

**STATE DISASTER MANAGEMENT PLAN
FOR
NON MAJOR PORTS OF GUJARAT
(PORTS & TRANSPORT DEPARTMENT, GOVERMENT OF GUJARAT)
2017**

**PORTS & TRANSPORT DEPARTMENT
DISASTER MANAGEMENT PLAN
(PORT WING)
GUJARAT MARITIME BOARD**

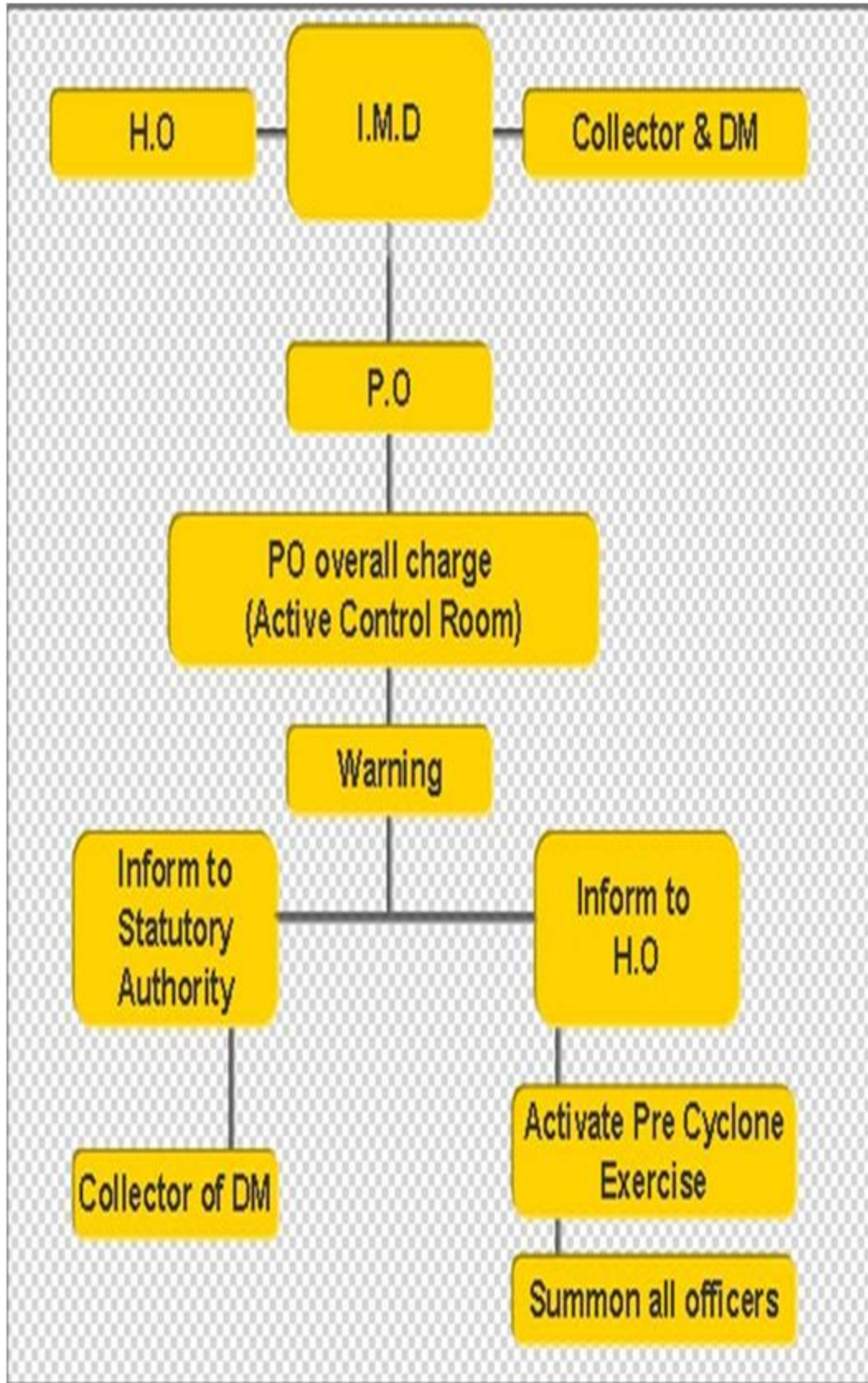
I N D E X

Sr. No.	DESCRIPTION	PAGE NO
1	Legal Framework	2
2	Details of DMP at GMB Ports	4
3	Standard Operating Procedure during disaster	8
4	Communication Information	20
5	Details of GMB ports	22

RULES TO BE FOLLOWED BY GUJARAT PORTS

LEGAL FRAMEWORK

- **DISASTER MANAGEMENT ACT-2005**
- **FACTORIES ACT**
- **DOCK WORKERS (S H & W) REGULATIONS ACT 1986**
- **ENVIRONMENT (PROTECTION) ACT 1986**
- **(Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules (MSIHC) RULES 1986)**
- **CHEMICAL ACCIDENTS (EMERGENCY PLANNING PREPAREDNESS & RESPONSE) RULES 1986**
- **GMB ACT 1982**
- **UNCLOS - UNITED NATIONS CONVENTION ON THE LAW OF THE SEA, 1982**
- **IMO ANTI-PIRACY PROGRAMME (MOSTLY SOFT LAW)**
- **SUA - CONVENTION FOR THE SUPPRESSION OF UNLAWFUL ACTS AGAINST THE SAFE TOF MARITIME NAVIGATION (ROME CONVENTION), 1988**
- **ISPS - INTERNATIONAL SHIP AND PORT FACILITY SECURITY CODE + SOLAS AMENDMENTS, 2002**
- **(SOLAS - INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA,'74)**
- **INDIAN PORTS FOLLOW IMO CONVENTIONS ISPS CODE (INTERNATIONAL SHIP AND PORTABILITY SECURITY CODE) AND SOLAS CH XI-2. ALL MAJOR PORTS ARE ISPS COMPLIANT AND ARE UNDER CENTRAL GOVERNMENT.**
- **I S P S CODE**



DISASTER MANAGEMENT IS A PART OF DEVELOPMENT

WHICH ENSURES SAFE-SECURE DEVELOPMENT

GMB runs "EMERGENCY RESPONSE CENTRE CONTROL ROOM" 24 hours at following ports from 1 May to 30th November of every year

- 1 Gandhinagar**
- 2 Magdalla**
- 3 (Dahej) Bharuch**
- 4 Bhavnagar**
- 5 Alang**
- 6 Jafrabad**
- 7 Veraval**
- 8 Porbandar**
- 9 Bedi (Jamnagar)**
- 10 Navalakhi (Morbi)**
- 11 Okha**
- 12 Mandvi**

ABOVE ALL PORTS ARE CONNECTED BY FOLLOWING COMMUNICATION EQUIPMENT'S

- 1 H F Communication**
- 2 B S N L landline phone**
- 3 FAX**
- 4 Internet**

BACKUP POWER SUPPLY

Sr No.	Name of the Port	Back up available
1	Bhavnagar	01 75 KVA capacity DG set for entire complex 01 additional portable Gen set for control room
2	Alang	01 portable (2.5 KVA) Gen set for control room 40 KVA DG set for office building
3	Jafrabad	01 inverter is provided for entire new office building including control room
4	Veraval	01 portable Gen set is provided for control room
5	Porbandar	01 15 KVA DG set is provided for control room
6	Okha	01 DG set for entire port 01 additional portable Gen set for control room
7	Jamnagar	01 82 KVA capacity DG set is provided for entire office complex including control room
8	Navlakhi	DG set is available at navlakhi Port And one 35 KVA DG set is available at Morbi office
9	Mandvi	01 portable Gen set is provided for control room
10	Surat	260 KVA DG set at fire station, 15 KVA DG set at w/s, 01 inverter in control room (Power is inter connected)
11	Bharuch	01 portable Gen set for control room

**PORTS UNDER GOVERNMENT OF GUJARAT STATE
GROUP WISE**

SR. NO	GROUP OF PORTS	SUB PORTS	DESIGNATION OF HEAD OF PORTS
1	MANDAVI	MUNDRA KOTESHWAR JAKHAU	PORT OFFICER MANDAVI
3	NAVALAKHI	NAVALAKHI	PORT OFFICER NAVALAKHI
4	JAMANAGAR	BEDI PINDHARA SALAYA SIKKA JODIYA	PORT OFFICER JAMANAGAR
5	OKHA	OKHA RUPEN BEYT	PORT OFFICER OKHA
6	PORBANDAR	PORBANDAR	PORT OFFICER PORBANDAR
7	VERAVAL	VERAVAL NAVABANDAR KOTADA MADHAVAD MANGAROL MUL DWARKA	PORT OFFICER VERAVAL
8	JAFRABAD	JAFRABAD VICTOR PIPAVAV MAHUVA RAJAPARA	PORT OFFICER JAFRABAD
9	BHAVNAGAR	BHAVNAGAR GHOGHA TALAJA	PORT OFFICER BHAVNAGAR
10	MAGDALLA	UMERGAON MAROLI VALSAD	PORT OFFICER MAGDALLA

		BILLIMORA ONJAL KOLAK UMERSADI VANSIBORSI	
11	ALANG	ALANG	PORT OFFICER ALANG

Standard Operating Procedures

Following are main disaster to be faced by coast of Gujarat
(Sequence considering occurrence of incident)

- 1 FIRE**
- 2 CYCLONE/ TSUNAMI**
- 3 EARTH QUAKE**
- 4 OIL SPILL**
- 5 SECURITY**

FIRE

There are two places risk of fire

- Shore (shore based infrastructure)
- Sea (ship-fleets)

In the case of offshore fire incident

- 1 Information received from the incident place inform to nearest fire department of GMB-Government
- 2 Evacuation of personals/workers from the place.
- 3 Local-nearest fire extinguisher
- 4 In case of any injury call to 108 emergency service.

Fire Fighting system at Alang Recycling Yard

Alang is fire/accident prone industry and the nature of working in ship recycling involves fire hazards all the time. This is the reason the fire station, Alang, to be ready 24 hours to deal with any calamity.

▪ Centrifugal Pump	1 Nos. Capacity 171 Cum/hrs.
▪ M. S. Pipe Lines	830.33 mtr. 150 mm dia.
▪ Double headed Fire Hydrant	13 Nos.
▪ M.S. Stand Post.	13 Nos.
▪ Hose Box	13 Nos.
▪ Branch Pipe	13 Nos.
▪ Hose Reel 15m.	26 Nos.

CYCLONE

Storm Categories: International established storm categories are as follows:

- * **Category – 1 (Wind Speed 64-83 knots)** Storm surges 4 to 5 feet above normal. Flooded low-lying coastal roads, minor pier damage, some small crafts in exposed anchorage torn from moorings.
- * **Category – 2 (Wind Speed 84-96 knots)** Storm surges 6 to 8 feet. Coastal and low-lying roads leading inland flooded two to four hours before the cyclone eye passes over. Piers damaged small crafts in unprotected anchorage torn from moorings.
- * **Category – 3 (Wind Speed 97-113 knots)** Storm surges 9 to 12 feet. Smaller structures destroyed by coastal flooding, larger structures destroyed by battering waves and floating debris. Low lying roads leading inland flooded three to five hours before the eye passes over.
- * **Category – 4 (Wind Speed 114-135 knots)** Storm surges 13 to 18 feet. Flooding of flat terrain up to 10 feet above sea level as far as six mile inland. Major flooding and wave battering damage to lower floors of structure near shore. Low lying roads leading inland flooded three to five hours before the eye passes over. Major beach erosion.

- * **Category - 5 (Wind Speed above 136- knots)** Storm surges more than 18 feet. Major damage to lower floors of all structure less than 15 feet above sea level within 500 yards of shore.

Stages of Development of a Cyclone:-

(a) Low Pressure Area	Less then < 17 knots.
(b) Depression	17 – 27 knots
(c) Deep Depression	28-33 kts
(c) Cyclonic Storm	34-47 knots.
(d) Sever Cyclone Storm	48-63 kts
(e) Very Sever Cyclone Storm	64-119 kts
(f) Super Cyclone Storm	120 kts and above

Web Sites watched for monitoring of cyclone

- 1 www.imd.gov.in
- 2 www.imdahm.gov.in
- 3 <http://www.solar.ifa.hawaii.edu/Tropical/tropical.html>
- 4 <http://cimss.ssec.wisc.edu/tropic2/>

**CYCLONE WARNING RECEIVED FROM
INDIAN METEOROLOGICAL DEPARTMENT
DIRECTLY BY ALL PORT OFFICERS & HEAD OFFICE ERC CONTROL ROOM
ACTION TO BE TAKEN BY PORT OFFICERS**

In case of cyclone

- HOIST SIGNAL
- SIREN-ALARM
- STOP WORKING
- INFORM ALL WORKERS/PORT USERS
- ACTIVATE

- SECURE FLOTILLA
- SAVE CARGO
- COMMUNICATION
- ALL VEHICLES IN OPERATION
- STANDBY POWER SUPPLY








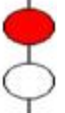








- CANCEL LEAVE
- READINESS INVENTORY







SOP FOR CYCLONE

- 1 HOISTING OF SIGNAL AT PORTS**
- 2 INFORM ALL PORT USERS**
- 3 STOPPING CARGO HANDLING**
- 4 MAKE SAFE STORED CARGO**
- 5 MAKE SAFE ALL GMB FLOTILLA UNIT**
- 6 EVACUATE PORT USERS/GMB STAFF**
- 7 ACTIVATE RESCUE OPERATION TEAM**
- 8 MONITORING SHIP MOVEMENT**



Information of warning Signals for cyclone

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

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

Standard Operating Procedures for EARTH QUAKE

1. **INFORMATION RECEIVED FROM IMD OR GOVERNMENT TO CNO, GMB**
2. **AVAILABLE COMMUNICATION IS USED FOR IMMEDIATE CONVERSATION (EXCHANGE OF INFORMATION)**

Standard Operating Procedures for FLOOD

Mainly there are two ports are having threat of FLOOD DISASTER

- A. **MAGDALLA (SURAT)**
- B. **DAHEJ (BHARUCH)**

- 1 **MONITORING DAM WATER LEVEL**
- 2 **MONITORING RAIN FALL DATA AT CATCHMENT AREA**
- 3 **MONITORING SHIPPING MOVEMENT AT PORT NEAR MOUTH OF RIVER**
- 4 **ARRANGING RESCUE OPERATION**
- 5 **ARRANGMENT OF BOATS**
- 6 **ARRANGMENT OF LSA**

GENERAL TERMINOLOGY USED IN WEATHER BULLETINS

Sr.No	Intensity of Rainfall	in 24 hours	terminology used
1	0.1 mm to 2.4 mm	Do	very light rain
2	2.5 mm to 7.5 mm	Do	light rain
3	7.6 mm to 34.9 mm	Do	Light to moderate rain
4	35.0 mm to 64.9 mm	Do	Moderate rain
5	65.0 mm to 124.0 mm	Do	Heavy rain
7	Exceeding 125 mm		Very Heavy rain

Emergency Situation for flood

TABLE FOR FLOOD WARNING & DANGER LEVELS OF TAPI RIVER MAGDALLA

Sr. No.	Name of Station	Danger Level		Warning Level	
		Mtr.	Ft.	Mtr.	Ft.
1	Ukai Dam	105.15	345.00	103.32	339.00
2	Kakrapar Dam	53.66	176.05	53.15	174.33
3	Nehru Bridge, Surat	9.50	31.16	8.50	27.88

- When water level is raising above the danger level
- When intensity of rainfall is above 65 mm/hr
- When breaches are anticipated which may cause disaster
- When water levels are rising abruptly which may cause disaster

WEBSITE FOR DAM LEVEL INFORMATION

- <http://guj-nwrws.gujarat.gov.in/showpage.aspx?contentid=1>

Chief incident controller

Vice Chairman & Chief Executive Officer

Gujarat Maritime Board,

Sector No. 10-A, Gandhinagar

Phone No. 079-23238363 Fax No. 079-23234704

Security at Gujarat Ports

Gujarat has taken strong steps in order to strengthen the coastal and internal security of the nation. Effective coastal patrolling would require dotting of the coast line with series of coastal police stations equipped with better and modern facilities, adequate office and residential facilities and motivated and trained manpower to provide effective policing and intelligence set up.

Coastal Border Security

Tracking & Warning System:

- To track and monitor the movement of Indian Fisherman, GoG have decided to establish satellite based system 'Tracking and Warning system' on about 12000 fishing boats at the cost of Rs. 95 crores, so that fisherman could be tracked and warned while crossing the IBML and could be given warning messages during any natural calamity like Tsunami, cyclone etc. Moreover, fisherman can also send distress signals.

Vessel Traffic & Monitoring System:

- Government of Gujarat, KPT and Government of India have already implemented VTMS in Gulf of Kutch from the February 2012.
- Government of Gujarat has already implemented VTMS in the Gulf of Khambhat by Aatash Nor Control Ltd. on BOOT basis and is already operational since August 15, 2010.
- The ports in the Gulf of Khambhat are benefiting from enhanced security measures through VTMS, such as protection of vessels carrying hazardous cargo, providing vessel traffic information and navigation advice, monitoring of shipping lanes and separation scheme to enforce compliance of safe navigation regulations, assistance to coast guard & other authorities, detection of oil spill and improve overall port efficiency.
- The VTMS is expected to put Gujarat coast in line with international practice, as VTMS is prevalent in locations such as Europe, Suez Gulf, etc.

Deployment of Patrolling Boats:

- Patrolling is being carried out on ports of GMB

ISPS Compliance:

- For the compliance of ISPS code, various measures are being taken in improving maritime security and safety with the help of technology and IT.
- The long term goals have been determined for the security of coastline and ports, includes patrolling boats for coastal security, metal detectors, radars, illumination facilities, CCTVs/Camera.

Marine Police stations:

- Under the coastal security scheme initiated by GoI, Out of total 73 proposed marine police station (all maritime states), 10 are operational in Gujarat at GMB ports – Porbandar, Pipavav, Somnath, Bhavnagar, Hazira, Jakhau, Mundra, Vadinar and Okha.
- Government of Gujarat has allotted land for developing Marine Police stations at a token money of Rs. 1 per sq.m.

Land Border Security

- Gujarat houses many industrial complexes which can be termed as National Assets.
- To strengthen and to provide support for the security needs of these vital national assets, the Government of Gujarat has taken key initiatives to have integrated and holistic approach in capacity building and strengthening of law enforcement agencies.
- Other initiatives in uplifting the security of the nation: Modernization of police forces, strengthening of crime control machinery, strengthening of counter terrorism capabilities, border management, strengthening of Intelligence setup and disaster management.

Following activities have been earmarked by the Government of Gujarat to ensure increased border security and fill the loopholes:

- Specialised Training Institute for border and coastal security.
- Rising of battalion of Marine Wing in State Reserve Police.

- Constructing Coastal Police Stations.
- Modern Systems for Communications and Surveillance.
- Construction of road stretch of Gadhuli-Hajipir-Khavda-Santalpur.

Development/Improvement of roads along Kutch, Banaskantha and Patan districts

Oil Spill

As per the requirements of National Oil Spill –Disaster Contingency Plan, every port has to have in place its own oil spill response mechanism to combat an oil spill of Tier-1 magnitude. In this context, GMB requested National Institute of Oceanography, Goa, to carry out Risk Assessment Study of Marine oil spills for existing & proposed extension of Port facilities at Okha, Bedi, Navlakhi, Mandvi, Porbandar, Veraval, Jafrabad, Alang, Bhavnagar, Dahej and at Magdalla located in the Gulf of Kuchchh, Gulf of Khambhat and along the Saurashtra coast. GMB proposes to arrange the oil spill response equipment at each of these locations after approval of local oil spill contingency plan from Coast Guard as per National Oil Spill –Disaster Contingency Plan 2015 directives.

**THE DETAILS OF COMMUNICATION INFORMATION OF
GUJARAT MARITIME BOARD
EMERGENCY RESPONSE CENTRE CONTROL ROOM
(DT. 03/06/2017)**

Sr. No	NAME	STD CODE	TELEPHONE NUMBER	FAX NUMBER	Mobile No
1	Shri Ajay Bhadoo, IAS Vice Chairman & Chief Executive Officer Gujarat Maritime Board Gandhinagar	079	23238363	23234703	-
2	Capt. Ashvin Solanki Nautical Surveyor Gujarat Maritime Board Gandhinagar	079	23234716	23234716	99796 69659
3	HEAD OFFICE CONTROL ROOM GANDHINAGAR	079	23224758	23236499	-
4	HEAD OFFICE GENERAL PHONE GANDHINAGAR	079	23238346- 48-51	23234703-4-5	-
5	Ashvin Gadhvi I/c Control Room Gujarat Maritime Board Gandhinagar	079	23224758	23236499	9727771984
6	PORT & TRANSPORT, SACHIVALAYA, GANDHINAGAR	079	23250508	23250589	
7	MAGDALLA (HAZIRA) VTMS	0261	6586788	2977007	99099 03748
8	MAGDALLA PORT OFFICER ((Capt.R.K.Raman)	0261	2430533	2435645	99251 53038
9	BHARUCH PORT OFFICER (Capt.Kuldeep Singh)	02642	241772	243140	99980 57507
10	BHAVNAGAR Port Officer (Capt.Sudhir Chhadha)	0278	2210558	2211026	99251 53073

11	ALANG.PORT OFFICER (Capt.Sudhir Chhadha)	02842	235621	235955	99251 53073
12	JAFRABAD PORT OFFICER (Capt.Sudhir Chhadha)	02794	245443	245165	99251 53073
13	VERAVAL, PORT OFFICER (Capt. Banshiva Ladva)	02876	221139	221073 220001	96381 12186
14	PORBANDAR ,PORT OFFICER (Capt. Banshiva Ladva)	0286	2242404	2244013 2253664	96381 12186
15	JAMNAGAR, PORT OFFICER (Capt. Arvind kumar Mishra)	0288	2712307	2712815	90996 94747
16	OKHA PORT OFFICER (Capt.Rakesh Mishra)	02892	262109	262002	96012 54062
17	NAVALAKHI (MORBI) PORT OFFICER (Capt.A.B.Solanki)	02829	227304	234465	99796 69659
18	MANDVI ,PORT OFFICER (Shri R C Patel)	02834	222633/ 223033	230033	99251 53083
20	STATE CONTROL ROOM	079	23251900- 11	23251916	
21	I.M.D. AHMEDABAD	079	22865012- 22867206	22867206 22865449	
22	Director, IMD Ahmedahad	079	22865165 22867657	22865449	
23	(1) CEO, G S D M A 2) Director, GSDMA	079 079	232 59302 232 59303	23259275 23259275	
24	Commissioner of Fisheries	079	23253742	23253730	

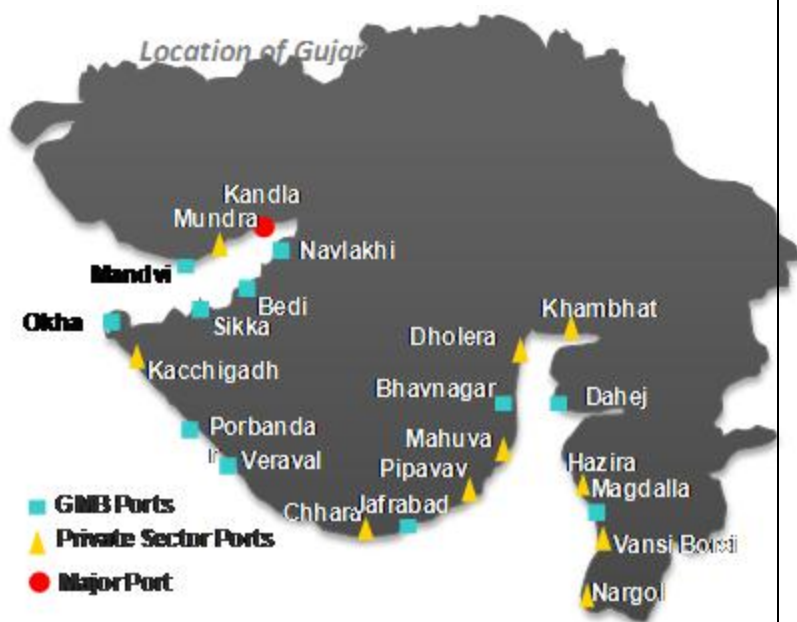
25	Control room (Fisheries)	079	23253730 23253740	23253730	
----	---------------------------------	------------	------------------------------------	-----------------	--

PROFILE OF GUJARAT PORTS UNDER STATE GOVERNMENT
Gujarat Maritime Board

Ports – Present and Future Scenario

A. Gujarat Port Sector

Gujarat is strategically located with India's longest coastline of 1600 km and is the nearest maritime outlet to Middle East, Africa and Europe. The state has 42 ports which include 1 major port and 41 non-major ports. The state has the highest number of operational ports and commercial cargo ports. The state ranks first in cargo throughput amongst all Indian states.



Gujarat's non-major ports handled 346 million tons of traffic during 2016-17; highest in comparison to any other maritime state in the country

Overall status of Gujarat Ports

- 1 Gujarat state is having 42 ports – includes 1 major port and 41 non-major ports.
- 2 Private Ports = 5
- 3 Captive jetties = 31
- 4 Private jetties = 10

- 5 The coast line consists refinery based captive jetty, LNG terminal, Chemical ports, biggest ship recycling yard private container port, and upcoming ship building yard etc.
- 6 Hinterland area North West is depending on Gujarat for their petroleum products.

The Disaster Management Plan is prepared for the Safe & Secured business of all organization. Gujarat state with 1600 km coast is trying to capitalize on the strategic advantages of the Gujarat Coastline and develop it as a foremost hub with diverse port led development.

To boost development of Gujarat and provide assessment to North West hinterland it is essential to provide security against natural & manmade disaster.

The mitigation of any disaster = Secured life+ Infrastructure

A major component of International trade traffic is oil/gas (ENERGY SECTOR), bulk chemicals (pharmaceutical, industrial) and construction materials is through Gujarat Coast because of its superior infrastructure in terms of harbor, ports, jetties and oil/gas pipeline. There are nineteen active ports and jetties, several refineries and oil installation and large number of chemical industries. At the same time, Gujarat coast is in the most severe seismic Zone (Zone-V) of India.

B. Existing Maritime Infrastructure

GMB operated Ports

Group of ports	Commodity Handled
Jamnagar group of ports	Bulk cargo - Fertilizer, Rock Phosphate, Coal, Corn, Soya Meal, Crude/POL Soyabean Oil, Refined Vegetable Oil, Rock Salt, Pig Iron, Cement, Clinker.
Magdalla (Surat) group of ports	Iron Ore, Scrap. Lime Stone, Sheets, Chemicals and Petroleum products
Porbandar	Coal, LPG, Wet Dates, Salt, Cement/Clinker, Clay, Bauxite, Onion, Raw Cotton, Soda Ash and Marine Products.
Navlakhi	Coal, Coke
Bhavnagar group of ports	Rock Phosphate, Coal and Coke, Fertilizer, Iron Scrap and Sulphur, Wood, Timber, Oil Cakes, Salt, Scrap, Onions, Clay and rape seeds

Group of ports	Commodity Handled
Okha group of ports	Coke, Coal, Wheat, Sulphur, Fertilizer, Calcium Bauxite, Onion, Clinker, Raw Bauxite, Chemicals, Soda Ash
Veraval group of ports	Fishing activities and small quantity of Soda Ash, Food Grain and Coal
Mandvi group of ports	Fertilizers, Clinker, Building materials, Clay, Bentonite, Cotton Seeds, Salt, Oil Seeds, General Cargo, Powder, Fresh Fruits, Onions, Mica, Animal feed, Potatoes, Dry grass, Roofing tiles, Wheat bran, Fenugreek, Hydrochloric Acid, Deep Type
Jaffrabad group of ports	Coal, Coke, Clinker, Salt, Fertilizer, Iron ore, Machinery, Steel plates & Pipes
Bharuch group of ports	Fertilizer, Rock Phosphate, Coal, Coke, Salt, Caustic Soda, Copper slag, Ethylene, LAB, Naphta, Sulphuric acid, Copper, CPS, EDC, Ethyl Hexanol, LNG, Methanol, Propylene

Private ports

Company Name	Cargo Type
Gujarat Pipavav Port Ltd.	Bulk cargo, Container cargo
Mundra Port & SEZ Ltd.	Bulk Cargo, Container Cargo
Gujarat Chemical Port Terminal Company Ltd. (GCPTCL)	Liquid cargo
Petronet LNG Ltd	LNG
Hazira Port Pvt Ltd.	LNG

Captive Jetties

Jetties Name	Cargo Type & Characteristics
Reliance Industries Ltd. Hazira	Deep water, all weather direct-berthing multi cargo port
Essar Group, 2 no.s of jetty at Hazira	All-weather tidal lighterage Port
L & T, Hazira	Deep water, all weather direct-berthing multi cargo port
Essar Group, 1 no.s of jetty at Hazira	Direct berthing
Reliance Industries Ltd. Sikka	All-weather tidal lighterage Port. All-weather petroleum terminal
Gujarat State Fertilizers and Chemicals Ltd. at Sikka	Jetty handles only liquid cargo and overhead pipelines for ammonia and phosphoric acid

Jetties Name	Cargo Type & Characteristics
Shree Digvijay Cement Co. Ltd., Sikka	All-weather tidal lighterage Port
Dahej Harbour and Infrastructure Ltd., Dahej	Commodities handed are copper concentrate, coal, rock phosphate, liquid ammonia, phosphoric acid
Reliance Industries Ltd. 2 no.s SBM, Sikka	Import of Crude
Gujarat Ambuja Cement Ltd., Muldwarka (Old & New jetty)	Import of raw material and export of finished product of cement and clinker
UltraTech Cement Ltd., Kovaya	coal, gypsum, iron-ore
Sanghi Industries Ltd., Jakhau	Cement and Clinker. All-weather direct berthing captive jetty dedicated to ocean-going vessels
Reliance Industries Ltd. 3,4,5 no.s SBM, Sikka	1 no.s of SBM for Import of Crude/ 2 no.s of SBM for export of liquid product
Gujarat Ambuja Cement Ltd., Magdalla	Import of raw material and export of finished product of cement and clinker
BORL SBM at Sikka	Import of Crude
IPCL Reliance at Dahej	All-weather tidal lighterage Port, Liquid cargo
Reliance Lo-Lo & Ro-Ro jetty at Sikka	Project cargo
Reliance Product jetty at Sikka	Export of finished product
Reliance at Hazira, Ethylene	All-weather tidal lighterage Port
Reliance at Hazira, EDC	All-weather tidal lighterage Port
Reliance at Hazira, 2 Gas jetty	All-weather tidal lighterage Port
Essar Four tanker berth, Essar LPG & Essar Steel first expansion	All-weather tidal lighterage Port
J.P associate, Kutch	All-weather tidal lighterage Port

Private Jetties

Jetties Name	Cargo Type & Characteristics
J.M. Baxi and Co. Rozi Pier, Bedi	The jetty is fully equipped with conveyors, hoppers and bagging plants ideally suited for loading and unloading bulk cargoes

Jetties Name	Cargo Type & Characteristics
Ruchi Infrastructure Ltd. Rozi Pier, Bedi	Cargo handled - export and import consignment of fertilizer, GN extraction, maize, wet dates, rapeseed meal
Shreeji Shipping, Navlakhi private	All-weather tidal lighterage Port. Commodity handled is coal
Saurashtra Cement Ltd., Porbandar	Import of raw material and export of finished product of cement and clinker
United Shippers Ltd., Navlakhi	All-weather tidal lighterage Port
Shakti Clearing Agency Pvt. Ltd. Naya Bunder, Rozi	All-weather tidal lighterage Port
Goodearth Maritime Ltd., Jakhau	On an average, 10,000 tonnes/day of cargo can be handled. Cargo handled is Salt and other consumer items.
Shantilal Multi Port infrastructure Ltd. at Bedi	All-weather tidal lighterage Port
Welspun at Dahej	All-weather tidal lighterage Port
Jaydeep Associates , Navlakhi	Coal
Kribhco, Magdalla	Fertilizer

Safety Arrangements at Ports

GMB ports where foreign cargo is being handled are provided with safety arrangements under “International Ship and Port Security (ISPS) Code” as a part of implementation of ISPS Code regular patrolling is being done in sea and coastal area at the important ports viz. Bedi, Porbander, Okha, through “High Speed Petrol Boat” engaged on contract basis. Safety arrangement at all the important state ports is assigned to “Gujarat Industrial Security Force” - an undertaking of Gujarat State.

The state coastline is adjacent to international boundary and therefore is sensitive. Government has decided to establish “Marine Police Stations” at the prescribed locations along the coastline for intensive patrolling and safety measures. In this regard, Marine Police Stations are to be established on the coastal area of Nava Bandar (Near Veraval), Porbander, Bhavnagar, Navlakhi and Okha in the GMB land. Land for the same has already been handed over.

Magdalla Port

LOCATION :

Latitude : 21° 08' 20 " N

Longitude : 72° 44' 08" E

Magdalla is a lighterage port. The port is situated on the western coast of India in Southern Gujarat, on the southern bank of river Tapti about 16 kms upstream the river.

Road & Rail Network:

- The state highway is 2 kms away from the Magdalla Port
- The NH 8 is 15 km away from the Magdalla Port.
- The nearest Railway BG line is 15 kms away from the Magdalla Port(Sachin Yard)
- The Surat railway station is 16 kms away from Magdalla Port.

Anchorage:

The Deep Water Anchorage is 15 Nautical Miles southwest from Magdalla Port.

Marine Features:

MHWS	-	8.40 m
MHWN	-	7.40 m
MLWS	-	1.70 m
MLWN	-	0.70 m
MSL	-	4.50 m

FACILITIES / EQUIPMENT:

- **V.T.P.M.S.**

The only Minor Port in the country to have developed its own Vessel Traffic and Port Management System for safe navigation in the long Navigational channel of River Tapi.

VTPMS station is round the clock manned by qualified Master Mariners and provided with :-

- Radar System
- A.I.S.
- Weather Station
- V.H.F.
- H.F. Sets.
- Telephone/Fax
- Computers and Electronic Charts.

- **VTMS System:**

Recently Gujarat Maritime Board has established VTMS system at Gulf of Khambhat for monitor Ships/Vessels in VTS area which covered the area from Jafarabad to Khambhat. This VTMS system is operated by knowledgeable person to supervise the activity of ships/vessels at Head office, Gandhinagar as well as Hazira (Surat).An operator of VTMS system can communicate with all the ships which are plying in VTS area. The operator can also communicate with all the ports like Jafarabad, Pipavav, Mahuva, Bhavnagar, Dahej, Hajira and Magdalla through this VHF Network.

VTMS system is also equipped with meteorological and hydrological sensors. In other words, it can provide live and real-time weather data. The knowledge of current weather condition is very important when we deal with emergency situation.

VTMS system is also equipped with the past record and reporting system. It can give Ship movement report, Cargo movement report, Port-wise report and Jetty owner's-wise report up to the current date and time.

VTMS system in Gulf of Kutch is also operational recently and M/S MCC, Kandla monitors the Ships/Vessels in VTS area of Gulf of Kutch. VTMS

system in Gulf of Kutch covered Mandvi, Mundra, Navlakhi, Kandla, Jamnagar, Sikka and Okha Port.

- **FIRE FIGHTING SYSTEM AT MAGDALLA PORT:**

- Fire Pump 1 Nos. Capacity 1800 LPM
- Fire Tender 1 Nos. Capacity 3200 LPM

- Fire fighting network System:
 - a. Centrifugal Pump 1 Nos. Capacity 171 Cum/hrs.
 - b. M. S. Pipe Lines 830.33 mtr. 150 mm dia.
 - c. Double headed Fire Hydrant 13 Nos.
 - d. M.S. Stand Post. 13 Nos.
 - e. Hose Box 13 Nos.
 - d. Branch Pipe 13 Nos.
 - e. Hose Reel 15m. 26 Nos.

- Floating Units :

G.B.Tug (Twin Screw) 470 BHP
Work Barge (Dumb) 100 MT

- Open Plots : 6 nos. with an area of 29644 sqm.
- Crane Tata-320 Crawler Mounted Crane - 18.5 MT capacity and boom length 40 feet.

Weighbridge: One private weighbridge within port premises near entrance gate.

Harbour Structures:

GMB jetties

- GMB RCC Jetty No.1 (GMB Jetty at Magdalla Port)

- GMB RCC Jetty No.2 (Jetty leased to NCCL at Magdalla Port)

Captive jetties

- KRIBHCO
- Essar Steel Limited
- Essar Sponge Iron Jetty
- Reliance Industries Limited
- Larson & Toubro Ltd.
- Gujarat Ambuja Cement Ltd.
- Single Buoy Mooring of Reliance Industries Ltd.

Private Shipyards

- ABG Shipyard Ltd.
- L & T Shipyard

Private Ports

- Hazira Port Pvt. Ltd.

8.0 Communication network available at each station-operator:

8.1 V.H.F. Channel maintained by Captive Jetties/Gujarat Maritime Board for communications:

(a) Gujarat Maritime Board, Magdalla Port, Surat	Channel -16
(b) V.T.M.S., GMB, Magdalla Port	Channel - 16, 09
(c) M/s. Reliance Industries Ltd, Hazira	Channel - 67
(d) M/s. Essar Steel Ltd., Hazira	Channel - 71
(e) M/s. Gujarat Ambuja Cement Co. Ltd., Magdalla	Channel - 15
(f) M/s. Cairn Energy India Pty. Ltd., Suvali	Channel - 16
(g) M/s. Global Marine Services, Surat	Channel - 16
(h) M/s. A.B.G. Shipyard Ltd., Magdalla	Channel - 71
(i) M/s. Larsen & Toubro Ltd.(ECC)/ Hazira	Channel - 16

Contact information

Port Officer
Gujarat Maritime Board

Near Takeoff hotel
Makaipool
Surat
Phone No. 0261-2474825
Fax No 0261-2475645

Dahej Port

Location:-

Latitude : 21° 40' N
Longitude: 72° 32' E

Dahej is a fair-weather lighterage port, situated at the junction of Guljaria and ban creek in Gujarat, on the West Coast of India.

Road & Rail Network:-

Dahej is connected to Bharuch (distance 45Kms) and Vadodara (108 Kms) by four lane road. The nearest railway station is at Bharuch by broad gauge line.

Communication with Steamers:-

At High Sea: Via Mumbai Shore Radio.

Anchorage:-

Anchorage is 5Kms. Away from Dahej Old Port.

Marine Features

MHWS	-	8.79m
MHWN	-	7.01m
MLWS	-	1.39m
MLWN	-	3.17m
MSL	-	5.09m

Facilities/Equipment:-

- Tugs, launches, barges & cranes, which is generally available from the private parties at Old Dahej Port. The captive jetties are fitted with cargo handling equipment.
- Transit Sheds/Godowns:-
 - Transit Godown - 1No. 1116 Sqm
 - Transit sheds - 4No. 1690 Sqm
 - Platform for storage - 5No. 10000 Sqm
 - 2No. 21300 Sqm (kutcha)

Old port

The old GMB jetty of 100 m length which is currently not used for shipping.

Supplies

Water is supplied to ships by private water barges. The port is supplied with electricity from the 66 KVA station of GEB, Dahej.

Monsoon Period

15 May to 14 September.

Captive & Private Jetties at Dahej (Port based)

- Dahej Harbour Infrastructure Limited. (Birla Copper)
- Gujarat Chemical Port Terminal Company Limited. (GCPTCL)
- Petronet LNG
- Reliance Industries Limited (IPCL)
- Petronet Adani
- ABG Shipyard Limited
- Ro-Ro Terminal and Port Development.

The area is already developed by industries like Petronet LNG, IPCL, GCPTCL, DHIL, Welspun. All these industries are port-based industries. There is planning for SEZ development also.

Contact detail:-

Port officer,
Gujarat Maritime Board,
Near Hotel Plaza,
Station Road,
Bharuch, -392001
Tel: 02642-241772/220377
Fax:-02642-243140

Bhavnagar Port

LOCATION:

Latitude : 21° 45' N
Longitude : 72° 14' E

Bhavnagar port is an all-weather direct berthing port for smaller vessels. It has a draught of up to 4 m and is located in the Gulf of Cambay on the West Coast of India. The port is having a Lock gate for tidal advantage.

Road & Rail Network

The port is well connected with the State Highway and B G railway line. The city of Bhavnagar is about 10 kms from the new port. Daily air services are available between Bhavnagar and Mumbai. Nearest international airport is Ahmadabad.

Communication with Steamers

Station operated by the Port Authority on call sign VUJ 9 during following time (GMT)

0200 - 0700 hrs.

0800 - 1300 hrs.

1400 - 1800 hrs.

The station to be called on 500 kcs and work in 418 kcs. The equipment is with 100 w RF Power.

Charts

Admiralty :1035 Piram Island to Bhavnagar

Indian Naval Hydrographic :2039.

Note : The Gulf of Cambay is covered under Deca Navigator System-Bombay Chain (7-8).

Anchorage

Vessels up to 12 m draught are recommended at DWA anchorage.

Position: 5.1' x 250 (T) from Gogha to Lighthouse.

The holding ground, stiff mud and sand is good, while at anchor at DWA, due care must be exercised, especially during spring tide.

Pilotage

Pilotage is compulsory. Due notice for requisition of pilot must be given 48 hours in advance, owing to tidal conditions and the vessel should arrive at the Pilot Station approximately two hours before high water.

If the vessel is unable to arrive at the Pilot Station, two hours before high water, she should cruise around and await for instructions from the Port Authority on VHF Radio. The VHF has been installed at Port and Port Wireless Station on an experimental basis. Call is on channel - 16 during the day.

Marine Features

MHWS - 12.04 m

MHWS - 10.18 m

MLWS - 8.31 m

MLWS - 3.52 m

MSL - 3.04 m

Facilities / Equipments :

Port has 03 tugs for pilotage/shipping operation. 01 No. Patrol boat for patrolling of Bhavnagar-Alang section under ISPS code. Electrification in the port area has been completed. Five high-mast towers have been installed at the port and for emergency power supply; 75 KVA DG set is also available.

The port has a dry dock for repair of tugs, launches and barges. The port has two workshops-general workshop and running workshop. Flotilla units can be repaired at both these workshops. The general workshop is used to carry out repairs on flotilla units and mechanical instruments. The running workshop takes care of the day-to-day repairs and maintenance requirements. Both workshops have different sizes of lathe machines, drilling machines and shaping machines. Electric and gas welding facilities, a cutting machine, foundry shop, etc. are also available at the workshops.

All the godowns at the port have been repaired and are available for use. Internal roads of the port are being paved. Recently, the port has also been connected with a broad gauge railway line for which GMB has requested the Railways to continue the line as per the cargo guarantee action plan to be submitted by the trade and the chambers of commerce.

Dry Dock	:	1 no.
Tugs	:	2 nos.
Barges	:	1 each of 250 tonnes
Water Barges	:	1no of 600 tonnes

Supplies

Fresh Water: Alongside by water pipeline. In stream by barge.

Harbour Structures

The concrete jetty is 270 m in length and 12.8 m in width. There is no swell or current of any kind. High tide at concrete jetty is 22 minutes earlier than the time given in tide table for Bhavnagar.

Vessels that are to berth alongside the concrete jetty must pass through the Lock Gate. Vessels up to 19.8 m width and 143.8 m in length can pass through the gate, but permissible draught is only 4 m.

The North quay on the North of the basin is 141 m long and has adequate backup and storage area.

Commodities Handled

IMPORT:

Rock Phosphate, Coal and Coke, Fertilizer, Iron Scrap and Sulphur, Wood, Timber.

EXPORT:

Oil Cakes, Salt, Scrap, Onions, Clay and rape seeds.

Monsoon Period

May 15 to September 14.

Contact detail:

The Port Officer,

Gujarat Maritime Board,

New Port, Bhavnagar - 364005.

Tel: 0278-2210221/2210558 & Fax: 0278-2211026

ALANG SHIP RECYCLING YARD

1. Started in the year 1982-83 with 5 ships and 0.24lakh LDT. In the year 2011-12, highest 415 ships and 3.85 MLDT handled.
2. Blessed with high tidal range, Long beach with gentle slope and firm ground facilitating beaching of ships just at the threshold of the plot.
3. 153 plots developed on 10 km. long coast.
4. Serves the society by offering employment opportunity to people (direct: @ 15,000 and Indirect: @ 5 lakh people) with net positives environmental impacts.

Total Plot Area of Yard - 3,98,803 sqm.

- 5 About 50 KM from District head quarter –Bhavnagar on Bhavnagar-Veraval National Highway (8E)
- 2 Reference to Admiralty Chart: 208/1486 approx.
long :2123
latt. :7211
- 3 Port Limit: Covered under extended port limit of Talaja Port as per Govt. of Gujarat Ports & Fisheries Dept Notification Dated 08/09/1995
- 4 Road Connection: Linked to Bhavnagar-Veraval Coastel Highway by a two lane all weather asphalt road via Trapaj (about 10 KM) and also via Sanodar – Kukad (about 23 KM)
- 5 Nearest Air Port : Bhavnagar (about 55 KM)
- 6 Communication : Linked STD 02842
Cellular Phone
VHF / HF in case when control room is in operation.
- 7 Tidal information : MHWS 7.80 M.
MHWN 6.30 M.
MLWN 3.00 M.
MLWS 1.60 M.
MSL 4.70 M.
- 8 Plots : 153 Nos. (Out of this 131 Operational)
- 9 Infrastructural facilities & services : Service road (10 KMS) Weight bridges, Red Cross Hospital, Police station, Post Office, Bank, Telephone Exchange, firefighting services, water supply, Street lights, community sanitation, Mobile Hospital & Ambulance (GSBA), Light House (Govt. of India), Training & Welfare institute for labour ,Weather station at GMB Complex, Helipad at Training Complex, Alang –maintained by R. & B. Department.
- 10 Contact Details
Port Officer, Gujarat maritime Board
Po-Alang, Taluka Talaja

Dist. Bhavnagar
Phone No. 02842-235621
Fax No. 235955

Jafrabad Port

LOCATION

Latitude : 20° 51' 56"N

Longitude : 71 ° 21' 50" E

Alang is the largest ship recycling yard in the Jafrabad is an all-weather direct berthing port for small ocean-going vessels. It is situated in the Gulf of Cambay on the south-west coast of Saurashtra, inside the Jafrabad Creek on the West Coast of India.

Road and Rail network

Jafrabad is connected by NH 8E at 20 kms . The broad gauge railway line is available at Rajula which is 22 kms away from the port. Nearest airport is at Diu, which is 75 kms, away from Jafrabad.

Communication with Steamers

There is a VHF set installed in the Port having 20 to 25 mile range. Channel no. 16 is open during office hours (1030 hrs. to 1830 hrs.) on working days.

Charts

Admiralty : 1979

Indian Naval

Hydrographic : 2034

Anchorage

A good anchorage in fine weather may be obtained at a distance of 2.5 kms from shore, at a draft of 14 m.

Pilotage

Not necessary as small vessels berth directly at the new clinker jetty. However, local guides are provided on request.

Marine Features

MHWS - 2.88 m

MHWN - 2.20 m

MLWS - 1.50 m

MLWN - 0.90 m

Navigational Aids

There are three navigation towers situated at the Port. Two towers are situated at Piplikantha on northern bank for smooth berthing on the clinker jetty. The front tower has a fixed red light, while the rear tower has a fixed white light. One tower, with a fixed red light, is situated on the western bank at the breakwater end.

Port Infrastructure and Facilities:

- Berthing facilities:

- i) New Clinker Jetty for small coastal steamers, with a working length of 211 m. and 4 m. draft. Small coastal steamers berth at the new clinker jetty for export of Clinker and jetty for export of Coal and Coke on account of M/s Narmada Cement Co. Ltd., Jafrabad
(Subsidiary of M/s Ultra Tech Cement Co. Ltd.)
- ii) RCC Jetty for sailing vessels traffic, with a length of 45 m and a draft of 1 m.
- iii) One fish-loading wharf for fishing activities, with a length of 400 m with suitable draught.
- iv) Three landing slopes, with a length of 30 m and 0.30 m draft for passenger and small boats.

- Cargo handling equipment:

M/s Narmada Cement Co. Ltd., has been taken over by M/s Ultra Tech Cement Co. Ltd to load Clinker through use of their own conveyer belt system which has a speed of 600 MT per hour. They discharge coal by their own cranes and the average discharge is about 9,000 to 10,000 MT per day.

- Warehousing and storage facilities:

There are seven godowns available, with an area of 1,310 sq. mtrs. They have a storage capacity of 2,500 MT. Sufficient open space is available.

- Private bunkering and ship stores are available.

Supplies

Private water tankers are available for water supply.

Harbor Structures

- RCC Jetty for loading Clinkers (near Clinker Jetty): length - 211 m permissible draft - 4 m Loading is done mechanically by conveyor belt.
- RCC Jetty for loading salt and miscellaneous cargo: length - 45m
- Slope for cargo vessel: length - 30 m
- Fish-landing wharf: length - 450 m

Commodities Handled

Import:

Coal, Coke

Export:

Clinker, Salt

Monsoon Period

May 15 to September 14.

Contact Detail :

The Port Officer,
Gujarat Maritime Board,
Jafrabad - 365 540.
Tel: (0) 02794-245165
Telefax: 02794-245165
E-mail:pojfd@rediffmail.com

Veraval Port

LOCATION:

Latitude : 20° 54' N

Longitude : 70° 22' E

Veraval is a fair weather lighterage port. It is situated in the south-west coast of Saurashtra on the West Coast of India.

Road and Rail Network

Veraval port is connected with Ahmedabad by road and broad gauge railway line. Connected to National highway 8E.

Communication with Steamers

At High Sea : Via Bombay Ship Shore Radio, Telephonic Service.

At Anchorage :By VHF/Through Messenger Ch.16 for call. For working, Ch.11,12,14.

Charts

Admiralty : 1321 & 1470

Indian Naval Hydrographic : 2054

Anchorage

Anchorage is about 1.5 kms offshore. At anchorage, three vessels can work at a time and a small coaster at berth with 3 m draft.

Pilotage

Pilotage is not compulsory, as approaches are close from the open sea.

Marine Features

MHWS - 2.10 m

MHWN - 1.80 m

MLWS - 1.10 m

MLWN - 0.56 m

MSL - 1.30 m

Navigational Aids

Veraval Lighthouse : Latitude : 20° 54' 6" N

Bhidia Beacon Longitude : 70° 21' 5" E
 Latitude : 20° 53' 8" N
 Longitude : 70° 22' 9" E

Facilities / Equipment:

- Grab Dredger of Bhavnagar.
- Coles Crane: ranging from 12.5 to 16 ton capacity, (Mobile) - 3 nos.

Supplies

Fresh water/ship stores can be supplied by private parties.

Harbour Structures

Western Breakwater - 334 m
Eastern Breakwater - 440 m
Berthing Quay 5 nos. - 500 m
Fish-Landing Wharf
Finger Jetties - 5 nos. - 100 m Length (Each).

Commodities Handled

Mainly fishing activities performed and food grain is also handled.

Monsoon Period

May 15 to September 14.

Contact detail:

The Port Officer,
Gujarat Maritime Board,
Veraval Port, Veraval - 362 265
Tel:(02876)220001/221139
Fax: (02876) 243138/221073
E-mail:poveraval@gmail.com

Porbandar Port

LOCATION :

Latitude : 21 38' N

Longitude : 69 37' E

Porbandar is an all-weather port, with direct berthing facilities. It is situated on the West Coast of Saurashtra facing the Arabian Sea.

Road & Rail Network

Porbandar is connected to the rest of the country by broad gauge railway. It is connected to Rajkot by road and from there by National Highway.

Communication with Steamers

VHF Channel : 16

Watch-keeping hours : 0800 to 2000 hrs. IST

Charts

Admiralty : 1321

Indian Naval Hydrographic : 204 and 205

Anchorage

Anchorage is about 2 kms offshore, south-West of break water, with good holding ground and a depth of 10 to 12 meters at anchorage, two steamers can operate at a time. Anchorage closed during monsoon period due to heavy swell and wind. It is advised that vessel to remain 5 N. M. SW of brak water. After berthing programmed fixed vessel to approach as per agent / port authority advises.

Pilotage:

Pilotage is compulsory.

A vessel awaiting pilot should anchor south-west of the breakwater end, about 1 nautical mile away, where ample water and good holding ground is available.

Only daylight navigation is available.

Navigational Aids

Front and rear transit marks for berthing at deep water berths.

Facilities / Equipment :

Tugs - 2 nos.
Launches - 2 nos.
Godown Facilities - 2,41,173 Sq. Mtrs.

Harbour Structures.

- Wharf for steamers: length 385 meters (235 mtr GMB wharf and 150 mtr private jetties) with permissible draught up to 9.8 meters.
- A quay wall : 2,128 meters in length for lighters.
- Finger jetty along the breakwater of length 100 meters for lighterage.
- Block masonry wharf wall: 91 meters in length.
- Bulk cargo wharf: 225 meters in length.
- Coast Guard jetty of 175 meters in length.
- Saurashtra Cement jetty of 150 meters in length.

Commodities Handled.

IMPORT :

Coal, LPG and Wet dates

EXPORT :

Salt, Cement/Clinker, Clay Bauxite, Onion, Raw cotton, Soda Ash.

Monsoon Period.

May 15 to September 15. No lighterage work is carried out during monsoon period.

PRIVATE INITIATIVES:

- Eastern breakwater facilities.
- M/s. Saurashtra Cement Ltd., has constructed a 150 mtr. Long jetty adjoining GMB wharf.
- Operation commenced from November 2000.

Contact detail :

The Port Officer,
Gujarat Maritime Board,

Wagheshwari Plot,
Nr. Jadeja Hospital,
Porbandar – 360575
Tel : 0286-2242408/2242404
Fax : 0286-2244013/2253664
e-mail : popbr1@rediffmail.com

Bedi Group of Ports

LOCATION:

Longitude : 70°-02' E
Latitude : 22°-33' N

Bedi Port is an all-weather tidal lighterage facility located on the southern coast of the Gulf of Kutch. 395 nautical miles north-west of Mumbai, 35 nautical miles south of Kandla and 50 nautical miles east of Okha Port. It is classified as an intermediate port.

Road and Rail Network

Bedi is connected by broad gauge railway lines with the rest of India. The nearest broad gauge railway station is Jamnagar, which is 7 kms away from Bedi. A railway siding is available at 2 kms. from Bedi Port. It is connected to National Highway from Rajkot.

The broad gauge line is to be extended up to Rozi Pier.

Communication with Steamers

A round-the-clock Control Room has been established with VHF facility. The calling channel is 16 and the other working channels are 11, 12 and 14 for ship to shore communication. There is a post office 2 km away from the port and the telegraph, office is in Jamnagar city. Telephone/fax facilities are provided at the port.

The, VHF set is functional on frequency 6221.6 Khz during day and 4143.60 Khz during night.

Charts:

Admiralty : 43 and 1779

Anchorage

The anchorage is 6 NM away from Bedi port, about 4 NM from New Bedi port and 2.5 NM from New Rozi Pier site. It can accommodate 17 ships at a time in the designated anchorage area.

Approach to anchorage is through a channel which is 9.5 kms. It dries up at most of the places during low waters. Lighters move from the Port to anchorage during high tide hours. The sailing time for lighters is about 2 hours from Port to anchorage.

Total Draught

The maximum draught at Bedi anchorage is 16 meters, but vessels of up to 30 meters can also anchor within the port limits.

Pilotage:

Pilotage is not compulsory. However, services are rendered by pilots whenever required.

Marine Features

H.H.W.O.S.T.	06.19 m
H.W.O.S.T.	05.49 m
H.W.O.N.T.	04.27 m
L.W.O.N.T.	01.22 m
L.W.O.S.T.	00.59 m

Due to tidal restrictions, the working hours per tide for barges are as under:

- (1) Bedi port : 2 to 3 hrs
- (2) New port : 3 hrs
- (3) Rozi Pier : Round the clock

Navigational Aids

- Piroton Light House, with Racon
- Kalvan Light House
- form signal is available day and night at the new port when required

Facilities and Equipments

- Bedi Port has a well-organised store to supply materials required for mechanical works, traffic works, civil works etc.

Transit Shed / Godown-

- 9500 sqm of Transit sheds/Godowns (covered) at Bedi port and 4870 sqm at New Port are available.
- covered storage godowns of about 9,570 sqm area at Bedi Port & 27 nos. of godowns about 14,290 sqm area are available at New Port.
- At Bedi Port 16 stacking platforms are available.

Tugs:-

- Tugs up to and above 404 bhp : 2
- Tugs below 360 bhp : 2
- Tug of 1,600 bhp : 1
- Speed boat (Under ISPS) : 1

Dry Dock

For repairs of port launches, tugs, barges etc. Bedi Port has small dry dock which can accommodate 4 port crafts at a time up to 2 m draft. In addition for urgent repairs the Port has grid iron facilities and well equipped marine workshop for mechanical repairs including vehicles facility.

Dredging works:-

Maintenance dredging requirement is attended by the available dredgers with capacity of 85 cum per hrs. Currently, the port has one Excavator (Hitachi) Pontoon mounted dredger and two hopper barges.

Electrical power:-

HT and LT power as per requirement is available at Rozi and Bedi port.

The port area is fully illuminated by sufficient streetlights and high mast tower lights. All godowns are also electrified.

Cranes

The import cargo is handled mechanically with the port's mobile crane and private excavator cranes of New Rozi port-with 4 mobile cranes each of 12.5 tonnes capacity provided at the wharf for ready use.

Harbour Structures

- Total 2250 m long wharf for berthing is available at Bedi Port.
- 380 m long wharf for berthing is available at new port.
- Shakti clearing has built and operating 90 m wharf at New port.
- At Rozi pier port site total 400 m long RCC jetty and 100 m long gravity wall type wharf with required back up area is available.
- Out of total 400 m RCC jetty at Rozi pier, 100 m is allotted to M/s. J.M.Baxi & Co., 50 m allotted to M/s. Shantilal Multiport Infrastrucutre and 250 m allotted to M/SCWCL, Mumbai. 100 m wharf wall is allotted to M/s. Ruchi Infrastructure.

12. Details of Disaster Mitigation Equipment

SUB-PORTS OF BEDI GROUP OF PORTS

1. Sikka
2. Salaya
3. Jodia
4. Pindhara
5. Sachana Shipbreaking Yard

SIKKA PORT

A captive jetty for GSFC liquid cargo is in operation. There is facility of discharging Import Cargo Liquid Ammonia and Phosphoric Acid through pipeline. It is meant for berthing/de-berthing of ships by day tide only and it is compulsory to have port pilot for piloting the ship to inward and outward. The GSFC Jetty is at present accommodating vessel up to 8 mtrs. draught and 165 mtrs. LOA and vessels of larger length and draught can also be accommodated on a case-to-case basis. The Jetty position is 22 deg. – 27' 19 N and Long. 69 deg. – 47 53 4 E.

At Sikka, M/s. Reliance Petroleum Ltd. has constructed an Oil Refinery. They have developed port facilities by constructing Ro-Ro & Lo-Lo Jetties for the purpose of handling various project cargo required for the same. They have also created

facilities for Crude Oil they have put total 5- SPM. They also constructed 4-Tanker Berths having direct berthing facilities for their captive use.

Shree Digvijay Cement Co. is handled cement/clinker/coal vessels from their own captive berth at Sikka.

The salt vessels of Singach salt works are handled through their captive wharf located at Singach.

Commodities Handled at Sikka Port

Import

Phosphoric acid, ammonia, coal, machinery, propylene, naphtha, LPG, crude oil, fuel oil, bitumen, CU mix, waxy residue.

Export

Cement, clinker, machinery, propylene, naphtha, paraxylene, HSD, petrol, orthoxylene, LPG, benzyne, salt, vacuum gas oil.

SALAYA PORT

Salaya is sub port of Bedi Group of Ports. There is traffic of almost of sailing vessels only. The ship building industries for sailing vessel are the major activity at Salaya port.

JODIA PORT

Jodia is a sub port of Bedi Group of ports. Previously, it was famous for foreign trade of country crafts.

The proposal for ship building industry are under consideration.

SACHANA YARD

Sachana is a ship recycling yard, total 15 nos. of plots are developed by GMB with required basic facilities.

Contact detail:

The Port Officer

GUJARAT MARITIME BOARD

Bedi Group of Ports
Saru Section Road,
Jamnagar – 361 009
Tel : (0288) 2711806/2711805/2755207/2712307,
Fax : (0288) 27112815
E-mail:pobedi_ad1@sancharnet.in

Navlakhi Port

The Navlakhi Port was constructed early by state of Morbi and various infrastructures were developed during 4th decade of 19th century. Navlakhi is all weather lighter age intermediate port on the North West coast of Gujarat and situated at junction of Sui and Vershamedi creek in Gulf of Kutch. The port is about 50 km from Morbi and is 100 km from Rajkot.

LOCATION:

Latitude : 22° 58' 25" N

Longitude : 70° 27' 24" E

Navlakhi is an all-weather lighterage working port located at inner position of Gulf of Kutch on the west coast of India.

Road and Rail Network

The port is well connected with state highway. The National highway 8A is 55km from the port at Maliya. The port is connected with Railway (BG). The nearest airport is Rajkot.

Communication with Steamers

At High Sea Via Kandla Coastal Wireless Station - Round the clock operation.

At Anchorage through messenger and VHF with Port Officer

Charts

Admiralty : 43

Anchorage

The Outer anchorage is situated at 25 nautical mile from port near Tuna bouy at Lat: 22 48.2' N Long:70 10.6'E for draft up to 12m and at Lat 22 50.3' N and Long 70 10.6' E for draft more than 12m. The inner anchorage is @ 5.5 nautical miles from the port situated at Lat. 22 55.43'N Long 70 22. 86' E and available draft is more than 12m.

Pilotage

Pilotage is not compulsory at the Port up to a draft of 9 m. for a draft of more than 9 m. pilot guide is necessary, from Tuna Buoy up to the anchorage, for which advance intimation of 24 hours is necessary.

Marine Features

MHWS	-	7.20 m
MHWN	-	6.20 m
MLWS-		0.80 m
MLWN	-	2.10 m
MSL	-	4.20 m

Navigational Aids

Pilot Station: Tuna Buoy

Navigational aid available at outer Tuna Buoy —17.5 nautical miles from Navlakhi. The Navlakhi Port limit starts only from Buoy No. 5, installed in Hansthal Creek (Buoys are presently missing).

Facilities / Equipment:

- **Tugs and launches:** Pilot Launch M.L.Gitanjali:- 2x290=580 BHP (Can be floated only in high water)
- Pilot Launch M.L.Ratnakar:- 2x 202 =404 BHP(Not in state of readiness)
- Private barges are arranged by port user that enables handling of 10,000 to 15,000 metric tonnes of cargo per day.
- Storage Facilities
- Open plots around: 160000 sqm.
- Covered godowns are available.

Storage (Covered):

- Total covered storage area 4920 sqm.

Open Plots as per New Planning

- Versamedi Side 96,600 sqm. Sui Side 63400 sqm.
- Total area for staking :160000 sqm

Electrification

Light Mast tower 18 m high - 25 Nos.

Light Pole 5 m high - 5 Nos.

Weighment Facility

BG Railway slow motion weigh Bridge

100 MT Capacity weighment weigh Bridge

VTMS-Facilities.(Vessel Traffic Management System)

24x 7 available in Port for the traffic Movement

As VTMS is manned 24 x 7, therefore VTMS is the primary control room for all reporting purposes and maintaining log's etc .VTMS Manager is responsible for daily reporting required data to GMB Gandhinagar control room and coordination with other agencies like IMD etc.

During any cyclone /depression developing and moving towards nearby area or any other natural calamity /disaster, than in addition secondary control room needs to be manned at Morvi Port Office 24 x 7 hours.

Responsibility will be of Assistant Port Officer and XEN (C) .

Contact Details of VTMS Navlakhi –

Landline Number -02829-294636

Email address- vtsnavlakhi@aatash.com

VTMS Manager – Captain Kapoor Mobile Number -7874050276 /
7600193408

VTMS Supervisor –

1. Prakash Patel Mobile No.9712368510
2. Dakshina Moorthy Mobile No.9427954048
3. SCK Sharma Mobile No.9431416003
4. Animesh Biwas Mobile No.9173861954

Water supply

To provide potable water to port and users water supply facilities is provided by GMB.

Harbor Structures

- R.C.C. Jetty of 163 m long & 25 m width having depth of water available as 4.5 m and capacity of jetty to received up to 3000 DWT capacity vessels.
- Deep water lighter private wharf of 76.5 m.
- Deep water lighter age private piled-jetty of 102 m. at Vershmedi Side
- Deep water lighterage private wharf of 92 mo n Sui side.
- Private silo developed for cement product on Sui side.

Commodities Handled

IMPORT:

Coal & Coke,

EXPORT :

Salt.

Monsoon Period

May 15 to September 14.

Private Initiatives

- Piled jetty of 102m on Sui creek in length was developed by M/s United Shippers Ltd.
- A lighter wharf of 76.5 m. on Sui Creek has been allotted to M/s Jaydeep Associates Ltd. and is operational.
- A lighterage private wharf of 92 m on Sui side was developed by M/s Shreeji Shipping.
- Silo construction is under progress for cement product by M/s Sanghi Cement Ltd.

Contact detail:

1. The Port Officer,
Gujarat Maritime Board, Navlakhi Port,

Navlakhi Ni Kacheri, Char godown area, Morbi.

Tel : 02822-220 435/227304 Fax: 02822-232 470/234465

2. **Contact Details of VTMS Navlakhi –**
VTMS Navlakhi Land line No.02829-294636
Capt. Kapoor (M):-7600193408 / 7874050276
Email:- vtsnavlakhi@aatash.com

3. **Secondary Control Room is Port Office Navlakhi, contact details is as follows-**

Secondary Control Room contact details –
GMB Morbi Control Room Landline No;-02822-227304
Shri R N Chaudary (M) 909953205
Shri P A Patel (M) 9909962907
Email:pfsonavlakhi@gmail.com

Okha Port

LOCATION:

Latitude : 22° 28' N

Longitude : 60° 05' E

Okha is an all-weather port with direct berthing facilities. It is situated on the north-west coast of Saurashtra Peninsula, at the mouth of the Gulf of Kutch on the west coast of India.

Road & Rail Network

Okha is connected to the rest of India by broad gauge railway system. It is connected by road to Jamnagar/Porbandar and then by National Highway. Nearest airport is Jamnagar, which is 175 kms away.

Communication with Steamers

At Anchorage : By VHF Working Frequency, Channel 10, 1, 14, 16 (Calling only).

Charts

Indian Naval Hydrographic : 2013 and 2031.

Anchorage

Anchorage is 2.4 kms. off shore. Two dry cargo piers: Sayaji Pier (180mtr) and the dry cargo berth (146mtr) are operational. Vessel upto 8 mtrs draught can be berth at this port.

Pilotage

Pilotage is compulsory.

Marine Features

MHWS - 3.50 m
MLWN - 0.40 m
MHWN - 3.00 m
MSL - 2.00 m
MLWS - 1.20 m

Navigational Aids

Two buoys about 360 m from shore in channel.

Facilities / Equipment:

1. Tug - 2 no. 1,600 BHP.
2. Barges - Private barges are available (no port barges)
3. Launch - 1 no. passenger launch 470 BHP
4. Cranes - 1 nos. of 12.5 tonnes.
5. Warehousing & Storage facilities - 16 Godowns & Two open sheds.
6. Stacking Area is 50,000 sqm.

Supplies

- 1) Fresh Water : Limited supply by private barges.
- 2) Fuel Oil : Available.

Harbour Structures

1) Sayaji Pier:

Total length	180 m
Width	20 m
Approach	114 m
Berthing capacity	2- vessels at a time, one on the eastern and the other on the western side
Draft	8 m

2) DCB pier :

Total length	145 m
Width	14 m
Approach	216 m
Berthing capacity	2- vessels at a time, one on the eastern and the other on the western side

Draft 4 m

3) New Lighter Wharf:

Length 100m

Commodities Handled

IMPORT:

Coke, Coal, Wheat, Sulphur, Fertilizer

EXPORT:

Calcium Bauxite, Onion, Clinker, Raw Bauxite, Chemicals,
Soda Ash

Monsoon Period

May 15 to September 14.

Contact detail:

The Port Officer,

Gujarat Maritime Board,

Okha Port,

Okha-361350

Tel: 02892-262001-02/262109,

Fax: 02892-262002

Mandvi Port

LOCATION:

Latitude : 22° 49' N

Longitude : 69° 21' E

Mandvi is a fair weather lighterage Port. It is situated on the right bank of the river Rukmavati in the Gulf of Kutch on the West Coast of India.

Road & Rail Network

Mandvi port is 60 km. away from Bhuj Railway Station and well connected with the coastal highway.

Communication with Steamers

At High Sea : Via Kandla Coastal Wireless Station.

Operates : Round-the-clock. At Anchorage : Through VHF

Charts

Admiralty : 43 and 39

Indian Naval Hydrographic : 203

Anchorage

It is a fair weather, lightering intermediate anchorage port. There is no provision for berthing ships alongside jetty due to its tidal condition. The Anchor point is about 2 nautical miles (1 n m = 1.852 k. m.) southward of Albert Edward break water. Depth of water available at Anchorage is about 10 mtrs.

Marine Features

HHW - 4.80 m

MHWW - 4.06 m

MLHW - 3.65 m

MHLW - 1.66 m

MSL - 2.59 m

MLLW - 1.00 m

Commodities Handled

IMPORT:

Fertilizers, Building materials, General Cargo

EXPORT:

Clay, Bentonite, Cotton Seeds, Salt, Oil Seeds, General Cargo

Harbour Structures

A wharf wall of 245 mtrs. in length is available, where sailing vessels and lighters load and discharge. Sailing vessel and lighters can work directly during high tides.

Supplies

Water supply is available.

Monsoon Period

May 15 to September 14

Contact detail:

The Port Officer,

Gujarat Maritime Board

Mandvi Port

Mandvi- Kutch - 370465

Tel: (02834) 223033/222633, Fax: (02834) 230033

MUNDRA PORT (OLD)

Location:

Latitude : 22° 45' 48" N

Longitude : 69° 42' 24" E

Mundra is a fair weather lightering Port situated in Bocha Creek in the Gulf of Kutch on the West Coast of India.

Road & Rail Network

Mundra is connected to Gandhidham by road and then by National Highway. A broad gauge railway line is available from Gandhidham to Adani Port (Mundra). Nearest airports are Kandla and Bhuj which is 70 kms away from the port.

Communication with Steamers

At High Sea : Via Kandla Coastal Wireless Station

Call Sign : VVK Range — 800 Kms

Operates : Round-the-clock

At Anchorage : Port VHF

Charts

Admiralty : 43

Indian Naval Hydrographic : 203

Anchorage

Anchorage is 2.0 nautical miles from the port. Cargo from large ship is handled at anchorage. The small ships and wooden sailing vessels are normally brought alongside the jetty and traffic is handled manually or with the help of cranes etc.

Marine Features

HHW	— 6.15 m
MHHW	— 5.54 m
MLHW	— 4.96 m
MHLW	— 1.98 m
MLLW	— 1.22 m
MSL	— 3.42 m

Navigational Aids :

The Navinar Light House is about one km. away from the port. Its geographical location is referred as Latitude 22 – 44' – 4" N and Longitude 69 – 42' – 8" E. At Mundra port Red intermittent light is available for Navigation. The anchorage point is about 2.00 NM from the port.

Facilities / Equipment:

- Tug is provided from Mandvi Port as and when required on request from shippers.
- Godown facilities of about 1490 sq. mtrs are available.
- Jetties & wharfs for lighters and barges — 2 mtrs. depth
- Salt loading jetty for (small) coastal vessels.
- Godown facilities of about 2400 sq. mtrs are available.
- Port is fully electrified and traffic can be handled during night hours also. Fresh water is also available for workers as well as for ships.

Commodities Handled

IMPORT:

Salt, Bentonite, Powder, Fresh Fruits, Onions, Mica, Animal feed, Potatoes, Dry grass, Roofing tiles, Wheat bran, Fenugreek, Hydrochloric Acid, Deep Type and Wash Basin, Groundnuts etc.

EXPORT:

Timber logs, waste Rubber Tyres, waste Paper, waste oil, Scrap, DAP Fertilizer, waste Battery, Wet Dates, Dry Dates.

Monsoon Period

May 15 to September 14.

Harbour Structure

M/s. Ashapura Minechem Ltd. has constructed private RCC Jetty of 60 meter length at Mundra Port. This wharf has commenced cargo operations.

CONTACT DETAIL:

Headquarters :	Local :
The Port Officer,	Traffic Inspector
GUJARAT MARITIME BOARD,	
GUJARAT MARITIME BOARD	
Mandvi-370465	Mundra Port, Mundra (Kutch)
Tel: 02834-223033	Tel : 02838-222136
Fax: 02834-230033	

Jakhau Port**LOCATION:**

Latitude : 23° 14' N

Longitude : 68° 35' E

Jakhau is a fair-weather lighterage port situated in Godia Creek, in the Gulf of Kutch on the west coast of India.

Road & Rail Network

Jakhau is about 120 km from Bhuj, and the nearest railway station is Naliya, which is 28 km from Jakhau Port. The port is situated about 12 km away from Jakhau village. The port is connected with Jakhau village by road.

Jakhau port is well connected with State Highway N.H. 8 A is 27 km from the port. Nearest airport is Bhuj at a distance of 120 km.

Communication with Steamers

At High Sea : Via Kandla Coastal Wireless Station.
Call Sign : VVK. Range — 800 Kms.
Operates : Round-the-clock.
Anchorage : Through Messenger.

Charts

Admiralty : 826
Indian Naval Hydrographic : 2005

Anchorage

The anchor point for this port is about 7.5 nautical miles south west of the entrance to Godia Creek. The cargo is handled in steamer at anchor point. Fishing boats and small crafts/vessels can come along side jetty during high tide.

Marine Features

HHW - 4.90 m
MHHW - 2.90 m
MLHW - 2.65 m

Commodities Handled

EXPORT :

Salt and Clinker.

Harbour Structures

Total 1260m wharf and relevant infrastructure is developed for exclusively fishery harbor and major fishing activities are performed. The total back up area is about 3,10,000 sq. mtrs

100m long old existing jetty was restored by M/s Goodearth for their salt product.

Monsoon Period

May 15 to September 14.

Contact detail:

Headquarter:

The Port Officer, Gujarat Maritime Board, Mandvi-370465

Tel: (02834) 223033, Fax:(02834) 230033 **Local:** Traffic Inspector,

Gujarat Maritime Board, Jakhau Port, Jakhau - kutch - 370421.

Tel :(02831) 28723