Club Porbandar	(Secretary- 9825231468 2212088 9879251467/ 9427379943	Working on Relief work during Disaster Whole District
7	Lion Club, Porbandar	(President) Shri Nikhilbhai Jignesh Bhai Kariya, 9825183154	Working on Relief work during Disaster Whole District
8	Prem Harsh Manavta trust, Porbandar	(President) 9426477455	Working on Relief work during Disaster Whole District
9	Jesus Club Porbandar Lakhansinh L Goraniya	9825550595, 2247461	In the Porbandar City
10	Maher Samaj, Ranavav	02801-230066	9825230245
11	Brahma Samaj, Ranavav	02801-230684	
12	Prajapati Samaj, Ranavav	02801-230536 / 230045	9978910045
13	Gau Seva Samiti, Kutiyana	02804-261626,	In KutiyanaTaluka
14	Hanuman Kotha Ramdhun Mandal, Kutiyana	02804-261251	9979247647
15	Sandipani Vidhya Niketan Chhaya	2221698 9375299004 / 9099966253	hostel
16	Chamber of Commerce	2244454/ 9825183154	
17	District Chamber of Commerce	2246374	9925394949

18	Indian Medical Association Porbandar / Dr.Urvish R Malkan	9662549594	Medical Association
19	Indian Redcross society, Porbandar	Mr C.G. Joshi (Secretary) 94286 26811	Medical Association
20	Arya Kanya Gurukul	Pragna Ben Gajjar 9825946099	Educational Activities
21	Bar Association Hardash Odedara	9998989118	

ANNEXURE: 17

OFF SITE EMERGENCY PLAN – PORBANDAR DISTRICT (List of Industries of Porbandar District)

Sr. No.	Name of the Factory	Category	Product	Storage Qty	Name of Villages within 3 kms. Radius	Population	Name of Villages within 5 kms.	Population	Total Population
1	SHV Energy LPG Infastucture Private Limited	MAH	LPG	8400 MT (6*1400)	Jawar, Subhash Nagar	900 2000	Bokhira kuchhadi	1500 1700	6100
2	Saurashtra Chemicals Limited	A	Ammonia	45 MT	Chhaya, Porbandar	32000 1.30.000	Ratanpar Odadar	1500 1800	167300
3	Asha Pura Ice Industries, Memanwad, Porbandar	A	Ammonia	6 MT	Ranavav Adiyana Kajavadari	30000 18000 1000	NIL	--	49000
4	Amar Cold Storage Jawar Village, Porbandar	A	Ammonia	12 MT	Jawar, Subhash nagar	900 2000	Bokhira Khuchidi	1500 1700	6100
5	Cham Ice & Cold Storage Bokhira, Porbandar	A	Ammonia	12 MT	Porbandar town	900 2000	Bokhira Subhash Nagar	1500 2000	2900
6	Silavar Sea Food Jawar Village, Porbandar	A	Ammonia	9 MT	Jawar, Subhash Nagar	900 2000	Bokhira Khuchidi	1500 1700	6100
7	Poonam Ice & Cold Storage Nr. New Fish Market, Porbnadar	A	Ammonia	4 MT	Porbandar town	125000	Bokhira jawar Subhash Nagar	1500 900 2000	129400
8	Hodar Export Pvt. Ltd. Jawar Village, Porbandar	A	Ammonia	5 MT	Jawar Subhash nagar	900 2000	Boshira Khuchidi	1500 1700	6100
9	Rubicon Industries GIDC, Porbandar	C	Caustic Lye (48%)	40 MT	GIDC, Porbandar	5000	--	--	5000

Hazardous chemicals / gases and Treatment for affected persons

Sr. No.	Gases / chemicals	Health Hazard	Treatment
1	Ammonia (NH3)	Upper Respiratory track Irritaon / CNS affected causing spasm corrial penforation	Wash eye with 0.5 to 1 % alum. SOS ophthlmologist. Skin to be washed acid. Inhale with warm H20 vapour & 10 % solution of menthol in chloroform. Drink milk (warm). 1 % solution of atropine in case of asphyxia.
2	LPG	LPG can affect the body if it is inhaled if it comes in contact with eyes or skin **Effects of Exposure / symptoms:** Overexposure to LPG can cause light headache and drowsiness. Greater exposure may also cause unconsciousness. Contact with the liquid may also cause frostbites and irritaintic toxicological effects have been reporten from industrial exposure.	**Emergency Treatment :** Eye- exposure: - Flush the eyes immedidately with large amounts of water (not hot); get medical attention. Skin- exposure: - Flush the skin immediately with alrge amounts of water (not hot) ; get medical attention Breathing :- Move the exposed person to fresh air at once. Keep the affected person warm and ar rest, Perfom artificial respiration, if necessary. Get medical attention.
3	Chlorine Bromine	can affect the body if it is inhaled or if it comes in contect with eyes or skin. **Effects of Exposure / Symptoms :-** Cause eye irritation, sneezing, copious salivation, general exictment, restlessness, High concentration causes respiratory distress and violent coughing, often with retching. Death may result from suffocation	**Emergency Treatment :** Eye-exposure: - Flush the eyes immediately with large amounts of water (not hot). Put 2-4 drops of 0.5 % Pontokein or Benoxinate (Novesin) in the eyes. Get medical attention. Skin-exposure: - Flush the skin immediately with large amounts of sodium bicarbonate solution; get medical attention. Breathing: - Move the exposed person to fresh air at once. Get inhaled a cotton containing 2-4 drops of ethanol / ether. Get medical attention.

ANNEXURE: 18

Antidotes for toxic chemical

Sr. No.	Chemical	Antidotes	
1	Acid & Suphur oxides (sox)	1 2 3	Wash with plenty of water if eyes skin is affectivted Do not give chemical antidot because it incresed heat and injury with reaction. Milk, lemon water of milk of mangnesia can be given
2	Acationitryl, Acrylonitry, Lactronity Cynogen chloride or bfomide	1	Very careful treatment of vobalt EDTA (Calocynor) and if that is not effective give nitri/thio sulphate treatment.
3	Alkali Phosphorous and Ammonia	1	Immediately give water of milk and induce vomitin, For the hylocalcimic effect of phosphorous give 5 ml intra venous injection of 10 % calcium gluconate. If or skin affected wash with plenty of water for 15 min.
4	Ammonia	1 2 3	If skin is affecerd then wash with plenty of water for 15 minute and then wash with dilute lactic and apply soframycin cream. If eyes is affected then wash in eye fountain with plenty of water for 15 minutes put on drop of 0.40 % Benzocaine (Novocaine) solution eyes drops also can be given If entered in throatm then give smell through cotton dipped in ethol or ether through nose. Administeroxgen in case of breathing diffulculty.
5	Aniline, toludine and Nitro benzene	1	Methylene Blue (1 % solution) Ascorbic acid (5%) solution. Administer oxygen in case of breathing difficulty.
6	Anticoagulants (Hepairn) etc.	1	Protamin sulfate (1 % solution), vitamin K (1% solution).
7	Antimony and stbine	1	Dyser caprol Bal
8	Arsine (Hydrogen arsenide)	1	Mercaptied (40% solution, Dimercaptopro anol, penicillamine)
9	Atroppine	1	Pilocarpine (1% solution, proserin 0.05 % solution)
10	Barium and its salt	1	Mangesium sulphate (30 gm in 250 ml water morphine 5 to 10 mg)
11	Barbiturates	1	Bamegride (0.5% Solution)
12	Benzene, touene and xylene	1 2	Skin if affected then wash with plenty of water. Administer oxygen or shift to fresh air. Diazepam 0.1 mg / kg
13	Berylium	1	Calcim edetate, predisolne.
14	Bleaching solution	1 2	Milk, melted icecrem, eggs, milk of magnesia, aluminium hydroxide gel. Do not give acid – dot

15	Bromides	1	Skin is affected then wash with plenty of water, give 1 gm Salt in water by mouth. If this is not possible then intravenous injection ofnormal saline, give millk and water.
16	Boric acid and Boron derivatives	1	Ipecac solution and activated charcoal. Lntra muscular injection of 5% dextrose if nausea.
17	Cadminum	1	Calcium disodium edetate by intravenous of mucle
18	Carbon monoxide	1	Administer oxygen (100% pure) intravenous 1 gm/kg of mannitol, intravenous injection 1 mg/kg of prednisolne.
19	Carbonyls	1	Tablets of sodium diethyl dithiocarbamate 2 tablets immediately and then one teblets every two days. Administer oxygen in case of breathing difficulty.
20	Cardic Gycosides	1	Potassium chloride (50% solution) Atropine sulphate (0.1% solution) Teracin calculum (100% solution)
21	Chlorine, Bromine, Phosgene	1 2 3	Skin if affected then wash with plenty of water Apply sodium bicarbonate and again wash water. Eyes are affected then flush eye in eye fountain, put two-three drops in eye of pontocaine 0.5 % solution. If inhaled then give smell through ethanol of ether dipped cotton, Give milk, butter of lemon water.
22	Chlorates	1 2	Ipecac solution, activated charcoal, milk Add 2 to 5 gm, sodium thio sulfate in 200 ml of 5 % Sodium bicarbonate solution and give by month.
23	Cosmetics (Bromate)	1	Intravenous injection, of 1 ml/lg sodium thiosulphate (10 % solusion)
24	Chromium	1	Dimercapol, give high vitarnins, protein and carbohydreds in food.
25	Cynides and thiocynate Insecticides	1 2	Methyene blue or calocynase injection If inhaled then give smell of amyl nitrate amlule (0.2ml) every five minutes. Intravenous injection of sodium intrate (3% solution and Sodium thiosulfate, 25% solution but if blood preasure low then stop it.
26	DDT (Halogenated Insecticides)	1 2	Ipecac syrup, activated charcoal, saline cathartic diazepam (10 mg) by intravenous injection wash skin with soap and water. In cade breathing difficulty then administer oxygen.
27	Dichiorolhenory acetic acid (insecticide)	1	Ipecac syrup, activated charcoal, saline cathortic lidocane (50% -100 mg by intravenous injection).
28	Dichloro methene	1	Skin is affected then apply magnesium oxide paste and give injection to cotisteriod. Incase of breathing difficulty administer oxygen.
29	Dichloro methene	1	Hydro cortisone (200 mg. Every 4 hour) Incase of aspiration pneumonia give antibiotics.
30	Dinitrophenol or cresols	1	5 % glucose saline by intravenous.

31	Ethanol	1	2 gm sodium blcarbonate in 250 ml water diazapam 10 mg by intravenous. Skin or eye is affected then wash wash with plenty of water.
32	Ethylene or diethylene glycol	1	Ethonol, calcium gluconate.
33	Florine, Hydrogen flouried and derivatives	1	Intravenous injection of 10 ml calcium gluconate (10 % solution) if serum magnesium level is low then give 10 ml milk of megnesia every hour milk and liquids. If eye affected then wash with plenty of water apply drops of calcium gloconate (10 % solution), skin is affected then wash with plenty of water and calcium gluconate gel.
34	Formaldehyde	1	Milk activated charcol or water.
35	Formalin	1	Ammoniu chloride or ammomium carbonate (3 % solution)
36	Hydrogen sulffide other sulfides and mercaptans	1	Shift in fresh air or administer oxygen. Give inhalation of ethanol or ether drop. Amyi nitrite or sodium nitrite, pyridoxin 20 mg/kg of 10 urea 1 gm / gm by intravenous injection.
37	Hydrogen Cyanide	1	Give inhalation 0.2 ml amyl nitrite dipped cotton. Sodium nitrite (10 % solution) Sodium thiosulphate (30% solution), cromosomon (1% methyleneblue in 25% glucose solution.
38	Idine and compositions	1	Milk weat powder solutin 100 ml/kg of sodium thiosulphate by mouth.
39	Iron salts.	1	Careful treatmentof deferroxamin therapy.
40	Magnesium Salts	1	Intravenous injection of 1 ml. lg if calcium glunate 10 % solution
41	Manganese	1	Calcium edentate
42	Metals (Heavy metals mercury, lead, copper, arsenic, nical)	1	Unithol (Bal Dimercaprol, 5% solution) Tetaci calcium (10 % solution), penicillamine Dextroze (10 %) intravine injection.
43	Metal compunds (Heavy metals composition)	1	Activated carbon (Carboline)
44	Menthol	1 2 3	Ethanol (30 % solution from inside. 5 % solution from outside l.e. by intravenous injection) Case of acidosis then sodium bicarbonate. Case of delirium then Dizepam 10 mg by intravenous injection.
45	Meta- aldethyde	1	D- penicillamine, ascorbic acide or thiamine to be given carefully.
46	Napthalene	1	5 gm sodium bicarbonate every 4 hrs and keep urine alkaline, give 1 ml/kg frusimide in liquid. Blood transfusion till haemoglobin becomes normal 60 to 80 %
47	Nitrogen Oxides (Nox)	1	Prednison or prednisolon 5 mg every 6 hrs interval.
48	Organiv phosphate or carbonate insecticide (abet, diazion, dimate,	1	Inpecac syrup, atropin (Iarge dose) Atropin sulphate 2 mg by intravenous injection every 3-8 minite interval. Prelidoxin by intravenous. Obidoxim (toxogonin) skin to

	EPN, Ethyal, Phosphsmidon, phosvel, selithion, Aldecarb, Baygon, Sevin etc..		be washed with soap and water.
49	Organo Phosphrous Insecticides	1	Atropin injection, atropin sulphate (1 % solution) Nalorphine HCL (0.5 % solution), Trimedoxine bromide (Biodexim and isonistrocin (40 % solution)
50	Oxalic acid	1	Milk, lemon water, chalk or calcium lactate, calcium chloride or calcium gluconate with liquid.
51	Phenol & Derivatives	1	Shift in fresh air, activated charcoal and 240 ml. Milk on it. If ski or eye is affected then wash with plenty of water for 15 minute. Skin is affected then washes with polyethylene glycol (PNG).
52	Phosgene	1	Cortison acitate 1 mg / kg by mouth every day thrice, in case of breathing difficulty administer oxygen.

53	Phosphorous, Phosphine and phosphides	1	10 ml calcium gluconate (10%) by intravenous injection, 5% gluconate in water, travent (105 inversugar) by intravenous injection.
54	Potassium permaganate	1	Hot milk, Methylene blue (1 % solution) Ascorbic Acid (5% solution).
55	Silica and Asbestos dust	1	Reduce dust level, Use of airline respirator. Dust collection or local ventilation.
56	Silver nitrare and other	1	10 % sodium chloride solution, milk and for reducing.
57	Tobacco and Nicotine	1 2	Induce vomiting, atropin (large dose) Case of difficulty in breathing administers oxygen.
58	Vinyl Chloride	1	Skin is affected, wash with plenty of water. Eye is affected then keep eye open and allow material to vaporize. Don't apply any eye drops. In case of breathing difficulty, administer oxygen, If ingested then induce vomiting, give one spoon petroleum oil and agent that give sodium / magne sium sulphate (one spoon) in a glass of water.
59	Zinc fumes and metal	1	Prednisolone, Aspirin, Bed rest.
60	Acetic acid, Cantharised	1 2	Milk, white eggs, calcium hydroxide water. Milk of magnesia
61	Aconite, cocane	1	Tanic acid, 2 % Potasium iodoide solution.
62	Ammonia liquor, Caustic sodium, Potassium	1	Vinegar
63	Anti coagulants, aspirin	1	Vitamine – K
64	Anti hystamines. aspine chloracal hydrate	1	Sodium bi carbonate
65	Antimony, arsenic, Lead Managaneses, Aspirin	1	Sodium bi carbonate.

ANNEXURE: 19

Media Management Plan

1. Preparedness
External • Broadcast programs to raise people's awareness of disaster prevention measures • Develop news sources in emergency situation • Liaison with community leaders • Publicize station frequency • Broadcast public planning meetings • Outreach to the elderly, women, children, mentally and • physically disabled people, as well as other marginalized and other vulnerable groups • Encourage stockpiling of (hand –powered) radio receivers • Compile local knowledge on signs of impending disaster and share it with community **Internal** • Back up important documents and files (including audio content) and store in a safe location • If possible, place a set of minimum broadcast equipment such as a microphone, tape/CD player, transmitter and antennae in a safe location • Plan radio programs to raise people's awareness of disaster prevention • First aid training for station personnel • Technical preparedness (generator, APS, securing, transmitter • Guidelines for managing staff and volunteers • Arrange emergency drills in the station • Develop a contact list and post in station • Map community (ethnicity, religion, race, culture, vulnerability) • Prepare pre recorded Emergency Response • Announcements and scripts and post in the studio
2. Mitigation
• Develop networks with local Disaster Management and Response (DMR) NGOs, local government and key stakeholders: hold regular meeting with them • Arrange emergency drills in the community • Training of on a. air personnel b.what and how to broadcast
3. Response
External-on air • Broadcast pre-prepared announcements • Broadcast emergency public meetings • Broadcast emergency evacuation announcements • All announcements broadcast in a reassuring and calm manner

- Dispel myths and rumors and provide timely and accurateupdates
- Broadcast updates on damage situation
- Produce programs in which victims can express themselves
- Establish contact with the meteorological office and broadcast weather information

Internal-behind the scenes

- Ensure safety of all station personnel
- Call station briefing meeting
- Notify CR networks of status
- Monitor all official announcements and activities of national government, local government and aid agencies (NGOs).
- Enact station evacuation plan if needed
- Stay calm and do not panic
- Divide information work so that all voices of the community can be heard and not just male leaders.

4. Relief

- Establish Information Support Centre for information sharing and logistic distribution

5. Rehabilitation

External – Networking and Support

- Broadcast pre-prepared announcements
- Broadcast programs to heal victim's psychology trauma.
- Interview trauma counselors, monks, Imams and priests
- Broadcast recovery announcements
- Cooperate with DMR NGOs, local government and key stakeholders
- Broadcast recovery public meetings
- Provide call in or talk-back programs for people to people interactions
- Broadcast positive entertainment programming

Internal – Evaluation and Review

- Decentralize and copy important documents
- Call meeting of all personnel to debrief
- Monitor all official announcements and activities of national
- government, local government and aid agencies(NGOs)
- Evaluate response and update guidelines
- Check physical infrastructure and repair damage
- Log all communications for reference
- Update preparedness and response manuals as required

ANNEXURE: 20
Shelter management Plan

As per instruction of a District collector or message for SEOC, DDO will do operation of relief and shelter with their staff, group members & their staff and maintain the records of areawise population, shelter centers in your area for effective emergency evacuation. Based on the warning issued by IMD, pin point the districts and villages likely to beaffected by Disasters and start the procedure for identifying safe places/shelters for evacuation in those villages. Generally, Schools and public buildings are given first priority for shelter because they are always available with facilities and at the time of disaster people can take shelter in these public buildings.

Shelter Management Team takes care of the identified shelter buildings in pre, during and post disaster scenario. Care needs to be taken to stock necessary material such as food, drinking water, medicines, bleaching powder, firewood, lantern, etc. Special care needs to be taken for the animal stock during any disaster. The team needs to ensure hygiene in and around the shelter place. Women are generally active members of the shelter team as they are well acquainted with house management, and are able to manage shelters during emergency. The team leader or any other team member should have the keys of the safe shelters so that prior to the disaster they will clean up the place and make available the necessary materials like food, water, medicines, bleaching powder, firewood, lantern, etc. required for the evacuees during disaster period. The most important action by the police is to cordon off the site of the accident, divert and regulate traffic, and evacuate/shelter in place citizens in close proximity on a priority basis.

Village wise data of safe sheltering for evacuation available on SDRN should be referred and the dist. Lision officers/Taluka level officers/Village level officers should be contacted to know the status of the shelters with the capacity of the shelter and other available facilities at the site. Arrange to shift evacuated persons to temporary shelters and ensure provision of food, water facilities, blankets and storage of relief materials.

Arrange for complaints regarding missing persons and initiate search in shelters, hospitals and police records. The villagers identify safe areas such as strong houses /buildings, raised platforms etc. These act as a shelter place for the people in the event of an evacuation. It would beuseful to identify the alternate approach routes which could be used during the time of an emergency.

Field visit to the affected areas and shelter/ relief camp sites and report preparation and forward to Collector for approval, sanction and onward action. Check the condition of safe shelter during his visits in the district places and if necessary gets it repaired by co-coordinating with the local authorities, available financial resources and voluntary organizations. Setting up relief camps and tents using innovative methods that can save time. Instruct local authorities to set up important telecom and other service related facilities. Initiate, direct and market procurement of food available from different inventories and ensuring food supplies to the affected population. Prepare take-home food packets for the families. Ensure distribution of relief material to the all the people including vulnerable groups of the target area such as women with infants, pregnant women, children, aged people and handicapped. Ensuring supports from all corners to Local Administration.

List of shelters in Porbandar

Sl no	Type	Porbandar	Ranavav	Kutiyana	Total shelters
1	Schools	78	34	48	160
2	College	1	-	-	1
3	Aaganvadi	14	-	-	14
4	Temple	5	-	-	5
5	Community hall	15	-	-	15
6	Panchayat office	4	-	-	4
7	Hospital	1	-	-	1
8	Samaj hall	13	5	6	24
9	Dharmashala	1	-	-	1
Total no of shelters					**225**

ANNEXURE: 21

Relief and Rehabilitation norms

Revised list of items & norms of assistance from State Disaster Response Fund (SDRF)/ National Disaster Response Fund (NDRF)

(Period 2015-20, MHA letter No. 32-7/2014-NDM-I Dated 8th April 2015)

Sl no	Items	NORMS OF ASSISTANCE
1	2	3
1.	Gratuitous Relief	
	a) Ex-Gratia payment to families of deceased persons.	**Rs.4.00 lakh** per deceased person including those involved in relief operations or associated in preparedness activities, subject to certification regarding cause of death from appropriate authority.
	b) Ex-Gratia payment for loss of a limb or eye(s).	**Rs. 59100/-** per person, when the disability is between 40% and 60%. **Rs. 2.00 lakh** per person, when the disability is more than 60%. Subject to certification by a doctor from a hospital or dispensary of Government, regarding extent and cause of disability.
	c) Grievous injury requiring hospitalization	**Rs. 12,700/-** per person requiring hospitalization for more than a week. **Rs. 4,300/-** per person requiring hospitalization for less than a week.
	d) Clothing and utensils/ house-hold goods for families whose houses have been washed away/ fully damaged/severely inundated for more than two days due to a natural calamity.	**Rs.1,800/-** per family, for loss of clothing. **Rs.2,000/-** per family, for loss of utensils/ household goods.
	e) Gratuitous relief for families whose livelihood is seriously affected.	**Rs. 60/-** per adult and **Rs. 45/-** per child, not housed in relief camps. State Govt. will certify that identified beneficiaries are not housed in relief camps. Further State Government will provide the basis and process for arriving at such beneficiaries district-wise. Period for providing gratuitous relief will be as per assessment of the State Executive Committee (SEC) and the Central Team (in case of NDRF). The default period of assistance will upto to 30 days, which may be extended upto 60 days in the first instance,

		if required, and subsequently upto 90 days in case of drought/ pest attack. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year.
2.	**SEARCH & RESCUE OPERATIONS**	
	(a) Cost of search and rescue measures/ evacuation of people affected/ likely to be affected	As per actual cost incurred, assessed by SEC and recommended by the Central Team (in case of NDRF). - By the time the Central Team visits the affected area, these activities are already over. Therefore, the State Level Committee and the Central Team can recommend actual / near-actual costs.
	(b) Hiring of boats for carrying immediate relief and saving lives.	As per actual cost incurred, assessed by SEC and recommended by the Central Team (in case of NDRF). The quantum of assistance will be limited to the actual expenditure incurred on hiring boats and essential equipment required for rescuing stranded people and thereby saving human lives during a notified natural calamity.
3.	**RELIEF MEASURES**	
	a) Provision for temporary accommodation, food, clothing, medical care, etc. for people affected/ evacuated and sheltered in relief camps.	As per assessment of need by SEC and recommendation of the Central Team (in case of NDRF), for a period up to 30 days. The SEC would need to specify the number of camps, their duration and the number of persons in camps. In case of continuation of a calamity like drought, or widespread devastation caused by earthquake or flood etc., this period may be extended to 60 days, and upto 90 days in cases of severe drought. Depending on the ground

		situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year. Medical care may be provided from National Rural Health Mission (NRHM).
	b) Air dropping of essential supplies	As per actual, based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF). - The quantum of assistance will be limited to actual amount raised in the bills by the Ministry of Defence for airdropping of essential supplies and rescue operations only.
	c) Provision of emergency supply of drinking water in rural areas and urban areas	As per actual cost, based on assessment of need by SEC and recommended by the Central Team (in case of NDRF), up to 30 days and may be extended upto 90 days in case of drought. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year.
4.	**CLEARANCE OF AFFECTED AREAS**	
	a) Clearance of debris in public areas.	As per actual cost within 30 days from the date of start of the work based on assessment of need by SEC for the assistance to be provided under SDRF and as per assessment of the Central team for assistance to be provided under NDRF.
	b) Draining off flood water in affected areas	As per actual cost within 30 days from the date of start of the work based on assessment of need by SEC for the assistance to be provided under SDRF and as per assessment of the Central team(in case of NDRF).

	c) Disposal of dead bodies/ Carcases	As per actuals, based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF).
5.	**AGRICULTURE**	
(i)	***Assistance farmers having landholding upto 2 ha***	
A.	**Assistance for land and other loss**	
	a). De-silting of agricultural land (where thickness of sand/ silt deposit is more than 3", to be certified by the competent authority of the State Government.)	**Rs. 12,200/-** per hectare for each item. (Subject to the condition that no other assistance/ subsidy has been availed of by/ is eligible to the beneficiary under any other Government Scheme)

	b) Removal of debris on agricultural land in hilly areas	
	c) De-silting/ Restoration/ Repair of fish farms	
	d) Loss of substantial portion of land caused by landslide, avalanche, change of course of rivers.	**Rs. 37,500/-** per hectare to only those small and marginal farmers whose ownership of the land is legitimate as per the revenue records.
B.	I**nput subsidy (where crop loss is 33% and above)**	
	a) For agriculture crops, horticulture crops and annual plantation crops	**Rs. 6,800/-** per ha. in rainfed areas and restricted to sown areas. **Rs. 13,500/-** per ha. in assured irrigated areas, subject to minimum assistance not less than Rs.1000 and restricted to sown areas.
	b) Perennial crops	**Rs. 18,000/-** ha. for all types of perennial crops subject to minimum assistance not less than Rs. 2000/- and restricted to sown areas.
	c) Sericulture	**Rs. 4,800/-** per ha. for Eri, Mulberry, Tussar **Rs. 6,000/-** per ha. for Muga.
(ii)	**Input subsidy to farmers *having more than 2 Ha of landholding***	**Rs. 6,800**/- per hectare in rainfed areas and restricted to sown areas. **Rs.13,500**/- per hectare for areas under assured irrigation and restricted to sown areas. **Rs. 18,000/-** per hectare for all types of perennial crops and restricted to sown areas. Assistance may be provided where crop loss is 33% and above, subject to a ceiling of 2 ha. per farmer.

6.	**ANIMAL HUSBANDRY - ASSISTANCE TO SMALL AND MARGINAL FARMERS**	
	i) Replacement of milch animals, draught animals or animals used for haulage.	***Milch animals -*** **Rs. 30,000/-** Buffalo/ cow/ camel/ yak/ Mithun etc. **Rs. 3,000/-** Sheep/ Goat/ Pig ***Draught animals -*** **Rs. 25000/-** Camel/ horse/ bullock, etc. **Rs. 16,000/-** Calf/ Donkey/ Pony/ Mule - The assistance may be restricted for the actual loss of economically productive animals and will be subject to a ceiling of 3 large milch animals or 30 small milch animals or 3 large draught animals or 6 small draught animals per household irrespective of whether a household has lost a larger number of animals. (The loss is to be certified by the Competent Authority designated by the State Government). ***Poultry:-*** Poultry **@ 50/- per bird** subject to a ceiling of assistance of **Rs 5000/-** per beneficiary household. The death of the poultry birds should be on account of a natural calamity.

	- Relief under these norms is not eligible if the assistance is available from any other Government Scheme, e.g. loss of birds due to Avian Influenza or any other diseases for which the Department of Animal Husbandry has a separate scheme for compensating the poultry owners.	
	ii) Provision of fodder / feed concentrate including water supply and medicines in cattle camps.	Large animals- **Rs. 70/-** per day. Small animals- **Rs. 35/-** per day. Period for providing relief will be as per assessment of the State Executive Committee (SEC) and the Central Team (in case of NDRF). The default period for assistance will be upto 30 days, which may be extended upto 60 days in the first instance and in case of severe drought up to 90 days. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit, subject to the stipulation

		that expenditure on this account should not exceed 25% of SDRF allocation for the year. Based on assessment of need by SEC and recommendation of the Central Team, (in case of NDRF) consistent with estimates of cattle as per Livestock Census and subject to the certificate by the competent authority about the requirement of medicine and vaccine being calamity related.
	iii) Transport of fodder to cattle outside cattle camps	As per actual cost of transport, based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF) consistent with estimates of cattle as per Livestock Census.
7.	**FISHERY**	
	i) Assistance to Fisherman for repair / replacement of boats, nets – damaged or lost -- Boat -- Dugout-Canoe -- Catamaran -- net (This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/ assistance, for the instant calamity, under any other Government Scheme.)	**Rs. 4,100/-** for repair of partially damaged boats only **Rs. 2,100/-** for repair of partially damaged net **Rs. 9,600/-** for replacement of fully damaged boats **Rs. 2,600/-** for replacement of fully damaged net
	ii) Input subsidy for fish seed farm	**Rs. 8,200** per hectare. (This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/ assistance, for the instant calamity, under any other Government Scheme, except the one time subsidy provided under the Scheme of Department of Animal; Husbandry, Dairying and Fisheries, Ministry of Agriculture.)
8.	**HANDICRAFTS/HANDLOOM – ASSISTANCE TO ARTISANS**	
	i) For replacement of damaged tools/ equipment	**Rs. 4,100** per artisan for equipments. - Subject to certification by the competent authority designated by the Government about damage and its replacement.
	ii) For loss of raw material/ goods in process/ finished goods	**Rs. 4,100** per artisan for raw material. - Subject to certification by Competent Authority designated by the State Government about loss and its replacement.

9.	**HOUSING**	
	a) Fully damaged/ destroyed houses	
	i) Pucca house	**Rs. 95,100/-** per house, in plain areas. **Rs. 1, 01,900/-** per house, in hilly areas including Integrated Action Plan (IAP) districts.
	ii) Kutcha House	
	b) Severely damaged houses	
	i) Pucca House	
	ii) Kutcha House	
	(c) **Partially Damaged Houses** –	
	(i) Pucca (other than huts) where the damage is at least 15 %	**Rs. 5,200/-** per house
	(ii) Kutcha (other than huts) where the damage is at least 15 %	**Rs. 3,200/-** per house
	d) **Damaged / destroyed huts:**	**Rs. 4,100/-** per hut**,** *(Hut means temporary, make shift unit, inferior to Kutcha house, made of thatch, mud, plastic sheets etc. traditionally recognized as hut by the State/ District authorities.)* *Note*: -The damaged house should be an authorized construction duly certified by the Competent Authority of the State Government.
	e) Cattle shed attached with house	**Rs. 2,100/-** per shed.
10.	**INFRASTRUCTURE**	
	Repair/restoration (of immediate nature) of damaged infrastructure: *(1) Roads & bridges (2)Drinking Water Supply Works, (3) Irrigation, (4) Power (only limited to immediate restoration of electricity supply in the affected areas), (5)Schools, (6)Primary Health Centres, (7) Community assets owned by Panchayat.* Sectors such as Telecommunication and Power (except immediate restoration of power supply), which generate their own revenues, and also undertake immediate repair/ restoration works from their own funds/ resources, are excluded.	***Activities of immediate nature :*** Illustrative lists of activities which may be considered as works of an immediate nature are given in the enclosed **Appendix**. ***Assessment of requirements :*** Based on assessment of need, as per States' costs/ rates/ schedules for repair, by SEC and recommendation of the Central Team (in case of NDRF). - As regards repair of roads, due consideration shall be given to Norms for Maintenance of Roads in India, 2001, as amended from time to time, for repairs of roads affected by heavy rains/floods, cyclone, landslide, sand dunes, etc. to restore traffic. For reference these norms are • Normal and Urban areas: upto 15% of the total of Ordinary Repair (OR) and Periodical Repair (PR). • Hills: upto 20% of total of OR and PR. - In case of repair of roads, assistance will be given based on the notified Ordinary Repair (OR) and Periodical Renewal (PR) of the State. In case OR & PR rate is not available, then assistance will be

		provided @ Rs 1 lakh/km for State Highway and Major District Road and @ Rs. 0.60 lakh/km for rural roads**. The condition of "State shall first use its provision under the budget for regular maintenance and repair"** will no longer be required, in view of the difficulties in monitoring such stipulation, though it is a desirable goal for all the States. -In case of repairs of Bridges and Irrigation works, assistance will be given as per the schedule of rates notified by the concerned States. Assistance for micro irrigation scheme will be provided @ Rs. 1.5 lakh per damaged scheme. Assistance for restoration of damaged medium and large irrigation projects will also be given for the embankment portions, on par with the case of similar rural roads, subject to the stipulation that no duplication would be done with any ongoing schemes. - Regarding repairs of damaged drinking water schemes, the eligible damaged drinking water structures will be eligible for assistance @ Rs. 1.5 lakh/ damaged structure. - Regarding repair of damaged primary and secondary schools, primary health centres, Anganwadi and community assets owned by the Panchayats, assistance will be given @ Rs 2 lakh/damaged structure. - Regarding repair of damaged power sector, assistance will be given to damaged conductors, poles and transformers upto the level of 11 kV. The rate of assistance will be @ Rs. 4000/poles, Rs 0.50 lakh per km of damaged conductor and Rs. 1.00 lakh per damaged distribution transformer.

11	Procurement of essential search, rescue and evacuation equipments including communication equipments, etc. for response to disaster.	- Expenditure is to be incurred from SDRF only (and not from NDRF), as assessed by the State Executive Committee (SEC). - The total expenditure on this item should not exceed 10 % of the annual allocation of the SDRF.
12	Capacity Building	- Expenditure is to be incurred from SDRF only (and not from NDRF), as assessed by the State Executive Committee (SEC). - The total expenditure on this item should not exceed 5% of the annual allocation of the SDRF.

13.	State specific disasters within the local context in the State, which are not included in the notified list of disasters eligible for assistance from SDRF/ NDRF, can be met from SDRF within the limit of 10% of the annual funds allocation of the SDRF.	- Expenditure is to be incurred from SDRF only (and not from NDRF), as assessed by the State Executive Committee (SEC). - The norm for various items will be the same as applicable to other notified natural disasters, as listed above. or - In these cases, the scale of relief assistance against each **item for 'local disaster' should not exceed the norms** of SDRF. - The flexibility is to be applicable only after the State has formally listed the disasters for inclusion and notified transparent norms and guidelines with a clear procedure for identification of the beneficiaries for disaster relief for such **local disasters', with the approval of SEC.**

Note: - (i) The State Governments are to take utmost care and ensure that all individual beneficiary-oriented assistance is necessary/ mandatory disbursed through the bank account (viz; Jan Dhan Yojana etc.) of the beneficiary.

(ii) The scale of relief assistance against each items for all disasters including 'local disaster' should not exceed the norms of SDRF/ NDRF. Any amount spent by the State for such disasters over and above the ceiling would be borne out of the resources of the State Government and not from SDRF.

Appendix
(Item No. 10)

Illustrative list of activities identified as of an immediate nature.

1. Drinking Water Supply:

i) Repair of damaged platforms of hand pumps/ring wells/ spring-tapped chambers/public stand posts, cisterns.
ii) Restoration of damaged stand posts including replacement of damaged pipe lengths with new pipe lengths, cleaning of clear water reservoir (to make it leak proof).
iii) Repair of damaged pumping machines, leaking overhead reservoirs and water pumps including damaged intake – structure, approach gantries/jetties.

2. Roads:

i) Filling up of breaches and potholes, use of pipe for creating waterways, repair and stone pitching of embankments.
ii) Repair of breached culverts.
iii) Providing diversions to the damaged/washed out portions of bridges to restore immediate connectivity.
iv) Temporary repair of approaches to bridges/ embankments of bridges., repair of damaged railing bridges, repair of causeways to restore immediate connectivity, granular sub base, over damaged stretch of roads to restore traffic.

3. Irrigation :

i) Immediate repair of damaged canal structures and earthen/masonry works of tanks and small reservoirs with the use of cement, sand bags and stones.
ii) Repair of weak areas such as piping or rat holes in dam walls/ embankments.
iii) Removal of vegetative material/building material/debris from canal and drainage system.
iv) Repair of embankments of minor, medium and major irrigation projects.

4. Health:

Repair of damaged approach roads, buildings and electrical lines of PHCs/ community Health Centres.

5. Community assets of Panchayat

a) Repair of village internal roads.
b) Removal of debris from drainage/ sewerage lines.
c) Repair of internal water supply lines.
d) Repair of street lights.
e) Temporary repair of primary schools, Panchayat ghars, community halls, *anganwadi*, etc.

6. Power: Poles/ conductors and transformers upto 11 kv.

7.The assistance will be considered as per the merit towards the following activities:

Sl No	Items/ Particulars	Norms of assistance will be adopted for immediate repair
i)	Damaged primary school building Higher secondary/ middle/ college and other educational institutions buildings	Up to Rs. 2.00 lakh/ unit Not covered
ii)	Primary Health Centre	Upto Rs. 2.00 lakh/ unit
iii)	Electric poles and wires etc.	Normative cost (Upto Rs.4000 per pole and Rs. 0.50 lakh per km)
iv)	Panchayat Ghar/ Anganwadi/ Mahila Mondal/ Yuva Kendra/ Community Hall	Upto 2.00 lakh/ unit
v)	State Highways/ Major District road	Rs. 1.00 lakh/ km *
vi)	Rural road/ bridge	Rs. 0.60 lakh/km *
vii)	Drinking water scheme	Upto 1.50 lakh/ unit
viii)	Irrigation Sector: Minor irrigation schemes/ Canal Major irrigation scheme Flood control and anti Erosion Protection work	Upto Rs. 1.50 lakh/ scheme Not covered Not covered
ix)	Hydro Power Project/ HT Distribution systems/ Transformers and sub stations	Not covered
x)	High Tension Lines (above 11 kv)	Not covered
xi)	State Govt Buildings viz. departmental/ office building, departmental/ residential quarters, religious structures, patwarkhana, Court premises, play ground, forest bungalow property and animal/ bird sanctuary etc.	Not covered
xii)	Long terms/ Permanent Restoration work incentive	Not covered
xiii)	Any new work of long term nature	Not covered
xiv)	Distribution of commodities	Not covered. (However, there is a provision for assistance as GR to families in dire need of assistance after disasters).
xv)	Procurement if equipments/ machineries under NDRF	Not covered
xvi)	National Highways	Not covered (Since GOI born entire expenditure

		towards restoration works activities)
xvii)	Fodder seed to augment fodder production	Not covered

* If OR & PR rates are not provided by the State.

ANNEXURE: 22

Formats (Reports, damage and Assesment)

Application form for Government helps for to Repair / Rebuilt House/Huts damaged during the Natural calamities of Earthquake on date 26.01.2001

-: **A P P L I C A T I O N F O R M** :-

I. Name of Applicant
II. Name of Village & Location of House / Hut
III. a. Ward No. Block No. House No.
b. Area
c. Valuation Register No.

1. Total no. of family member of the applicant

Sr. No.	Name	Age	Relation
1			
2			
3			

2. Annual income of applicant family

3. (A) Ownership of house :
House owner / House Tenant Name and Address:

4. House / Hut Party damage or fully damage

5. Damage estimate cost (In Rupees)

6. Amount Damaged for to Repair / Rebuilt House / Hut.

7. Fully damage House/ Hut is on official place or not? If not then Rebuilt House / Hut is on official place?

Place: Signature of Applicant

Date:

Rojkam

Shri ……..resident of Porbandar has residential building / Hut which is Damolished heavy damage during the …….(type of Calamities). Which has seen by us and the estimated damage cost is Rs……... is true for that we punch sign under this.

1.
2
3

In presence of Team leader

Agreement

I shri ……. living in village …… Taluka …… Agree to write agreement that in reference to my application what over the help given to me by Government according to his rules, I spend it for rebuilt house / hut. If I fail to do so I repaid the help to Government .

Witness : Name :

Dates : Applicant Signature

In presence of Ten leaders.

In accordance with the Application of Shri…… for to repair / rebuilt residential building / kutcha / pucca / hut. I personally verified the damage. In accordance with damage of …….. situation of applicant . I agree to give him help according to rule. His valuation register No. is ……..

Date: Team Leader : Signagture

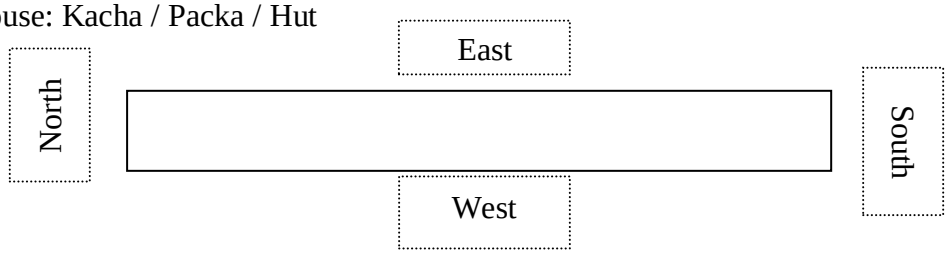
Shri…….. Residence…….

house / hut damage details

Ward No……..

House No……

Type of House: Kacha / Packa / Hut



Height of building:

Plinth Area:

Walls :

Cellar :

Roof detail : Tiles / Slash

Approximate damage:

(Repairing cost)

Categon of Damage:

% damage: Engineer's Sign / Officer's Sign
Name :

Looking to the above detail Rs. ……..is sranted as a help for to repair / rebuilt . House / Hut.

Date: **Mamlatdar**

Formats for Restoration of essential services and infrastructure and are the following tables to be filled after an event of disaster

Regarding Human Death

SrNo	Name of taluka	Male	Female	Child	Total	Reason of Death

Regarding Animal Death

Sr.No	Name of Taluka	Number of Animal Death	Remark

Evacuation

Sr.No	Name of taluka	Male	Female	Child	Number of Families	Place of Evacuation/and Available Resources

Line Department Information and Recovery Process:-

Power

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

LT Lines							
Electric Poles							

Note: To be planned after initial damage assessment by departments

Health

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

Note: To be planned after initial damage assessment by departments

Social

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

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

Water Supply

Type	Village	No. of unit affected	Faliya/ Population affected	Recovery Measures	Implementing agency	Tentative Duration (Months)	Budget
Well							
Bore wells							
Pond							
Water Supply Disrupted							
Contamination							
ESR damaged							
GLR Damaged							
Sump damaged							
Pipe lines damaged							
Stand post damaged							
Cattle trough damaged							
Hand pump							

Road and Transport

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

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

Communication

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

Food Supply

List of village affected by disruption in food supply

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

Other								

Housing

Partial Damage		Fully Damaged / Collapsed		Recovery Measures	Prog. / Scheme	Implementing Agency	Tentative Duration (Months)	Budget
Kutcha	**Pucca**	**Kutcha**	**Pucca**					

Public Utilities

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

Restoration of Livelihood

Provisioning of Employment

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

Weavers				
Other artisans				

Land Improvement

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

Agricultural

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

Non-farm livelihood

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

Shops and establishment

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

ANNEXURE: 23

State Level Emergency Contact Numbers

Sr. No.	EOCs/ Control rooms	Code	Contact Numbers
1	State Emergency Operation Center	079	23251900 23251902 23251914 F- 23251916
2	Relief Commissioner	079	23251509 23251568
3	Director of Relief	079	23251611 23251916 23251912
4.	CEO, GSDMA	079	23259276 23259289
5	Pri. Secretary Revenue Department	079	23251501
6	Dy. Collector (SEOC)	079	23251990 23251916-12
7	India Meteorological Department , Ahmadabad	079	22865012 22865449 22865165 22858020
8	Institute of seismological Research(ISR), Gandhinagar	079	66739001 66739028 66739000
9	NDRF Team, Gandhinagar	079	23201551 F- 23202540
10	Commandant of NDRF Team, Gandhinagar	079	23202540 094288 26445
11	Major, Jamnagar		08469800077 8141153447

EMERGENCY HELP LINE (TOLL FREE NO)

State Emergency Operation Centre (SEOC), Gandhinagar	**1070**
District Emergency Operation Centre (DEOC), Porbandar	**0286-1077**
DEOC, Porbandar Landline number	**0286 2220800**

Gujarat Maritime Board

Sr. No.	Name of Ports	STD Code	Office no	Fax No
1	CEO & VC, GMB-Gandhinagar	079	23238363	34703/34704
2	Port officer, Bhavnagar	0278	2210221	2519326
3	**Port officer (Bedi port-Jamnagar)**	**0288**	**2256106**	**2712815**
4	**Port oficer, Okha**	**02892**	**262001**	**262002**
5	Port officer, Navlakhi port (Morbi)	02822	220435	232470
6	Port officer, Mandavi	02834	223033	223040
7	Port officer, Jafarabad	02794	245443	245165
8	Port officer, Magdalla port	0265	2463781	2475645
9	Port officer, Bharuch	02642	220377	243140
10	**Port officer, Veraval**	**02876**	**220001**	**243138**
11	Port officer, Alang	02842	235222	235955

NEW SATELLITE TELEPHONE NUMBER

S.No.	DISTRICT NAME	IMEI No.	Phone Number
1.	AHMEDABAD CITY(MC)	353032044157861	8991115047
2.	AHMEDABAD	353032044156657	8991115048
3.	AMRELI	353032044158232	8991115046
	ANAND	353032044161202	8991115043
4.	BANASKATHA	353032044160212	8991115042
5.	BHARUCH	353032044160295	8991115041
6.	BHAVNAGAR	353032044160618	8991115044
7.	DAHOD	353032044160709	8991115045
8.	DANG	353032044160774	8991115036
9.	DEVBHOOMI DWARKA	353032044160451	8991115037
10.	GANDHINAGAR	353032044161319	8991115038
11.	JAMNAGAR	353032044158612	8991115040
12.	JUNAGADH	353032044161442	89911 15039
13.	KHEDA	353032044160196	8991115034
14.	KACHCHH	353032044159958	8991115035
15.	MEHSANA	353032044158828	8991115033
16.	NARMADA	353032044161350	8991115032
17.	NAVSARI	353032044158802	8991115031
18.	PANCHMAHAL	353032044157234	8991115030
19.	**PORBANDAR**	**353032044157465**	**8991115029**
20.	RAJKOT	353032044157556	8991115026
21.	SABARKANTHA	353032044157457	8991115027
22.	SURENDRANAGAR	353032044157564	8991115026
23.	SURAT	353032044145353	8991115024
24.	SURAT CITY	353032044146609	8991115025
25.	TAPI	353032044146823	8991115023
26.	VADODARA CITY	353032044144729	8991115022
27.	VALSAD	353032044146617	8991115021
28.	**SEOC**	**353032044044648**	**8991115020**
29.	**CEO-GSDMA**	**353032044043954**	**8991115019**
30.	JAMNAGAR MC	353032044044655	8991115018
31.	JUNAGARH MC	353032044043889	89911 15017
32.	RAJKOT MC	353032044043608	8991115016
33.	BOTAD	353032041746302	8991115049
34.	ARVALLI	353032040819159	8991115050
35.	PATAN	353032041844156	8991115051
36.	VADODARA	353032041433604	8991115052
37.	GIR SOMNATH	353032041424710	8991115053
38.	CHOTTAUDEPUR	353032041844461	8991115054
39.	MORBI	353032040543395	8991115055

ANNEXURE: 24

CONTACT DIRECTORY: PORBANDAR (STD Code: 0286)

Sln.	Designation	Name	Office	Resi	Mobile	Fax	Email Id
1	Collector	Shri M.A. Pandya	2221800	2243801	9978406219	2222527	collector-por@gujarat.gov.in
2	D D O	Shri Ajay Dahiya	2243803	2212638	9978406244	2212477	ddo-por@gujarat.gov.in
3	DSP	Shri Parthrajsinh Gohil	2211222	2211223	9978405079	2243015	sp-por@gujarat.gov.in
4	Resident Additional Collector	Shri M.H.Joshi	2221085	2245801	9978405191	2222527	collector-por@gujarat.gov.in
5	Deputy Conservator of Forest	Shri D.J. Pandya	2242551	-	9429551267	2210373	dcfpbr@gmail.com
6	Director, DRDA	Shri S.D.Dhanani	2213736	-	9825292364	-	drda.por@gmail.com
7	DSO	Shri K.V.Batti(I/C)	2220070	-	9978405359	2220071	dso-por@gujarat.gov.in
8	Dy. DDO (Revenue)	Shri D.V. Vala	2252806	-	7574516898	2212477	ddo-por@gujarat.gov.in
9	CDHO	Shri Dr S.K.Mod	2241134	-	7567886334	2242731	ao.health.porbandar@gmail.com
10	CDMO cum Civil surgeon	Smt Manjariben Mankodi	2242910	-	9099079101	-	cdmo.health.porbandar@gmail.com
11	DEO	Shri K.V. Miyani	2251350	-	9909970225	2253108	porbandardeo@gmail.com
12	DPEO	Anjanaben B. Joshi (I/C)	2252808	-	92655 48020	2252808	dpeoporbandar@gmail.com
13	General Manager DIC	Shri K.B. Mori	2222168	-	9227753653	2222169	gm-dic-por@gujarat.gov.in
14	Dy.Dir.Info	Shri Arjun Parmar	2222470	-	94265 20131	2222480	informationpor@gmail.com
15	Port Officer, GMB	Cpt. A.K Mishra	2242408	-	9099694747	2244013	gmbporbandar@gmail.com
16	Chief Fire Officer	Shri L.R.Joshi	2249850	-	9727751800	-	jlalit619@gmail.com
17	Executive Engineer, R & B(state)	Shri S.R. Patel	2240948/ 2242547	-	97120 17210	242466	ee_rnb_pbr@yahoo.co.in
18	Executive Engineer, R & B(Panchayat)	Shri J.J. Pandya (I/C)	2212971	-	9825166618	2213224	exernbddopor@gmail.com
19	Executive Engineer,irrigation (Panchayat)	Shri B.K. Valgotar(I/C)	2212667	-	9429955178	-	exeiri-ddo-por@gujarat.gov.in
20	Executive	Shri B.K.	2222897	-	9429955178	-	

	Engineer,irrigation (State)	Valgotar					exeirripor@gmail.com
21	Executive Engineer, salinity control	Shri N.P. Delvadia	2220503	-	9879767110	-	eescdnpbr@yahoo.in
22	Executive Engineer, GWSSB	Shri B.R. Chaniyara	2242528	-	9978406846	-	eepbrgwssb@gmail.com
23	Superitendent Engineer, PGVCL	Shri D.B. Kodiyatar	2240952/ 2240947	-	9825603182	2240952	Sepbr.pgvcl@gebmail.com
24	Dy Director of Animal husbandry	Shri K.V. Raval	2213681	-	9925028054	-	dydir-ah-por@gujarat.gov.in
25	District Agricultural Officer	Shri J.N. Parmar	2252809	-	9428242657	-	dao-ddo-por@gujarat.gov.in
26	District Social welfare officer, Zila panchayat	Shri M.K. Trivedi	2245897	-	9427243857	-	swo-ddo-por@gujarat.gov.in
27	Programme officer(ICDS), Zila panchayat	Smt Anjanaben Joshi	2247800	-	9429515359	-	po1.icds.porbandar@gmail.com
28	Director, Industrial Safety & Health	Shri J.M. Dvivedi	0285-2636946	-	98241 90891	0285-2635013	dydish-jun@gujarat.gov.in
29	General manager S.T. depot	Smt H.R. Katara	2242409	-	9998953205	-	dmpbr@gsrtc.in
30	Assistant Director of Fishries department	Shri V.K. Gohel	2242491	-	8733067007	2240949	adfporbandar@gmail.com
31	District Commandant, Home guard	Shri Suresh Sikotra	2215250	-	9824225080	-	-
32	Secretary, Indian Red Cross	Shri C.G. Joshi	-	-	94286 26811	-	joshichhabil@yahoo.com
33	Regional officer, GPCB	Shri B.L. Maru	2220050	-	7574827441	-	ro-gpcb-porb@gujarat.gov.in
34	Dy Ex.Engineer, NHAI	Shri G.V. Joshi	2242536	-	9825340870		nhsubdivporbandar@gmail.com
35	Commander, Indian coast guard	DIG I.S. Chauhan	2242451	-	9099906726	2210559	dhq1@indiancoastguard.nic.in
36	Airport Director	Shri P.K. Sharma	2222234/ 2222173	-	9925012668	2220031	apdporbandar@AAI.AERO
37	Area manager, Telecom dept, BSNL	Shri R.V. Rothadia	2243333/ 2251200	-	9427212755	2251500	dvo8988@yahoo.com
38	ARTO, Porbandar	Shri B.N chavda	-	-	9998856708	-	rtoporbandar25@yahoo.in
39	Disaster Mamlatdar	Smt Nehaben Sojitra	2220800	-	96873 75750	2220801	dismgmt-por@gujarat.gov.in
40	DPO(GSDMA)	Shri Likun Patra	2220800	-	7359214530	2220801	likunpatra3@gmail.com

Porbandar Taluka (STD: 0286)

Sl	Designation	Name	Office	Resi.	Mob.	Fax	Email id
1	Prant officer	Shri K.V. Batti	2220916		9978405359		po-por@gujarat.gov.in
2	Mamlatdar	Shri Vivek Tank	2220543		9909003272		mam-porbandar@gujarat.gov.in
3	TDO	Shri R.K. Unnadkat	2242439/ 2210273		9712116095		tdo.porbandar01@gmail.com
4	Chief Officer	Shri R.J.Hudad	2240936		9825148355		copbr2008@gmail.com
5	Chaayaa Chief Officer	Shri R.C.Shekh	2245271		9687127956		np_chhaya@yahoo.co.in

Ranavav Taluka (STD: 02801)

Sl	Designation	Name	Office	Resi.	Mob.	Fax	Email id
1	Prant officer	Shri A.J. Ashari	260222		7567009703		sdm-kut-por@gujarat.gov.in
2	Mamlatdar	Shri Parth Kotadia	230622		9558805228		mam-ranavav@gujarat.gov.in
3	TDO	Shri B.B. Sonara	230629		9375294629		tdo-ranavav@gujarat.gov.in
4	Chief Officer	Shri N.B. Barot	230624		9727170923		np_ranavav@yahoo.co.in

Kutiyana Taluka (STD: 02804)

Sl	Designation	Name	Office	Resi.	Mob.	Fax	Email id
1	Prant officer	Shri A.J. Ashari	260222		7567009703		sdm-kut-por@gujarat.gov.in
2	Mamlatdar	Shri Sandip A. Jadhav	261226		7383683377	261826	mam-kutiyna@gujarat.gov.in
3	TDO	Shri S.B. Kamejaliya	261229		9978551614		tdo-kutiyana@gujarat.gov.in
4	Chief Officer	B.A. Patel (I/C)	261251		9428014612		np_kutiyana@yahoo.co.in

ANNEXURE: 25

Talukavise Latitude and Longitude of village

Taluka: Porbandar

Sr	Village	Latitude	Longitude		Sr	Village	Latitude	Longitude
1	Advana	69.6	21.89		40	Madhavpur	69.59	21.22
2	Ambarama	69.47	21.81		41	Majivana	69.57	21.83
3	Bagvadar	69.58	21.75		42	Mander	69.93	21.29
4	Bakharla	69.62	21.7		43	Mitrala	69.86	21.48
5	Balej	69.86	21.34		44	Miyani	69.37	21.81
6	Baradiya	69.5	21.71		45	Mocha	69.88	21.3
7	Bavalvav	69.63	21.78		46	Modhvada	69.51	21.78
8	Beran	69.61	21.73		47	Morana	69.6	21.85
9	Bhad	69.83	21.46		48	Nagka	69.64	21.79
10	Bharvada	69.57	21.74		49	Natvarnagar	69.9	21.78
11	Bhavpara	69.4	21.78		50	Navi Bandar	69.78	21.41
12	Bhetkadi	69.55	21.88		51	Oddar	69.67	21.55
13	Bhomiyavadar	69.64	21.88		52	Palkhada	69.49	21.73
14	Bokhira	69.58	21.63		53	Pandavadar	69.6	21.69
15	Boricha	69.66	21.7		54	Paravada	69.64	21.85
16	Chhaya	69.66	21.6		55	Pata	69.92	21.25
17	Chikasa	69.79	21.43		56	Porbandar	69.62	21.59
18	Chingariya	69.91	21.27		57	Rajpar	69.79	21.48
19	Degam	69.59	21.67		58	Ratanpar	69.65	21.56
20	Delodar	69.87	21.5		59	Ratdi	69.49	21.7
21	Erada	69.84	21.51		60	Ratiya	69.82	21.38
22	Fatana	69.54	21.84		61	Rinavada	69.55	21.69
23	Garej	69.86	21.42		62	Rojhivada	69.7	21.93
24	Godhana	69.64	21.76		63	Sakhpur	69.47	21.77
25	Gorsar	69.89	21.29		64	Shingda	69.52	21.84
26	Gosa	69.74	21.47		65	Shrinagar	69.52	21.7
27	Ishvariya	69.68	21.89		66	Simani	69.58	21.7
28	Kadachh	69.91	21.31		67	Simar	69.66	21.9
29	Kantela	69.51	21.68		68	Sisli	69.5	21.84
30	Katvana	69.63	21.74		69	Sodhana	69.57	21.86
31	Keshav	69.5	21.77		70	Tukda Gosa	69.72	21.49
32	Keshod (Lushala)	69.8	21.49		71	Tukda Miyani	69.42	21.76
33	Khambhodar	69.57	21.77		72	Untada	69.84	21.35
34	Khapat	69.61	21.63		73	Vachhoda	69.61	21.760
35	Khistri	69.62	21.76		74	Vadala	69.44	21.80
36	Kindar Kheda	69.55	21.77		75	Vinjhrana	69.62	21.750
37	Kolikhada	69.64	21.66		76	Visavada	69.45	21.740

38	Kuchhdi	69.54	21.67		78	Zavar	69.56	21.620
39	Kunvadar	69.59	21.82					

Taluka - Ranavav

Sr.	Village	Latitude	Longitude		Sr.	Village	Latitude	Longitude
1	Adityana	69.68	21.68		17	Kerala	69.84	21.55
2	Amardad	69.7	21.65		18	Khambhala	69.76	21.71
3	Aniali	69.84	21.66		19	Khijdad	69.89	21.58
4	Ashiyapat	69.79	21.75		20	Khirsara	69.86	21.68
5	Bapodar	69.8	21.57		21	Mahira	69.88	21.54
6	Bhod	69.79	21.64		22	Mokal	69.77	21.57
7	Bhoddar	69.88	21.55		23	Nerana	69.88	21.52
8	Bileshwar	69.76	21.74		24	Padardi	69.82	21.54
9	Bordi	69.81	21.69		25	Pipaliya	69.71	21.63
10	Daiyar	69.9	21.65		26	Ramgadh	69.78	21.69
11	Dharampur	69.66	21.64		27	Ranavav	69.74	21.64
12	Digvijaygadh	69.68	21.63		28	Thoyana	69.87	21.56
13	Dolatgadh	69.83	21.68		29	Vadwala - Rana	69.82	21.62
14	Hanumangadh	69.8	21.75		30	Valotra	69.88	21.65
15	Jambu	69.85	21.55		31	Virpur	69.69	21.61
16	Kandorna - Rana	69.85	21.61					

Taluka – Kutiyana

Sr.	Village	Latitude	Longitude		Sr.	Village	Latitude	Longitude
1	Amar	69.9	21.62		25	Kantol	70.05	21.55
2	Amipur	69.91	21.37		26	Katwana	69.98	21.55
3	Baloch	69.9	21.59		27	Kavalka	69.95	21.49
4	Bavlavadar	69.92	21.61		28	Khageshri	69.96	21.72
5	Bhadula	70.02	21.42		29	Khunpur	70.02	21.63
6	Bhogsar	69.9	21.48		30	Kotda	69.92	21.54
7	Bildi	70.08	21.62		31	Kutiyana	69.97	21.6
8	Chauta	70.03	21.59		32	Mahiyari	69.92	21.43
9	Chhatrava	69.89	21.48		33	Mahobatpara	69.96	21.61
10	Choliyana	69.93	21.6		34	Mal	69.94	21.57
11	Daduka	70.12	21.64		35	Malanka	70.06	21.66
12	Devda	69.87	21.69		36	Mandva	69.99	21.56
13	Dharsan	69.95	21.47		37	Moddar	69.97	21.51
14	Dhrusan	69.99	21.65		38	Paswali	69.95	21.53

15	Farer	69.99	21.42		39	Ramnagar	69.9	21.71
16	Gadhvana	69.96	21.48		40	Revadra	69.96	21.45
17	Gokaran	70.03	21.61		41	Roghada	70.06	21.61
18	Hamadpara	69.99	21.61		42	Segras	69.92	21.51
19	Helabeli	70	21.64		43	Sindhpur	70.05	21.64
20	Ishvariya	69.93	21.65		44	Tarkhai	69.94	21.44
21	Jamra	69.88	21.46		45	Teri	70.01	21.61
22	Junej	70	21.42		46	Thepda	70.02	21.57
23	Kadegi	69.96	21.42		47	Vadala	70.1	21.64
24	Kansavad	69.92	21.47					

ANNEXURE: 26

Dos and don'ts of various disasters

Cyclone Safety:

A cyclone is a storm accompanied by high-speed whistling and howling winds. It brings torrential rains.

Where does a cyclone come from?

A cyclonic storm develops over tropical oceans like the Indian Ocean and Bay of Bengal and the Arabian Sea. Its strong winds blow at great speed, which can be more than 118 kilometers per hour.

What are the visible signs of a cyclone?

When a cyclonic storm approaches, the skies begin to darken accompanied by lightning and thunder and a continuous downpour of rain.

How does a cyclone affect us?

- A cyclone causes heavy floods.
- It uproots electricity supply and telecommunication lines. Power supply shuts down and telephones stop functioning.
- Road and rail movements come to halt because floods damage rail tracks and breach roads. Rail movements are also disrupted because of communication failure.
- The inclement weather conditions also disrupt Air services. Seaports stop work due to high winds, heavy rains and poor visibility. Sometimes ships overturn or are washed ashore. The high-speed winds bend and pluck out trees and plants.
- A cyclone tears away wall sidings and blows off roofs of houses.
- Houses collapse and people are rendered homeless. In villages kacha houses get blown away. The speeding winds cause loose metal and wooden sheets to fly turning them to potential killers. Broken glass pieces can cause serious injuries.
- The floodwaters can take time to recede.
- The floodwaters can turn the fields salty.
- Bridges, dams and embankments suffer serious damages.

- 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 corpses of animals and human beings and mixing of sewage stored food supplies, gets damaged.

Which areas are exposed to a cyclone in Gujarat?

In Gujarat, the Saurashtra-Kachchh region experiences a cyclone. The port towns of Veraval, Porbandar, Jamnagar, Dwarka, Okha, Kandla and Bhavnagar and other minor port towns suffer most.

Does a cyclone follow a particular path?

It is often difficult to predict where a cyclone will strike. When it starts moving from oceans (in Gujarat it is Arabian Sea) towards the land area, a cyclone can change track and hit areas other than those anticipated earlier.

Has any early warning system been evolved for the occurrence of a cyclone?

Yes. In India, the Indian Meteorological Department has developed a four-stage warning system for a cyclone.

How does the system operate?

This warning is about the possibility of a cyclone when a low pressure depression develops in oceans. For Gujarat, the development of such a depression in the Arabian Sea is indicative of a cyclone attack.

- **The Alert stage**

  This warning is given 48 hours prior to the time when a cyclone is expected to hit the land.

- **The Warning stage**

  This is the stage when a cyclone gets formed. The warning is given 24 hours before the anticipated time of arrival of a cyclone.

- **Cyclone arrival**
  This warning is issued 12 hours before a cyclone is due to hit the land. The warning gives information about cyclone and will continue until the winds subside. In sea ports, danger signal are hoisted about the impending cyclone.

From where can people access cyclone storm warnings?

Warnings about storms, their intensity and the likely path they may take are regularly broadcasted by radio and television network continuously until the storm passes over.

What to do before and during a cyclone.

- Have your dwellings checked before a cyclone season starts and carry out whatever repairs that are needed.
- Talk to children and explain about cyclones without scaring them.
- Create storm awareness by discussing effects of a cyclonic storm with family members so that everyone knows what one can and should do in an emergency. This helps to remove fear and anxiety and prepares everyone to respond to emergencies quickly.
- Keep your valuables and documents in containers, which cannot be damaged by water.

- Keep information about your blood group.
- Keep lanterns filled with kerosene, torches and spare batteries. These must be kept in secure places and handy.
- Make plans for people who are either sick, suffer from disabilities, aged and children.
- Store up at least seven-day stock of essential food articles, medicines and water supply.
- Keep blankets & clothes ready for making beds. Also keep cotton bandages and several copies of photographs of family members in case they are needed for identification purposes after the storm.
- Store some wooden boards so that they can be used to cover windows.
- Keep trees and shrubs trimmed. Remove damaged and decayed parts of trees to make them resist wind and reduce the potential for damage. Cut weak branches and make winds blow through.
- All doors, windows and openings should be secured.
- Continue to listen to warning bulletins and keep in touch with local officials. Keep radio sets in working condition. Battery powered radio sets are desirable.
- Evacuate people to places of safety when advised.
- Take steps to protect your assets.
- Store extra drinking water in covered vessels.
- Remain calm.

What one should not do during a Cyclone attack?

- During the storm do not venture out unless advised to evacuate.
- If you have a vehicle and wish to move out of your house, leave early before the onset of a cyclone. It is often best to stay at home
- Avoid remaining on the top floor of dwellings. Stay close to the ground.

Earthquake safety:

- Tell the facts about earthquake to your family members
- Construct new buildings with earthquake resistant method and strengthen the old buildings
- Insure your house and family members
- Take the training for first aid and fire fighting
- Do not keep cots near the glass window
- Do not keep heavy and fragile things in the selves
- Do don’t hang photo frames, mirrors, or glasses up your bed
- Keep your important documents, some cash and necessary articles ready in a bag
- Get your house insured before the earthquake
- Identify special skills of neighbor (medical, technical) so that it can be utilized in emergency

During Earthquake

- Do not panic.
- If already inside, then stay indoors! Get under a heavy desk or table and hold to it.
- If fire breaks out, drop on the floor and crawl towards the exist
- If you are out doors during the quake, keep away from buildings, trees and electricity lines. Walk towards open places, in a calm and composed manner.
- If you are driving, quickly but carefully move your car as far out of traffic as possible and stop. Do not stop on or under a bridge or overpass or under trees, light posts, power lines, or signs. Stay inside the car until shaking stops
- If you are in a school, get under a desk or table and hold on

After the Earthquake

- Do not be afraid of the aftershocks
- Listen to radio-TV and other media for Government Announcement
- Check for injuries to yourself and those around you. Take first aid where you can
- Extinguish fire, if any
- Examine walls, floors, doors, staircases and windows to make sure that the building is not in danger of collapsing
- Do not enter into the unsafe or risky houses or buildings
- Inspect for Gas leaks-If you smell gas or hear blowing or hissing noises, open a window and quickly leave the building. Don't light your kitchen stove if you suspect a gas leak.
- Do not keep telephone lines busy unnecessarily
- Switch off electric lines

Fire safety:

Do's

- Buy Fireworks from the licensed shop.
- Keep fireworks in a closed box
- Store crackers away from source of fire or inflammation
- Follow all safety precautions issued with the fire works
- Go to open spaces like playgrounds, fields
- Light them at arm's length using a taper.
- Stand back while lighting the crackers
- Discard used fireworks in a bucket of water
- Keep buckets of water and blankets ready, in case a firebreaks out.
- Wear thick cotton clothes for maximum safety from fire.
- If clothes catch fire, Stop, Drop and Roll
- In case of uncontrolled fire wrap the victim in a blanket, till it stop.
- In case of burns splash tap water (not ice water), the process may be repeated till the burning sensation reduces.
- If fingers or toes are burned, separate them with dry, sterile, non-adhesive dressings.

- Make sure the burn victim is breathing, if breathing has stopped or if the victim's airway is blocked then open the airway and if necessary begin rescue breathing.
- Elevate the burned area and protect it from pressure and friction.
- Cover the area of the burn with a moist sterile bandage, of clean cloth (do not use blanket or towel for healing burns).
- Consult the doctor as soon as possible for the proper medication
- Consult an ophthalmologist immediately in case of eye injuries.
- Do contact at the Fire Brigade (Tel.No. 101), for getting the details of the doctors on duty during the festival.

Don'ts

- Don't burn crackers in crowded, congested places, narrow lanes or inside the house.
- Don't let children burst crackers unaccompanied by an adult
- Don't put fireworks in your pocket or throw them
- Don't cover crackers with tin containers or glass bottles for extra sound effect
- Don't dare to examine sunbursts crackers…leave it!! Light a new cracker
- Don't show the Dare-devilry of lighting crackers on own hands.
- Don't use fireworks inside a vehicle
- Avoid long loose clothes, as they are fast in catching fire
- Don't remove burnt clothing (unless it comes off easily), but do ensure that the victim is not still in contact with smoldering materials.
- Don't apply adhesive dressing on the burnt area.
- Don't break the burst blister

Flood Safety:

Do's and Don'ts after flood

- There is a possibility of spread of water borne diseases after flood, and hence medical treatment should be taken immediately.
- Do not enter deep, unknown waters.
- Do not go near the riverbank even after the floodwater has receded.
- Sprinkle medicines in the stagnant dirty water.
- Inspect your house for any cracks or other damage. Check all the walls, floor, ceiling, doors and windows, so that any chance of house falling down can be known and you can be aware about the immediate danger.
- If the floodwater has entered the house or has surrounded the house, then it is advisable not to enter such house.
- Keep listening to weather forecast on radio and television. Move to your residence only when instructed by the competent authority. It is not safe to believe that the problems have ended after the flood water have receded
- Inform the competent authority/officer for restoration of the necessary connections like gas, electricity, telephone, drainage, etc.

- Beware of the various insects or poisonous snakes that may have been dragged inside the house along with the floodwater.
- Destroy the food commodities that have been affected by floodwater.
- Check properly all the electric circuits, floor level furnace, boilers, gas cylinders, or electric equipments like motor pump etc. Check whether any inflammable or explosive item has not entered along with the floodwater.
- Switch off the main electric supply, if any damage is noticed to the electric equipments.
- If you find any breakage in the drainage system stop using latrines and do not use tap water.
- Do not use polluted water.
- Sewerage system should be checked and any damage should be repaired immediately so as to curtail spread of diseases.
- Empty the water clogged in the basement slowly with help of water pump so that damage to infrastructure can be minimized
- Check gas leakage which can be known by smell of gas or by hearing the sound of leakage; immediately open all windows and leave the house.
- Boil drinking water before usage and drink chlorinated water.
- Eat safe food.
- Rescue work should be undertaken immediately after flood situation as per the instruction. Do not follow any shortcut for rescue work.
- Do not try to leave the safe shelter to go back home until the local officials declare normalcy after flood and instruction to return home are not given.

Tsunami:

The phenomenon Tsunami is a series of traveling ocean waves of extremely long length generated primarily by earthquakes occurring below or near the ocean floor:

Following safety measures needs to be learnt before, during and after the occurrence of tsunami:

Before

- Be familiar with the tsunami warning signals. People living along the coast should consider an earthquake or a sizable ground rumbling as a warning signal. A noticeable rapid rise or fall in coastal waters is also a sign that a tsunami is approaching.
- Make sure all family members know how to respond to a tsunami. Make evacuation plans. Pick an inland location that is elevated.
- After an earthquake or other natural disaster, roads in and out of the vicinity may be blocked, so pick more than one evacuation route.
- Teach family members how and when to turn off gas, electricity, and water
- Children should be taught in advance about the evacuation plans
- Prepare emergency kit beforehand. The emergency kit should contain Flashlight and extra batteries, battery-operated radio and extra batteries, First aid kit
- Emergency food and water, Essential medicines etc

During

- Listen to a radio or television to get the latest emergency information, and be ready to evacuate if asked to do so.
- If you hear a tsunami warning, move at once to higher ground and stay there until local authorities say it is safe to return home.
- Move in an orderly, calm and safe manner to the evacuation site
- Stay away from the beach. Never go down to the beach to watch a tsunami come in.
- If you can see the wave you are too close to escape it.
- Return home only after authorities advise it is safe to do so.

After

- Stay tuned to a battery-operated radio for the latest emergency information.
- Help injured or trapped persons.
- Stay out of damaged buildings. Return home only when authorities say it is safe.
- Enter your home with caution. Use a flashlight/torch when entering damaged buildings. Check for electrical shorts and live wires. Do not use appliances or lights until an electrician has checked the electrical system.
- Open windows and doors to help dry the building.
- Shovel mud while it is still moist to give walls and floors an opportunity to dry.
- Check food supplies and test drinking water.
- Fresh food that has come in contact with flood waters may be contaminated and should be thrown out.

5/10

Cyclone: Do's and Don'ts

Before the Cyclone season:

- Check the house; secure loose tiles and carry out repairs of doors and windows
- Remove dead branches or dying trees close to the house; anchor removable objects such as lumber piles, loose tin sheets, 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 hurricane lantern filled with kerosene, battery operated torches and enough dry cells
- Demolish condemned buildings
- Keep some extra batteries for transistors
- Keep some dry non-perishable food always ready for use in emergency

Necessary actions

The actions that need to be taken in the event of a cyclone threat can broadly be divided into :

- Immediately before the cyclone season
- When cyclone alerts and warnings are communicated
- When evacuations are advised
- When the cyclone has crossed the coast

When the Cyclone starts

- Listen to the radio (All India Radio stations give weather warnings).
- Keep monitoring the warnings. This will help you prepare for a cyclone emergency.
- Pass the information to others.
- Ignore rumours and do not spread them; this will help to avoid panic situations.
- Believe in the official information
- When a cyclone alert is on for your area continue normal working but stay alert to the radio warnings.
- Stay alert for the next 24 hours as a cyclone alert means that the danger is within 24 hours.

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 safe 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 have to evacuate the house move your valuable articles to upper floors to minimize flood damage.
- Ensure that your hurricane lantern, torches or other emergency lights are in working condition 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 diet.
- 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 an hour or so. During this time do not go out; because immediately after that, very strong winds will blow from the opposite direction.
- Switch off the electrical mains in your house.
- Remain calm.

When Evacuation is instructed

- Pack essentials for yourself and your family to last a few days. These should include medicines, special food 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 are informed to leave

Post-cyclone measures

- You should remain in the shelter until informed that you can return to your home.
- You must get inoculated against diseases immediately.
- Strictly avoid any loose and dangling wires from lamp posts.
- If you have to drive, do drive carefully.
- Clear debris from your premises immediately.
- Report the correct losses to appropriate authorities.

9/05

Cyclone - Pointers

1. Fishermen should

- Ignore rumours, Stay calm, Don't panic
- Keep your mobile phones charged for emergency communication; use SMS
- Keep a radio set with extra batteries handy
- Listen to radio, watch TV, read newspapers for weather updates
- Keep boats/rafts tied up in a safe place
- Don't venture out in the sea

2. Before cyclone

- Ignore rumours, Stay calm, Don't panic
- Keep your mobile phones charged for emergency communication; use SMS
- Listen to radio, watch TV, read newspapers for weather updates
- Keep your documents and valuables in water-proof containers
- Prepare an emergency kit with essential items for safety and survival
- Secure your house; carry out repairs; don't leave sharp objects loose
- Keep cattle/animals unties to ensure their safety

3. During and After Cyclone

A) If Indoors

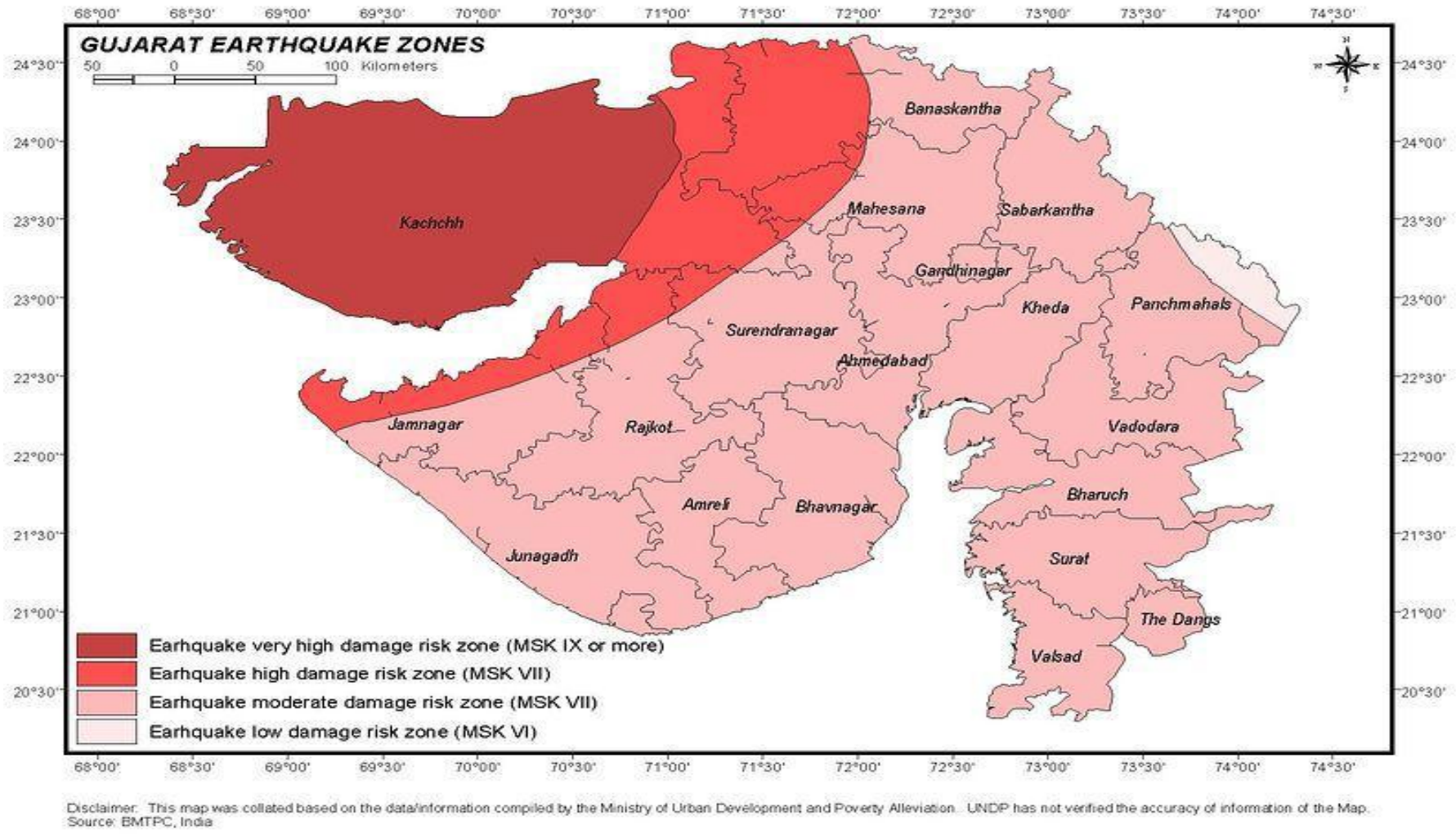
- Switch off electrical mains and gas connection
- Keep doors and windows shut
- If your house is unsafe, leave early before the onset of a cyclone
- Listen to radio; rely only on official warnings
- Drink boiled/chlorinated water

B) If Outdoors

- Do not enter damaged buildings
- Watch out for broken electric poles and wires, and other sharp objects
- Seek a safe shelter as soon as possible

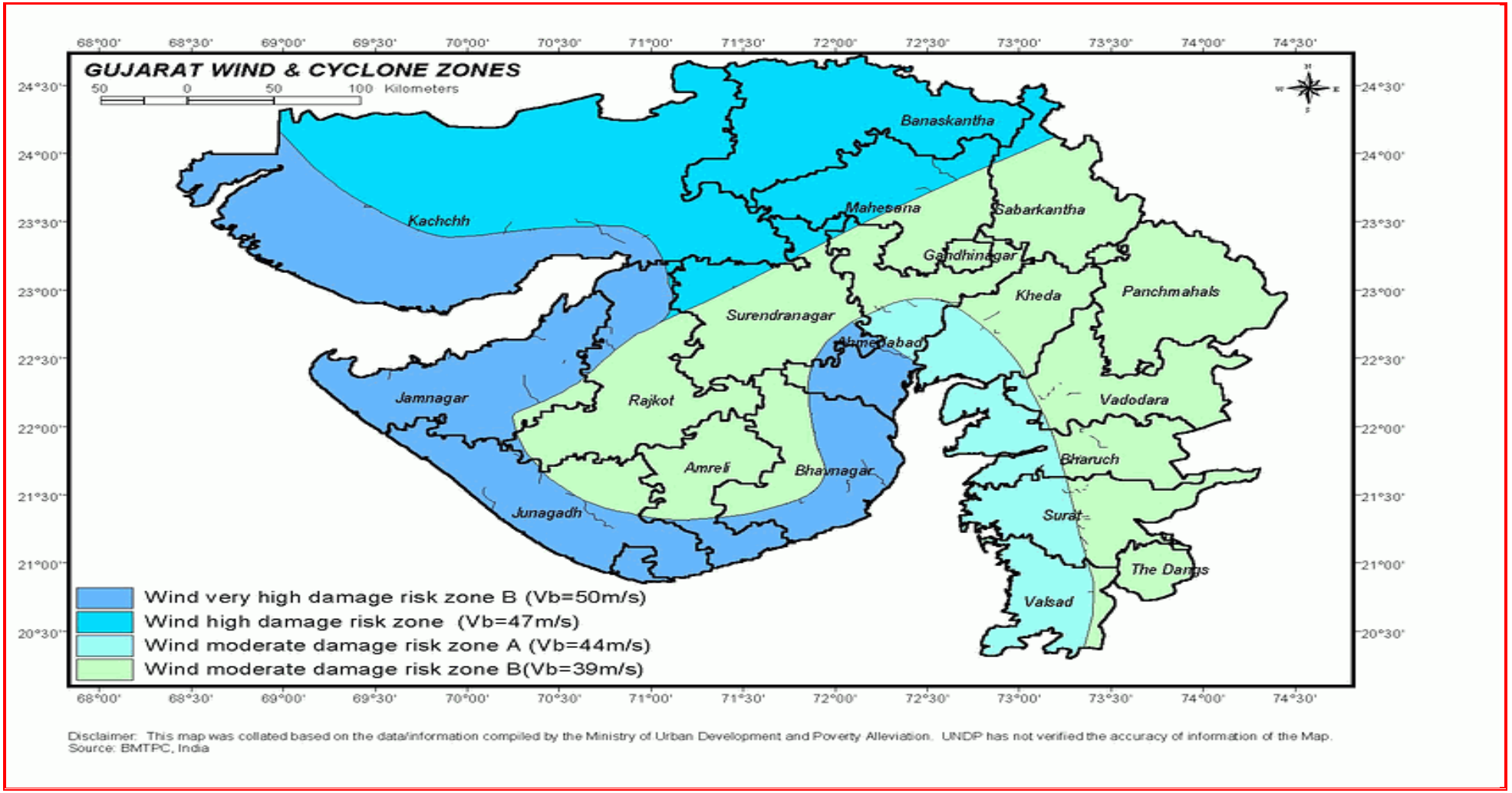
ANNEXURE: 27

Map showing Gujarat Earthquake Zones (Porbandar district falls in Earthquake zone: III)



Disclaimer: This map was collated based on the data/information compiled by the Ministry of Urban Development and Poverty Alleviation. UNDP has not verified the accuracy of information of the Map.
Source: BMTPC, India

Map showing Gujarat Wind and Cyclone Zones (Porbandar district coastal area falls in Zone-B (vb=50m/s)



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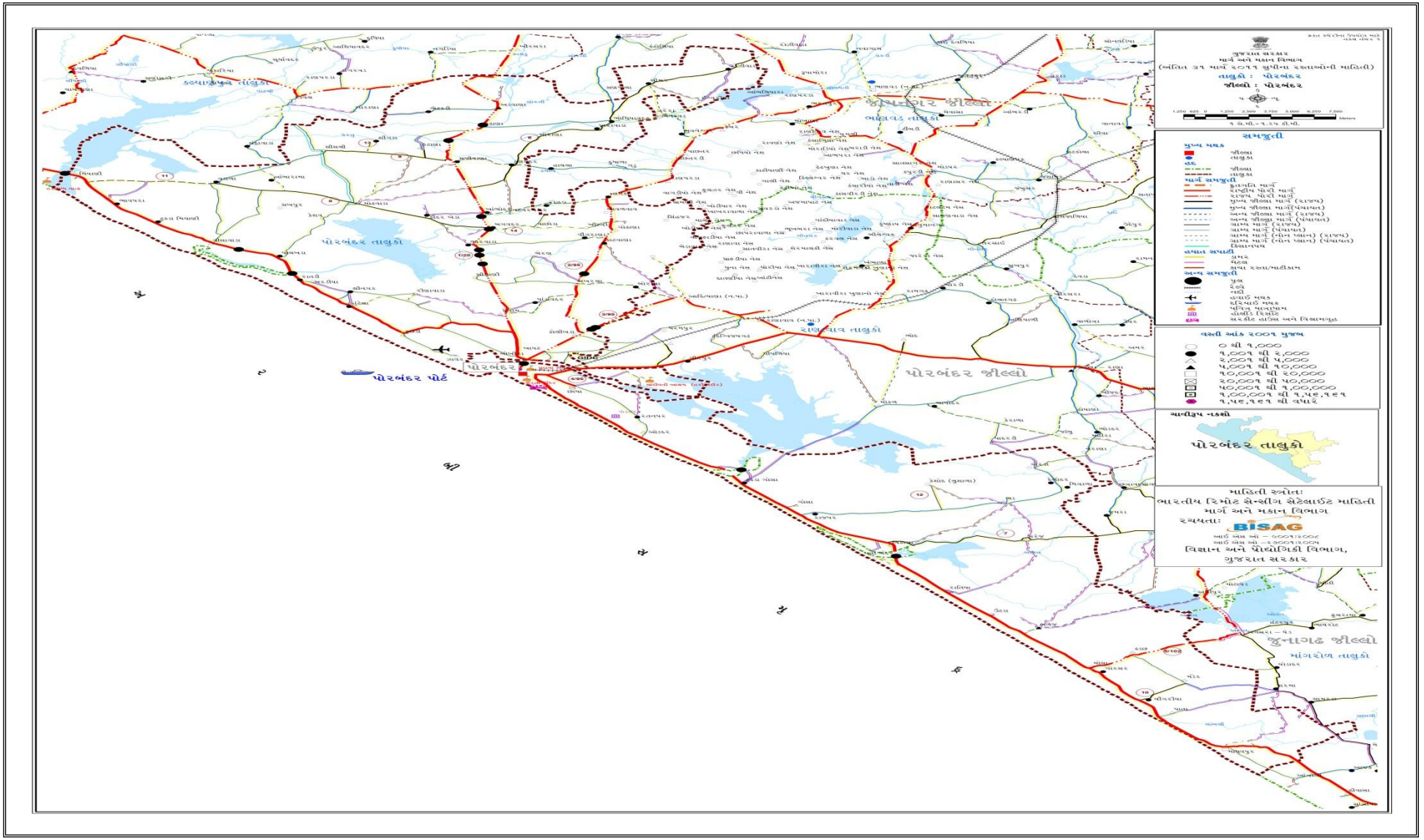
Source: BMTPC, India

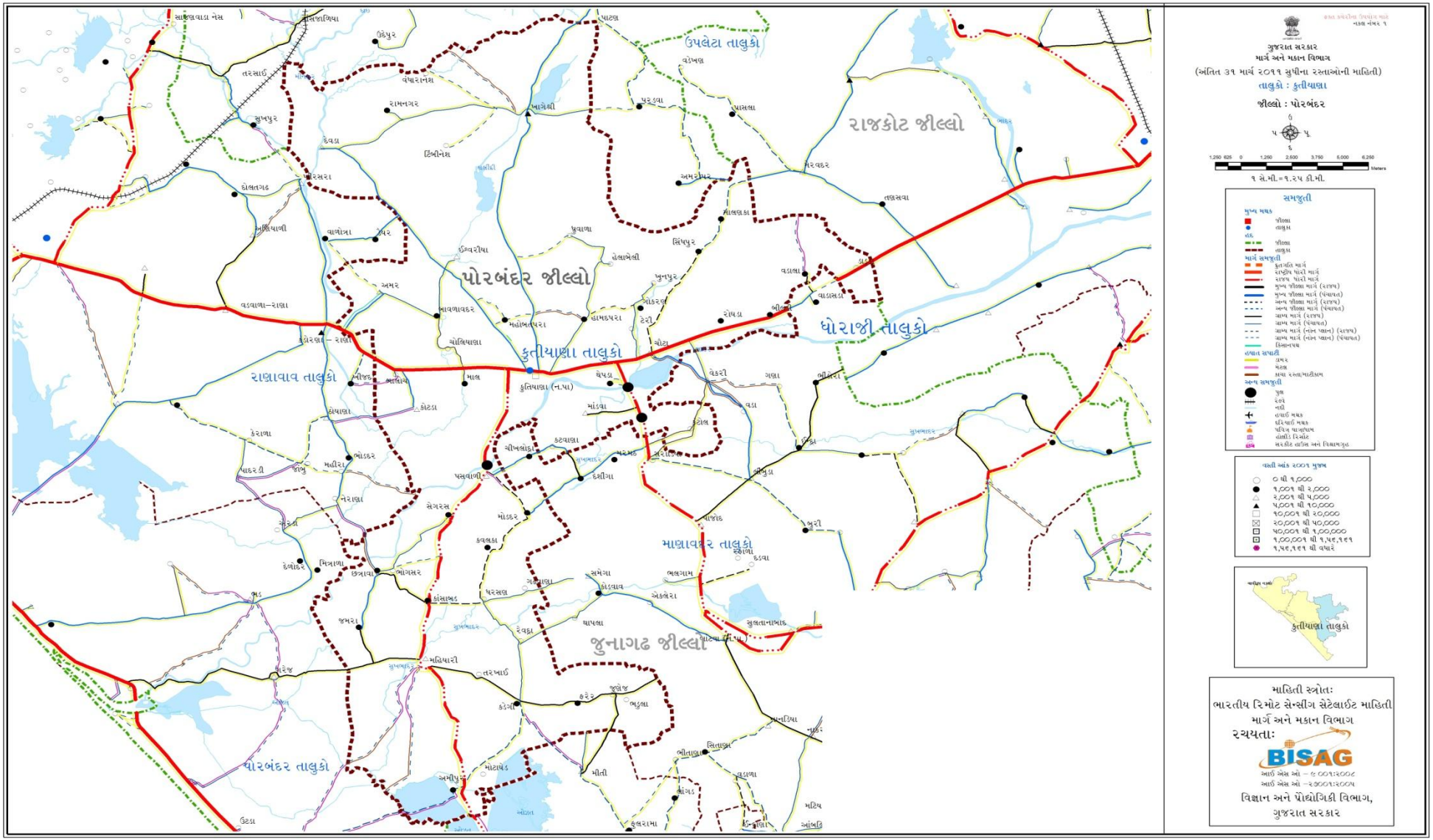
DISTRICT MAP OF PORBANDAR

TALUKA MAP OF PORBANDAR DISTRICT)

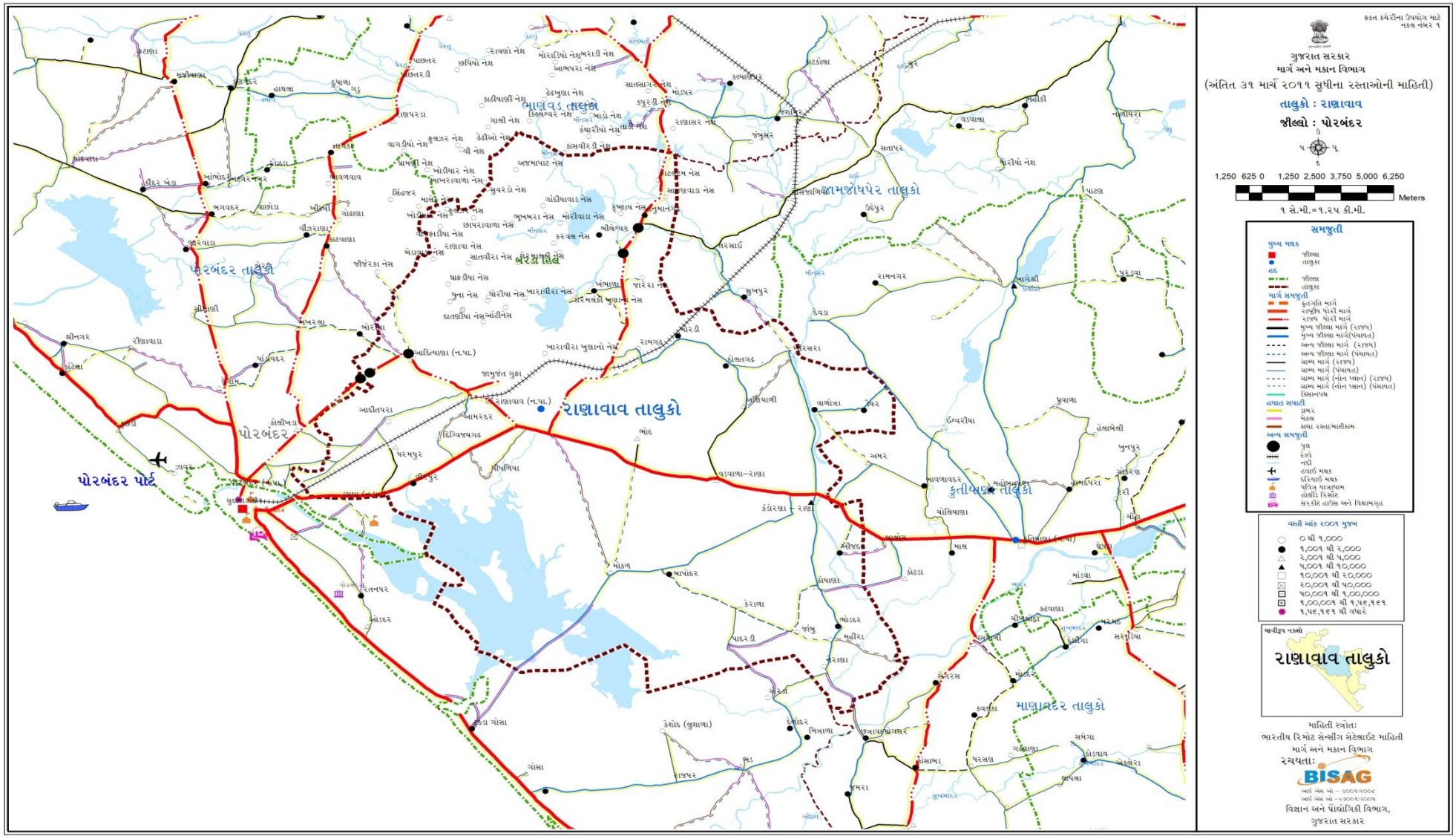
Name of Taluka: Porbandar



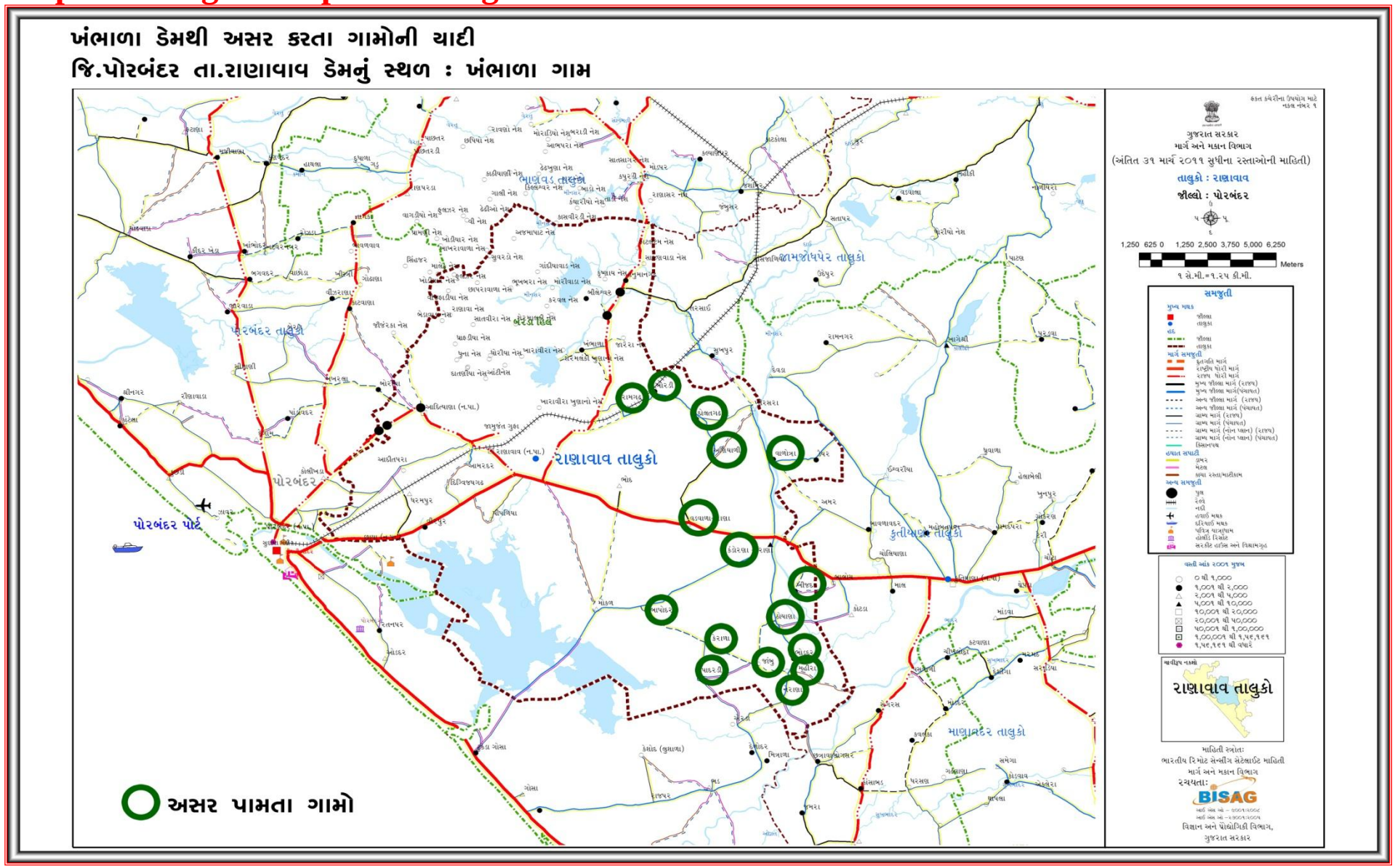
Name of Taluka: Kutiyana



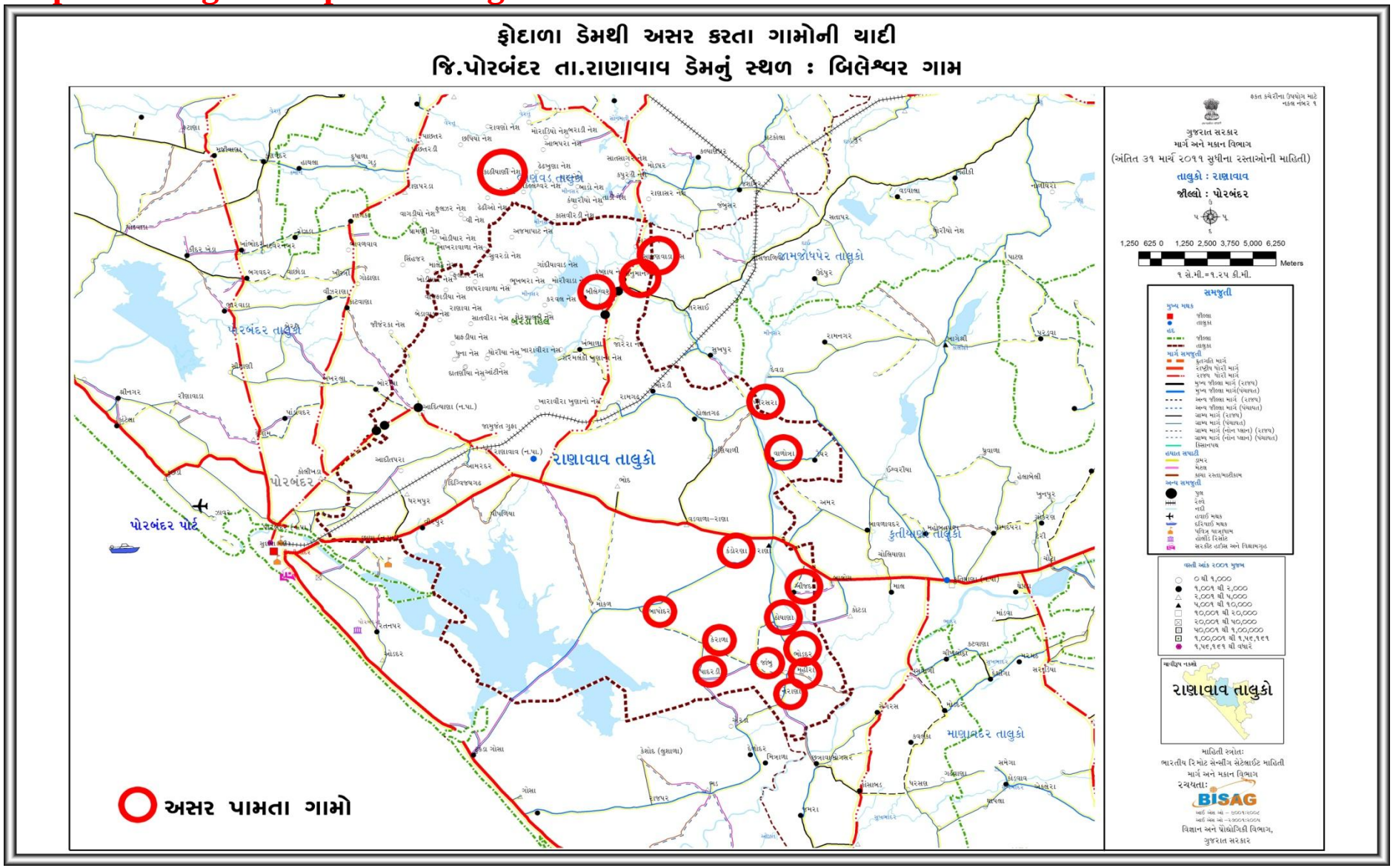
Name of Taluka: Ranavav



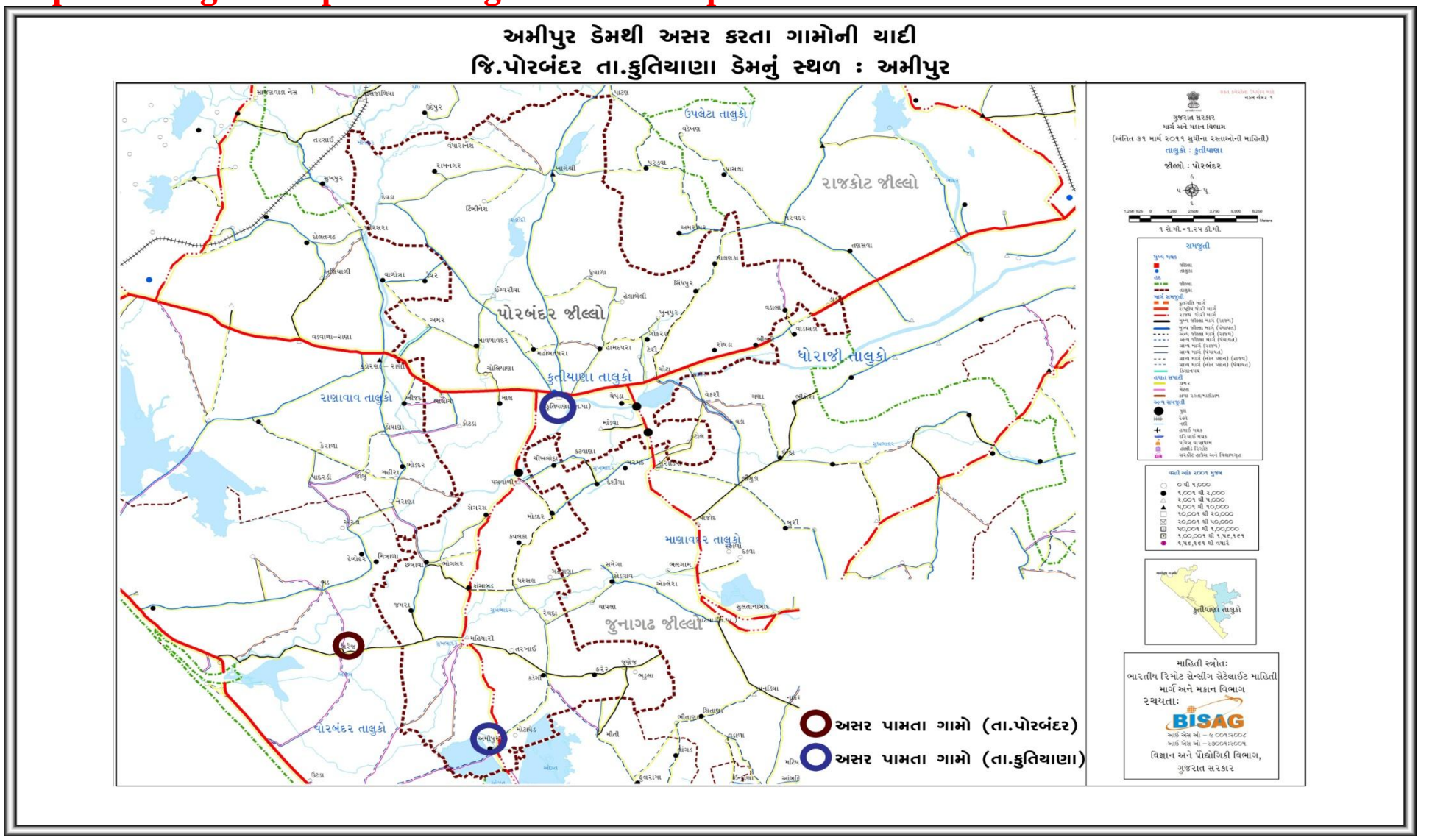
Maps showing Flood prone villages due to Khabhamla dam



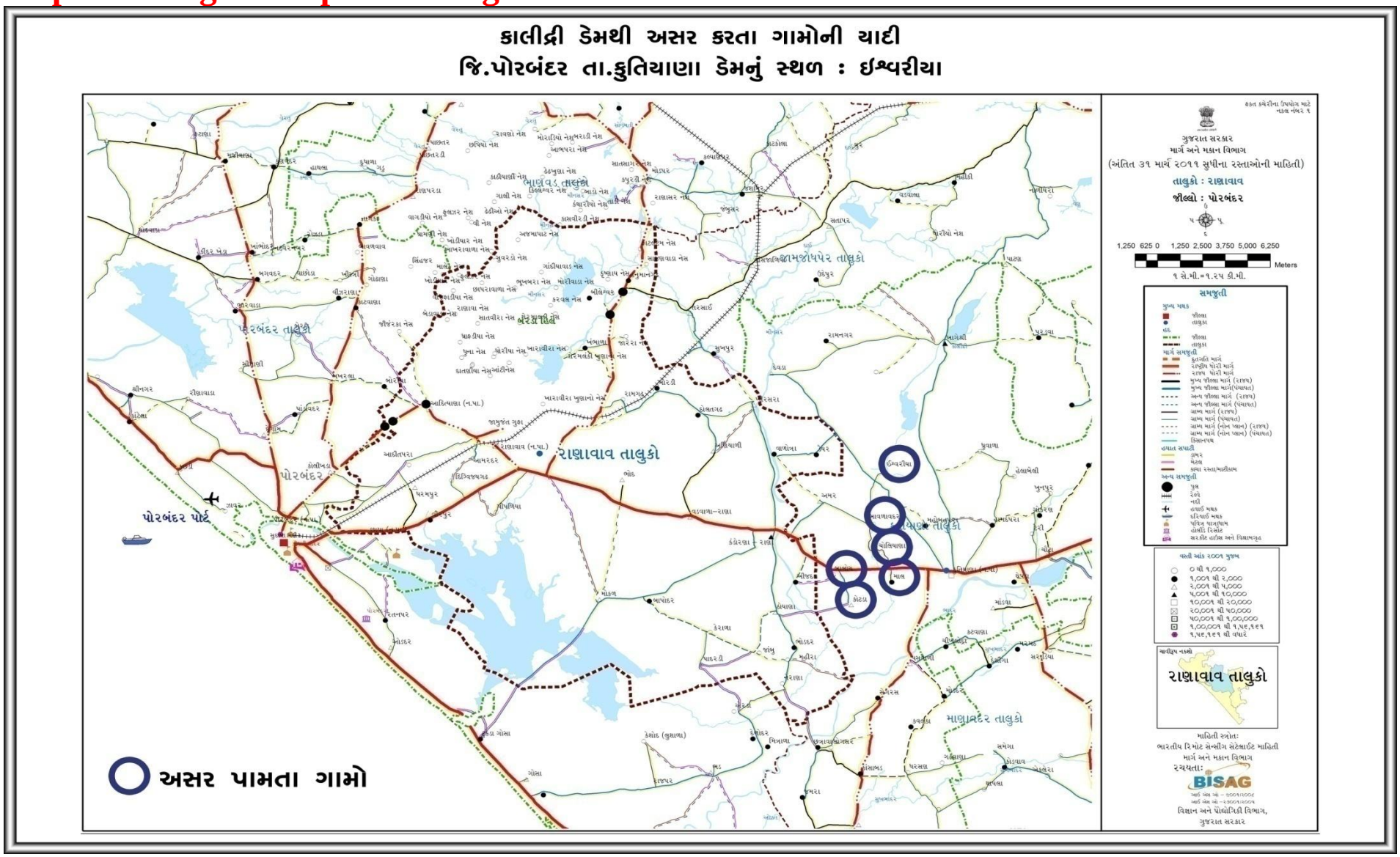
Maps showing Flood prone villages due to Fodala dam



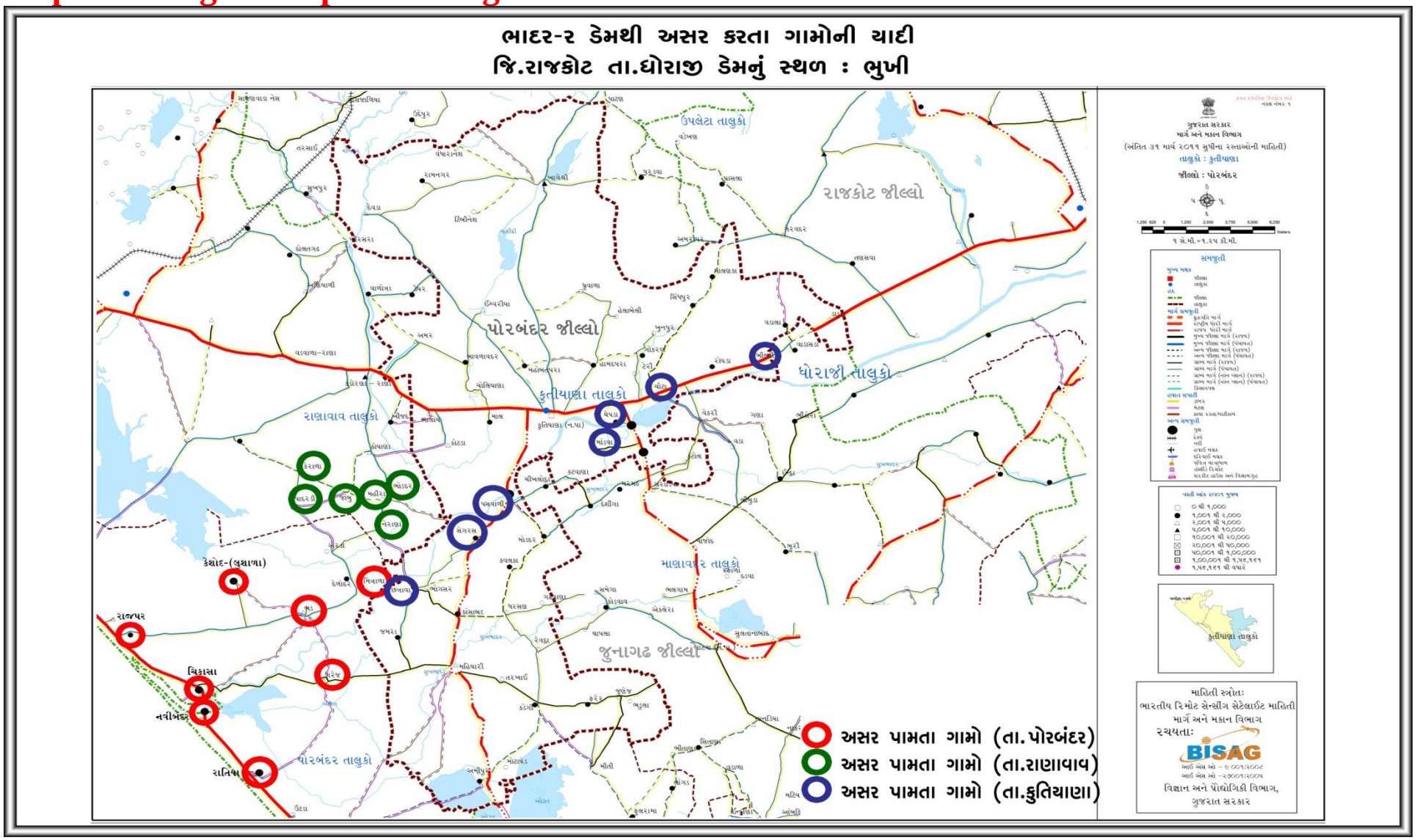
Maps showing Flood prone villages due to Amipur dam



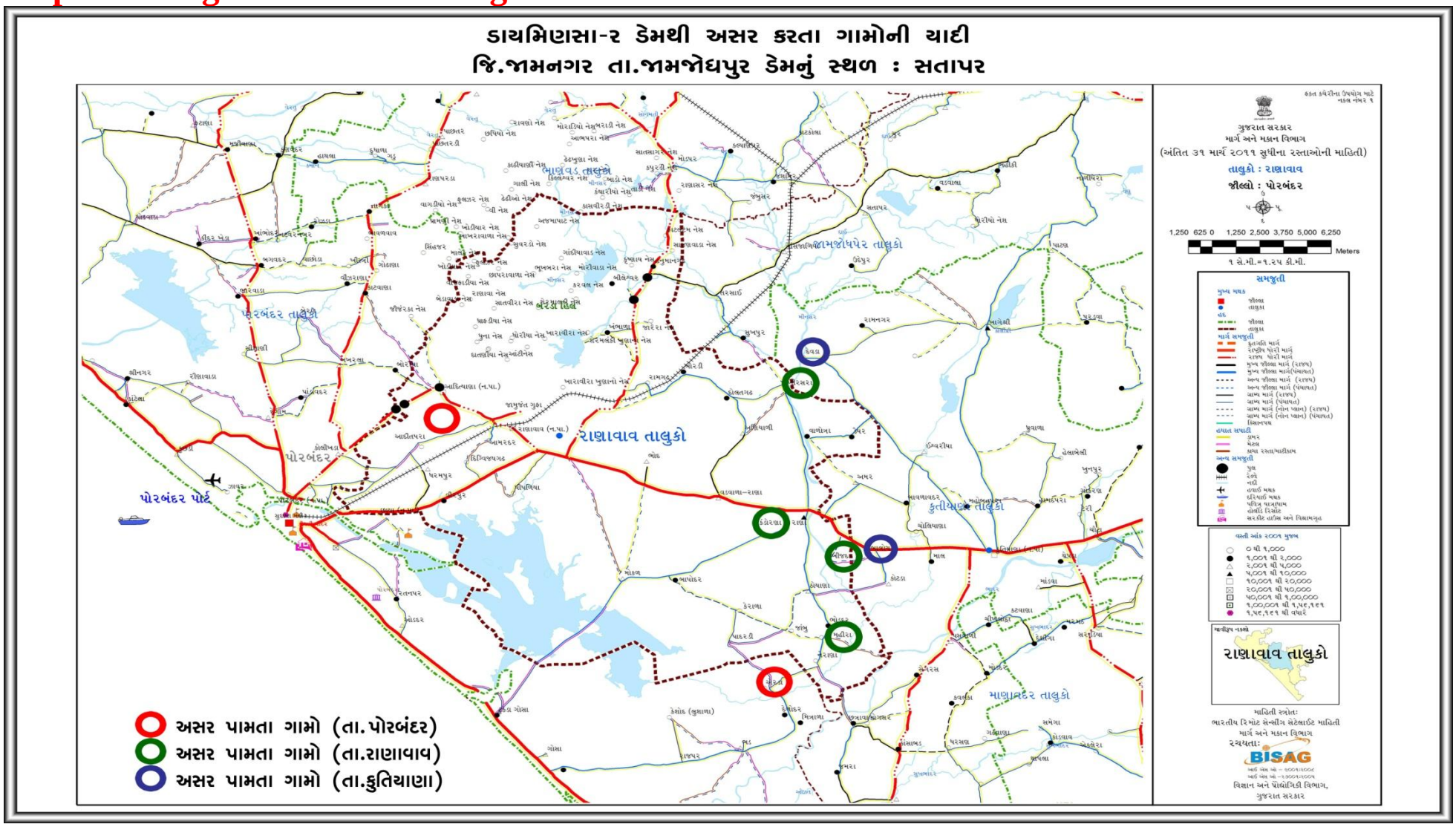
Maps showing Flood prone villages due to Kalindri dam



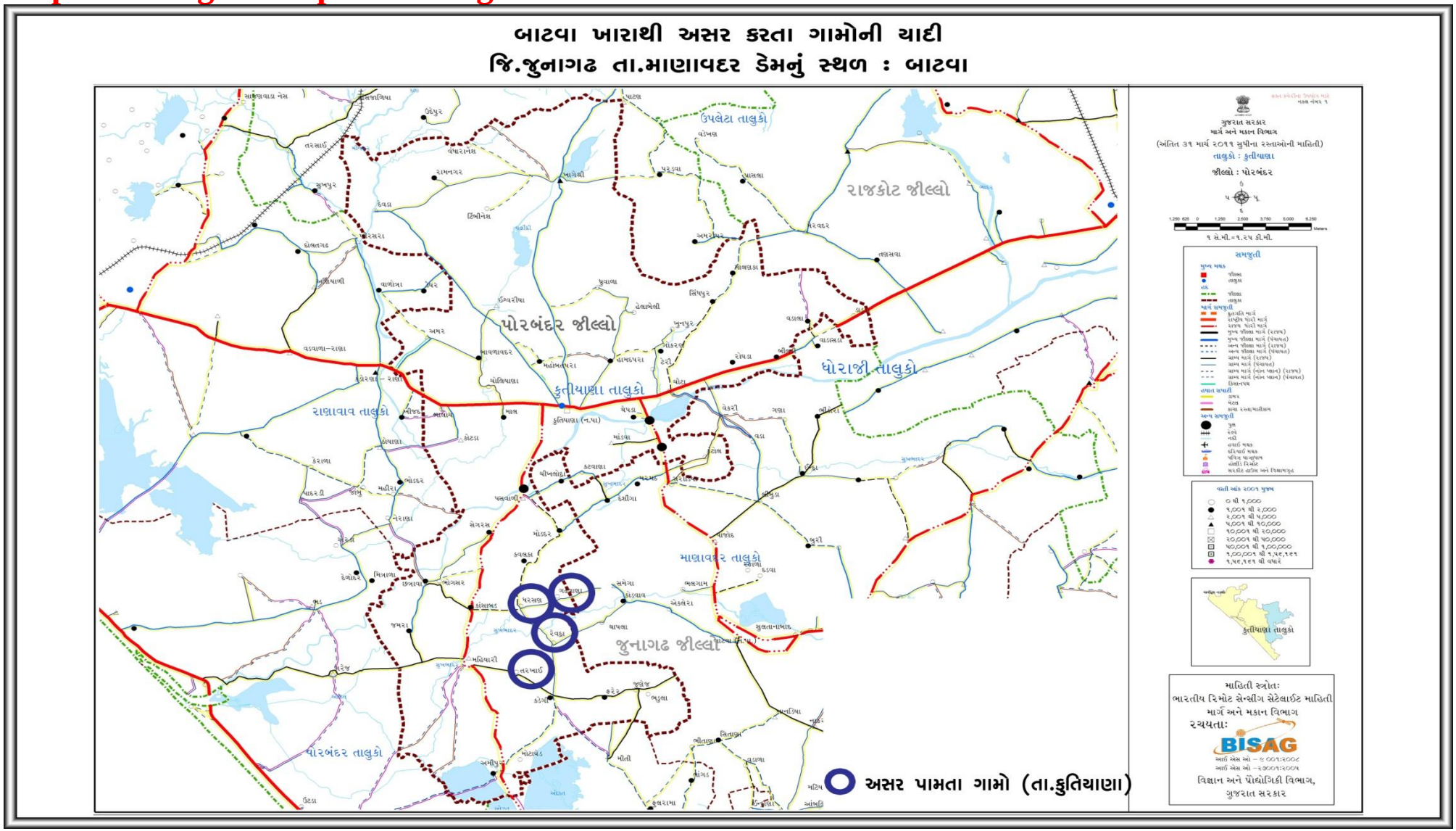
Maps showing Flood prone villages due to Bhadar-2 dam



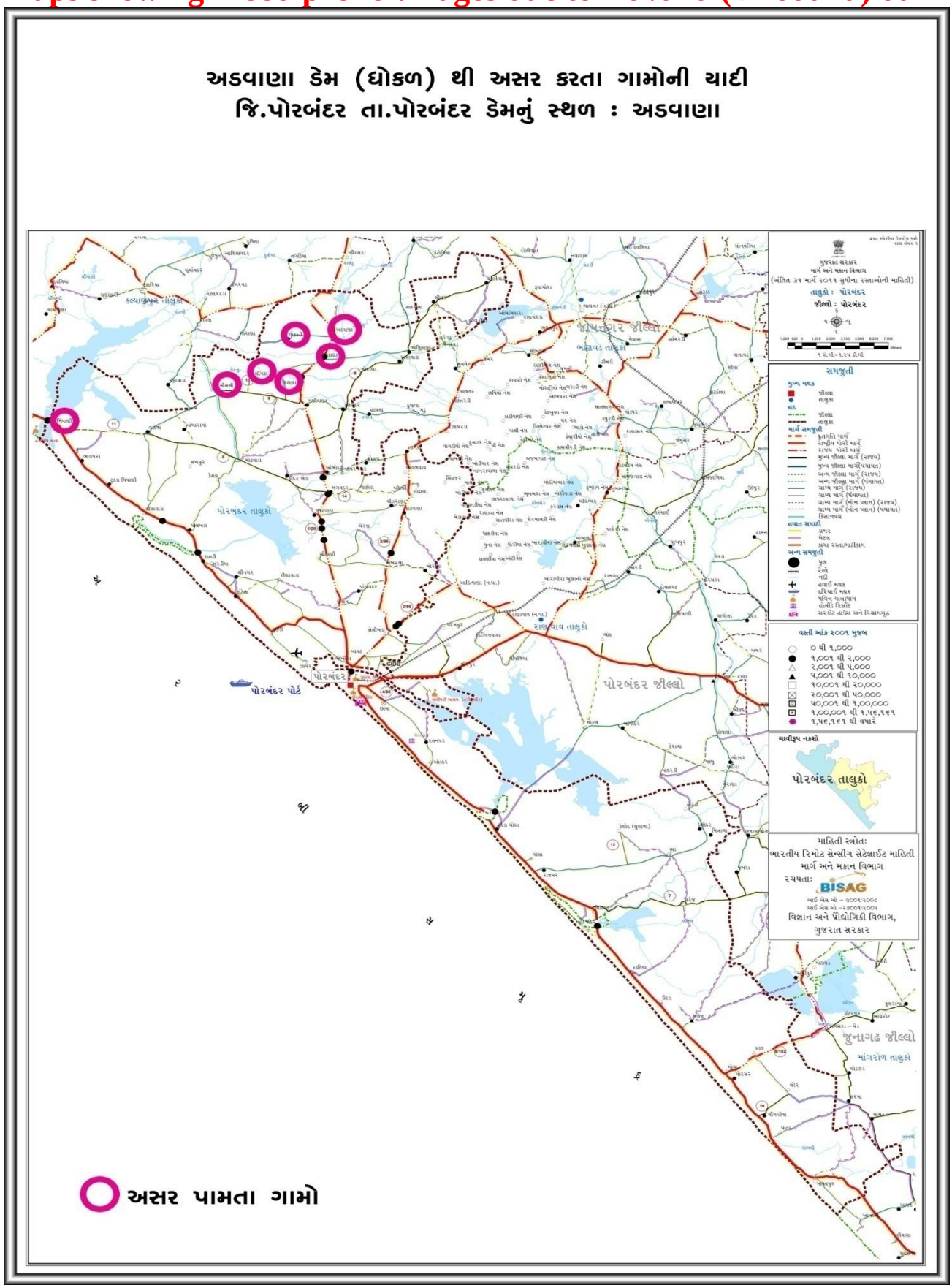
Maps showing Flood Prone villages due to Daiminsa-2 dam



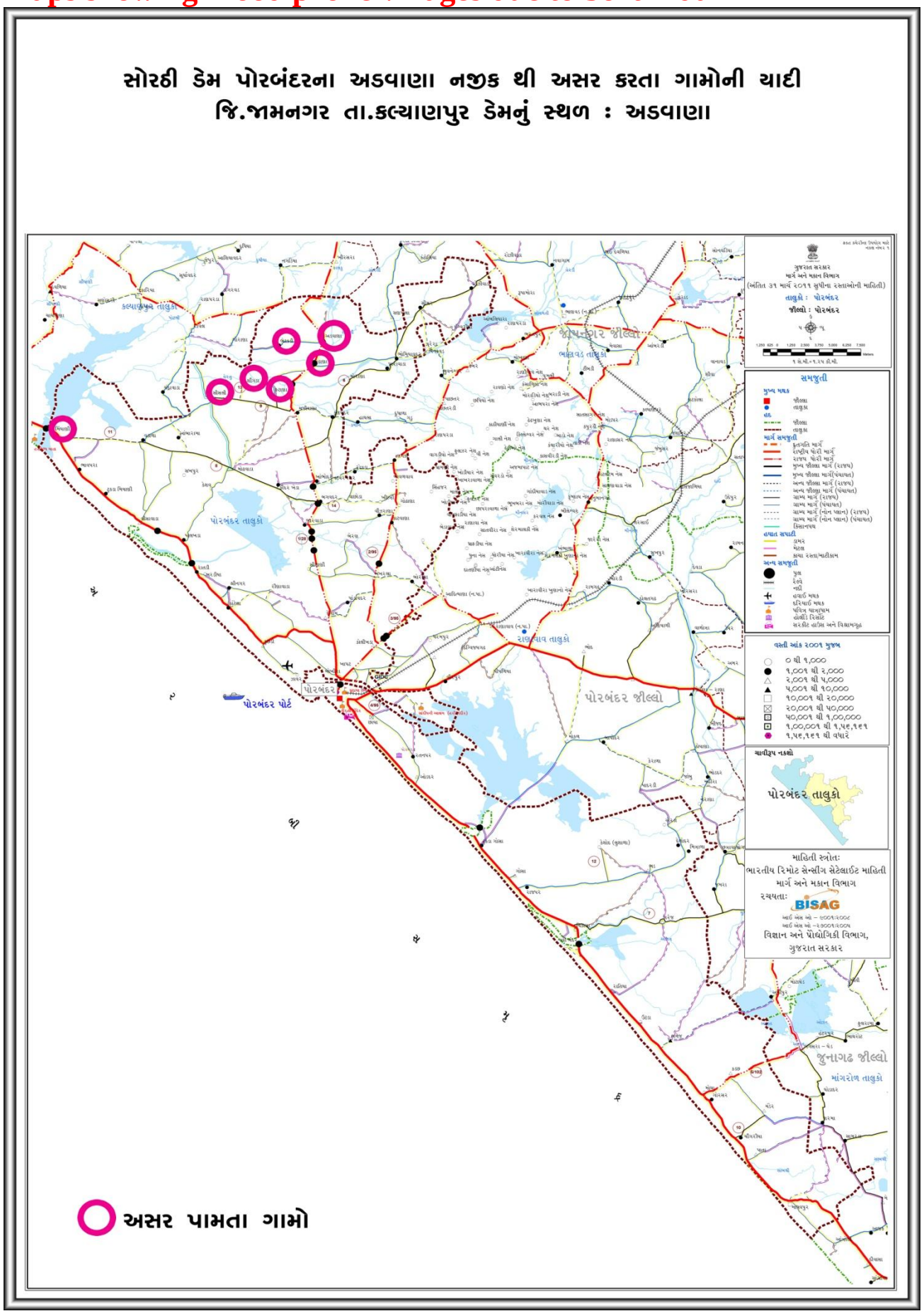
Maps showing Flood prone villages due to Batva Kharo dam



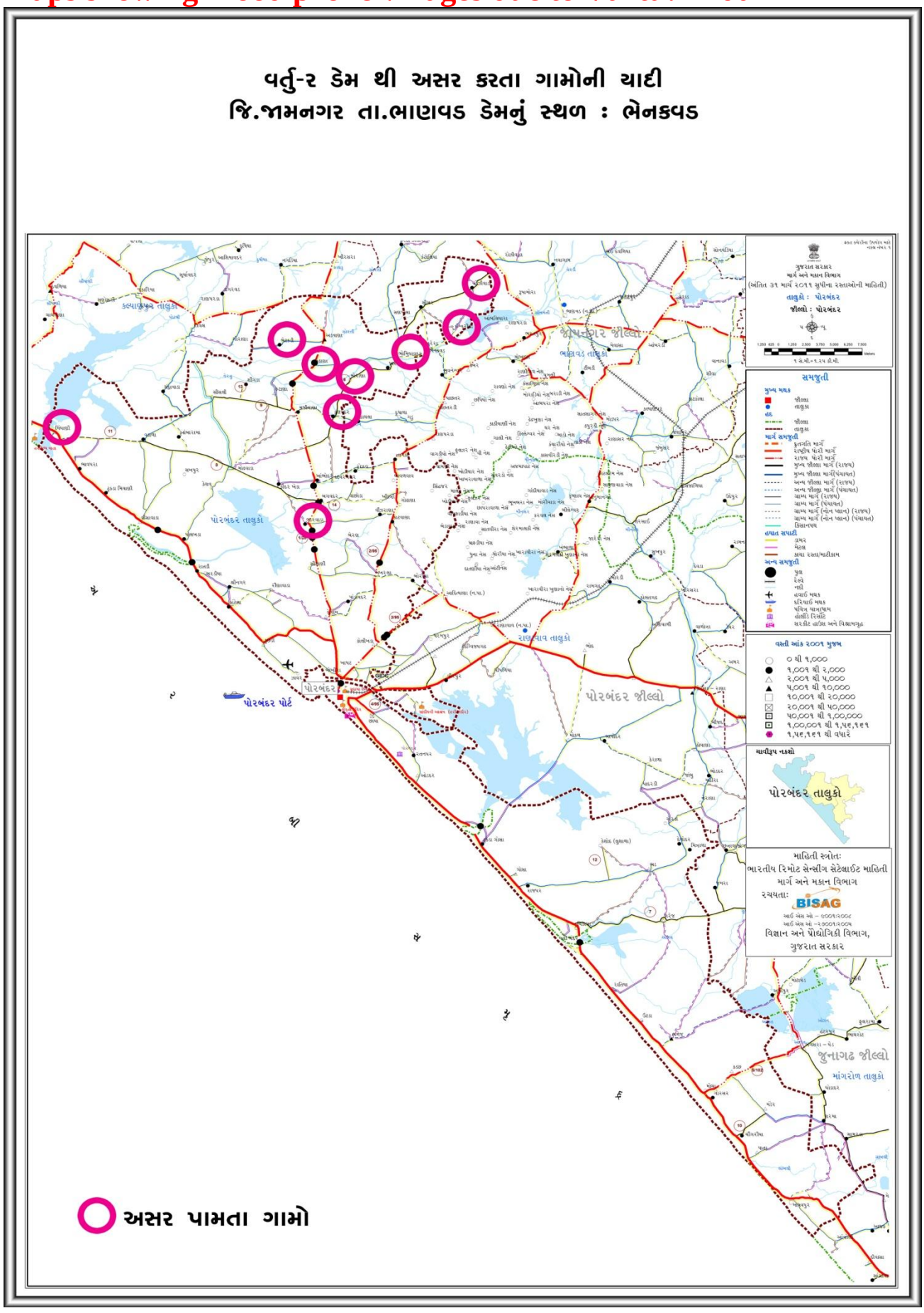
Maps showing Flood prone villages due to Advana (Dhodaka) dam



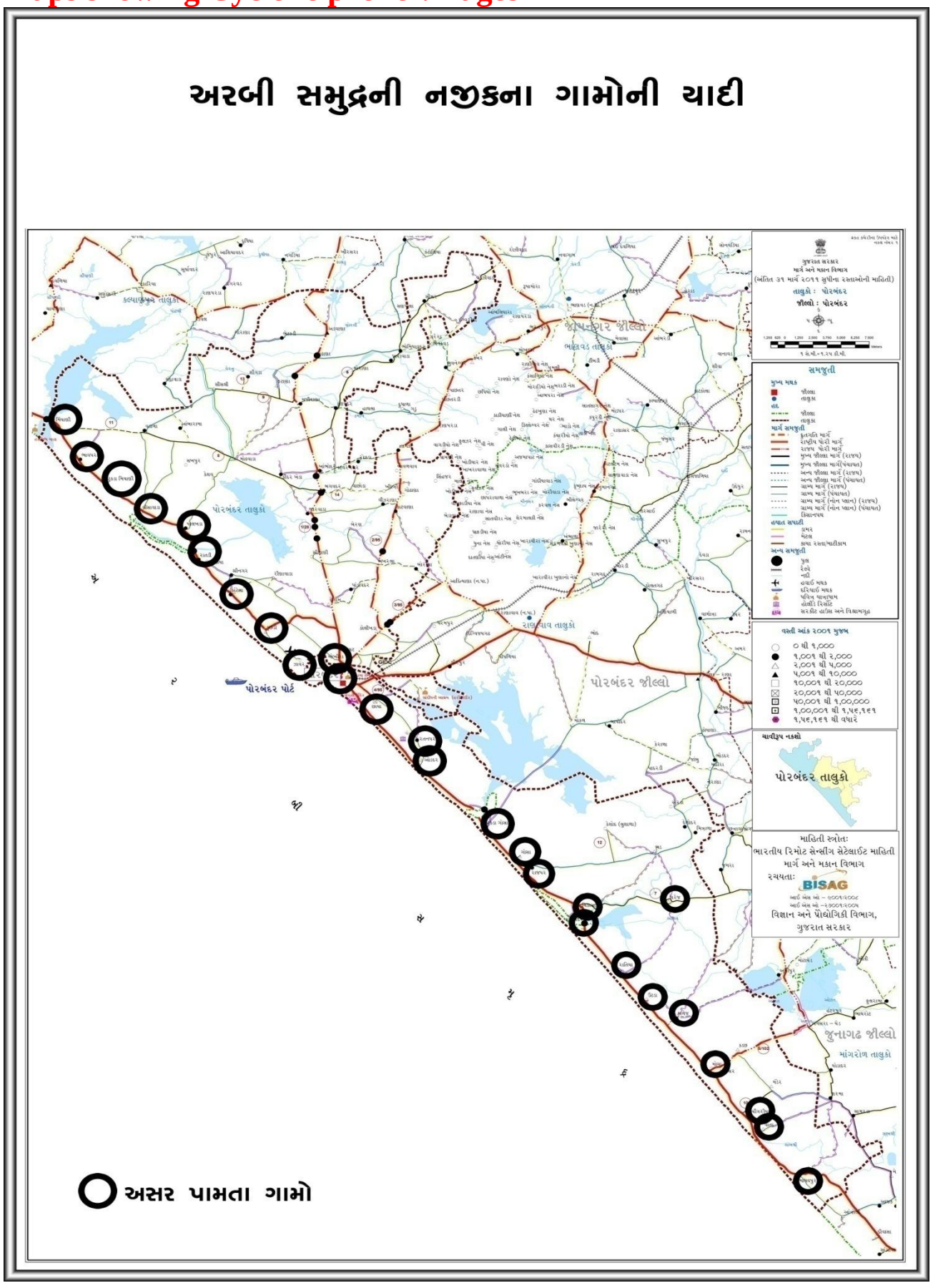
Maps showing Flood prone villages due to Sorthi dam



Maps showing Flood prone villages due to Vartu:- 2 dam



Maps showing Cyclone prone villages



List of Abbreviation

Sr. No	Abbreviation	Full form of Abbreviation
1	AIDS	Acquired Immune Deficiency Syndrome
2	APMC	Agricultural Produce Market Committee
3	AE	Assistant Engineer
4	AH	Animal Husbandry
5	ATI	Administrative Training Institute
6	ATS	Anti Terrorist Squad
7	ATVT	Apno Taluko Vibrant Taluko
8	BPL	Below Poverty Line
9	BRC	Block Resource Centre
10	CBO	Community Based Organization
11	CDHO	Chief District Health Officer
12	CDPO	Child Development Project Officer
13	CHC	Community Health Center
14	CRC	Community Resource Centre
15	CRF	Calamity Relief Fund
16	CSO	Civil Society Organization
17	DCMG	District Crisis Management Group
18	DDMA	District Disaster Management Authority
19	DDMP	District Disaster Management Plan
20	DDO	District Development Officer
21	DEOC	District Emergency Operation Centre
22	DGVCL	Dakshin Gujarat Vij Company Limited
23	DISH	Directorate of Industrial Safety and Health
24	DM	Disaster Management
25	DPO	District Project Officer
26	DRM	Disaster Risk Management
27	DRR	Disaster Risk Reduction
28	DSO	District Supply Officer
29	DSP	Deputy Superintendent of Police
30	Dy. Eng.	Deputy Engineer
31	Dy SP	Deputy Superintendent of Police
32	EMRI	Emergency Management & Research Institute
33	ESR	Elevated Surface Reservoir
34	EWS	Early Warning System
35	Ex. Eng.	Executive Engineer
36	FCI	Food Corporation of India
37	FPS	Fair Price Shop
38	FWP	Food for Work Program
39	GDCR	General Development Control Regulation
40	GEB	Gujarat Electricity Board
41	GIDM	Gujarat Institute of Disaster Management
42	GLR	Ground Level Reservoir
43	GMB	Gujarat Maritime Board
44	GoI	Government of India
45	GPs	Gram Panchayats
46	GSDMA	Gujarat State Disaster Management Authority

47	GWSSB	Gujarat Water Supply and Sewerage Board
48	HFA	Hyogo Framework for Action
49	HHs	Households
50	HPC	High Powered Committee
51	HQ	Head Quarter
52	HRVC	Hazard, Risk, Vulnerability and Capacity
53	IAY	Indira Aawas Yojana
54	IMA	Indian Medical Association
55	ICS	Incident Commander
56	ICS	Incident Command System
57	IDNDR	International Decade for Natural Disaster Reduction
58	IEC	Information Education Communication
59	IMD	Indian Meteorological Department
60	ISDR	International Strategy for Disaster Reduction
61	ISR	Institute for Seismic Research
62	ITI	Industrial Training Institute
63	IWMP	Integrated Watershed Management Program
64	LCMG	Local Crisis Management Group
65	LO	Liaison Officer
66	MAH	Major Accident Hazard
67	MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
68	MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
69	MHA	Ministry of Home Affairs
70	MLA	Member of Legislative Assembly
71	MM	Mili Meter
72	MP	Member of Parliament
73	NAPCC	National Action Plan on Climate Change
74	NCC	National Cadets Corps
76	NCCF	National Calamity Contingency Fund
77	NDM	National Disaster Management
78	NDMA	National Disaster Management Authority
79	NDRF	National Disaster Response Force
80	NDRF	National Disaster Response Force
81	NEC	National Executive Committee
82	NFSM	National Food Security Mission
83	NGO	Non-Government Organization
84	NIDM	National Institute of Disaster Management
85	NRDWP	National Rural Drinking Water Program
86	NRHM	National Rural Health Mission
87	NSS	National Service Scheme
88	NYK	National Yuva Kendra
89	PCPIR	Petroleum Chemical and Petrochemical Special Investment Region
90	PDS	Public Distribution System
91	PHC	Primary Health Center
92	PI	Police Inspector
93	PMGY	Pradhan Mantri Gramodyan Yojna
94	PRIs	Panchayati Raj Institutions
95	R&R	Recovery & Reconstruction
96	R&B	Roads & Buildings
97	RTO	Regional Transport Office

98	SC	Scheduled Caste
99	SDM	Sub District Magistrate
100	SDMA	State Disaster Management Authority
101	SDRF	State Disaster Response Fund
102	SDRN	State Disaster Response Network
103	SE	Superintending Engineer
104	SEOC	State Emergency Operation Centre
105	SFO	Sub Focal Officer
106	SEZ	Special Economic Zone
107	SHGs	Self Help Groups
108	SMC	School Management Committee
109	SMS	Short Message Service
110	SOP	Standard Operating Procedure
111	SRPF	State Reserve Police Force
112	SRT	Special Response Team
113	SSA	Sarva Shiksha Abhiyan
114	ST	Scheduled Tribe
115	S& R	Search and Rescue
116	Supt. Eng.	Superintendent Engineer
117	SWO	Social Welfare Officer
118	TDMA	Taluka Disaster Management Authority
119	TDMC	Taluka Disaster Management Committee
120	TDMP	Taluka Disaster Management Plan
121	TDO	Taluka Development Officer
122	TEOC	Taluka Emergency Operation Centre
123	THO	Taluka Health Officer
124	TNA	Training Needs Assessment
125	TSC	Total Sanitation Campaign
126	TSO	Taluka Supply Officer
127	ULB	Urban Local Body
128	UNDP	United Nations Development Programme
129	UNFCC	United Nations Framework Convention on Climate Change
130	VDMP	Village Disaster Management Plan
131	WASMO	Water and Sanitation Management Organization