

**REVALIDATION OF EXISTING ENVIRONMENT CLEARANCE  
INCORPORATING SERVICE JETTIES AND ALLIED FACILITIES**

**PRE-FEASIBILITY REPORT**

**FOR**

**M/s. GUJARAT MARITIME BOARD  
SAGAR BHAVAN, Sector-10A,  
Opp. Air Force Station, Gandhinagar, Gujarat**

**PREPARED BY**

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## EXECUTIVE SUMMARY

### 1.0 INTRODUCTION

The Bedi Group Port, Jamnagar is operated under the Port Officer, Gujarat Maritime Board Jamnagar. The group of ports consists of several landing facilities right from Salaya, Sikka, Bedi Old Port, New Port, Rozi Pier Project, Sachana and up to Jodia. The Groups of ports under Bedi Port has been in operation since more than pre-independence time. The Rozi Pier is a part of Bedi port is classified as Minor Port. The port has capability to explore both commercial and geographical advantages. Bedi Group of Ports offer an ideal location for handling agricultural product, coal and bauxite. Among the fertilizer products, fertilizer and its raw materials are generated imported through this port. The Rozi pier is a part of Group which is situated in Jamnagar itself which is about 275 km from Ahmedabad in Gujarat.

Gujarat Maritime Board proposes the following activities to augment the existing facilities to cater the growing needs. The proposed facilities are:

1. To the existing 400 m piled jetty and 100 m wharf will be expanded by having additional 300 m wharf by reclamation and CC Block wall.
2. Construction of boat jetty of 105m length and 7 m and backup area of 56.3 sqm along with 78m retaining wall and approach bund of 230 m length and 7 m wide.
3. Development of 1000 m X 30 m backup area.

**The proposed Development of Infrastructure project falls under Category 'A' as per EIA notification 2006 of Ministry of Environment and Forests, New Delhi.**

### 1.2 SALIENT FEATURES OF THE PROJECT

The above mentioned landing place is situated eastern part of the Ruchi Infrastructure at the Coordinates of the place is 22°33'N and Long 70°02'E.

Gujarat is the administrative headquarters of the Jamnagar District. It is the fifth largest city in the state of Gujarat, India, behind Ahmedabad, Surat, Vadodara and Rajkot. Jamnagar is the largest city on the western most side of India.

The nearest railway station is Jamnagar which is at 8.0 km from the Project Site. The nearest airport is Jamnagar Airport at 11.45 km south from the proposed site.

#### Details about Project Site

Nature of the project	Revalidation of Existing Environmental Clearance incorporating service jetties and allied facilities
Capacity	Proposed CC block wall and reclamation at Rozi Pier in Bedi Group of Ports, Jamnagar i) Existing 400 m piled jetty and 100 m wharf will be expanded by having additional 300 m wharf by reclamation and CC Block wall.

	<p>ii) Construction of 105 m length X 7 m wide Jetty (which includes 50 m marine police jetty, 30m forest jetty, 25 m GMB jetty), backup area (56.3 m<sup>2</sup>) along with 78m retaining wall and approach bund of 230 m length X 7 m wide.</p> <p>iii) Construction of 1000m x 30 m backup area for smooth handling of cargo in environmentally safe and sound manner.</p> <p>Existing Cargo Handling capacity : 6 MTPA Proposed Cargo Handling Capacity : 2 MTPA Total Cargo Handling Capacity : 8 MTPA</p>
<b>Location of the project</b>	
District & State	Jamnagar, Gujarat
Mandal	Jamnagar
Village	Rozi Pier
Latitude	22°34'1.68"N
Longitude	70° 2'23.94"E
<b>General climatic conditions</b>	
Maximum Temperature	43°C
Minimum Temperature	15°C
Annual average rain fall	1000 mm
Predominant wind direction	SE
<b>General location details</b>	
Nearest Village	Rozibet
Nearest city	Jamnagar
District headquarters	Jamnagar, Gujarat
Nearest railway station	Jamnagar Railway Station at a distance of 8.0 KM.
Nearest Airport	Jamnagar Airport at 11.45 km from project site.
Archaeological/Historically important site	None within 10 km radius
Sensitive places	Hospitals and schools are present at Jamnagar.
Sanctuaries/National parks	None within 10 km radius
Nearest Reserved Forest	None within 10 km radius

## 2.0 INTRODUCTION OF THE PROJECT/BACKGROUND INFORMATION

### 2.1 Identification of project and project proponent. In case of mining project, a copy of mining lease/letter of intent should be given.

#### Details of Project Proponent:

The Bedi Group Port, Jamnagar is operated under the Port Officer, Gujarat Maritime Board Jamnagar.

**Table: 1.1 Description of Project Proponent**

<b>Address Proponent</b>	<b>Project</b>	DGM (Environment) M/s Gujarat Maritime Board Sector 10 A, CHH Road, Gandhinagar – 382 010, Gujarat
<b>Address Location</b>	<b>of Project</b>	Rozi pier Gujarat Maritime Board Jamnagar, Gujarat

**2.2 Brief Description of nature of the project**

M/s Gujarat Maritime Board proposes to Existing 400 m piled jetty and 100 m wharf will be expanded by having additional 300 m wharf by reclamation and CC Block wall, Construction of Back up area of 1000m length and 105 m length jetty with back up area and retaining wall. The ultimate cargo handling capacity will be @ 8 MMTPA.

The process of development of Rozi Pier started before 1989. As a part the process, 400.0m wharf to handle about 2 million metric ton cargo per annum was planned on the traffic demand of experienced at that time based on the technical guidance of Central Water & Power Research Station, Pune. The wharf facility as planned for lighterage operation with natural depths of about -2.5 at Chart Datum. Out of these 400.0m **wharf** length, contractor abandoned the work due to contractual dispute with GMB and only 100.0m **wharf** (now operated by M/s Ruchi Infrastructure in western side) was able to be completed and remaining 300.0m waterfront was left unattended by the contractor at that time in line with existing pile jetty having length of 400.0m in eastern side.

Thus, the proposed landing facility admeasuring **300.0m in water front length** at Rozi Pier which will be created by filling the gap between existing wharf having 100.0m waterfront (Ruchi Infrastructure) and existing pile jetty of 400.0m length. Net filing of this gap will be 300.0m long x 170.0m breath by reclamation in back up and construction of CC Block wall as waterfront will constitute to 300.0m wharf facility will increase the cargo handling capacity by 2 million TPA.

**2.3 Need for the project and its importance to the country and or region**

The proposed projects are the development of infrastructure facilities needed for export/import of goods which are essential for economic development of the region in environmentally safe and sound manners as well as requirement of providing service jetties to other departments of government like forest, marine for various activities.

**2.4 Demand-supply Gap**

There is a demand of development of infrastructure facilities for export of various goods like minerals / finished goods by various existing industries situated in and around Jamnagar region.

**2.5 Imports V/s Indigenous production**

NA

**2.6 Export Possibility**

Yes, the facility will create infrastructure facilities for export of cargo.

**2.7 Domestic/ Export Markets**

Cater the infrastructure needs.

**2.8 Employment generation (Direct and Indirect due to the project)**

The proposed project will generate direct employment and indirect employment for in tune of more than 500 peoples.

**3.0 PROJECT DESCRIPTION**

**3.1 Type of project including interlinked and interdependent projects, if any**

Existing 400 m piled jetty and 100 m wharf will be expanded by having additional 300 m wharf by reclamation and CC Block wall, 1000 m length backup area, 105 m length jetty and back up area and retaining wall.

**3.2 Location**

The proposed projects are located in Gujarat Maritime Board, Jamnagar, Gujarat State. The coordinates of the mine is

Latitude : 22°34'1.68"N  
 Longitude : 70° 2'23.94"E



**3.3 Details of alternate sites considered**

The proposed project is expansion/modernization of existing facilities therefore no alternative site is considered.

**3.4 Size or magnitude of operation**

- Net filling of this gap will be 300m long x 170m breath by reclamation in

back up and construction of CC Block wall as waterfront will constitute to 300.0m wharf facility will increase about 2 million TPA capacity.

- Development of backup area of 1000 m x 30 m to facilitate the cargo handling operation's for future infrastructure development.
- Construction of Boat Jetty of 105 m length and 7 m width, backup area and retaining wall, approach bund of 230 m length.

Total Cargo handling Capacity will be 8 MTPA.

### 3.5 Project description with process details

The proposed project is import/export of goods from Bedi group of Ports. The following proposal planned for development/improvement of Infrastructure facilities at Rozi Pier.

### 3.6 Raw Material Required Along With Estimated Quantity, Likely Source, Marketing Area of Final Product/S, Mode of Transport of Raw Material and Finished Product

The proposal of Gujarat Maritime Board is for creation/improvement of facilities for export and import of cargoes through Port. The total volume of construction material required is given below:

S.No.	Construction Material	Volume
1	Stone/Aggregate	599650 Cum
2	Sand	17688 Cum
3	Murrum	95800 Cum
4	Steel	260 MT

### 3.7 Resource optimization/ recycling and reuse.

This is to develop the facilities for export and import of cargoes through Port. The suggestions for improvements will be implemented.

### 3.8 Availability of water its source, energy/ power requirement and source

#### 3.8.1 Water Requirement

Water requirement for the proposed construction will be 23.5 KLD for Domestic use and 200 KLD for industrial purpose during operational phase is required. During construction phase 20 KLD of water will be required. This requirement will be met through private water tankers available in and around Jamnagar City.

S.No	Water consumption Break-up	Quantity
1	Domestic	23.5 KLD
2	Industrial purpose	200.0 KLD
3	Construction phase	20.0 KLD
<b>Total Water Consumption (Construction &amp; Operation phase)</b>		<b>243.5 KLD</b>

#### 3.8.2 Energy/Power Requirement

Port being an operational area, Power requirement is met through the supply from Jamnagar city, GEB Grid – 400-500KW.

### **3.9 Quantity of wastes to be generated (liquid and solid) and scheme for their management/ disposal.**

#### **3.9.1 Solid Waste Generation & its Disposal**

Solid wastes from office, operational area etc will be disposed as per the rules. Whereas, waste engine oil, lubricants will be disposed through authorized recyclers.

#### **3.9.2 Liquid Effluent**

No liquid effluent will be generated from the proposed project. Domestic Waste Water generated will be treated before disposal.

## **4. SITE ANALYSIS**

### **4.1 Connectivity**

The proposed project is connected with good road network which is shown below:

<b>SR. NO.</b>	<b>Detail of Road</b>	<b>Measurements</b>	<b>Details</b>
1	Approach Road from New Port Junction	1200m two lane	Black Top Surface
2	Approach Bund	1800m two lane	Black Top Surface
3	Behind Back Up area	400m single lane (7.50m in width)	Flexible Pavement (Paver Block)

#### **4.1.1 Nearest Railway Station**

The nearest rail head is Jamnagar Railway Station which is at distance of 8.0 KM.

#### **4.1.2 Nearest Airport**

The nearest airport facility is available Jamnagar Air Port is at distance of 11.45 Km

#### **4.1.3 Nearest Highway**

Nearest Highway is NH- 947 at distance of 13.0 KM.

### **4.2 Land form, land use and land ownership**

The land belongs to notified area of the port notification Bedi Group of Ports and is in possession of GMB.

### **4.3 Topography**

Jamnagar has humid climate due to Arabian sea in the west. The temperature varies widely from 12°C in December/January to 45°C in April/May. The entire district has irregular and erratic rainfall. However, there has been good rainfall since last five years. The district gets rain from south-west monsoon during June to September. The average rainfall of the district is 594 mm.

### **4.4 Existing land use pattern**

Total 800m long water front available for lighterage working at Rozi Port. Out of that total 500m water front was developed by constructing wharf/Jetty with adequate back up area.

Following berthing facilities were developed by GMB in early 90's.

<b>Status Berthing Facilities</b>	<b>Length</b>	<b>Draft available</b>	<b>Cargo Handling Capacity in MMTA</b>
CC Block wharf (Western Part)	100.0 m	2.5m	6
RCC Piled Jetty (Eastern Part)	400.0m	2.5m	
Gap (Abandoned work of CC Block wharf)	300.0m	2.5m	About 2
<b>Total</b>	<b>800.0m</b>	<b>2.5m</b>	<b>6</b>

Total presently 500.0m long berthing facilities are available at Rozi Pier site. Out of that 100.0m berth was constructed by using CC blocks as gravity type structure and remaining 400.0m was constructed by providing cast in situ bore pile structure. So existing capacity for Cargo Handling of the Rozi Pier can be considered as 6 MMTA in absence of 300.0m CC Block as proposed to be constructed now.

#### 4.5 Existing infrastructure.

The port is having total land area of 5.1Ha (approx) with a cargo specific allocation and essential minor structures for the operational purpose of the Port.

*Back up area available for infrastructure development:*

<b>Location</b>	<b>Size</b>
Behind CC Wharf	100 m x 200 m
Behind RCC Jetty	400 m x 200 m

Back up area behind berthing facilities are developed by reclamation for cargo stacking and to created other relevant facilities like mechanized handling, storage area etc.

#### 4.6 Soil classification

Soil is very shallow and rocky and at places, desert soils are common. A major portion of the district lies beside a long coastline, having strategic location for the development of ports & Jetty.

#### 4.7 Climatic data from secondary sources

##### **CLIMATE & RAINFALL**

The area is having a typical dry tropical climate, characterized by frequent droughts and low rainfall with high temperature. The average temperature varies between 42° in May to 8° in December. The rainy days from 28 to 42 per annum and the rainfall varies from 23cms to 175 cms. The rainy months in this area are June to September.

#### 4.8 Social infrastructure available

All the social infrastructure facilities like hospitals, schools, colleges etc are available within city.

## **5. PLANNING BRIEF**

### **5.1 Planning concept (Type of industries, facilities, transportation etc) Town and Country Planning/Development authority Classification.**

The Port is being operational for more than 10 years, the current proposal is development/improvement of the existing infrastructure facilities within the port limit.

### **5.2 Population projection**

The project will employ nearly 491 workers in different levels at one point of time during the operation phase.

### **5.3 Land use planning**

Land use planning explained under Existing Land Use Pattern.

### **5.4 Assessment of Infrastructure Demand (Physical and Social)**

Safety equipments, small rest shelter and first aid facilities will be made available for the workers in the mine lease area.

### **5.5 Amenities/facilities**

The following facilities will be extended by the Gujarat Maritime Board:

- i. Direct and indirect Employment.
- ii. Arrangement for safe and healthy working conditions.
- iii. Provision of drinking water.
- iv. Conducting medical camps for workers and nearby villagers as a part of Occupational Health Surveillance.

## **6. PROPOSED INFRASTRUCTURE**

### **6.1 Industrial area (Processing Area)**

The proposed project is cargo handling, loading and unloading and packing of dry cargo viz. Bauxite, Agro products, Fertilizer (Urea/DAP).

### **6.2 Residential area (Non Processing Area)**

There is no residential area within the port area.

### **6.3 Green belt**

Mangrove plantation and greenbelt development will be taken.

### **6.4 Connectivity**

The area is connected by fair weather road with district head quarters.

### **6.5 Drinking Water Management**

Water Requirement for proposed project during construction and operation phase is 243.5 KLD which will be supplied by water tankers.

### **6.6 Sewerage System**

Domestic waste water generated will send to septic tank followed by soak pit.

### **6.7 Industrial Waste Management**

Not applicable

**6.8 Solid Waste management**

Solid Waste generated will be disposed as per the rules and directions.

**6.9 Power Requirement & Supply/ Source**

The power requirement for the proposed project will be around 400 to 500 KW, the major source of the same is Paschim Gujarat Vij Company Ltd (PGVCL). The major supply will be made through power grid line from Jamnagar city.

**7 REHABILITATION AND RESETTLEMENT (R&R) PLAN****7.1 Policy to be adopted (Central/State) in respect of the project affected persons including home oustees, land oustees and landless laborers (a brief outline to be given)**

No human settlements are existing in the proposed area and no humans will be displaced from the area so the proposed project does not involve any rehabilitation and resettlement.

**8. PROJECT SCHEDULE & COST ESTIMATES****8.1 Likely date of start of construction and likely date of completion (Time schedule for the project to be given)**

The project will commence once Environmental Clearance and other necessary statutory clearances.

**8.2 Estimated project cost along with analysis in terms of economic viability of the project.**

The total cost of project would be around Rs. 71.15 Crores.

**9. ANALYSIS OF PROPOSAL (Final recommendations)****9.1** The project will bring economic benefits to the state by the ways of direct and indirect taxes to export/import of various goods. During various stages of the development of the proposed projects there will be generation employment directly and indirectly generation of employment in the auxiliary and other industries will benefit to state and national economy.

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