

DEVELOPMENT OF A PORT ON RIVER MAHANADI, ODISHA

PROJECT BRIEF

Directorate of Ports & Inland Water Transport, Government of Odisha proposes to develop a Port on the left bank of the River Mahanadi in Akhadasali, Dasaraapur, Palligarh, Bahakuda and Baharagada Badadandua of Kendrapada district in Odisha through **Public Private Partnership (PPP)** on **Build, Own, Operate, Share & Transfer (BOOST)** basis. The proposed port is located at Latitude 20°20'19"N to 20°20'55"N and Longitude 86°36'53"E to 86°37'46"E. and is connected to Cuttack by NH-5A (Now NH 53) highway which is about 90 km from the project site. Paradip railway station is located 3 kms away to the project site. Waterways connection of the proposed port site exists with sea ports of Paradip and Dhamra and further to overseas. The proposed port site is just 12 km inside the creek from the open sea in the Bay of Bengal.

Total land requirement for the port is 300 ha and the project shall be developed in two phases. Current proposal envisages the acquisition of 300 ha of land out of which 175 ha will be used for the development of Phase-I and rest will be utilized in future development.

The traffic projections were arrived at, based on origin/destination surveys in the immediate hinterland and reports on earlier studies and discussions with the local industries and traders. The anticipated cargo projections are shown in Table-1.

Table-1 Cargo Projections

Commodity	Projected Cargo (Million Metric Tonnes)	
	Phase-I (2018-2027)	Phase-II (2028-2037)
Iron ore	10.45	27.06
Coal	4.65	11.45
Fertilizers	1.81	3.87
Other bulk cargo	0.52	1.14
Containers	1.00	2.36
Total	18.43	45.88

Iron Ore, Coal and Fertilizer make up the bulk cargo traffic, which will constitute the major traffic that will be coming to the port. Being a riverine port in shallow area and in order to have access to the port a 190m wide outer channel and 160m inner channel is proposed to be dredged to -14m and -12m, having length of approximately 14km and 13Km respectively. Proposed project envisages construction of following facilities:

- Iron Ore Handling Berth - 250m X 25m
- Multi Cargo Handling Berth - 250m X 25m

➤ Coal Storage Area	- 15.30 Ha (4Nos. -1000m X38m)
➤ Iron Ore Storage	- 11.80 Ha (3Nos. - 1000m X 38m)
➤ Fertilizer Storage Area	- 4.10 Ha (2 Nos. - 275m X 75m)
➤ Break Bulk Storage Area	- 0.90 Ha (150m X 75m)
➤ Container Storage Area	- 1.65 Ha (220m X 55m)
➤ Admin Building	- 30m X 20m
➤ Workshop	- 60m X 15m
➤ Fuel Station	- 30m X 30m
➤ Electrical Building	- 20m X 30m
➤ Sub Station	- 50m X 50m
➤ Security Building	- 5m X 5m
➤ Road Bridge	- 750m X 10m
➤ Rail Bridge	- 750 m X 6m
➤ Fire Station	- 20 X 20m
➤ Port Users Building	- 30x20M
➤ Rail Yard for Iron Ore	- 500X50 m
➤ Rail Yard for Coal	- 500X50 m
➤ Dredging in navigation Channel	- 13 km (In Mahanadi river)
➤ Dredging in navigation Channel	- 14 km (In sea up to river mouth)
➤ Quantity of dredged material	- 30 Mm ³
➤ Quantity of maintenance dredging	- 4.5 Mm ³ per year
➤ Construction of port roads	- 10 km
➤ Green Belt	- 25 ha

Details of the Material handling equipment:

➤ Continuous Loader (for Iron Ore)	- 1 x 5000 tph
➤ Continuous Unloader (for Coal)	- 1 x 2500 tph
➤ Mobile Cranes (for break bulk)	- 2 x 500 tph
➤ Conveyer belt	- 1000 mm
➤ Fork lifts, Gantry Cranes etc	

The estimated cost for the development of port on river Mahanadi is about Rs. 2110 Crore. It is proposed to develop the proposed port through Public Private Partnership (PPP) on Build, Own, Operate Share and Transfer (BOOST) basis. The likely IRR for 30 years concession periods has been worked out as 13.41%.