Come. Invest. Grow.

PORT SCENARIO IN ORISSA

Commerce & Transport Department,
Government of Orissa

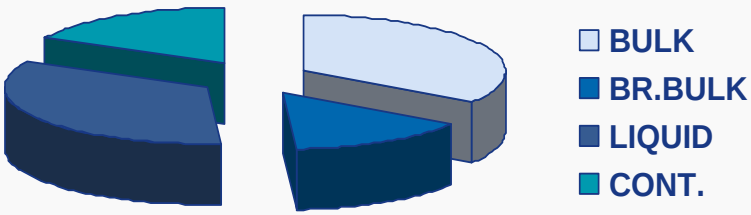
Hinterland of Indian Coast

- **NORTH & WEST**
  - J&K, PUNJAB, HARYANA, DELHI, W.UP, W.MP, GUJRAT, MAHARASTRA
  - SERVED BY KANDLA,MUMBAI, JNPT AND MINOR PORTS OF GUJRAT AND MAHARASTRA
- **WEST & SOUTH**
  - GOA AND PARTS OF MAHARASTRA, MP AND KARNATAKA
  - SERVED BY MORMUGAO AND MINOR PORTS OF MAHARASTRA AND MORMUGAO
- **SOUTH**
  - TAMIL NADU, KERALA AND PARTS OF KARNATAKA AND A.P.
  - SERVED BY CHENNAI, ENNORE, TUTICORIN, COCHIN AND MINOR PORTS OF TAMILNADU AND KERALA
- **EAST AND SOUTH**
  - A.P AND PARTS OF CHATTISGARH, MP AND ORISSA
  - SERVED BY VISAKHAPATNAM AND MINOR PORTS OF A.P
- **NORTH AND EAST**
  - ORISSA, WEST BENGAL, NORTH EASTERN STATES, JHARKHAND, BIHAR AND PARTS OF UP, MP AND CHATTISGARH

Ports in India

- MAJOR PORTS: 12
- NON MAJOR PORTS: 185
- TOTAL PORTS: 197
- ACTIVE MINOR PORTS(*): 45
- TOTAL ACTIVE PORTS - 57

Types of Cargo



- BULK : 278 MT
- BREAK BULK : 118 MT
- LIQUID : 270 MT
- CONTAINER : 142 MT
- **TOTAL** **808 MT**

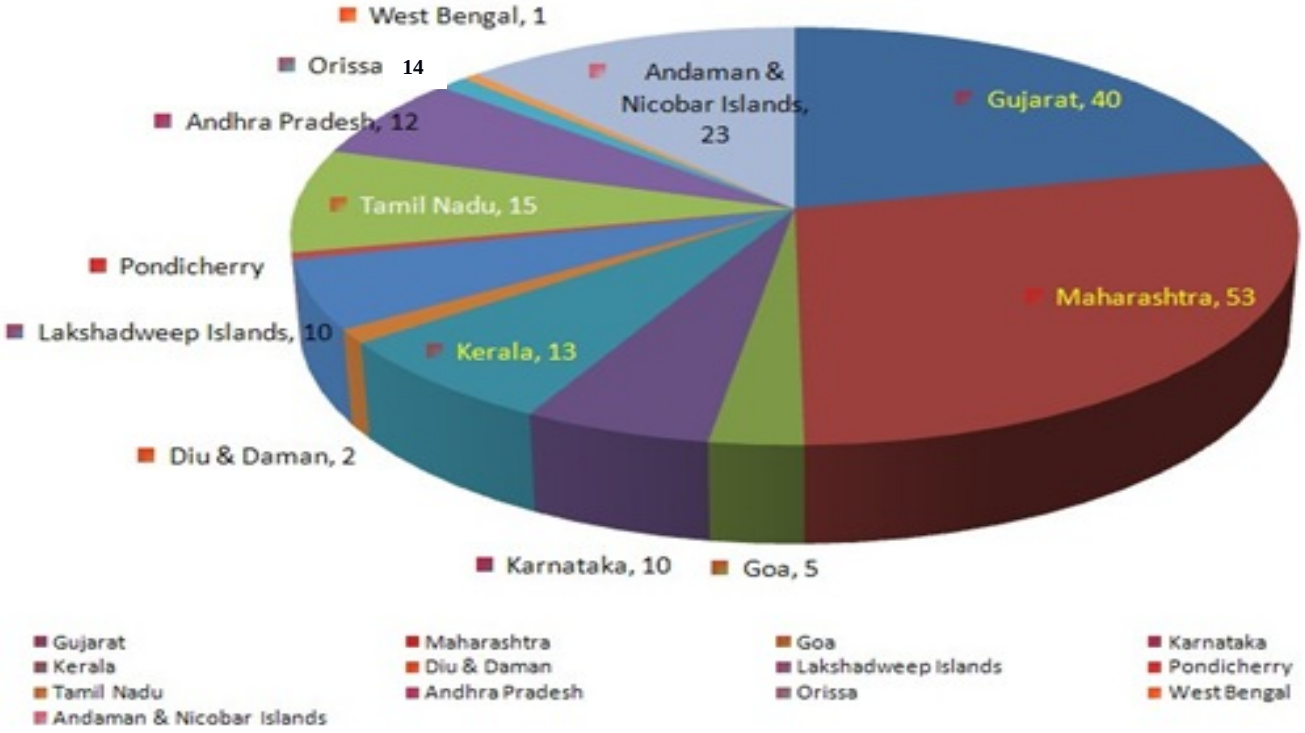
FIGURES ARE FOR 2009-10

- **Achieved a growth of 9.3% over the previous FY**
- **Share of Non Major Ports – 31% (increasing)**

Capacity vs Demand

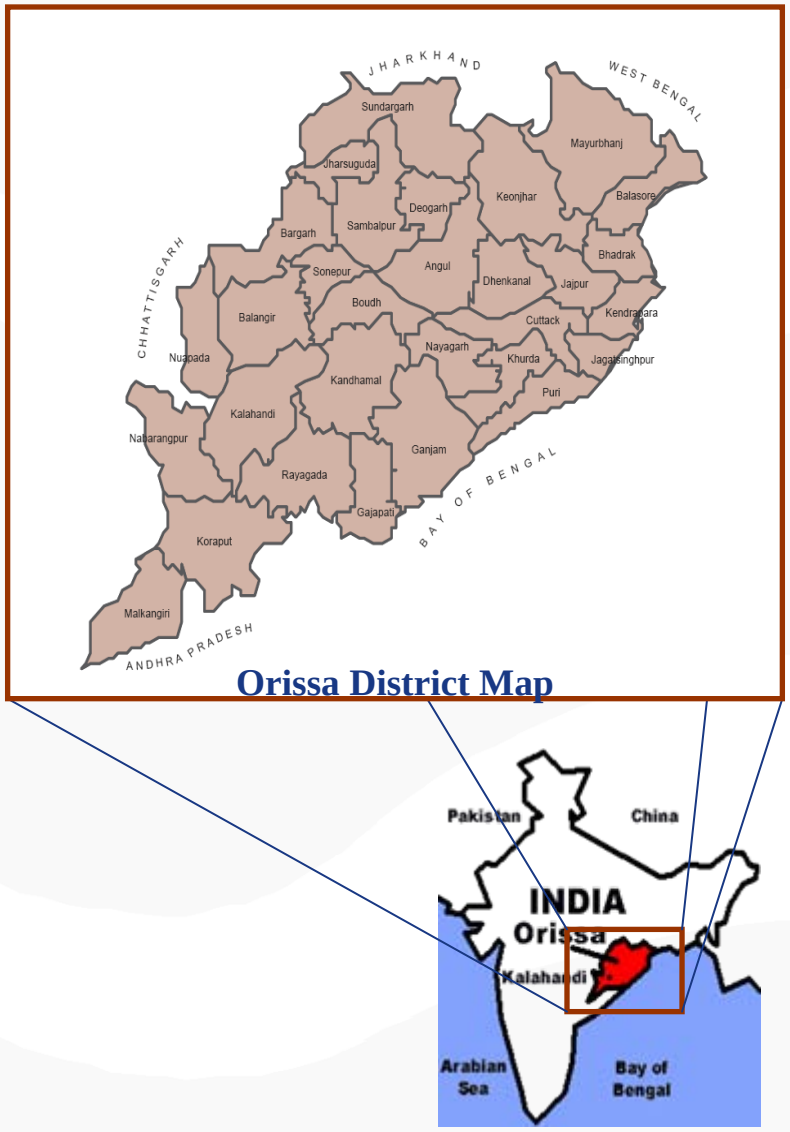
YEAR	CAPACITY	TRAFFIC	
2009-10	840 MT	808 MT	(96%)
2011-12	1500 MT	1103 MT	(67.3%)
2013-14	1840 MT	1225 MT	(67%)

Non Major Ports in India



Orissa

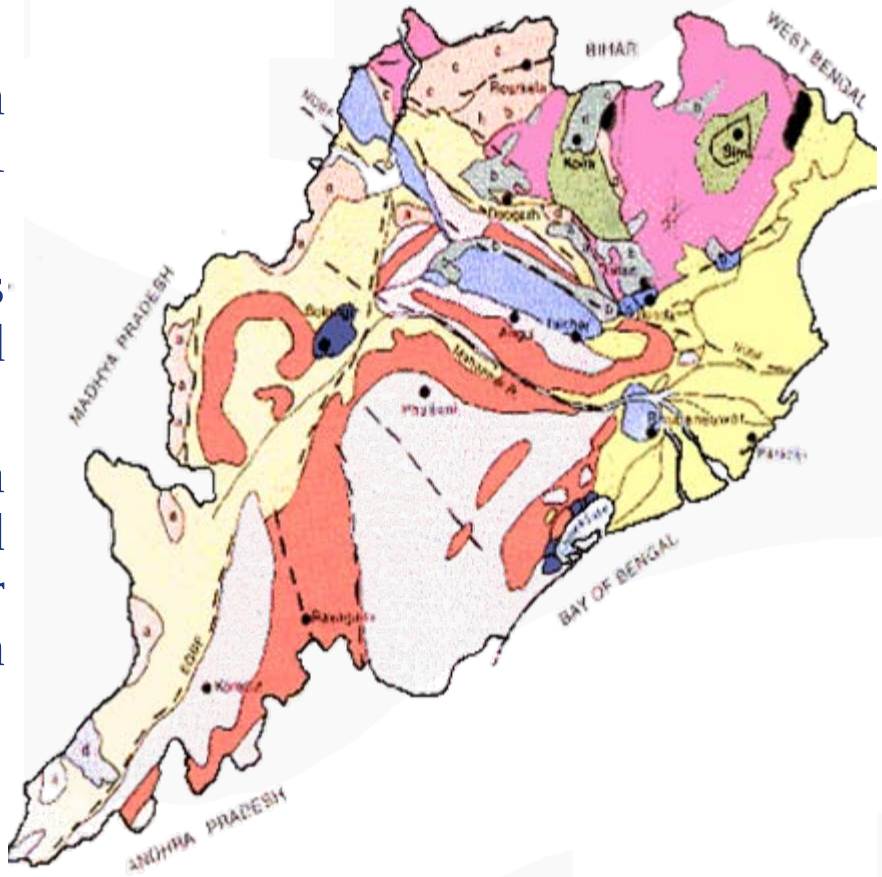
- Location: East Coast of India
- Natural Resources: Minerals, Marine, Forest and Agricultural Produce.
- Rich human resources base for rapid industrialization
- Industries: Steel, Aluminum, Chrome, Power, Cement, Textile and Handicraft
- Much needed development of the state has started to capitalize on:
  - Industry
  - Agriculture
  - Information Technology



Mineral Base

- Orissa contributes about 10-14% of all mineral production in the country
- Mineral Belt spanning 6000 sq. km produces nonmetallic, metallic and fuel minerals
- Abundant water resources, surplus availability of power and improved road and rail network,
- Orissa has the potential to emerge as a centre for metals business in India and provide significant opportunity for investments up to USD 30–40 billion over the next five years

Mineral Belts in Orissa



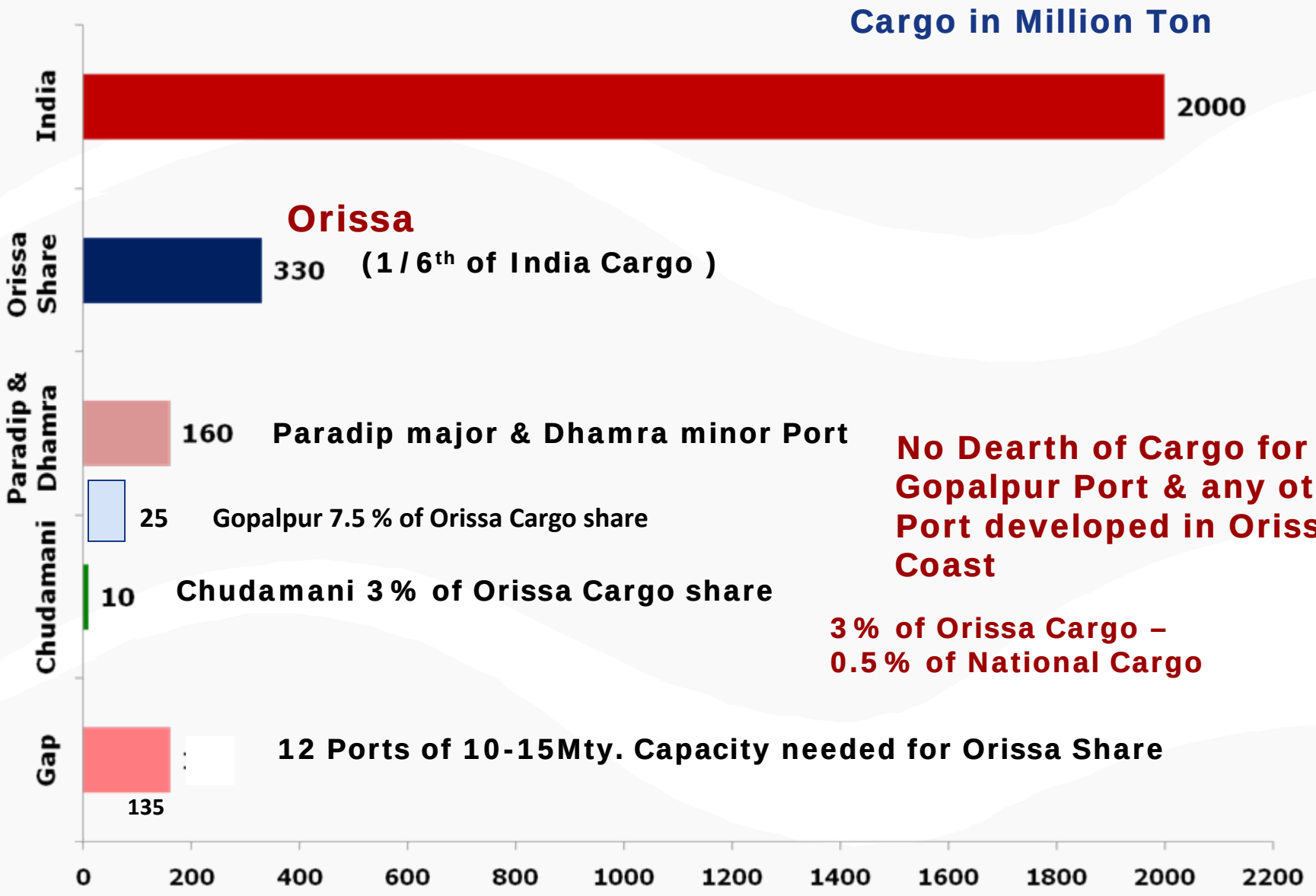
Major Industries

- Metal/Minerals
  - 45 projects with proposed aggregate production capacity of 56 MTPA of Steel are in progress
  - 4 Aluminum projects with more than 4 MTPA production capacity and 1 Titanium project are under implementation
  - POSCO, Arcelor Mittal, Tata Steel, Bhusan Gp, Jindal Gp, Essar Steel, Hindalco, Vedanta, Aditya Aluminium, L&T-Dubal are some of the major investors in this sector
- Chemicals & Petrochemicals
  - 15 MTPA mega petrochemical complex by IOC at Paradip (Investment of $6Bn) is under implementation
  - Deepak Fertilizers has proposed the establishment of an ammonium nitrate project at Paradip
  - Mega Petroleum, Chemicals & Petrochemicals Investment Region (PCPIR) under development at Paradip
- Energy and Power
  - 13 thermal power projects under implementation with aggregate capacity of 13,500 MW
  - Project proposed by Reliance Industries Limited for hydrocarbon power generation & gas grid
  - Major developers include Tata Power, Reliance Energy, Sterlite Energy, Mahanadi Aban, Monnet Ispat, Essar Power, Lanco group, NavBharat Power, CESC and GMR Energy
  - Mini-Hydel projects with a combined capacity of 90 MW have been planned

Infrastructure – Orissa

- Ports
  - Coastline: 480 KM
  - Main entry/exit point for sea borne trade in Eastern India
  - Hinterland: All mineral rich states such as Orissa, Jharkhand, West Bengal and parts of Chhattisgarh
  - Commodities: bulk (coal, iron ore, limestone and minerals), liquid bulk (crude and petroleum products), break bulk (steel and bagged cargo) and containerized cargo
  - Operational Ports: Paradeep (major) and Gopalpur (minor)
  - Under Development: Dhamra Port
- Proposed Inland Waterway (NW-5)
  - Length: 588 km
  - Estimated Cost: INR 42090 Million
  - Cargo Potential: Coal from Talcher to Dhamra and Paradip Port with an estimated volume of 11 MTPA which can go up to 23 MTPA in next 10 years

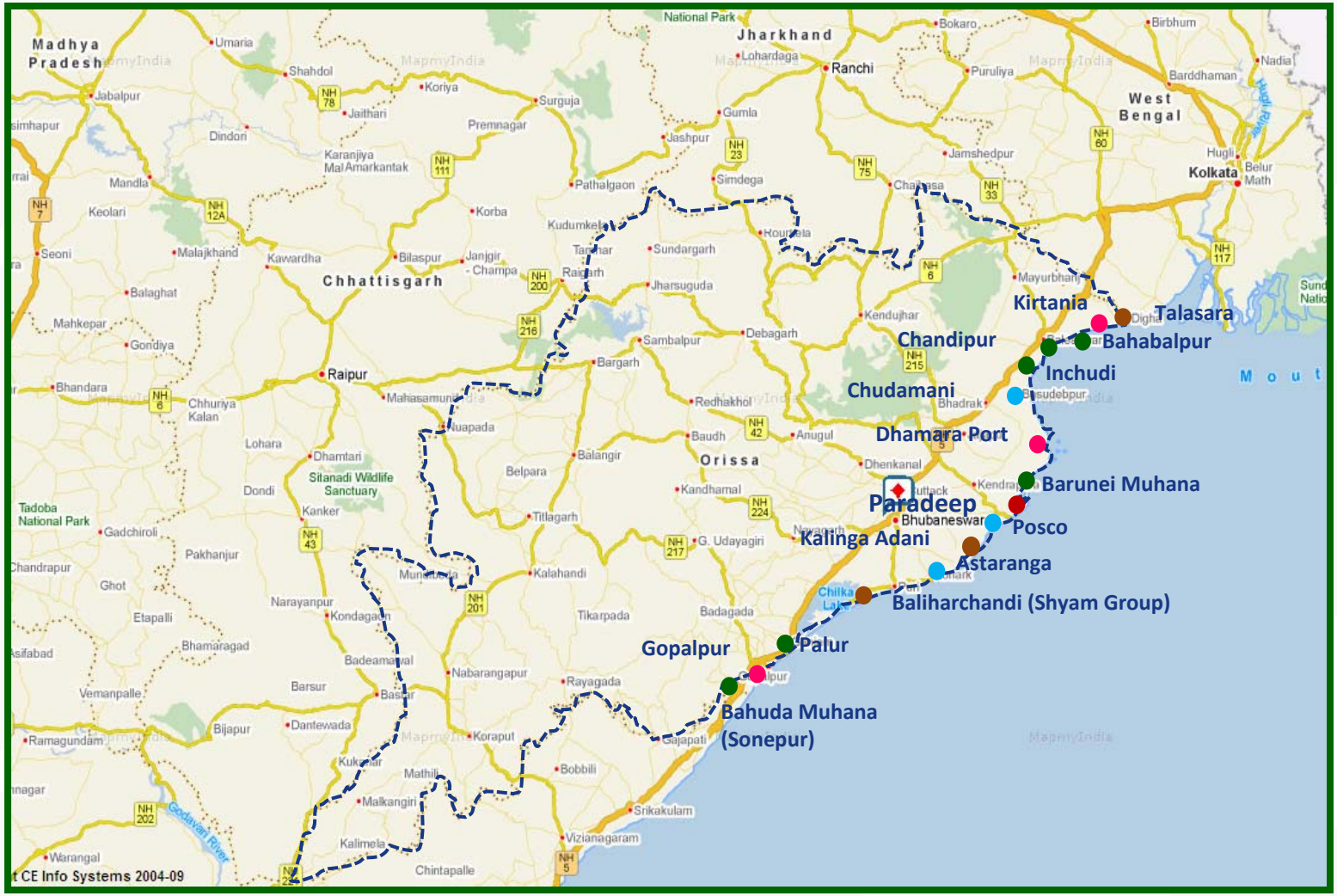
Orissa Cargo Projection – FY 2016



No Dearth of Cargo for Gopalpur Port & any other Port developed in Orissa Coast

3 % of Orissa Cargo – 0.5 % of National Cargo

Port Overview – Orissa



- Concession Agreement signed
- MOU signed
- Major Port
- Sites where developers have shown interest
- Other Greenfield Minor Port Sites

Orissa Government has identified 14 sites for port development on public-private partnership basis

Identified Port Sites – Orissa

Port	District	Interested Parties
Talsari (Bichitrapur)	Balasore	JSW Infrastructure
Kirtania	Balasore	Creative Ports (CA signed)
Bahabalpur	Balasore	ILFS
Chandipur	Balasore	-
Inchudi	Balasore	-
Chudamani	Bhadrak	Aditya Birla Group (MOU signed)
Dhamra (under development)	Bhadrak	DPCL (JV of L&T and Tata Steel)
Barunei Muhana	Kendrapada	Arcelor Mittal, Adhunik Metaliks, SPI Ports, Sical
Paradeep (Major Port)	Jagatsinghpur	PPT (GoI undertaking)
Jatadhari	Jagatsinghpur	Posco (MOU signed)
Kalinga Adani (yet to be notified)	Jagatsinghpur	Mundra Port and SEZ
Astaranga	Puri	Navayuga Engineering (MOU signed)
Baliharchandi	Puri	Shyam Steel
Palur	Ganjam	Future Metals
Gopalpur	Ganjam	Gopalpur Port Limited (CA signed)
Bahuda Muhana	Ganjam	Alfa Group, USA

Orissa Maritime Board (OMB)

- Formation of OMB has been recently approved by the State Cabinet
- OMB will act as a Single Window Agency for development of Ports and Inland Water Ways
- OMB's prime objective is to increase Orissa's share in the export and import sector, in national and international trade and commerce
- OMB to facilitate decongesting of existing major ports by developing minor ports on the Eastern coastal region so as to cater to the needs of increasing volumes of international and domestic traffic.
- OMB to facilitate for handling 330 MTPA of Cargo by 2012 as envisaged by the Government of India, Ministry of Shipping.
- OMB to provide port facilities to promote export-oriented and port-based industries, which constitute the major chunk of industrial investment.
- OMB to encourage shipbuilding, ship repairing and ship breaking and establish manufacturing facilities for heavy industries in and around ports.
- OMB to provide facilities for coastal shipping of passengers and inter-state cargo traffic
- OMB to take up suitable facilitating measures as well as policy initiatives for attracting private sector investments
- OMB to establish connectivity of the ports with the riverine systems so as to increase the transportation of cargo through inland waterways

Identified Areas for PPP

OMB to encourage private investment in the existing and proposed minor ports and inland waterways; the guidelines are as follows:

- Incomplete wharf/ jetty/ quay projects would be privatized.
- Entrepreneurs/ investors will be given ‘ousting priority’ for a period of five years from the date on which the contract is awarded with the approval of Government.
- OMB. will commission preliminary techno-economic feasibility reports of identified locations to facilitate private investment
- For projects with an investments of Rs.25 Crores, O.M.B. will be authorized to increase the period of concession.
- Government of India had introduced a policy of parallel marketing of petroleum products facilitating the demand for port facilities for handling L.P.G., L.N.G., Kerosene, HSD and other petroleum and chemical products
- O.M.B. will also co-ordinate with the Ministry of Defence, Indian Navy and the Coast Guard to evolve a mutually agreed maritime safety and security plan for the entire coast of Orissa.

Orissa Maritime Master Plan

- Establishment of Special Economic Zone (SEZ) for facilitating export led growth, near Paradip, Dhamra and Gopalpur.
- Further industrialization of Orissa to handle 330 MTPA of Cargo by 2012.
- Institutional mechanism to draw upon expertise, wherever necessary.

Concessions and Incentives to Private Developer

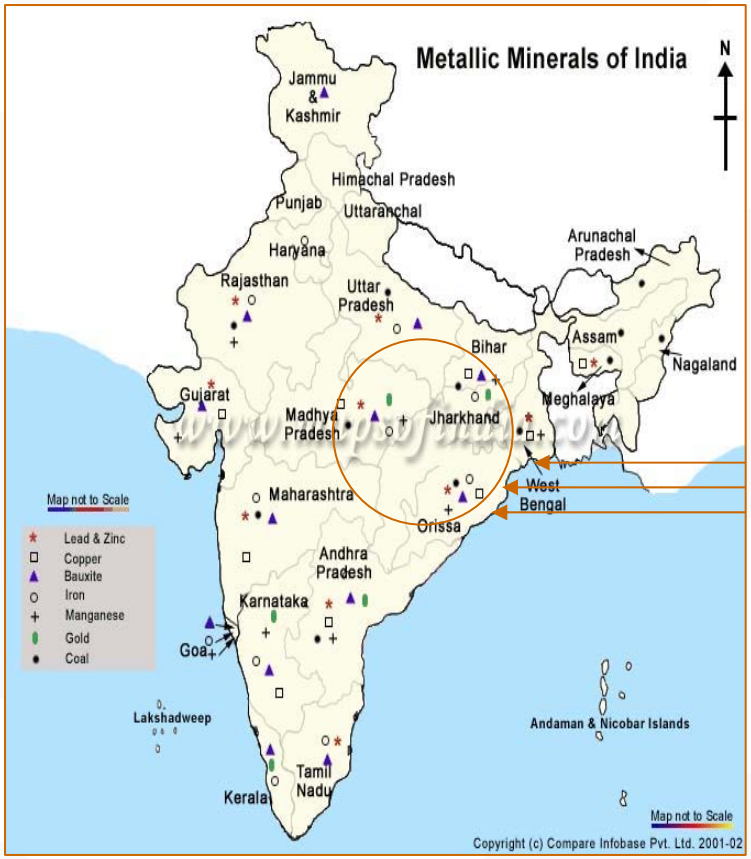
1. The Government of Orissa had initiated a policy of ‘leasing Government land for execution of infrastructure projects and port projects on BOT mode’.
2. Gopalpur lighterage port will be developed into an all weather port under an Special Purpose Vehicle with equity participation by GoO.
3. Cost of land shall be compensated by Government by adjusting the same against the future revenue streams that would accrue to the Government/OMB.
4. OMB will have the authority to permit the developer for fixation of port tariffs.
5. GoO/OMB equity participation will be restricted to 11% in order to insulate port management from interference.
6. OMB. will endeavor at all times to ensure that the concerns of financing institutions are addressed in order to make these projects creditworthy and bankable.
7. OMB will ensure that the concessions, levies and charges are uniformly applicable to all port projects
8. OMB would ensure that revenue sharing mechanisms with the developer will be such so as to safeguard the project’s viability and profitability.

DHAMRA PORT

Port Hinterland

In the Mineral Heartland of India

- Situated between Haldia and Paradip
- Close to the mineral based industrial states of Orissa, Jharkhand and Chhattisgarh
- NH-5 is the nearest highway & Bhadrak is the nearest railway station on the Chennai - Howrah main line
- A good motorable road connects Bhadrak-Dhamra

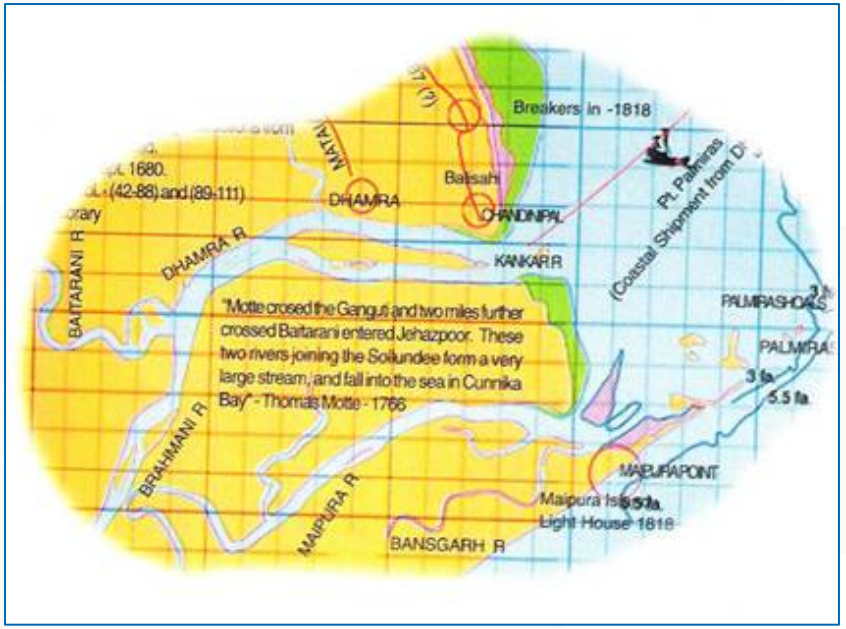


Haldia/kolkata
Dhamra
Paradip

Port of Dhamra

An Old Port

1. Dhamra is one of the ancient ports of India.
2. Till about independence and even thereafter it was used for cargo transportation between North Orissa and Kolkata.
2. Port limits including the present location were notified in 1931 which have been modified in 1998.



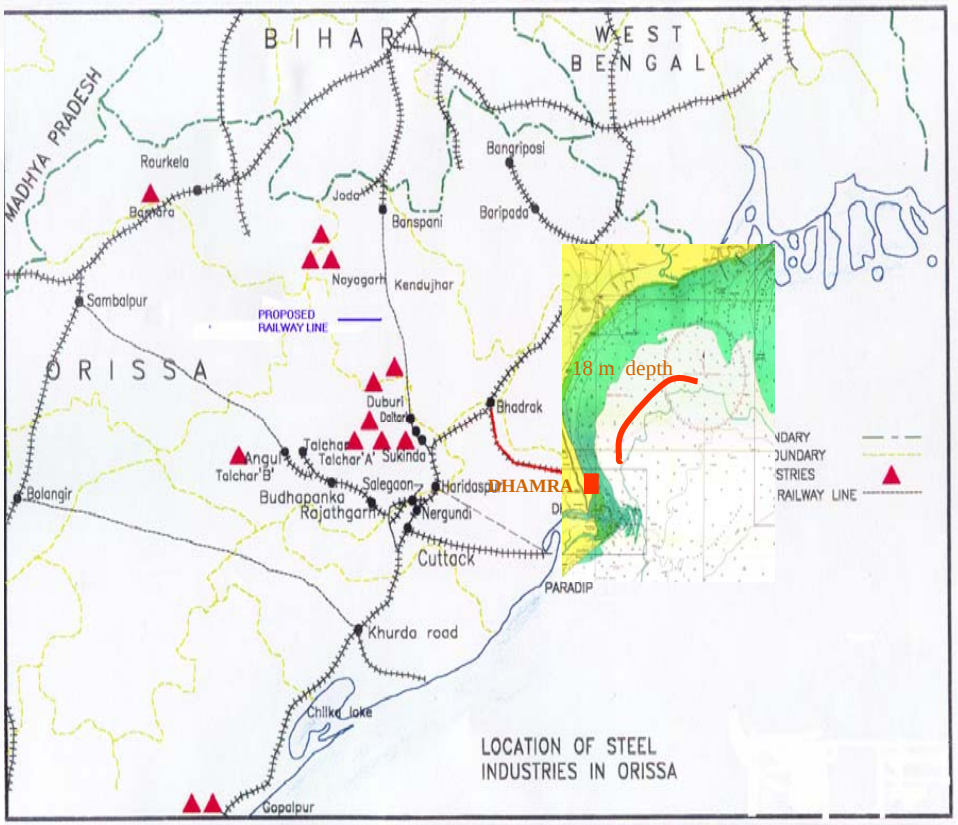
Kanika (Dhamra) Port

Kanika (Dhamra – Chandbali) Port (15th -18th AD) was a prosperous oceanic trading centre and Point Palmiras in the southern side of Dhamra River mouth was one of the most important navigation land marks of that time. A multitude of commercial vessels of the King of Kanika were plying on the Indian Ocean doing prolific trade.

- **Walter Hamilton** - 1828 AD, Imperial Gazette

Port of Dhamra

- Dhamra Port: Proximity to both deep sea and hinterland, remarkably tranquil conditions and sustainable channel
- As we go north the deep sea becomes farther from coast hence deep port above Dhamra may be cost intensive
- As we go south the mineral heartland becomes farther from port adding to higher cost of transportation on land



Port of Dhamra

Area notified as port in 1931

- Officially, the Dhamra port limits were notified as far back as 1931. The port falls within the area notified as port way back in 1931

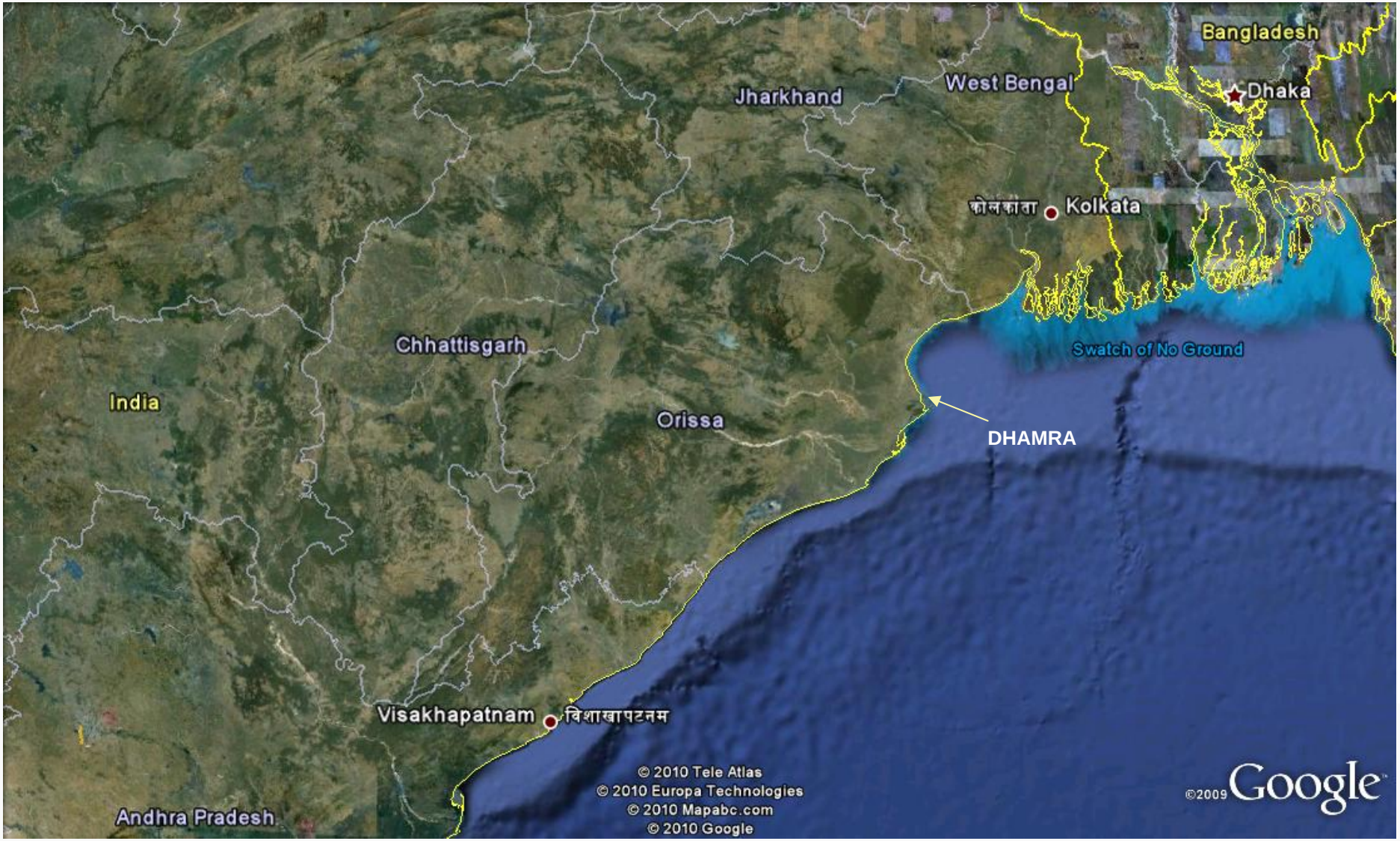
- The port continued to be a thriving port till after independence when it fell to disuse except as a fishing port.

Port of Dhamra

DPCL Formed

- DPCL was formed as a special purpose vehicle to develop the port under a concession agreement from GoO for a period of 34 years which can be extended for two additional periods of 10 years each
- Originally a JV of L&T and two foreign companies, DPCL is now a 50:50 JV of L&T and TATA Steel
- An independent port company to build and operate a full-fledged, all weather & multi-user port on BOOST basis

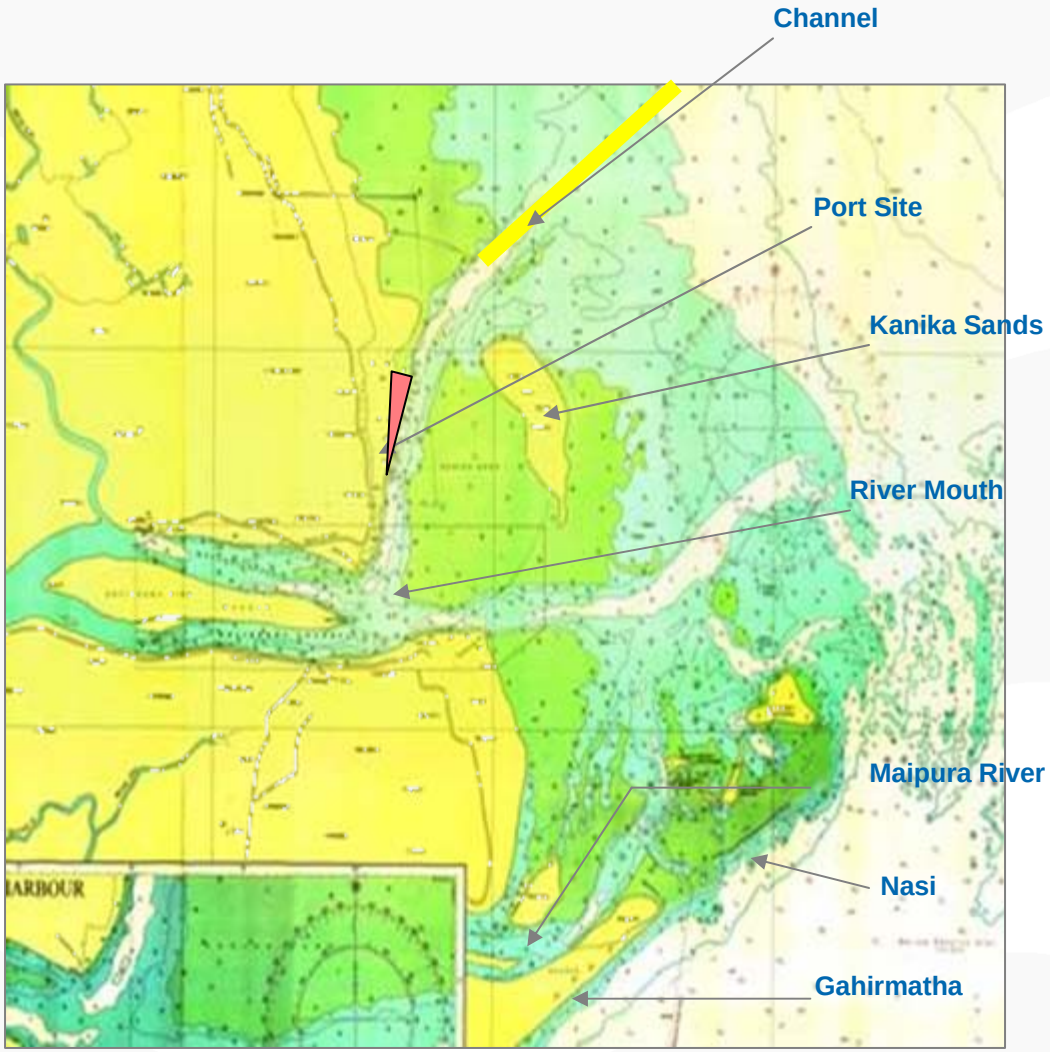
The Location



The Location

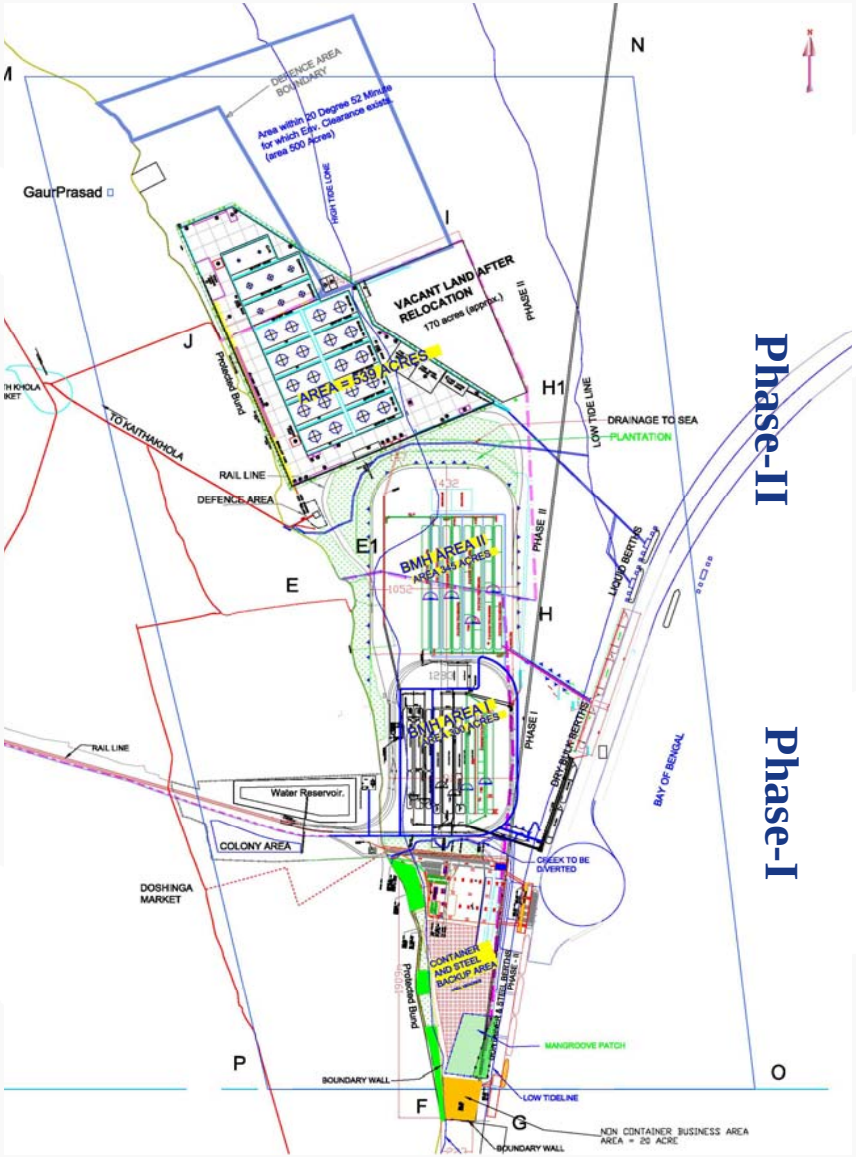
The Location

- Latitude 20° 47' 30”
- Longitude 86º 57' 35”
- North of mouth of river Dhamra
- Protected by islands with remarkably tranquil conditions
- Sensitive from ecological and defence point of view



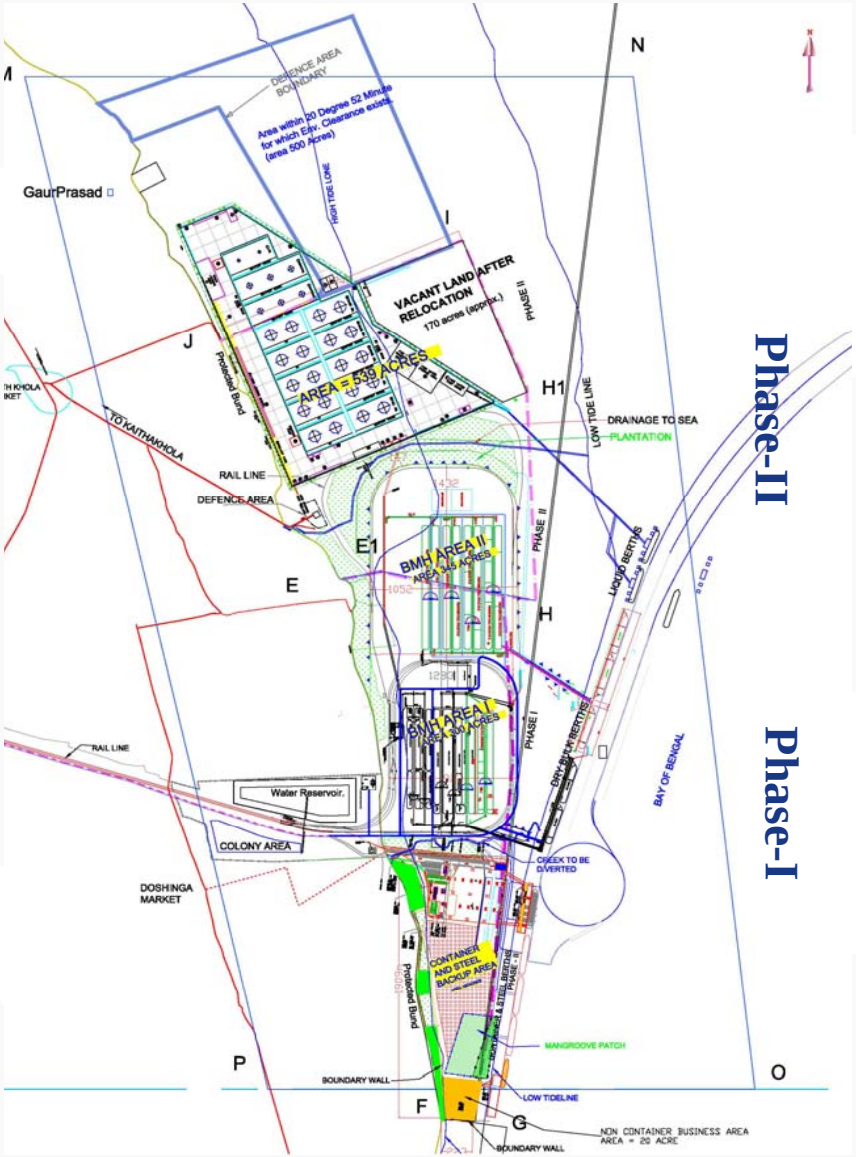
Port of Dhamra – Salient Features

- Amongst the deepest ports coming up (others being Gangavaram and Mundra)
- Can handle super capesize vessel up to 180,000 DWT
- Cargo handling efficiency at global best standards (60000t/berth/day)

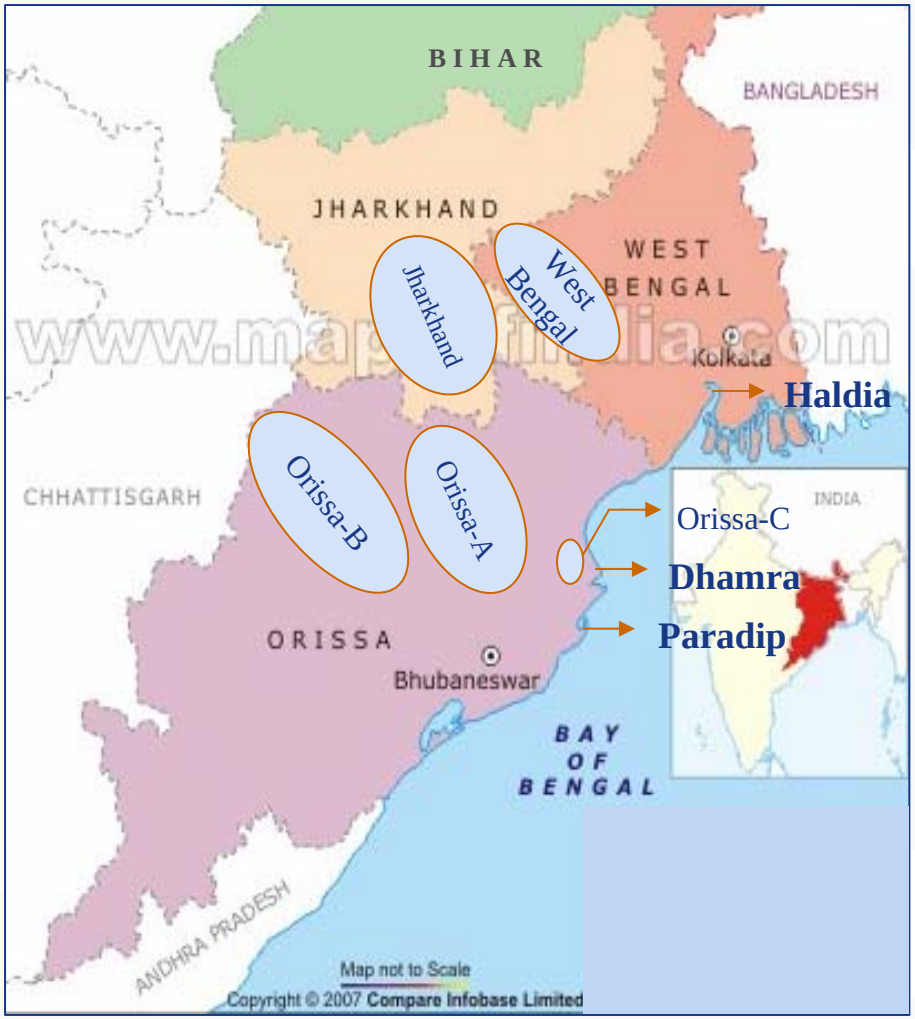


Master Plan

- 13 berths
  - 2 liquid (petro, oil etc.)
  - 5 dry bulk (coal, iron ore etc.)
  - 6 break bulk and container (steel and containers)
- Capacity
  - Liquid 24 MTPA
  - Dry Bulk 63 MTPA
  - Others 22 MTPA
  - **Total 109 MTPA**

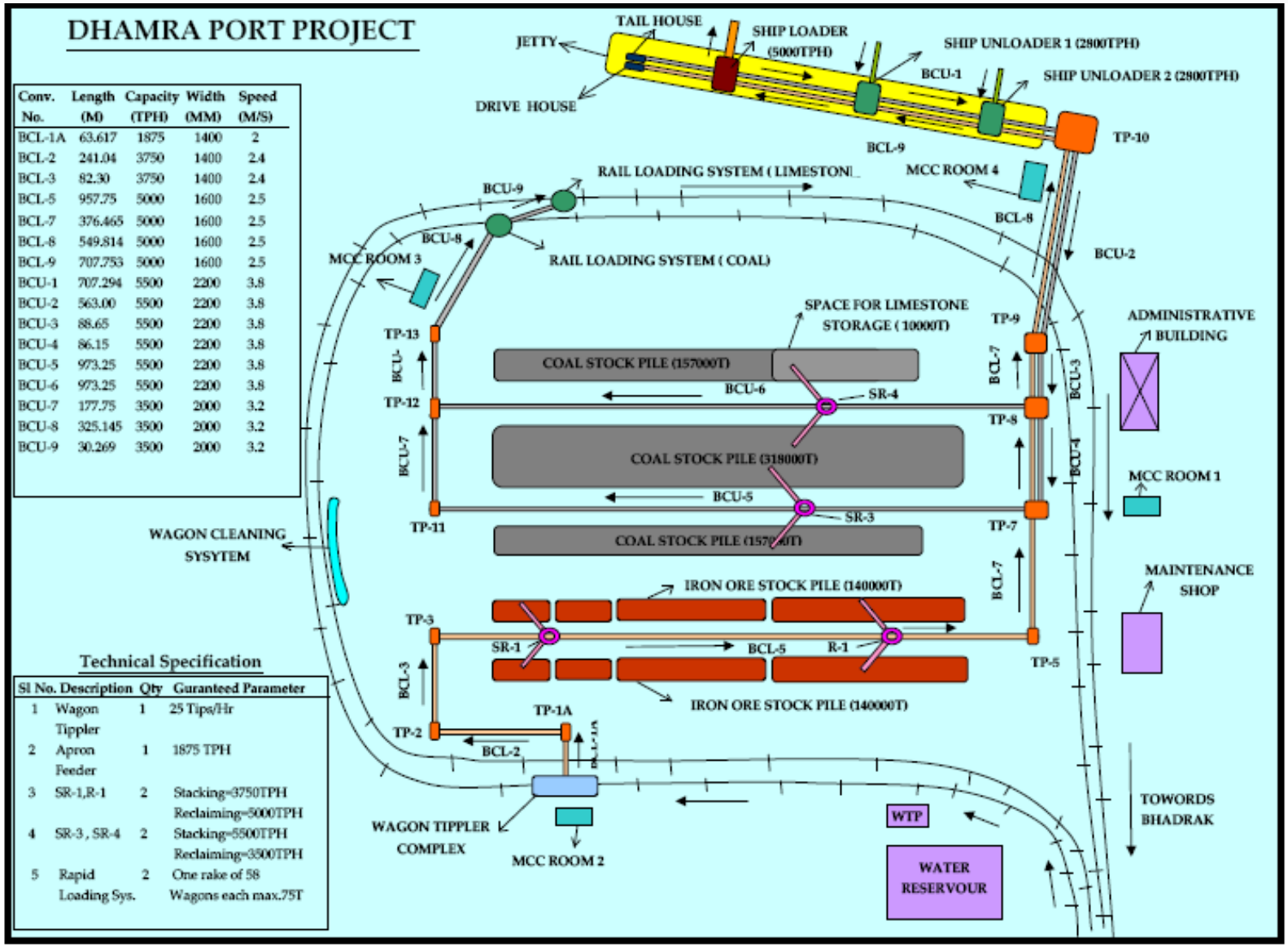


Hinterland of Dhamra Port



State	Zone
Orissa - A	Kalinganagar, Keonjhar, Banspani
Orissa – B	Rourkela Jharsugda, Angul, Talcher, Raigarh
Orissa - C	Dhamra
Jharkhand	Jamshedpur, Bokaro, Patratu
West Bengal	Durgapur, Burnpur, Salboni, Purulia, Kharagpur

Phase – I Plan



Conv. No.	Length (M)	Capacity (TPH)	Width (MM)	Speed (M/S)
BCL-1A	63.617	1875	1400	2
BCL-2	241.04	3750	1400	2.4
BCL-3	82.30	3750	1400	2.4
BCL-5	957.75	5000	1600	2.5
BCL-7	376.465	5000	1600	2.5
BCL-8	549.814	5000	1600	2.5
BCL-9	707.753	5000	1600	2.5
BCU-1	707.294	5500	2200	3.8
BCU-2	563.00	5500	2200	3.8
BCU-3	88.65	5500	2200	3.8
BCU-4	86.15	5500	2200	3.8
BCU-5	973.25	5500	2200	3.8
BCU-6	973.25	5500	2200	3.8
BCU-7	177.75	3500	2000	3.2
BCU-8	325.145	3500	2000	3.2
BCU-9	30.269	3500	2000	3.2

Technical Specification

Sl No.	Description	Qty	Guranteed Parameter
1	Wagon Tippler	1	25 Tips/Hr
2	Apron Feeder	1	1875 TPH
3	SR-1,R-1	2	Stacking=3750TPH Reclaiming=5000TPH
4	SR-3 , SR-4	2	Stacking=5500TPH Reclaiming=3500TPH
5	Rapid Loading Sys.	2	One rake of 58 Wagons each max.75T

The Port (Phase I)

The Channel

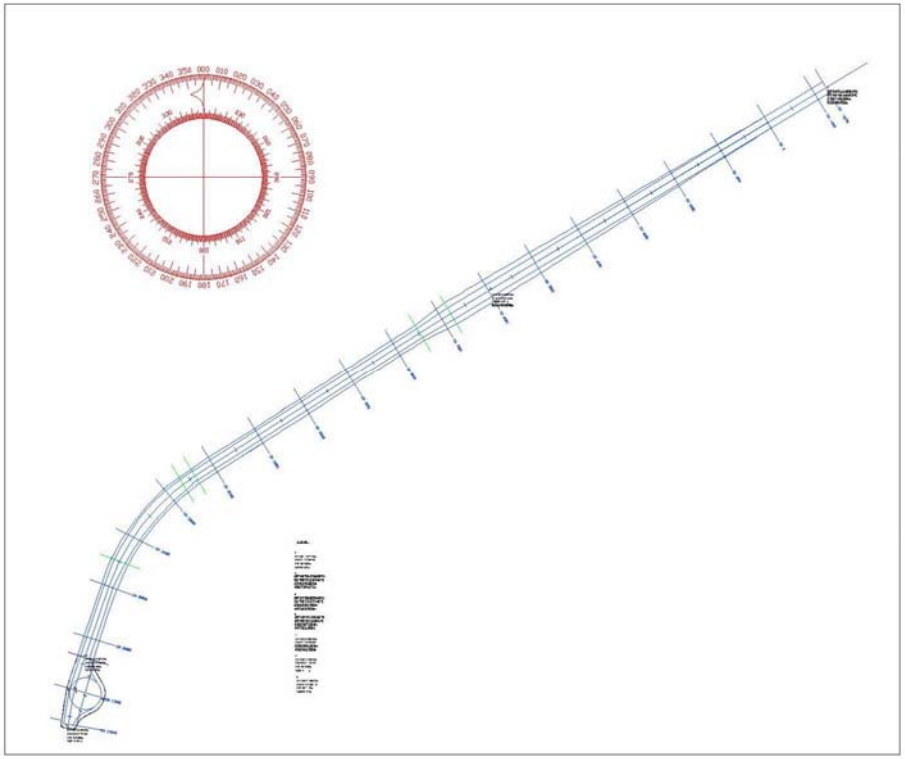
- **Length :** 18 kms**,**
- **Width :** 170 - 240 m
- **Depth :** 18m

- **Vol. of Dredging :** 59.5 million Cu. M.

- **Alignment :** Along natural water depth to optimize dredging
- **Vessel Size**: Designed to accommodate safe passage to vessels up to 180000 DWT (LOA-290 m, Beam- 47m)

- **Notes:**

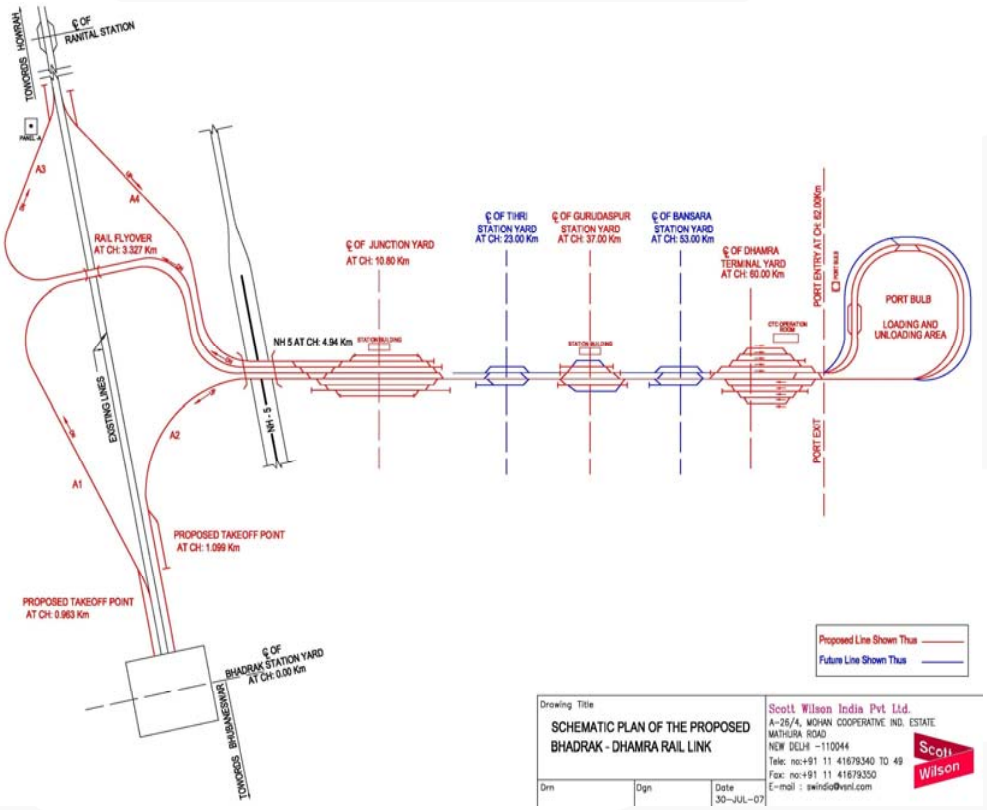
  1. Vessels up to 150000 DWT can enter 99% of the time & above 150000 DWT up to 180000 DWT can enter 48% of the time
  2. One vessel at a time



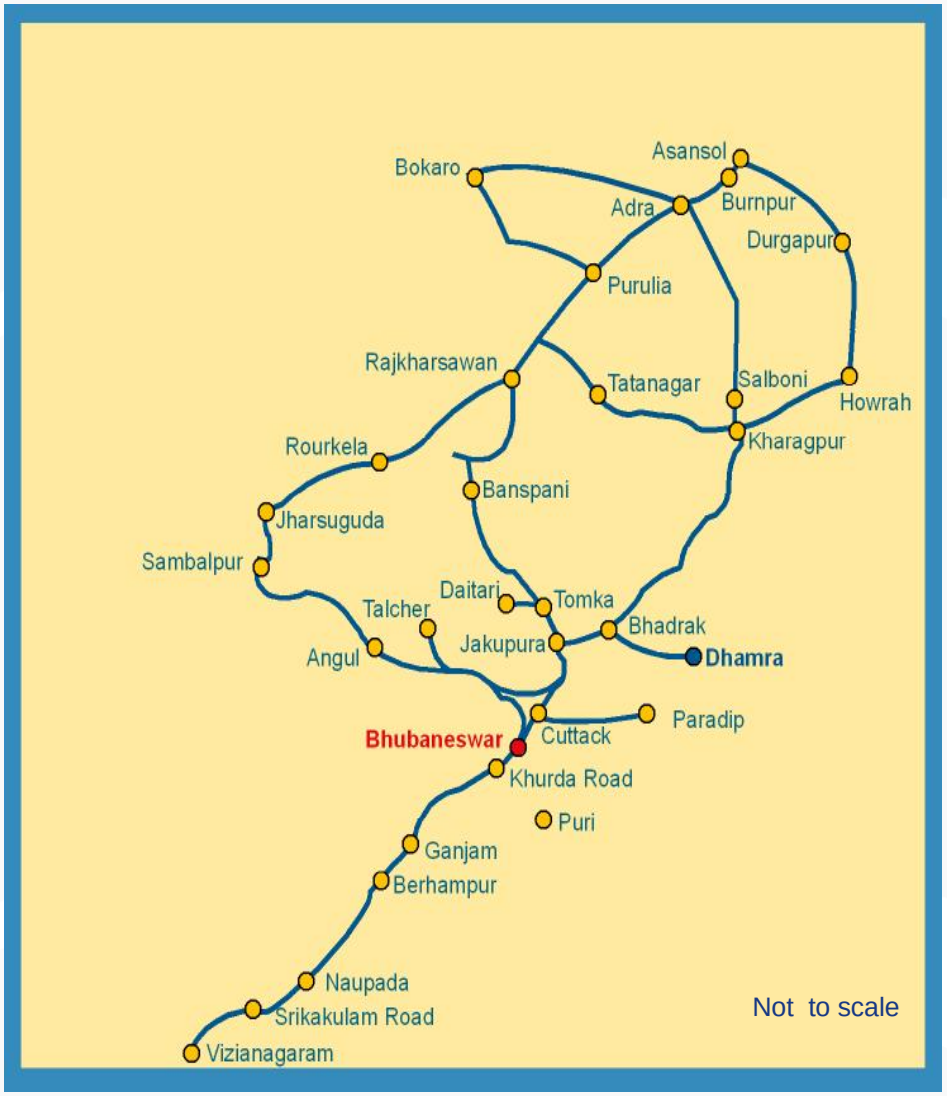
The Port (Phase I)

The Rail Road Corridor

- **Width :** 125 m
- **Length:** 62.50 km
  (To accommodate up to 3 tracks+ 6 lane road)
- **Rail Track**
  - Track length: 112.50 km
  - ROR: 1
  - ROB: 1
  - Bridges
    - Major: 6
    - Minor: 134



Rail Connectivity and Distance (km)



- Kalinganagar 122
- Keonjhar 220
- Banspani 290

- Talcher 260
- Angul* 272
- Jharsuguda 483
- Rourkela 537

- Salboni 275
- Burnpur 460
- Purulia 447
- Durgapur 481

- Tatanagar 370
- Bokaro 496
- Raigarh 545

* Post Angul – Sukinda Rail Link this distance reduces to 220 km

The Port (Phase I)

JETTY

- **Length** - 700 m
- **Width** - (600 x 24m, 100 x 37m)
- **Type** - Dolphin Type (pier mounted) with conveyer support structure and trestle connecting the berth to shore
- **No. of Ships** - 2 Capesize

Material Handling System

CONFIGURATION	No.	CAPACITY
FOR EXPORT CARGO		
Stackers-Reclaimer	1	3750/5000 TPH
Reclaimer	1	5000 TPH
Wagon – Tippler	1	25 Tips per hour (20 Tips per hour)
Ship Loader	1	5000 TPH (4000 TPH)
FOR IMPORT CARGO		
Ship Un-loader	2	2800 TPH x 2 (1680 TPH x2)
Stacker Reclaimer	2	5500 / 3500 TPH each
Rail Loading Facility	1	1.25 Hours / Rake (3000 TPH)
RCC Silos	2	2000 MT each
CONVEYOR BELT	6.90 km	1400/2200 MM : 3500/5000 TPH
STORAGE		
Coking Coal + Limestone	83 m x 730 m x 2	0.80 Million MT
Iron Ore / Thermal Coal	36 m x 730 m x 2	0.75 Million MT

Advantage Dhamra

- Deep draught, all weather sea port, capable of handling vessels upto 180,000 DWT.
- Berthing of two capesize vessels at any given point of time wherein discharging and loading operations can be carried out simultaneously.
- Savings of USD 5 – 7 PMT in sea freight (capesize vis-à-vis panamax).
- Fully mechanised and efficient cargo handling system, capable of :
  - Discharging vessels at the rate of 60,000 MT/day
  - Loading rakes within 1.5 hours
  - Unloading rakes within 3 hours
  - Loading vessels at the rate of 80,000 MT/day
- Least cargo loss and no pilferage
- Savings of USD 2 PMT due to efficiency in discharging/loading of the vessels.
- Flexibility in terms of evacuation of imported cargo by rail/barges/daughter vessels.
- Proper demarcation of stackyards – customer wise and grade wise.
- IT enabled stackyard management system.
- Telescopic rail freight advantage to the customers.
- Composite tariff without hidden costs.
- One stop solution for all handling needs of the customer.

Jetty

Bulk Material Handling System

Conveyor Network

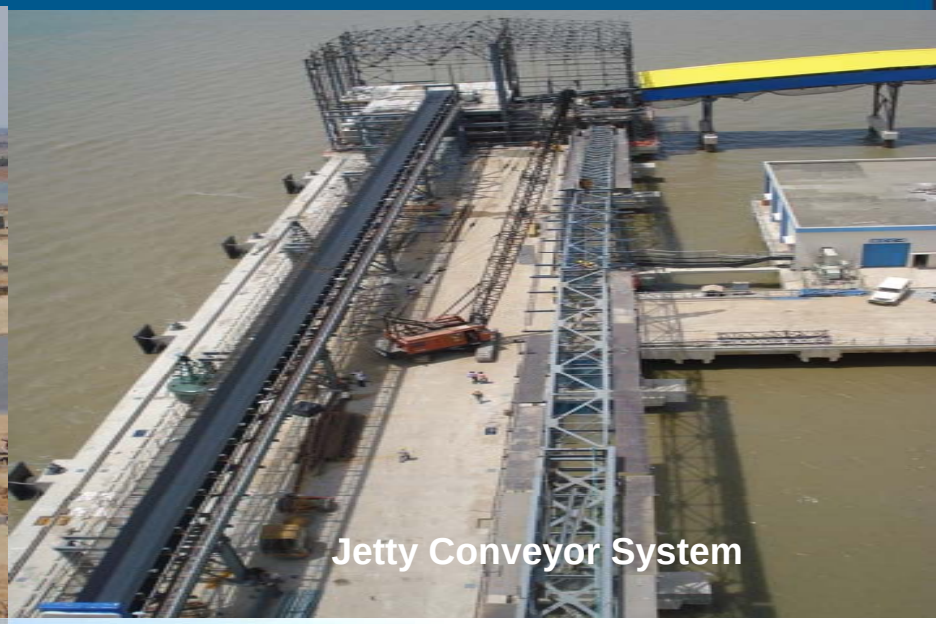
Wagon Tippler Complex

Conveyor System

Stacker cum Reclaimers

Bulk Material Handling System

Conveyor System



Jetty Conveyor System

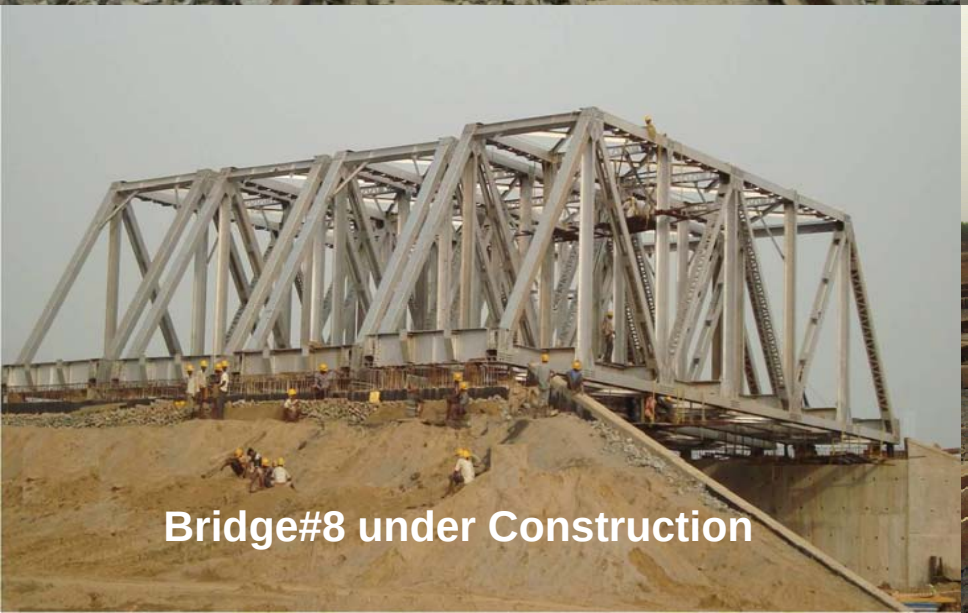
Rapid Loading Silo

Motor Control Center

Rail Link

Rail Track at Bhatatira Station

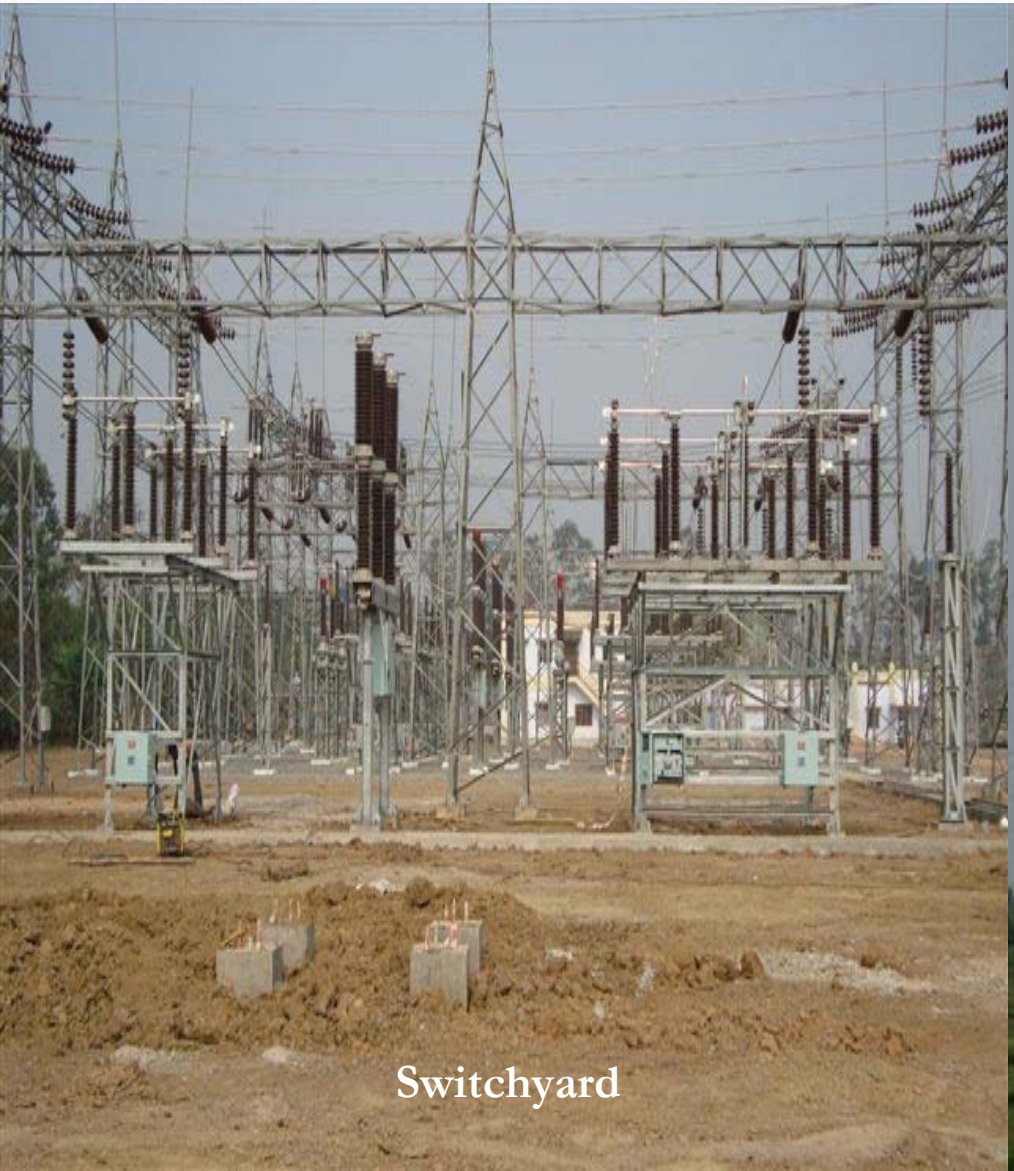
Erection of 1st span at BR # 86



Bridge#8 under Construction

Rail Laying

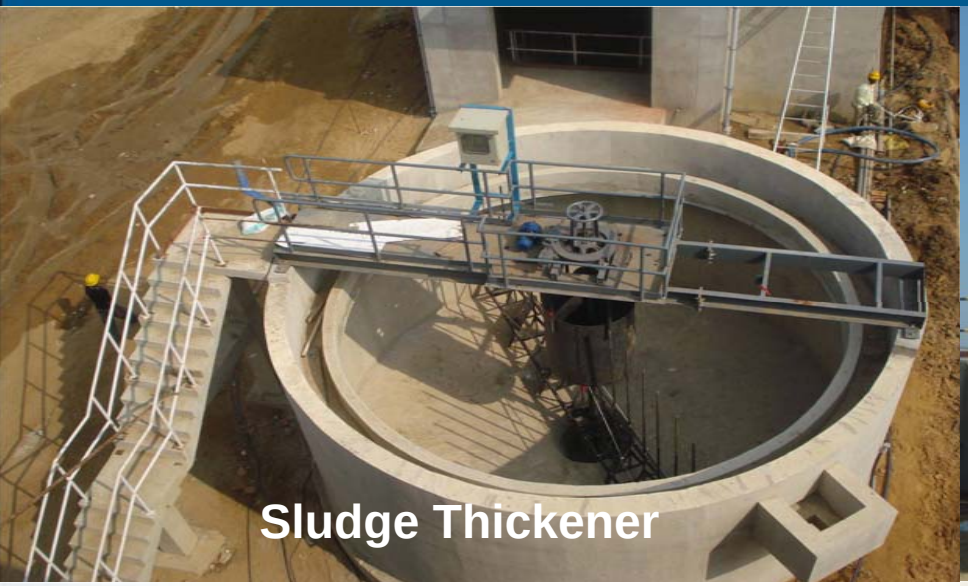
Transmission Line



Switchyard

Conductor stringing in progress

Water Effluent & Treatment


Sludge Thickener


Pressurised Sand filter


Clarifloculator


Cascade Aerator Trial Run

Measures for Sustainable Development

- Association with IUCN
  - Dredging
  - Lighting
  - Preparation of Environment Management Plan
  - Gap analysis in existing research
  - Awareness programmes
- Engagement of NIO
  - Study of the beach profile of Gahirmatha area
  - Impact of dredging if any on beach profile
- Engagement of RRL (renamed as IMMT)
  - Environment Impact Assessment of Dredging and other related activities in Dhamra Port.
    - Monthly monitoring
    - Half yearly reports
    - Covers 27 parameters of water quality in relation to marine productivity
    - Monitoring of air and noise parameters

Measures for Sustainable Development

- Engagement of WTCER
  - Impact of Embankment on natural drainage and adequacy of cross drainage measures taken.
  - Impact of reclamation on natural drainage and adequacy of measures taken
- Engagement of Orissa Forest Development Corporation
  - Plantation of 2,40,000 trees along the rail - road corridor and port area

MISSION OF DHAMRA PORT

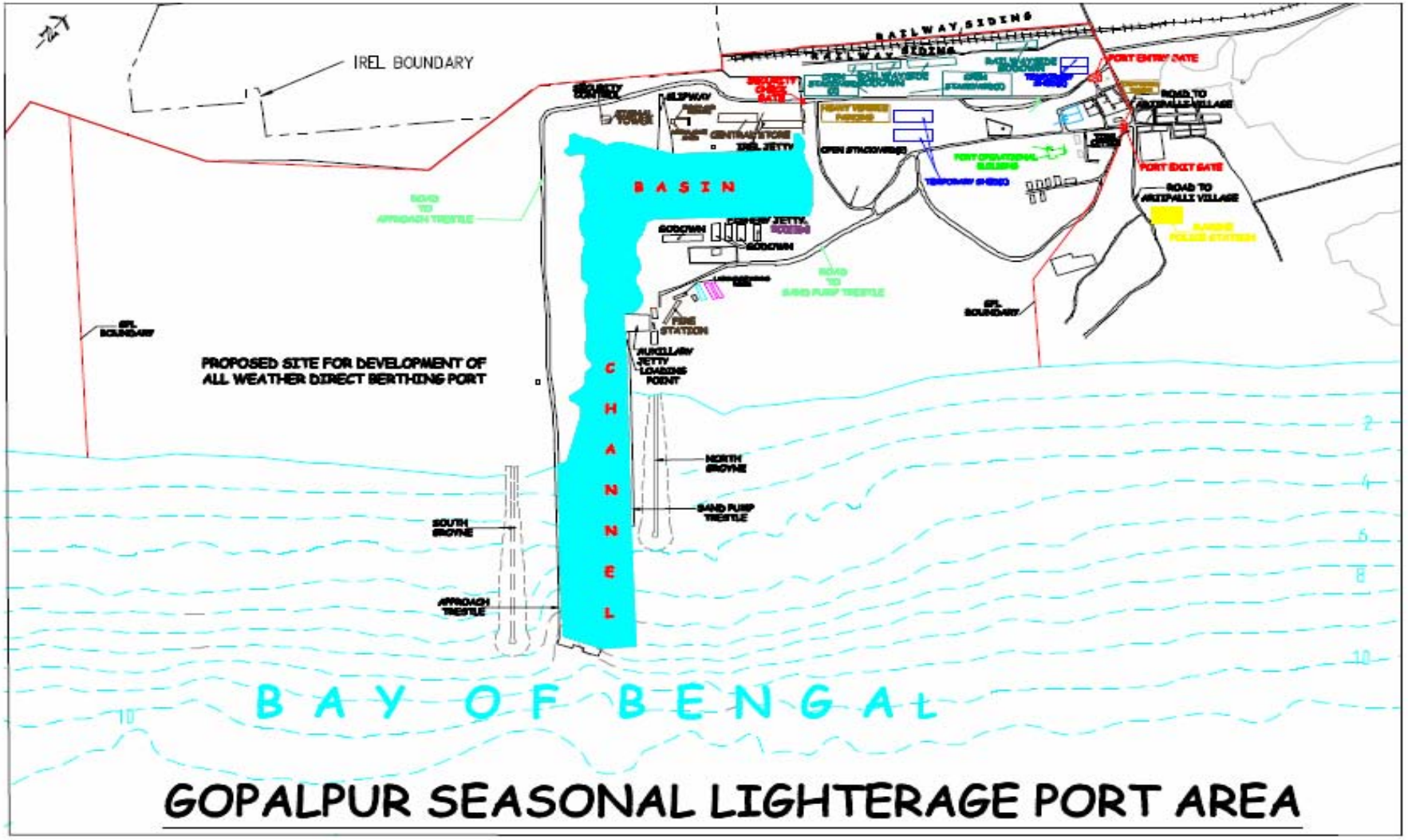
TO MAKE THE PORT OF DHAMRA AN EXEMPLARY EXERCISE IN SUSTAINABLE DEVELOPMENT

GOPALPUR PORT

An Overview

- Govt. of Orissa signed Concession Agreement with Gopalpur Ports Ltd *(A consortium of Orissa Stevedores Ltd. Cuttack, Sara International Ltd. Delhi)* on 14 September 2006 to develop the Port on BOOST basis for initial period of 30 years. The major Milestones are:
  - ❖ Phase I of Project: To rehabilitate the defunct erstwhile Port and make operative with in 12 months from the Take over Date.
  - ❖ Phase II of Project: To develop the Port to an All Weather deep water Direct Berthing Port and make operative no later than 48 months from the Take over Date or no later than 24 months of obtaining environmental clearance, whichever is earlier.
- Handing over of assets of the erstwhile Gopalpur Port Project to Gopalpur Ports Limited on 30 October 2006

Gopalpur Anchorage Port

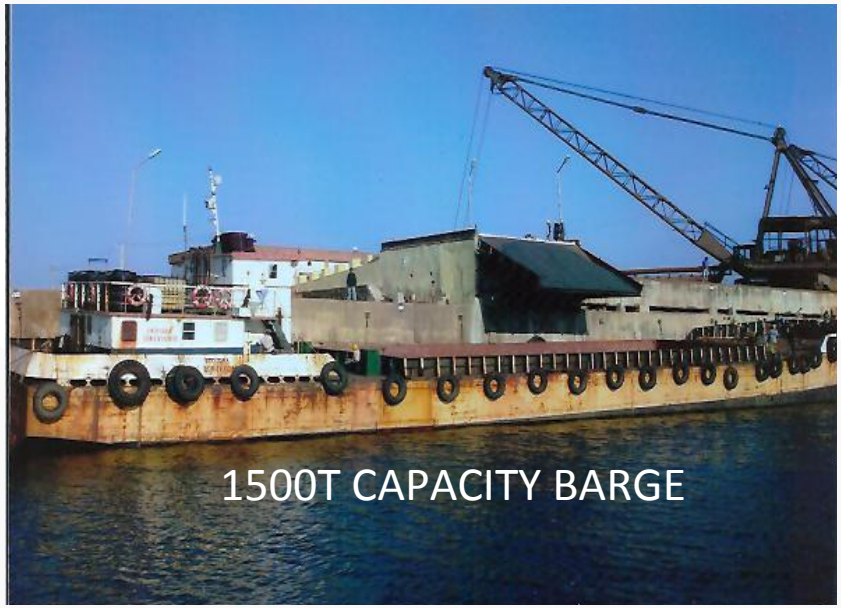


Cargo Handled at Gopalpur Anchorage Port

Sl.No.	Year	No of Vessels	Quantity (MTPA)
1	2006-07	01	0.502
2	2007-08	18	0.247
3	2008-09	11	0.252
4	2009-10	21	0.499
	Total	51	1.048

Gopalpur Ports Limited entered into record book by discharging a record 11,110 MT of Non-Coking Coal on 5th March 2010 in just 24 hours from the Indonesian Vessel "MV Golden Eye" carrying 20,000MT of Non-Coking Coal. This is all time highest discharge rate in any anchorage Ports in India.

CUTTER SUCTION DREDGER

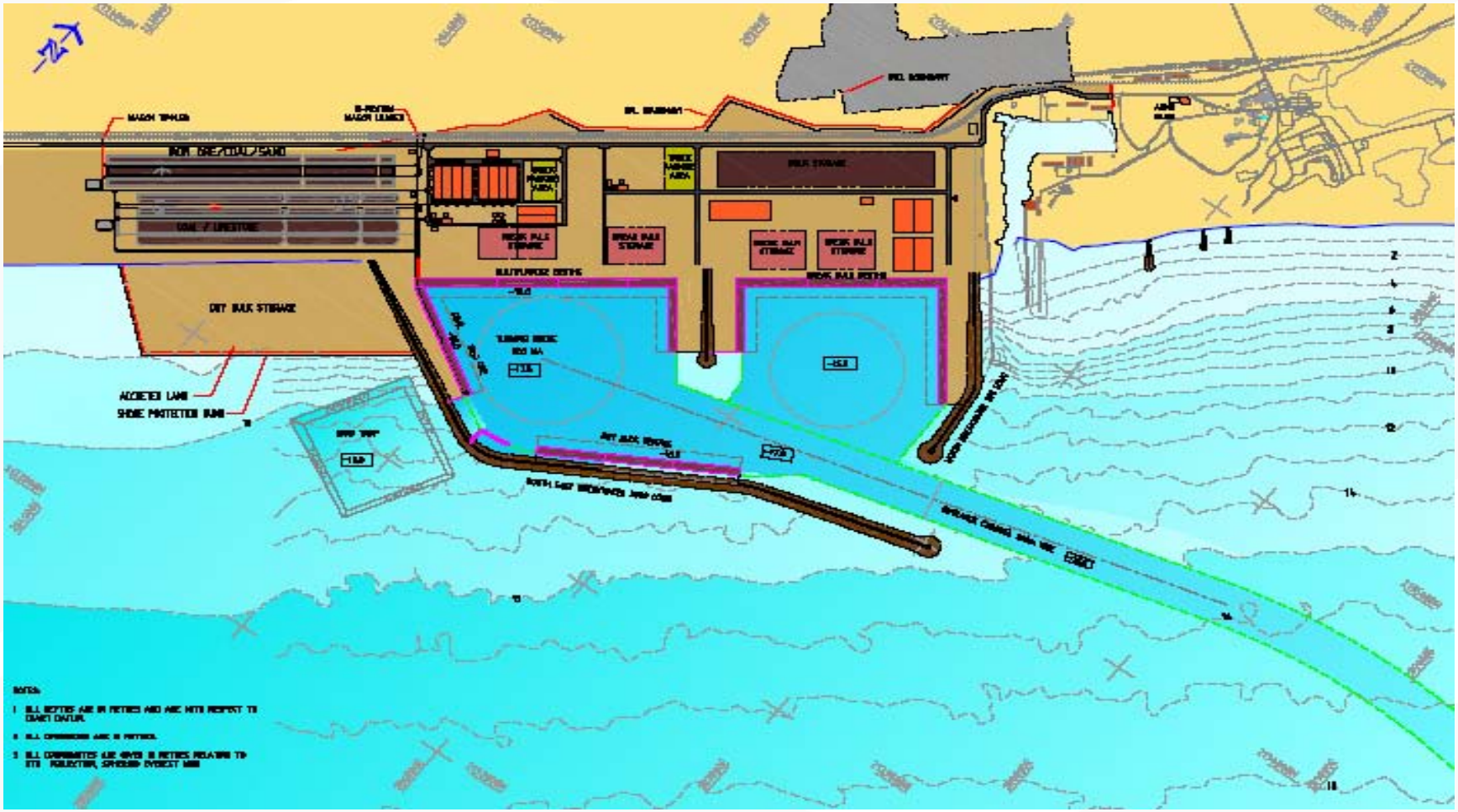

1500T CAPACITY BARGE


BAGGING PLANT

PHASE – II

DEVELOPMENT OF ALL WEATHER DIRECT BERTHING GOPALPUR PORT

Master Plan of Gopalpur Port



Salient Features

- To meet the traffic demand up to 2016 GPL two Bulk berths and one Multipurpose General Cargo berth is being Constructed

PHYSICAL DEMENSIONS

DESIGN VESSEL:

- Maximum vessel size in the port

Panamax Vessel	-	80,000 DWT
LOA	-	245 m
Beam	-	32 m
Draught	-	14.0 m

BERTHS:

- Two bulk cargo berths & one multipurpose berth

Length	-	281.5m each
Width	-	31.45m
Draught at berth	-	(-) 15.5m Below Chart Datum

Salient Features

Breakwaters

South break water	2170m long
North break water	435m long
Top of Break water	5.5 to 8.9 above CD
Granite Stones Required	3 million tones

Harbour Basin

Diameter of the turning circle	550m
Draught at the circle	(-) 15.0m
Entrance channel	1700m length,200m wide, (-) 15.5 draught

Port is planned to receive 1,25,000 DWT vessels beyond 2016

Salient Features

MECHANICAL HANDLING SYSTEM

1	Belt Conveyor System	
2	Continuous Unloader	1600 TPH
3	Stacker	3200 TPH
4	In-motion Wagon Loader	1500 TPH
5	Reclaimer	4000 TPH
6	Mobile Harbour Crane	
7	Road Weigh Bridge	60T capacity
8	Rail Weigh Bridge	
9	Fork lift Trucks	3T to 15T
10	Front end Loader	6T capacity
11	In-motion Wagon Loader	

Cargo Projection

S No	Projection (MTPA)	Year
1	9.89	2012
2	23.45	2016
3	29.74	2022
4	53.49	2040

Cargo Profile

- **Import – Coking Coal, Fertilizer, Lime Stone, POL, Caustic Soda, Thermal Coal, FRM**
- **Export – Minerals, Iron – ore, Food Grain, Alumina, Iron & Steel, Aluminum, POL, Granite Stones, Agricultural & Marine Products**

KIRTANIA PORT

Subarnarekha Mouth (Kirtania) Port

- For development of Port on Subarnarekha Mouth (Kirtania) in Balasore District, Government has entered into MOU with Creative Port Private Limited, Chennai on 18th December'2006.
- Government of Orissa has signed the Concession Agreement with the developer on 11th January'2008.
- Total estimated cost of the Project is Rs.2187.00 Crores.
- Total projected cargo to be handled 14 MTPA to 50 MTPA.
- Traffic Projection:-

	PHASE-I	PHASE-II	PHASE-III
Capacity (Million Tons)	14	35	50
Vessel Size (DWT)	1,20,000	1,50,000	1,80,000
Year of Commissioning	2010	2020	2032

Salient Features

- The Basin:- This would be created within two break waters (Eastern & Western) totaling around 7000 Meters long.
- Berth:-

  (i) 4 Nos. of berth in the 1st Phase around 1100 Meter long.

  (ii) 3 Nos. Additional berth in Phase-II

  (iii) 3 Nos. Additional berth in phase-III

  A master plan development plan for a 25 berth, 100 million ton facility.

- Rail/Road corridor from Haladipada to the Port site (100 Mtrs. Width)

- Approach Channel-28 Kms. Channel to reach 15.7 meter contour in the first Phase.

Phase-wise Cargo Projection

	PHASE-I 2010	PHASE-II 2020	PHASE-III 2032
Coking Coal Imports Million Tons	7.50	14.00	20.00
Iron Ore Exports Million Tons	2.50	2.00	2.00
Thermal Coal Exports Million Tons	0	4.00	6.00
Limestone Imports Million Tons	1.50	4.00	6.00
Containers Nos. TEU	75,000	6,00,000	15,00,000
General Cargo Million Tons	2.00	3.50	3.50

- Steps taken for development of the Port:-
  - The first and most important step of the project is acquiring land for port area. The company has given the detailed land schedule for port site land of 1215 Acres (Government Land) for which steps are being taken for acquisition.
  - The company has submitted its land requirement of 1565.93 Acres for Rail/Road corridor.

JATADHAR PORT

Salient Features

- Government of Orissa have given in principle approval for establishment of a Captive Minor Port at Jatadhar Muhan in Jagatsinghpur District by POSCO India Limited on 14th June'2006.
- POSCO has conducted preliminary study and prepared Master Plan for Harbour facilities and site preparation for POSCO's Integrated Steel Plant.
- Numerical Model Analysis, Littoral Drift Study have also been conducted by POSCO through the consultancy services of International standard.
- POSCO has submitted a Road Plan for the proposed Port to connect road and rail link to the Port.
- For assessment of adverse impact on environment, a detailed studies has been conducted by CWPRS, Pune engaged by Paradip Port Trust and submitted its report. POSCO has been advised to take into account the suggestions of CWPRS Report while preparation of the DPR.
- The proposed Port, POSCO India Limited will handle its own cargo i.e., Iron Ore, Coal etc.
- The Port will bring cape-size vessels of more than 1 Lakh DWT.

Salient Features

- The POSCO Captive Port at Jatadhar will be on BOO/BOOT/ BOOST Basis.
- RITES Limited have been entrusted for preparation of the draft concession agreement. The cost will be borne by the POSCO India Limited. Draft Concession Agreement along with remarks of POSCO has been received and is under scrutiny. Certain clarifications have been sought from M/s RITES regarding water front royalty.
- Estimated Cost in First Phase is Rs.1432.00 Crores.
- Total number of Berth-8 (in 1st Phase-3, 2nd Phase-3 and 3rd Phase-2)

ASTARANGA PORT

Salient Features

Government of Orissa has signed an MOU with Navayuga Engineering Company Limited, Hyderabad on the 22nd December'2008 for development of a Port at Astaranga in Puri District

- The estimated cost of the Project is Rs.3500.00 Crores for Phase-I of the Project.
- The projected capacity of the Port will be 25 MTPA in Phase-I
- Number of Berth will be 8.
- The company has submitted the Techno-feasibility report of the Port project.
- Government of Orissa will sign the Concession Agreement with the developer for development of the port at Astaranga very shortly.

CHUDAMANI PORT

Salient Features

- Government of Orissa has signed MOU with Aditya Birla Group on 22.10.2009 for development of a Captive Port at Chudamani in Bhadrak District.
- Chudamani Port has a potential to be developed to a large Port with handling capacity of 10 MTPA.
- Essel Mining and Industries Ltd. will be developing the facility in phases with Phase-1 for 3 MTPA handling, Phase-2 will be with 5 MTPA and Phase-3 will be 10 MTPA.
- All the Port limits have been notified basing on Indian Ports Act,1908 and governed by Orissa Port Policy, 2004.

THANK YOU