

F. No. 10-62-2017-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 3

Date: 30th January, 2018

To,

Mr. K Ramachandra Rao
Chief Engineer
M/s Paradip Port Trust
Administration Building, Paradip Port Trust, Paradip,
Jagatsinghpur Odisha - 754 142
E- Mail: ce@paradipport.gov.in

Subject: Development of Outer Harbour, Inner Harbour including Western Dock & Mechanization of existing Operational Berths at Sandhakuda, Orissa by M/s Paradip Port Trust- Terms of Reference (TOR) reg.

Sir,

This has reference to your proposal No. IA/OA/MIS/70593/2017 dated 27th October, 2017, submitted the above proposal to this Ministry for seeking Terms of Reference (ToR) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986.

2. The proposal for grant of Terms of Reference (ToR) to the project 'Development of Outer Harbour, Inner Harbour including Western Dock & Mechanization of existing Operational Berths at Sandhakuda, Orissa promoted by M/s Paradip Port Trust was considered by the Expert Appraisal Committee (Infra-2) in its 26th meeting held on 14-15 December, 2017.

3. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above said meeting, are under:-

- (i) Paradip Port Trust is the second largest Major Port of India and it handled 89.60 MT of cargo during 2016-17. The harbour basin is protected by two breakwaters, viz. south breakwater which is approximately 1217 m long and the north breakwater which is approximately 538 m long. The approach channel, which is approximately 9,800 m long and 300 m wide, is dredged to a depth of 18.7 m CD. The entrance channel is 2,200 m long and 240 m wide and 17.1 CD m deep. The port has a turning circle with a diameter of 520 m. The existing berth facilities at Paradip port are situated in the east and central docks. The eastern dock has three general cargo berths, including one iron Ore and two coal berths. The central dock has three multipurpose berths including two fertilizer berths along with one multipurpose berth. Three offshore Single Point Mooring (SPM) Buoys of IOCL of 37 MTPA are operational to handle Very Large Crude Carrier (VLCC) up to 3, 50,000 DWT size.
- (ii) The proposal is for finalization of ToR to carry out Environmental Impact Assessment (EIA) Study for the Development of Outer Harbour, Inner Harbour including Western Dock & Mechanization of existing Operational Berths at Paradip Port.
- (iii) Earlier ToR was granted by MoEFCC for Development of Outer Harbour Paradip Port Trust, Paradip, Dist Jagatsinghpur, Odisha vide F. NO. 21-28/2016-IA-III dated 17th April, 2017. However, in pursuance to the minute of the 23rd meeting of EAC (Infra-2) on 13.10.2017, fresh Form-1 was submitted integrating the

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present proposal with the earlier outer harbour proposal. The EIA studies for the outer harbour component are underway and are relevant to the present proposal. The additional project components covered are as follows:

- (iv) Mechanization of existing port berths in the Eastern Dock and Central Dock including up-gradation of the back-up stacking areas. The total backup harbor area, custom bond is spread over 1000 Ha. The capacity (excluding SBM) will enhance from 93.6 MTPA to 143.6 MTPA in these existing operational berths.
- (v) Expansion of Inner harbor including construction of Western Dock with two berths involving additional capital dredging of 8.0 million cum. The capacity creation would be 30 MTPA and the total capacity (excluding SBM) would be 173.6 MTPA.
- (vi) Salient Features

A. Berth Mechanization Project

Cargo to be handled	All types of Bulk Cargo like Coal, Iron Ore, lime stone, dolomite etc.
Additional Capacity by mechanization and debottlenecking efficiency in the Eastern and Central Dock (13 berths)	<p>Eastern Dock -30 MTPA</p> <p>Central Dock -20 MTPA</p> <p>Total= 50 MTPA</p> <p>Existing Capacity(excluding SBM)=93.6 MTPA</p> <p>Grand Total= 143.6 MTPA</p>
Mechanization Components	Ship Loaders/ Unloaders, Stacker, Reclaimers, Stacker-cum Reclaimers, Track Hopper/ Tipplers, Rapid wagon loading system, development / up-gradation of stack yards and other ancillary facilities required for handling cargo by mechanized means.

- Mechanize the manually operated cargo berths by installing equipment and conveyors and upgrading the overall harbour area covering 1000Ha. Project cost- Rs.2541.18 Cr.
- Mechanization will facilitate cargo handling in environmentally sustainable way through enclosed conveyors eliminating dust generation.

B. Inner Harbour Expansion including Western Dock

- The emergence and rapid development of industries in Paradip's hinterland is driving the need to expedite capacity addition and Cape Size vessels handling at Paradip Port.
- Initially, PPT planned to develop an Outer Harbour. The ToR for carrying out EIA studies on the outer harbour was finalized by MoEF on 17.04.2017 and EIA studies are in progress.
- However, the proposed outer harbour was decided to be taken up in the 2nd Phase at a cost about Rs.8667 Crores and the inner harbour including western dock would be implemented in the 1st Phase to handle cape size vessels.
- Capacity creation 30 MTPA, Total Capacity(excluding SBM) = 143.6+ 30 = 173.6 MMT

- (vii) Overall Estimated Cost will be Rs.12743.18 Crores.

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4. Earlier ToR was granted by MoEFCC for Development of Outer Harbour Paradip Port Trust, Paradip, Dist Jagatsinghpur, Odisha vide F. No. 21-28/2016-IA-III dated 17th April, 2017. However, in pursuance to the EAC (Infra-2) decision in the 23rd meeting held on 13.10.2017, fresh Form-1 was submitted integrating the present proposal with the earlier outer harbour proposal. The project/activity is covered under category 'A' of item 7(e) 'Ports, harbours, break waters, dredging' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central Level.

5. The EAC, in its meeting held on 14-15 December, 2017, after detailed deliberations, recommended the project for grant of ToR as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following TOR in addition to Standard ToR for preparation of EIA-EMP report. As per the recommendation of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords ToR to the project "Development of Outer Harbour, Inner Harbour including Western Dock & Mechanization of existing Operational Berths at Sandhakuda, Orissa promoted by M/s Paradip Port Trust for preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP) with the following specific and general conditions in addition to Standard ToR provided at **Annexure -1**:

- (i) This Terms of Reference (ToR) is in supersession of the Ministry's earlier letter F. No. 21-28/2016-IA-III dated 17th April, 2017.
- (ii) Importance and benefits of the project.
- (iii) Certified Compliance Report issued by the MoEF&CC, Regional Office or concerned Regional Office of Central Pollution Control Board or the Member Secretary of the respective State Pollution Control Board for the conditions stipulated in the earlier environmental clearance issued for the project along with an action taken report on issues which have been stated to be partially complied or non/not complied.
- (iv) Submit a complete set of documents required as per para 4.2 (i) of CRZ Notification, 2011.
- (v) Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.
- (vi) Recommendation of the SCZMA.
- (vii) Stage – I forest clearance to be submitted.
- (viii) Various Dock and shipbuilding facilities with capacities for existing and proposed project.
- (ix) List of cargo to be handled along with mode of transportation.
- (x) Layout plan of existing and proposed Port.
- (xi) Study the impact of dredging on the shore line.
- (xii) A detailed impact analysis of rock dredging.
- (xiii) The Air Quality Index shall be calculated for base level air quality.
- (xiv) Study the impact of dredging and dumping on marine ecology and draw up a management plan through the NIO or any other institute specializing in marine ecology.
- (xv) A detailed analysis of the physico-chemical and biotic components in the highly turbid waters round the project site (as exhibited in the Google map shown during the presentation), compare it with the physico-chemical and biotic

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components in the adjacent clearer (blue) waters both in terms of baseline and impact assessment and draw up a management plan.

- (xvi) Details of Emission, effluents, solid waste and hazardous waste generation and their management in the existing and proposed facilities.
- (xvii) The EIA would also include an affidavit that no Hazardous chemicals as defined under the Environment Protection Act, 1986 are proposed to be handled.
- (xviii) Toxicity Factor to be carried out on treated trade effluent beside chemical analysis.
- (xix) The existing project should avail of and submit consent to operate from the State Pollution Control Board.
- (xx) Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- (xxi) Wastewater management plan.
- (xxii) Details of Environmental Monitoring Plan.
- (xxiii) To prepare a detailed biodiversity impact assessment report and management plan through the NIOS or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity. The report shall study the impact on the rivers, estuary and the sea and include the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standard survey methods. This plan, duly evaluated and validated by the State Biodiversity Board shall form a part of the EIA report.
- (xxiv) A detailed traffic management and traffic decongestion plan to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D. and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
- (xxv) Disaster Management Plan for the above terminal.
- (xxvi) Layout plan of existing and proposed Greenbelt.
- (xxvii) A response to any complaints that have been received by the project against the setting up of the project including the representation submitted by the Conservation Action Trust.
- (xxviii) The details of waste water disposal into the sea, its impacts and Management plan.
- (xxix) Status of court case pending against the project.
- (xxx) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- (xxxi) A tabular chart with index for point wise compliance of above TORs.

- (xxxii) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

General Guidelines

- (i) The EIA document shall be printed on both sides, as far as possible.
- (ii) All documents should be properly indexed, page numbered.
- (iii) Period/date of data collection should be clearly indicated.
- (iv) Authenticated English translation of all material provided in Regional languages.
- (v) The letter/application for EC should quote the MoEF&CC File No. and also attach a copy of the letter prescribing the ToR.
- (vi) The copy of the letter received from the Ministry on the ToR prescribed for the project should be attached as an annexure to the final EIA-EMP Report.
- (vii) The final EIA-EMP report submitted to the Ministry must incorporate the issues mentioned in ToR and that raised in Public Hearing. The index of the final EIA-EMP report, must indicate the specific chapter and page no. of the EIA-EMP Report where the specific ToR prescribed by the Ministry and the issue raised in the Public Hearing have been incorporated. Questionnaire related to the project (posted on MoEF&CC website) with all sections duly filled in shall also be submitted at the time of applying for EC.
- (viii) Grant of ToR does not mean grant of EC.
- (ix) The status of accreditation of the EIA consultant with NABET/QCI shall be specifically mentioned. The consultant shall certify that his accreditation is for the sector for which this EIA is prepared.
- (x) On the front page of EIA/EMP reports, the name of the consultant/consultancy firm along with their complete details including their accreditation, if any shall be indicated. The consultant while submitting the EIA/EMP report shall give an undertaking to the effect that the prescribed ToRs (ToR proposed by the project proponent and additional ToR given by the MoEF&CC) have been complied with and the data submitted is factually correct (Refer MoEF&CC Office memorandum dated 4th August, 2009).
- (xi) While submitting the EIA/EMP reports, the name of the experts associated with/involved in the preparation of these reports and the laboratories through which the samples have been got analysed should be stated in the report. It shall clearly be indicated whether these laboratories are approved under the Environment (Protection) Act, 1986 and the rules made there under (Please refer MoEF&CC Office Memorandum dated 4th August, 2009). The project leader of the EIA study shall also be mentioned.
- (xii) All the ToR points as presented before the Expert Appraisal Committee (EAC) shall be covered.

6. The above ToR should be considered for the project 'Development of Outer Harbour, Inner Harbour including Western Dock & Mechanization of existing Operational Berths at Sandhakuda, Orissa promoted by M/s Paradip Port Trust, in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

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7. The project proponent shall submit the detailed final EIA/EMP prepared as per ToR to the Ministry for considering the proposal for environmental clearance within 3 years as per the MoEF&CC O.M. No.J-11013/41/2006-IA-II(I) (P) dated 08.10.2014.

8. The consultants involved in preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/ Laboratories including their status of approvals etc. vide Notification of the MoEF&CC dated 19.07.2013.

9. The prescribed ToR would be valid for a period of three years for submission of the EIA/EMP Reports.

10. This ToR is subject to the final outcome of the Hon'ble NGT in the Original Application No. 424 of 2016 (Earlier O.A. No. 169 of 2015) and Original Application No. 11 of 2014 in the matter of M/s. Mehdad & Anr. Vs. Ministry of Environment, Forest & Climate Change & Ors. and Shamsunder Shridhar Dalvi & Ors. Vs. Govt. of India & Ors.

Bhawna Singh
(Dr Bhawna Singh)
Scientist 'D'

Copy to:

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