



Mormugao Port Trust  
Office  
Reg. No. 1933 22/2/16

F. No. 10-23/2014 - IA III  
Government of India  
Ministry of Environment, Forest & Climate Change  
(I.A. Division)

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To,  
The Chairman,  
M/s Mormugao Port Trust,  
Headland Sada,  
Goa

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Subject : Deepening of approach channel for capsized vessels at Mormugao Port by M/s Mormugao Port Trust. -Environmental and CRZ Clearance reg.

Ref.: Your online proposal no. IA/GA/MIS/34476/2014 dated 15<sup>th</sup> December, 2015.

Sir,

This has reference to your online proposal no. IA/GA/MIS/34476/2014 dated 15<sup>th</sup> December, 2015 alongwith project documents including Form-I, Terms of References, Pre-feasibility Report, EIA/EMP Report regarding above mentioned project.

2.0 The Ministry of Environment, Forest and Climate Change has examined the application. It is noted that the proposal is for Deepening of approach channel for capsized vessels at Mormugao Port. The Port has 7 cargo handling berths of which two are dedicated coal berths, one dedicated iron ore berth and a dedicated POL berth and the remaining general cargo berths. Apart from these 7 berths, there is also a dedicated berth for cruise vessels and a non-cargo berth which is proposed to be earmarked for the exclusive use of Navy and Coast Guard and 6 nos Mooring Dolphins. There is a 6.0 km long entrance channel with the depth of outer channel being 14.40 m and that of the inner channel being 14.10 m. The port has a total land area of 530 acres (212 ha) approx. A fully loaded Panamax vessel can be handled under these conditions by taking advantage of tide. The proposal is to deepen the outer channel to -19.80 m and inner channel to -19.50 m. This will facilitate navigation of Capesize vessels at any state of tide. Cost of project is Rs. 380 Crore.

3.0 The material to be dredged will mainly consist of silt and clay. A small quantity of weathered rock may be encountered. The total quantity to be dredged will be about 15.40 million cum. Most of the dredging work will be undertaken with a Trailer Suction Hopper Dredger (TSHD). A Cutter Suction Dredger (CSD) will also be deployed for hard material and weathered rock if encountered. Blasting will not be involved. The dredged material will be dumped in the designated dumping ground suggested by CWPRS. The channel has been designed for 185,000 DWT bulk carriers. The typical dimensions of design vessels area is as given below:

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Vessel size (DWT)	Length (m)	Beam (m)	Draft (m)
1,85,000 (bulk carrier)	300	45.0	18.5

The proposed depth of the channel has been arrived at as follows:

Draft for 185,000 DWT vessels : 18.50 m

Under keel clearance : 1.30 m

Total depth required : 19.80 m.

4.0 The dredge spoil will be disposed of in the offshore disposal area. CWPRS has carried out hydrodynamic studies and dispersion studies for finding out a suitable location in offshore to dispose of the dredged material. As per CWPRS recommendations, a disposal area of 2 X 2 km, located at a distance of 1 km north from the intersection of the centre line of the outer approach channel with the -20 m contour at a depth of about -27 m CD has been identified. CRZ mapping for the proposed dredging of navigation channel project has been done through Institute of Remote Sensing (IRS) Anna University, Chennai.

5.0 Public hearing under Para 7 III Stage (3) (i) (cc) of the EIA Notification, 2006.

6.0 All the projects related to Ports and Harbour i.e.  $\geq 5$  million TPA of cargo handling capacity (excluding fishing harbours) are listed at 7(e) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

7.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its meetings held during 29<sup>th</sup> September, 2014– 1<sup>st</sup> October, 2014, 24<sup>th</sup> – 26<sup>th</sup> June, 2015 and 21<sup>st</sup> – 22<sup>nd</sup> December, 2015 respectively. Project Proponent and the EIA Consultant namely WAPCOS LTd, Gurgaon, have presented EIA / EMP report as per the TOR. EAC has found the EIA / EMP Report and additional information to be adequate and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

8.0 As per the recommendations of EAC, the Ministry of Environment, Forest & Climate Change hereby accords Environmental and CRZ Clearance for the above-mentioned project "Deepening of approach channel for capsized vessels at Mormugao Port by M/s Mormugao Port Trust", under the provisions of the Environment Impact Assessment Notification, 2006 & Coastal Regulation Zone (CRZ) Notification, 2011 and amendments thereto and Circulars issued thereon and subject to the compliance of the following specific conditions, in addition to the general conditions mentioned below:

**A. SPECIFIC CONDITIONS:**

- i) 'Consent for Establish' shall be obtained from State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- ii) *All the recommendations and conditions specified by Goa Coastal Zone Management (GCZMA) vide letter no. GCZMA/5/15-16/2012 dated 27.11.15 shall be complied with.*
- iii) As proposed, blasting shall not be used in the dredging.
- iv) Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life, particularly benthos. This shall be prevented

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by suitable precautions and also by providing necessary mechanisms to trap the spillage.

- v) The quality of treated effluents, solid wastes, emissions and noise levels and the like, from the project area must conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.
- vi) Dredging, etc will be carried out in the confined manner to reduce the impacts on marine environment.
- vii) Dredged material shall be disposed safely in the designated areas as per CWPRS recommendations, a disposal area of 2 x 2 km, is at 2 locations at a distance of 11 km and 14 km, north from the outer approach channel at a depth of about -27 m CD and in no case shall be disposed in the marine environment.
- viii) As proposed, the effluent from workshops, oil storage, etc. will contain oil and grease particles which shall be treated in an oil skimmer and suitably disposed after treatment or will be sold to registered recyclers.
- ix) Dredging shall not be carried out during the fish breeding season.
- x) It shall be ensured by the Project Proponent that the activities does not cause disturbance to the fishing activity, movements of fishing boats and destruction to mangroves during the construction and operation phase.
- xi) As proposed, environmental monitoring programme shall be implemented. Marine biodiversity shall be monitored and monitoring report shall be sent to the respective Regional Office of MoEF&CC.
- xii) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- xiii) Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report.
- xiv) Corporate Social Responsibility:
  - a. The Company shall have a well laid down Environment Policy approved by the Board of Directors.
  - b. The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/ deviation/violation of the environmental or forest norms/ conditions.
  - c. The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.
  - d. To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/ violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

**B. GENERAL CONDITIONS:**

- (i) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.

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