

BRIEF NOTE ON
PROPOSED DEVELOPMENT OF POL / COASTAL CARGO /
MULTIPURPOSE CARGO BERTH IN VASCO BAY

General

Present capacity of Mormugao Port is 47 MMTPA. Till 2010-11, it was a major Iron-ore exporting port with maximum capacity handled of 45 MMTPA during 2010-11. Due to sudden ban on iron-ore export in Oct 2012, the port has diversified its cargo berth. During 2016-17, port has achieved a growth rate of 64 %, highest among major Ports of the country. Main cargo comprises of coal, coke, bauxite, steel coil, POL/liquid products and other general cargo.

Mormugao Port is presently handling Liquid cargo at Berth Nos. 8 and 10. Port has signed an Agreement with M/s Goa Sea Port Pvt. Ltd., for redevelopment of berth nos. 8 and berth no. 9 for handling multipurpose cargo. Berth 10 & 11 are exclusively utilized for handling general cargo and occupancy of these berths are more than 80 %.

In line with the Govt. Policy and considering the coastal shipping movement of cargoes like steel, cement, fertilizer, food grains and coal from Mormugao Port, it is proposed to handle coastal cargo at these berth .

Mormugao Port therefore proposes to develop a POL, multipurpose and a coastal cargo berth in the Vasco bay opposite to the berth nos. 10 and 11. This is an offshore berth and this berth is earmarked for future development.

The proposed development of new Berth at Vasco Bay is estimated to cost Rs. 200 crores.

II. Traffic Analysis and Projections

Need for a Liquid Handling Berth

Presently Liquid cargo is handled at Berth Nos. 8 and 10. Berth no. 8 handles various liquid cargoes viz. Caustic soda, Furnace oil, HSD, Liquid Ammonia, Motor Spirit, Palm oil etc. These products are received in smaller tankers with low parcels sizes. The unloading is done with ship's pumps and hence the average productivity at this berth is very low i.e. about 9000 TPD only. The capacity of the berth is 2.2 MTPA with about 70% occupancy. The berth occupancy of this berth in 2014-15 and 2015-16 is only 26%. Berth 10 and 11 handle Liquid cargoes like Aviation oil, HSD, Furnace Oil, LSHF, Kerosene and Phosphoric acid etc. The above cargo is besides the General cargo which is predominantly handled at these berths.

The total cargo handled at these berths in 2015-16 is 2.64 MMTs. The Berth occupancy of these berths in 2014-15 is 81% & 79% and in 2015-16 it is 67% & 68% respectively. Going by the norms, these berths are over utilized in 2014-15 and nearly utilized optimally in 2015-16. By releasing the Liquid cargo handling from these berths the utilisation / occupancy can be at optimal levels and can be utilized for handling other general cargo.

As per the traffic projections it may be seen from the table below, the Liquid cargo is set to a growth of more than 2 Million tonnes by 2029-30 and is poised to improve to the level of 3.59 MillionTonnes by the end of 2040-41.

2.1 Traffic Projections for Liquid Cargo

In Million Tonnes

S. No	Year	Grow th	POL	Caustic Soda	Liquid Ammonia	Phosphoric /Sulphuric Acid	Edible Oil	Total
0	2015-16		0.56	0.01	0.08	0.37	0.04	1.06
1	2016-17	5%	0.59	0.01	0.08	0.39	0.04	1.11
2	2017-18	5%	0.62	0.01	0.09	0.41	0.04	1.17
3	2019-20	5%	0.68	0.01	0.10	0.45	0.05	1.29
4	2024-25	5%	0.87	0.02	0.12	0.57	0.06	1.64
5	2029-30	5%	1.11	0.02	0.16	0.73	0.08	2.10
6	2034-35	5%	1.42	0.03	0.20	0.93	0.10	2.68
7	2039-40	5%	1.81	0.03	0.26	1.19	0.13	3.42

The Traffic Projections in the Sagarmala, Development of Master Plan for Mormugao Port also indicates that the POL may grow from the existing 0.6 MTPA to about 1.7 to 1.9 MTPA by 2035. This is besides the other Liquid cargo being handled by MPT.

2.2 Need for a Coastal Cargo Berth

Coastal traffic handled by MPT

The Coastal Cargo handled by MPT during the past 2 years is as under:

In '000 Tonnes

S. No	Cargo	2013-14	2014-15	2015-16
1	POL (Product)	527	571	559
2	Thermal Coal		9	
3	Iron Ore		391	210
4	Iron ore pellets		49	
5	Others	194		
a	Coking Coal			68
b	Raw Pet coke			41
c	Container Cargo		22	74
d	Bentonite			4
e	Hot Rolled Coils		179	145
	Total	721	1221	1101

Source: MPT

The share of coastal cargo in the total traffic was around 8% in 2014-15 and 5.3% in 2015-16. POL constitutes about 47% in 2014-15 and 51% in 2015-16 of total coastal traffic. Out of the above, if POL is shifted to the new POL Berth and the Iron ore / pellets are shifted to Berth Nos 8 and 9 and also problems in shifting of overflowing iron ore/pellets if any to the New Coastal berth, the cargoes that can be shifted are the other cargo which is **Steel coils** and other **non-polluting cargo**. The steel cargo is expected to grow to the maximum extent and is expected to touch a volume of 3.1 Million tonnes by 2035. This apart, the port can handle the Coastal cargo of Cement, Fertilisers and Food Grains in small quantities.

2.3 Coastal Shipping potential in MPT.

The Master Plan report, prepared by AECOM (Feb 2016) suggests the coastal shipping potential as under:

1. Steel Cargo traffic is increasing in MPT beside the other general cargo. Hence, there is a need for development of Coastal Berth to handle the increasing demand for Cargo movement. The port also has a potential of handling around 1 MTPA of steel by coastal movement.

Coal can prove to be a major commodity which can be coastally shipped to the port of Mormugao. The plants of NTPC Kudgi and KPCL Bellary can shift to coastal shipping and receive their coal from the Mormugao port, if Belekeri port doesn't come up in the near future.

The overall outlook of coastal shipping from Mormugao port is shown in Table below.

Mormugao Port – New Opportunities Possible via Coastal Shipping

Units: MTPA (except containers)

Commodity	2020	2025	2035
Thermal Coal (Unloading)	13.37	13.37	13.37
Steel (Loading)	0.49	0.65	1.17
Steel (Unloading)	0.67	0.89	1.59
Cement (Loading)	0.39	0.52	0.93
Cement (Unloading)	0.01	0.02	0.03
Fertiliser (Loading)	0.03	0.04	0.06
Fertiliser (Unloading)	0.06	0.07	0.10
Food Grains (Unloading)	0.14	0.18	0.26
Total	15.16	15.74	17.51

Considering the fact that thermal coal cannot be handled at the proposed coastal berth as the proposed location for new facility is in close proximity to the Vasco city and the residential / market place, the other cargoes like steel, cement , fertilizer and food grains are proposed to be handled at the proposed new berths.

Thus, the other cargoes shall stand at 1.79 MTPA by 2020, 2.37 MTPA by 2025 and 4.14 MTPA by 2035.

2.4 Traffic Projections

The following table illustrates the traffic growth in the next 25 years.

Cargo Handled during the past 5 years and projections thereof In Million Tonnes

Year	Liquid Cargo	Coking Coal	Thermal Coal	Steel (HRC)	Iron Ore	Fertilizers	Container Cargo	Other Cargo	Total
2011-12	1.37	5.67	1.16	0.38	29.37	0.09	0.25	0.71	39.00
2012-13	1.04	6.61	0.77	0.79	7.42	0.08	0.25	0.78	17.74
2013-14	0.86	7.52		1.20	0.05	0.18	0.23	1.70	11.74
2014-15	1.07	6.57	2.00	1.63	0.75	0.22	0.31	2.16	14.71
2015-16	1.06	7.81	3.73	0.84	3.96	0.22	0.35	2.81	20.78
Growth Rate Assume	5%	5%	5%	5%	5%	1%	5%	5%	
2016-17	1.11	8.20	3.92	1.24	4.16	0.22	0.37	2.95	22.17
2017-18	1.17	8.61	4.11	1.30	4.37	0.22	0.39	3.10	23.27
2020-21	1.35	9.97	4.76	1.51	5.05	0.23	0.45	3.59	26.91
2025-26	1.73	12.72	6.08	1.92	6.45	0.24	0.57	4.58	34.29
2030-31	2.20	16.24	7.75	2.46	8.23	0.26	0.73	5.84	43.71
2035-36	2.81	20.72	9.90	3.13	10.51	0.27	0.93	7.46	55.72
2040-41	3.59	26.45	12.63	4.00	13.41	0.28	1.19	9.52	71.06

3. PRESENT PROPOSAL

The present proposal is for development of POL/Coastal/Multipurpose cargo at a cost of Rs. 200.00 crores which includes capital dredging with a draft of (-) 15.00 mtr. Loading / Unloading arms are to be provided by the PPP operator so as to give flexibility for handling different types of cargo and ships gear may be used for handling coastal / general cargo. Drawing showing the proposed development is enclosed.

