सत्यमेव जयते

Government of India
Ministry of Environment, Forest and Climate Change
IA Division
(INFRA-1)
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Minutes of 448th meeting of Expert Appraisal Committee to be held on 29th May 2026 for Projects related to Infrastructure Development, All Ship breaking yards including ship breaking units 7(b); Industrial Estate/Parks/Complexes/Areas, Export Processing Zones, Speci meeting INFRA-1 held from 29/05/2026 to 29/05/2026

Date: 08/06/2026

MoM ID: EC/MOM/EAC/476199/5/2026

Agenda ID: EC/AGENDA/EAC/476199/5/2026

Meeting Venue: N/A

Meeting Mode: Virtual

Date & Time:

29/05/2026	10:30 AM	05:30 PM

1. Opening remarks

At the outset, Shri Manmohan Singh Negi, Chairman, EAC, welcomed the Members of the EAC and requested Shri Amardeep Raju, the Member Secretary of the EAC, to initiate the proceedings of the meeting with a brief account of the activities undertaken by the Ministry under Infra-1 Division.
Dr. Jaykumar Seelam recused himself from the deliberations pertaining to Agenda Item No. 2.

2. Confirmation of the minutes of previous meeting

The Committee confirmed the Minutes of the 446th EAC meeting held on 14-15th May 2026 with following corrections:

S. No.	Original Proposed Development (as per EC dated August 17, 2009)	Status as per Existing EC	Proposed EC

1	Capacity	Bulk Handling Capacity : 12 MTPA	Cargo	Volumes in MTPA
			Dry bulk and break bulk	20
			Liquid Cargo including POL, Biofuels , LPG , Ammonia	12
			Veg Oil, Chemicals	4
			Crude (SPM)	20
			LNG	6
			Solids/containers (MTeu)	(1 Mn Teu)
			Total	62+1Mn Teu

3. Details of proposals considered by the committee

Day 1 -29/05/2026

3.1. Agenda Item No 1:

3.1.1. Details of the proposal

Shell Energy India Pvt. Ltd. by **M/S. SHELL ENERGY INDIA PRIVET LIMITED** located at **SURAT,GUJARAT**			
Proposal For		Fresh EC	
Proposal No	**File No**	**Submission Date**	**Activity Sub-Activity (Schedule Item)**
IA/GJ/INFRA1/548783/2025	10/6/2023-IA.III	22/08/2025	Ports, harbors, breakwaters, dredging Cargo handling (7(e))

3.1.2. Project Salient Features

Subject: The proposal is for expansion of LNG handling capacity from 6.28 MMTPA to 26.2 MMTPA (25 MMTPA regasification & 1.2 MMTPA truck loading terminal) by M/s Shell Energy India Private Limited- Environmental and CRZ Clearances regarding.
[Proposal Number: IA/GJ/INFRA1/548783/2025, File No:10/6/2023-IA.III].
The EAC noted that the Project Proponent and the consultant have given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/ information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent
3.1.1 The aforementioned proposal was placed before the EAC during its 414th meeting of the Expert Appraisal Committee held on 02nd September, 2025. The project proponent and EIA Consultants M/s. Cholamandalam MS Risk Services. Tamil Nadu, made a presentation in the Ministry and submitted the following information.

3.1.2 It has been noted that the EAC during its 414th meeting held on 02nd September, 2025 observed certain non-compliance of the EC conditions. Therefore, the committee recommended

the Ministry to forward the compliance report to the CMD division separately for further necessary action.

3.1.3 The Ministry has examined the issue and noted that a site inspection of the project was carried out by IRO Gandhinagar on 19.07.2024, following which a Certified Compliance Report (CCR) dated 05.09.2024 identified certain EC conditions as partly complied and requiring further action. The matter was considered in the 414th EAC (Infrastructure-I) meeting held on 02.09.2025, and the Minutes were issued on 11.09.2025. Subsequently, the observations of the EAC were communicated to the Project Proponent by EC Compliance & Monitoring Division dated 10.11.2025 seeking compliance/action taken on the observations. In response, the Project Proponent submitted an Action Taken Report (ATR) on 21.11.2025. Thereafter, MoEF&CC (C&M Division), vide letter dated 19.12.2025, forwarded the ATR to IRO Gandhinagar for verification. Upon review, IRO Gandhinagar issued an Action Taken Review Report on 13.04.2026 confirming compliance of the outstanding observations. Based on the CCR dated 05.09.2024, ATR dated 21.11.2025, and Review Report dated 13.04.2026, MoEF&CC issued an Action Closure Letter on 12.05.2026, confirming that all EC compliance observations had been satisfactorily addressed and complied with.

3.1.4 The EAC, after taking into consideration the submissions made by the Project Proponent and having deliberations in its 448th meeting held on 29th May, 2026, observed that the proposal had already been considered and recommended by the Committee in its 414th meeting held on 02nd September 2025. However, at that stage, certain deficiencies/non-compliances with respect to Environmental Clearance conditions were observed, and while recommending the proposal, the EAC had advised the Ministry to separately refer the compliance issues to the Compliance & Monitoring Division (CMD) for necessary action.

3.1.5 The Committee further noted that subsequent to the recommendations of the 414th EAC, the matter was examined by the Compliance & Monitoring Division. Following submission of the Action Taken Report by the Project Proponent, verification by IRO Gandhinagar, and issuance of the Action Closure Letter dated 12.05.2026 by the Compliance & Monitoring Division, the compliance issues stand satisfactorily addressed.

3.1.3. Deliberations by the committee in previous meetings

Date of EAC 1 :02/09/2025

Deliberations of EAC 1 :

3.1.13 Observation of the committee.

The committee observed non-compliance of the EC conditions. Therefore, the committee recommended the Ministry to forward the compliance report to the CMD division separately for further necessary action.

The EC capacity which was expanded from 5 MTPA 10 MTPA in last granted EC could be increased up to 6.28 MTPA due to the non-availability of forest clearance. Now that the Project Proponent (PP) has obtained forest clearance,and, therefore has applied for expansion of the project from 6.28 MTPA to 26.2.

3.1.14 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 308th meeting during 02nd September, 2025 and **recommended** the project for grant of environmental and CRZ clearance for 'Expansion of LNG handling capacity from 6.28 MMTPA to 26.2 MMTPA (25 MMTPA regasification & 1.2 MMTPA truck loading terminal) at Hazira Terminal, Hazira, Surat, Gujarat by M/s Shell Energy India Pvt. Ltd' with the following specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

3.1.4. Deliberations by the EAC in current meetings

3.1.5. Recommendation of EAC

Recommended

3.1.6. Details of Environment Conditions

3.1.6.1. Specific

specific conditions	
1.	Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. All the storage proposed in the CRZ area shall be in line with the CRZ notification, 2011.
2.	No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
3.	The Project proponent shall ensure that no creeks or rivers are blocked or altered due to any activities at the project site and free flow of water is maintained. Suitable preventive measures be taken to trap spillage of fuel/engine oil and lubricants from the construction site.
4.	On safety, the Project Proponent shall ensure strict compliance with OISD and PNGRB guidelines. In view of the nearly four-fold capacity enhancement, the fire-fighting systems and associated infrastructure to address any eventuality shall be appropriately augmented and designed to conform to international best practices, incorporating the latest fire detection and automatic cut-off mechanisms. Strict adherence to these requirements shall be ensured
5.	The Wildlife Conservation and Mitigation Plan prepared shall be implemented in consultation with the state forest department. The user agency shall also implement the recommendations made by the state forest department if any w.r.t. wildlife conservation plan. The status of the implementation of the conservation plan shall submit to the IRO of MoEFCC along with its First 6 monthly compliance report.
6.	The project proponent shall ensure that no shoreline erosion/accretion is induced due to the project. Shoreline protection measures, shall be taken based on scientific studies through national repute institutes like NIO. Shoreline monitoring shall be carried out periodically at least once in a year and reports submitted to concern IRO, MoEFCC along with the six monthly EC compliance report. Any damage to adjacent coastlines shall be rectified at the cost of the proponent."
7.	A baseline shoreline monitoring program shall be undertaken before commencement of construction, and continued during construction and operation phases, to assess erosion, accretion, and littoral drift. Monitoring reports shall be submitted to Concern IRO, MoEFCC along with the six-monthly EC compliance report.
8.	The PP shall ensure that hydrodynamic regime, tidal flow, and littoral drift patterns are not adversely affected by the port structures (breakwaters, jetties, reclamation). In case of any adverse impacts such as erosion, accretion, or habitat loss observed on adjacent shorelines, the PP shall take remedial measures at its own cost to restore the affected stretches.
9.	Dredged material, reclamation, and construction debris shall not be disposed of in a manner that destabilizes the coastline or alters the natural sediment transport.

10.	Marine ecological monitoring and its mitigation measures for the protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, seaweeds, Crustaceans, Fishes, coral reefs and mangroves, etc. shall be carried out.
11.	Measures should be taken to contain, control, and recover the accidental spills of fuel during cargo handling.
12.	All the mitigation measures submitted in the EIA report shall be prepared in a matrix format, and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC, along with First half-yearly compliance report.
13.	All the recommendations and conditions specified by the Gujarat Coastal Zone Management Authority (GCZMA) vide letter No. Lr.No.ENV/10/2024/129/T dated 11.08.2025 shall be complied with.
14.	All liquid waste arising from the proposed development will be disposed of as per the norms prescribed by the Central/State Pollution Control Board. There shall not be any disposal of untreated effluent into the sea/coastal water bodies. It shall be ensured that the wastewater generated is treated in the STP as committed by the project proponent.
15.	The treated waste water shall be reused for landscaping, flushing, and/or HVAC cooling purposes, etc. within the development. The project proponent should also make alternate arrangements for situations arising due to malfunctioning of STP. There shall be regular monitoring of standard parameters of the effluent discharge from STP under intimation to the SPCB.
16.	Cargo handling area shall be provided with the adequate number of high-efficiency dust extraction systems. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated. Storage of the cargo shall be accommodated with a Stacker reclaimed inside provided with DFS (Atomized Automatic Sprinkling System) including peripheral drainage system, internal roads, firefighting system, etc.
17.	The wind net should be erected in the upwind direction to reduce wind speed hitting the Anthracite coal, Iron and Cement. The wind net should not be erected as a rigid structure. It should be allowed to get sagged in order to avoid the swirling effect.
18.	Effective safeguard measures, such as regular water sprinkling, shall be carried out in critical areas prone to air pollution and having a high level of particulate matter such as around loading and unloading points and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
19.	The project proponent shall install at least 4 systems to carry out Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the port area at least at four locations (one within and three outside the port area at an angle of 120°each), covering upwind and downwind directions.
20.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points, including fugitive dust from all vulnerable sources, so as to comply with the prescribed fugitive emission standards.
21.	The project proponent shall abide by all the commitments and recommendations made in Form-II, EIA/EMP report, and also that have been made during their presentation to EAC.
2	Necessary arrangements for the treatment of the effluents and solid wastes/ facilitation of reception

2.	facilities under MARPOL must be made, and it must be ensured that they 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. The provisions of the Solid Waste Management Rules, 2016. E-Waste Management Rules, 2016, and Plastic Waste Management Rules, 2016 shall be complied with.
23.	There should not be any groundwater extraction in the CRZ areas.
24.	The Hazardous waste generated shall be properly collected and handled as per the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
25.	The wastewater generated from the activity shall be collected, treated, and reused properly.
26.	No Solid Waste will be disposed of in the Coastal Regulatory Zone area.
27.	The Solid Waste shall be properly collected, segregated, and disposed as per the provision of Solid Waste Management Rules, 2016.
28.	The project proponent shall install necessary oil spill mitigation measures in the shipyard.
29.	No hazardous chemicals shall be stored in the Coastal Regulation Zone area.
30.	The Project Proponent (PP) shall conduct health impact studies through a reputed institute to assess the effects on the local community and evaluate the effectiveness of proposed mitigation measures.
31.	Project Proponent shall strive to enhance the Green Belt beyond 33% and that the trees planted in this regard would be planted under the campaign" एक_पेड़_माा_के _नाम ", and the details of the trees planted would be uploaded on the portal https://merilife.nic.in.
32.	The Project Proponent (PP) shall conduct training and capacity building for personnel involved in oil spill response and hazardous waste management.
33.	Necessary approvals be taken during implementation and commissioning from statutory bodies concerned.

3.1.6.2. Standard

7(e)	**Ports, harbors, breakwaters, dredging**
statutory compliance	
1.	Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
2.	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.

3.	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.
air quality monitoring and preservation	
1.	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the project area at least at four locations, covering upwind and downwind directions.
2.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.
3.	Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.
4.	Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.
5.	The Vessels shall comply the emission norms prescribed from time to time.
6.	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
7.	A detailed traffic management and traffic decongestion plan shall be drawn up 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./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
water quality monitoring and preservation	
1.	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
2.	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
3.	No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.
4.	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.

5.	The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.
6.	Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
7.	Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
8.	Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.
9.	A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
10.	No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.
11.	All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.
noise monitoring and prevention	
1.	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
2.	Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
3.	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
4.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
energy conservation measures	
1.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
2.	Provide LED lights in offices and project areas.
waste management	
1.	Dredged material shall be disposed safely in the designated areas.
2.	Shoreline should not be disturbed due to dumping. 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 reports.

3.	Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they 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.
4.	The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
5.	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
6.	A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
7.	Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.
8.	Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered.
green belt	
1.	Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.
2.	Top soil shall be separately stored and used in the development of green belt.
marine ecology	
1.	Dredging shall not be carried out during the fish breeding and spawning seasons.
2.	Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.
3.	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
4.	While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
5.	A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal 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 standards survey methods and include underwater photography.
6.	Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine

	biodiversity.
7.	The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.
public hearing and human health issues	
1.	The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.
2.	Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.
3.	In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos materials at site before disposal to CTSDF.
4.	Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents.
5.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
6.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
7.	Occupational health surveillance of the workers shall be done on a regular basis.
environment responsibility	
1.	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
2.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
3.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

4.	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
miscellaneous	
1.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
2.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
5.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
6.	The criteria pollutant levels namely; PM2.5, PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
7.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
8.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
9.	No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
10.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
12.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
13.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

14.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
15.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
specific conditions	
1.	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.

3.2. Agenda Item No 2:

3.2.1. Details of the proposal

Total Ship Solution Project at Ratanpar, Bhavnagar by **MODEST INFRASTRUCTURE PRIVATE LIMITED** located at **BHAVNAGAR,GUJARAT**			
Proposal For		Fresh EC	
Proposal No	**File No**	**Submission Date**	**Activity** **Sub-Activity** **(Schedule Item)**
IA/GJ/INFRA1/575062/2026	10/60/2023	09/04/2026	Ship breaking yards including ship breaking units Ship Breaking Yards (7(b))

3.2.2. Project Salient Features

Subject: The Proposed is for developing the Shipyard (total ship solution project) on the shore of gulf of Khambat with waterfront of 1.4 kms and spread over an area of nearly 58 Ha at Ratanpar, Bhavnagar by M/s Modest Infrastructure Private Limited-Environmental clearance regarding.

[Proposal Number: IA/GJ/INFRA1/575062/2026, File No:10/60/2023-IA.III]

The EAC noted that the Project Proponent and the consultant have given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/ information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

3.2.1 The aforementioned proposal was placed before the EAC during its 448th meeting held on 29th May 2026. The Project Proponent, along with the EIA consultant M/s. CSIR- Central Salt and Marine Chemicals Research Institute (CSMCRI), Bhavnagar made a presentation through virtual modes and submitted the following information.

3.2.2 The project is for developing the Shipyard(Total Ship Solution Project) on the shore of gulf of Khambat with waterfront of 1.4 kms and spread over an area of nearly 58Ha at Ratanpar,

Bhavnagar by M/s Modest Infrastructure Private Limited the geo-coordinates of the project Latitude: 21°39'10.83"N, Longitude: 72°17'41.40"E respectively.

3.2.3 The proposed project falls under Schedule 7(b) Ship breaking yards including ship breaking units, Category 'A' as per the EIA Notification 2006. The cost of the project is Rs. 66778lakhs.

3.2.4 Details of Terms of References (ToR): The proposal was earlier considered in 338th meeting during 24thAugust 2023, the EAC after detailed deliberation recommended for grant of ToR, Accordingly the ToR was granted by the Ministry vide letter no.10/60/2023dated 09/10/2023.

3.2.5 Details of public hearing: Public hearing was conducted on 8/01/2025 at district Bhavnagar, Gujarat and the main issues raised by public is regarding the Employment Generation.

S.No.	Title	Area Break Up		
S. No	Date of Public Hearing	Detail of Paper advertisement	Venue and Location	Presided by
		Area, Ha	% of total Area	
1.	Construction/project components Area	24.85	43.0	
1.	08/01/2025	Advertisement was published in Saurashtra Samachar and The Indian Express on 07/12/2024.	Located at village- Nava Ratanpar, District Bhavnagar, Gujarat	Assistant Collector & Sub Divisional Magistrate
.2	Road area	2.15	3.7	
3.	Greenbelt area	19.14	33.3	
4.	Open area	11.55	20.0	
	Total Plot Area	57.69 (~ 58.00)	100.0	

3.2.7 Terrain and Topography: Proposed project site is located at 21.39°N and 72.17°E. It has an average elevation of 21 meters above sea level. The site area is plain with little undulating at few places. Coastal area, Barren and Agricultural land are most predominant in this area. There is no Eco Fragile Zone or Natural Forest near project site in study area.

3.2.8 Details of water bodies Impact on drainage: There is no water bodies in the project sites and no proper drainage system as there is no human habitation. So, no impact on drainage.

3.2.9 Water Requirement: The total water requirement for the project is 70 KLD which will be collected from the GWSSB/Gram Panchayat. Further, it is proposed that industrial fresh water is contained in storage tanks strategically proposed around the dock and slipway facilities. The water would be used for production purposes such as ship machinery commissioning, wash down, bunkering and firefighting. It is anticipated potable fresh water will be taken directly from the mains with the largest demands being made from processes. Water will be transported to the proposed area through tankers/ pipeline during construction and operation phase.

3.2.10 Details of tree cutting and green belt development: There is no tree cutting involved in the project, as the site area is barren land and as part of the proposed project 19.14 ha. Area (i.e. 33.3% of the total project area) will be developed as greenbelt area.

3.2.11 Diversion of forest land: There is no forestland involves in the project. The project is not located within 10 km of Projected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves, Eco-Sensitive Zone(ESZ) or Eco-Sensitive Area(ESA) notified by the MoEF&CC. However, in the study area Schedule-I species Indian Peafowl (Pavo cristatus), Common Indian

Monitor Lizard (Varanus bengalensis), Indian Rat Snake (Ptyas mucosa), Common Krait (Bungarus caeruleus), Indian Grey Mongoose (Urva edwardsi) was recorded as Scheduled -I species. Wildlife Conservation Plan for Schedule-I Species.

3.2.12 Details of Rainwater Harvesting: Rainwater Chamber will be provided for collection of Rainwater runoff from Roof top and paved surface. The water collected in water chamber will be treated in primary treatment unit. The primary treatment unit will consist of clay packing, sand medium, gravel packing and 'V' wire screen. The water will be passed through this arrangement for treatment. The treated water from primary treatment will be collected in collection tank and will be reused in premises. Tanks with 300 KL capacity for storage of treated waste water are planned in the project area. During monsoon season runoff would be channelized into this storage tank after appropriate sediment settlement mechanism. This water would be used as fresh water source for utilization. The approx. cost for construction of Rain water Harvesting system including storage tanks is approx. Rs. 40,00,000/-.

3.2.13 Details of CRZ Area: Base on the field survey the proposed project activity falls under categories such as CRZ IB (Intertidal Zone), CRZ III (No development Zone, 200 to 500 m from HTL) and CRZ IVA (Waterbody). The CRZ map at a 1:4000 scale has been prepared by the National Centre for Sustainable Coastal Management. The project components falls under CRZ area is as follows:

SI No.	Proposed Project Activities	CRZ Categories area in Sq.m				Out of CRA Area
		Intertidal Zone-CRZ IB	No Development Zone-CRZ III	200 to 500 m From HTL- CRZ III	Waterbody-CRZ IVA	
1	10 m Wide Road	9507.68	988.56	-	-	-
2	5 m Wide Road	4801.35	879.9	-	-	-
3	7.5 m wide Road	5648.71	490.57	-	-	-
4	Building & Utility Area	25894.64	14541.63	3130.82	-	-
5	Dry Dock – 1 Primary Cutting Area	28881.23	583.58	-	-	-
6	Green Area	85624.12	66625.27	29784.25	-	5605.84
7	Hall Block Area	12665.61	-	-	-	-
8	Parking Area	11390.63	7531.4	-	-	-
9	Repair Bay-1	193.84	2778.23	-	-	-

10	Repair Bay- 2	344.17	2641.54	-	-	-
11	Repair Bay- 3	476.33	2556.23	-	-	-
12	Repair Bay- 4	599.98	2340.61	-	-	-
13	Repair Bay- 5	692.51	2317.14	-	-	-
14	Repair Bay- 6	671.26	2303.32	-	-	-
15	Repair Bay- 7	674.44	2312.35	-	-	-
16	Repair Bay- 8	720.93	2307.2	-	-	-
17	Secondary Cut ting Area	10625.41	457.05	-	-	-
18	Ship Shifting Way	1692.64	5762.5	-	-	-
19	Teritary Cuttin g Area	13720.51	1104.64	-	-	-
20	Slip Way	8894.35	-	-	-	-
21	Working Area	3999.29	18323.16	-	-	-
22	Navigation Ch annel	99529.56	32231.76	-	16266.8	-
23	Open Storage Area	1780.94	17567.01	-	-	-
24	Open Area	33445.59	23945.3	27.77	-	
25	External Appro ach Road	0.02	7628.65	-	-	402.58
26	Open Working Area	41157.27	23236.71	-	-	-
27	50 T Bollard (Typ)	545	53.36	-	-	-
28	Winch	953.46	301.37	-	-	-
	Total	405131.4	241809.9	32942.84	16266.8	6008.42

The Gujarat Coastal Zone Management Authority (GCZMA) recommended the project, vide recommendation letter no.ENV/10/2025/15/T dated 25/03/2026.

3.2.14 Details of shoreline: The Mathematical Studies for Prediction of Siltation and Shoreline Changes and Recommendations thereof for the Total Ship Solution is carried out by National Institute of Oceanography, Goa. It is concluded that the proposed development of the new shipyard at Ratanpar is expected to have a negligible impact on the overall hydrodynamic conditions. Changes in currents would be confined to areas immediately adjacent to the proposed structure, with insignificant variations at more distant locations. The proposed shipyard would result in negligible alterations to seabed morphology, with changes limited to approximately 0.2 m. While temporary seabed disturbances may occur during the construction phase of the new shipyard, no significant morphological impacts on the seabed or shoreline are anticipated once the construction is completed. It is expected to have a negligible impact on shoreline stability. This suggests that the project is unlikely to cause any significant alteration to the existing coastal morphology.

3.2.15 Details of dredging and reclamation: Dredging activities are proposed as part of the project to create a navigational channel. The operation will involve the removal of sediment from designated areas to achieve the required depth for safe vessel movement. It is estimated that a total dredging quantity of around 11.71 lakh cubic meters will be generated. For the management of dredged/excavated material, reuse has been identified as a sustainable option under this project, and the dredged material will be used for levelling within the site premises.

3.2.16 Waste Management: Ballast water (1,800 TPA) generated from the ballast tanks of ships will be collected, stored, and sent to the ETP for treatment. ETP sludge (80 TPA) generated from the ETP will be collected, stored, transported, and disposed of by sending it to authorized TSDF sites. Blast steel grit (50 TPA) generated from blasting operations will be collected, stored, transported, and disposed of by sending it to authorized TSDF sites. Paint scrap (0.5 TPA) generated from shipbuilding, repairing, and recycling activities will be collected, stored, transported, and disposed of by sending it to authorized TSDF sites. Discarded asbestos and asbestos-containing materials (0.5 TPA) generated from insulation removal during repairing/recycling of ships will be collected, stored, transported, and disposed of at TSDF sites for landfilling. Oily sludge emulsion (0.2 TPA) generated from machinery maintenance will be collected, stored, transported, and disposed of at TSDF sites or through incineration or co-processing. Used oil (0.5 TPA) generated from transformers and ship engines used for cooling purposes will be collected, stored, transported, and disposed of by selling it to registered recyclers. Empty barrels/containers/liners contaminated with hazardous chemicals or wastes (25 TPA) generated from empty paint containers and oil drums will be collected, stored, transported, and disposed of by sending them to registered recycler units. Other waste (rubber, fiber, glass wool, rexine, etc.) (345 TPA) generated from insulation removal during ship repair will be collected, stored, transported, and disposed of at TSDF sites for landfilling.

3.2.17 Solid Waste: Municipal solid waste (100 TPA) generated from household activities will be collected, stored, transported, and disposed of at landfill sites. Cement tiles (25 TPA per 10 vessels) generated during ship repairing will be collected, stored, transported, and disposed of at landfill sites. Construction waste (25 TPA) generated during the construction phase will be disposed of in low-lying land within the premises. Cardboard and packing material (1.5 TPA per 10 vessels) generated during ship repair and recycling activities will be collected, stored, transported, and sent to recyclers. Chicken mesh (5 TPA per 10 vessels) generated during ship repair will be reused. STP: The treatment process is planned to be based on MBR (Membrane Bio Reactor) / SBR (Sequential Batch Reactor)/MBBR (moving Bed Bio Reactor) technology. Capacities of sewage treatment plant is 30 KLD. STP sludge (4 TPA) generated during wastewater treatment will be recycled by registered recyclers, and the residue will be disposed of at authorized facilities apart from this electronic waste (0.5 TPA) generated after discarding electrical goods as per the E-Waste Management Rules, 2016, will be stored, transported, and disposed of through authorized e-waste recyclers. Decommissioned batteries (0.3 TPA) generated from power backup systems in substations and vehicles will be sent to authorize recyclers.

3.2.18 Land Acquisition and R&R: The land area involved in the project is 57.69 Ha., from which 16.1 Ha is owned by Modest Infrastructure Pvt. Ltd. and the remaining 44 Ha. land, applied to the Collector and District Magistrate Office, Motibaug, which is under process. There is no. Resettlement and Rehabilitation (R&R) is required since no private land is involved in the project.

3.2.19 Employment Opportunity: The proposed project will have potential to generates the employment approx. 1100 person (direct and indirect) during construction and operational phase.

3.2.20 Benefits of the project: The proposed new project has a potential for employment of skilled, semi-skilled and unskilled employees during construction phase as well as operational phase. There will be scope for improved social infrastructure and socio-economic benefits in the surrounding area. Dispose of Old Resource Guzzling Ships. Recover about ~5.5 Mt/yr of Steel, other metals and machinery. Peripheral development and creation of social capital. Improvements in the Physical Infrastructure. Adoption of new technology. Improvement in local amenities facilities. Improvement in road link facilities as transportation through truck and other vehicles will increase due to project. Increase income of local population Increase requirement of manpower. Improvement in Social Infrastructure. Social Infrastructure will improve by means of Civilization, Basic Amenities. Employment Potential. The proposed project will give employment to 1,300 personnel(Approx.). Economic benefits to local people and businesses/contractors. The proposed project will create opportunities for direct and indirect employment and business opportunities for the company. A total amount of Rs. 667.78 lacs would be utilized for CER. Environmental Benefits of Ship Recycling: ETP followed by RO treated water and STP treated water will be reused for industrial and gardening purpose respectively to reduce the load of fresh water requirement. Complete ZLD system is proposed. Unit will install rain water harvesting system and it will be collected, stored and reused to reduce the fresh water requirement. Solar energy will be utilized.

3.2.21 Details of court cases: There is no court case involves in the project

3.2.3. Deliberations by the committee in previous meetings

N/A

3.2.4. Deliberations by the EAC in current meetings

3.2.22 Observation of committee:

i. *The EAC observed that the project involves cargo handling, floating dry dock and ship-breaking activities. The Project Proponent shall undertake a cumulative impact assessment covering air quality, water quality, noise, marine ecology, traffic and socio-economic aspects, and implement suitable mitigation measures through the EMP.*

ii. *The EAC observed that adequate storm water management measures are required. The Project Proponent shall provide a properly designed garland drain system with suitable treatment arrangements to ensure that no untreated runoff or wastewater is discharged outside the project premises.*

iii. *The EAC observed that effective waste management is essential during construction and operation. The Project Proponent shall ensure collection, segregation, storage, recycling and disposal of all solid and hazardous wastes through authorized agencies in accordance with applicable waste*

management rules.

iv. *The EAC observed that shipbuilding, repair and recycling activities may generate hazardous residues. The Project Proponent shall establish adequate systems for handling, storage and disposal of hazardous waste, used oil, sludge, scrap and other recyclable materials as per statutory requirements.*

v. *The EAC observed that there is a potential risk of accidental oil spills during vessel handling and oil transfer operations. The Project Proponent shall implement a comprehensive Oil Spill Prevention and Response Plan, including containment measures, emergency equipment, trained personnel and periodic mock drills.*

vi. *The EAC observed that oil transfer and ship recycling operations require stringent safeguards. The Project Proponent shall ensure decontamination of vessels prior to dismantling, leak testing of pipelines, deployment of trained personnel during oil transfer operations and installation of secondary containment systems at critical locations.*

vii. *The EAC observed that dry dock, shipbuilding, repair and recycling facilities may generate contaminated wastewater and residues. The Project Proponent shall provide impervious working surfaces, separate collection systems for oily wastewater and other effluents, and ensure that no untreated discharge enters the marine environment.*

viii. *The EAC observed that the project involves handling of flammable materials and operation in a coastal environment vulnerable to natural hazards. The Project Proponent shall maintain adequate firefighting and emergency response infrastructure, prepare an On-site Emergency Plan, provide necessary PPE to workers, and conduct regular mock drills and safety training programmes.*

ix. *It was noted that an area of approximately 241,809.9 sq. m of the proposed project falls within CRZ-III (No Development Zone). However, the provisions of the No Development Zone (NDZ) shall not be applicable within the notified port limits.*

x. *Earlier CRZ clearance was obtained by the Ministry vide letter no 11-61/2008-IA.III dated 23rd June, 2009 for development of ship building/repairing yard at Nava Ratanpur, near Ghogha, district Bhavnagar in GMB Port limit, Gujarat by M/s Modest Infrastructure Ltd. However due to acute recession in the ship building and repairing sector could not construct the facility and the validity of the CRZ clearance is expired. The Committee advised the Project Proponent to surrender the existing Coastal Regulation Zone (CRZ) clearance, as the same is no longer valid. The Project Proponent shall ensure that no activities are undertaken under the said expired CRZ clearance.*

3.2.23 The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 448th meeting during 29thMay 2026 **recommended** for grant of Environment and CRZ clearance for "developing the Shipyard (total ship solution project) on the shore of gulf of Khambat with waterfront of 1.4 kms and spread over an area of nearly 58 Ha at Ratanpar, Bhavnagar by M/s Modest Infrastructure Private Limited" with the following specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects. With the following specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

3.2.5. Recommendation of EAC

Recommended

3.2.6. Details of Environment Conditions

3.2.6.1. Specific

Specific Conditions	
1.	All the recommendations and conditions specified by the Gujarat Coastal Zone Management Authority (CZMA) vide letter No.ENV/10/2025/15/T dated 25th March, 2026 shall be complied with and the status of the implementation shall be submitted to the Concern IRO, MoEF&CC along with the six monthly EC compliance report.
2.	Wildlife Conservation Plan for Schedule-I Species prepared by the PP shall be submitted to the concern DFO of state forest department for necessary action. If any specific mitigation measures are recommended by the Forest Department, the same shall be incorporated in the Plan. The progress of implementation of the conservation/mitigation plan shall be submitted to the Concern IRO, MoEFCC every 6 months along with the 6- monthly EC compliance reports.
3.	
4.	
5.	
6.	
7.	
8.	Project Proponent shall ensure that noise levels from all project activities remain within the limits prescribed by the Central Pollution Control Board (CPCB). Periodic noise monitoring shall be carried out at the project boundary and at identified sensitive receptors, and appropriate mitigation measures shall be implemented in case of any exceedance.
9.	
10.	The Project Proponent shall ensure proper collection, segregation, storage, transportation, reuse, recycling and disposal of all solid, hazardous and other wastes generated during construction and operation phases in accordance with the applicable Waste Management Rules and through authorized recyclers and disposal facilities.
11.	Adequate facilities shall be provided for safe handling, storage and disposal of hazardous wastes, used oil, sludge, scrap materials and other recyclable wastes generated from shipbuilding, ship repair and ship recycling activities in accordance with applicable statutory provisions.

12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	

3.2.6.2. Standard

7(b)	**Ship breaking yards including ship breaking units**
Statutory compliance	
1.	Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
2.	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
3.	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, and Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.
Air quality monitoring and preservati	
1.	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the project area at least at four locations, covering upwind and downwind directions.

2.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.
3.	Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.
4.	Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.
5.	The Vessels shall comply the emission norms prescribed from time to time.
6.	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
7.	management and traffic decongestion plan shall be drawn up 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./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
Water quality monitoring and preservation	
1.	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
2.	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
3.	No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.
4.	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
5.	The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.
6.	Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
7.	Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
8.	Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated

	water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.
9.	A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
10.	No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.
11.	All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.
Noise monitoring and prevention	
1.	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
2.	Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
3.	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
4.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
Energy Conservation measures	
1.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
2.	Provide LED lights in offices and project areas.
Waste management	
1.	Dredged material shall be disposed safely in the designated areas.
2.	Shoreline should not be disturbed due to dumping. 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 reports.
3.	Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they 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.
4.	The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
5.	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
6.	A certificate from the competent authority handling municipal solid wastes should be obtained, indicating

	the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
7.	Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.
8.	Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered.
Green Belt	
1.	Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.
2.	Top soil shall be separately stored and used in the development of green belt.
Marine Ecology	
1.	Dredging shall not be carried out during the fish breeding and spawning seasons.
2.	Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.
3.	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
4.	While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
5.	A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal 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 standards survey methods and include underwater photography.
6.	Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity.
7.	The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.
Public hearing and human health issues	
1.	The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.

2.	Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.
3.	In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos materials at site before disposal to CTSDF.
4.	Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents.
5.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
6.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
7.	Occupational health surveillance of the workers shall be done on a regular basis.
Environment Responsibility	
1.	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest /wildlife norms/conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
2.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
3.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
4.	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
Miscellaneous	
1.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
2.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of

	local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
5.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
6.	The criteria pollutant levels namely; PM2.5, PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
7.	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
8.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
9.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
10.	No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
11.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
12.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
13.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
14.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
15.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
1	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30

6.	days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
Specific Conditions	
1.	The company shall undertake waste minimization measures as below: - a. Metering and control of quantities of active ingredients to minimize waste. b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. c. Use of automated filling to minimize spillage. d. Use of Close Feed system into batch reactors. e. Venting equipment through vapour recovery system. f. Use of high pressure hoses for equipment cleaning etc. to reduce wastewater generation.

3.3. Agenda Item No 3:

3.3.1. Details of the proposal

Capacity Augmentation of Existing Operational Marine Liquid Terminal (MLT) from 3 MMTPA to 6 MMTPA at Kamarajar Port Limited, Chennai by **KAMARAJAR PORT LIMITED** located at **THIRUVALLUR,TAMIL NADU**			
Proposal For		Expansion EC	
Proposal No	**File No**	**Submission Date**	**Activity Sub-Activity (Schedule Item)**
IA/TN/INFRA1/565345/2026	10/15/2024-IA.III	06/04/2026	Ports, harbors, breakwaters, dredging Cargo handling (7(e))

3.3.2. Project Salient Features

Subject: The proposal is for Capacity Augmentation of Existing Operational Marine Liquid Terminal (MLT) from 3 MMTPA to 6 MMTPA at Kamarajar Port Limited, Chennai by M/s Kamarajar Port Limited. -Expansion in EC and CRZ clearance regarding.
Proposal Number: IA/TN/INFRA1/565345/2026, File No: 10/15/2024-IA.III
The EAC noted that the Project Proponent and the consultant have given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/ information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
3.3.1 The aforementioned proposal was placed before the EAC during its 448th meeting held on 29th May 2026. The Project Proponent, along with the EIA consultant M/s.Chaitanya Projects Consultancy Limited. Ltd made a presentation through virtual mode and submitted the following information.

3.3.2 The proposal is for Capacity Augmentation of Existing Operational Marine Liquid Terminal (MLT) from 3MMTPA to 6MMTPA at Kamarajar Port Limited, Chennai by m/s Kamarajar Port Limited. The geo-coordinates of the project Start Latitude 8°46'35.48"N and longitude : 78°11'57.15"E and ends at latitude : 8°46'21.45"N and longitude : 78°11'55.26"E.

3.3.3 The details of the Existing and proposed group of products/cargo handled:

S.No	Product Group	Existing throughput capacity in MMTPA	Proposed throughput Capacity in MMTPA
1	LPG (Refrigerated propane and Butane)	1.20	1.60
2	Petroleum, Oil and Lubricants (POL) products	1.45	3.20
3	Black Oil	0.20	0.90
4	Chemicals and Petrochemicals	0.15	0.30
Total		3.00	6.00

3.3.4 The proposed project falls under Schedule 7(e) Ports, harbour's, breakwaters, dredging under Category 'A' as per the EIA Notification 2006. The cost of the project is Rs. 45962Lakhs.

3.3.5 Details of terms of references: The ToR proposal was considered in 367th meeting of Expert Appraisal Committee held on 26th June, 2024, the committee after detailed deliberation recommended the proposal for grant of ToR, Accordingly the Ministry granted the ToR vide letter no. 10/15/2024-IA.III dated on 06/09/2024.

3.3.6 Details of Environmental and CRZ Clearance: Initially M/s Ennore Port Limited obtained the EC vide letter no.10-28/2005-IA.III dated 19th May, 2006 by the Ministry for Expansion Proposals-development of Terminals for marine liquids, coal, Iron and containers in second phase and associated capital dredging at Ennore Port. Subsequently, Ennore Port obtained modification in EC by the Ministry vide letter dated 10th September, 2007. Subsequently, Environmental and CRZ clearance vide letter no 11- 21/2009-IA.II dated 23rd July, 2009 was obtained for the construction of general Cargo berth at Ennore Port Cargo Terminal project, Ennore, Ponneri Taluk, District Tiruvallur,Tamilnadu, in the name of M/s Ennore Port Terminal. Thereafter the name of the Ennore port has changed from M/s Ennore port limited to M/s Kamarajar Port limited, after change of the name PP has submitted that the Kamarajar Port ltd (formerly known as Ennore Port ltd.) and obtained environmental and CRZ clearance for expansion and modernization of existing handling of Multicargo container terminal at Kamarajar Port, Tamil Nadu by M/s Kamarajar Port Limited (Formally known as Ennore Port Ltd). Subsequently Environmental and CRZ clearance for construction of (CB3 and CB4) at Kamarajar Port, Tamilnadu vide letter dated 1st March, 2015 was obtained. Further, M/s Kamarajar Port Ltd obtained the EC vide letter no F.No.11-51/2012-IA-II dated 30th October, 2018 for development of the facilities envisaged in the Port Master Plan (Phase III) by M/s. Kamarajar Port Limited. Further, Kamarajar Port limited has applied in the Ministry for capacity optimisation of the ECTPL from present 8 MTPA to 9.6 MTPA, the proposal was considered by the Expert Appraisal Committee (EAC) in its 321st meeting during 28th February-1st March, 2023. The MoEF&CC granted Environment and CRZ Clearance under clause 7 (ii) of EIA Notification, 2006 vide letter no.10-28/2005-IA.III dated 17/07/2023.

3.3.7 Details of Public Hearing: The public hearing was conducted on 17/09/2025 at village kattupali, sub-district-ponneri, Tamil Nadu presided by District Revenue officer and issues raised by public are related to manpower and Road facilities.

3.3.8 Right of Way (Row): This is a port project and hence it does not involves Row.

S. No	Date of Public Hearing	Detail of Paper advertisement	Venue and Location	Presided by
1.	17/09/2025	Advertisement was published on the New Indian Express (Tamilnadu)" & "Dinakaran (Chennai)" on 14.08.2025 and 17/09/2025	Located at village- Kattupalli, Sub-district-Ponneri District-Thiruvallur, Tamil Nadu.	District Revenue officer

3.3.9 Land use/cover: Land use and land over breakup of project sites the land of about 13.46 ha (33.26 acres) is allotted initially by EPL is fully utilized for the development of Tank Farm, Administrative office building, TLF, internal roads, development of greeneries etc.is given as follows.

Details of entities	Land use & land cover(Sq. mtrs)	Area (ha)	Percentage(%)
Tank farm area	56958.7928	5.69587928	42.3170823
TLF area	2645.98	0.26459781	1.9658084
Utilities & others	3649.46285	0.364946285	2.71133941
Admin block	1129.5476	0.11295476	0.83918841
Greeneries area	1617.2609	0.16172609	1.20153113
Internal roads & empty area	68598.95775	6.859895775	50.9650503
Total Area	1,34,600	13.46	100

3.3.10 Terrain and topography: The coastal region is mostly flat while certain areas in Tiruttani and Pallipet taluks are undulated and even hilly. However, there are not many hills of any considerable height in this district. There are a few conical hills or ridges of small elevation, like the St. Thomas Mount. Most of the hills and hillocks are rocky and no verdant vegetation is seen in the slopes of these hills. The area under forests, all of 19,736 sq. km., is only 5.8 % of the total geographical area of the district.

3.3.11 Details of water bodies, impact on drainage: There are no. of water bodies involves in the project

Description	Distance(km_)	Direction
Bay of Bengal	Site is within the Bay of Bengal	
Buckingham Canal	0.26km	W
Korttalaiyar/Kosisttalaiyar River	0.30	W

Lake near Uranamedu	3.97	WNW
Ennur Creek	4.25	S
Tiruvellavayal Lake	4.68	WNW
Arani River/Araniya Nad	10.50	NW
Perumbedu Lake	12.34	NW
Lake near Nayar	13.90	W
Pulicat Lake	15	N

3.3.12 Water requirement: There is no water required during construction activity and For Firefighting at Jetty, sea water is being used and the same will be continued after expansion.

S.No	Water Requirement	Qty (KLD)			
		Existing	Proposed	After Expansion	
1	Fresh water Requirement	6.7	2.5	9.2	
2	Recycled Water	1.6	4.2	5.8	
Total Water Requirement		8.3	6.7	15	

3.3.13 Tree cutting and green belt development: There is no tree cutting and involved in the project while during the year 1992, the Kamarajar Port was conceived as a satellite port to handle coal through two (2) coal berths. The Port is continuously developing green belt area. The total area of the port is 1127.94 ha (2787.2 acres) and out of which green belt developed is 257.4 ha (636.14 acres - 22.82%) which includes inside & outside the custom bound area. Proposed Green belt of 2.03 ha (5.01 acres) will be developed inside and outside the Tank Farm area. The treated wastewater will be used for green-belt areas to reduce the water requirements. The local plant species will be used for the green belt development as per the norms

3.3.14 Diversion of forest land: The proposal does not involved any forest land diversion. The project is not located within10 km of Protected Areas(PA) including National Parks, Sanctuaries and Tiger Reserves, Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC.

3.3.15 Waste Management: The project is expected to generate a total of 46.35 kg/day of solid waste after expansion, comprising 18.54 kg/day of inorganic waste and 27.81 kg/day of organic waste. Inorganic waste will be collected and disposed of through authorized vendors, as per the existing practice. Organic waste will be treated in the existing 50 kg/day capacity Organic Waste Converter (OWC**)** available at the facility. Appropriate waste management measures will be continued to ensure safe handling, treatment, and disposal of all generated waste.

3.3.16 Details of CRZ area: The proposed project site falls in CRZ-III,CRZ-III(NDZ) and CRZ-IAA

areas. The TamilNadu Coastal Zone Management Authority (CZMA) vide letter No.P1/896/2023 dated 10.01.2024.

3.3.17 IRO, MOEF&CC, Chennai conducted the site visit on 13.10.2025 and issued the Certified EC compliance report.

3.3.18 Details of Rainwater Harvesting: The Port has Rainwater Harvesting System in its Administrative Building consists of Open well. The details of the same are furnished herewith as below: Submerged RCC ring of diameter 3- 0 into a pit of 3 m depth. Filter chamber of size 0.6 x 0.6 x 0.9 m in brickwork CM 1:5. River sand to a depth of 0.15 m, Pebbles to a depth of 0.15 m Nylon mesh between river sand and Pebble stone. PVC pipes of 110 mm dia connecting terrace, well and filter chamber have been laid

3.3.19 Land Acquisition and R&R: There is no land acquisition is involved and no R&R Plan involved in this project

3.3.20 Employment opportunity: There are approximately 103 person will be employed permanent and temporary.

3.3.21 Benefits of the project: Greater flexibility in terms of handling multiple products simultaneously, Handling berthing of two smaller tankers simultaneously, The jetty can handle higher level of traffic with minimal waiting time for Tankers, Customers can import/export in larger parcels and benefit from lower ocean freight,,Kamara jar Port is located very close to Manali Industrial Belt and the CPCL and hence can cater to the raw material & finished goods movement of the industries located in this area. Improvements in the social infrastructure: Chennai Port does not have storage facility for handling LPG. Also, there is no storage infrastructure for Class A/B products, which is forcing importers in the hinterland of Chennai to route their import through other ports such as Cochin and Mangalore. Ennore would therefore be an automatic choice for importers and exporters. Kamarajar Port is located on the international shipping route. Kamarajar Port is a major port of call for Products, chemicals and vegetable oil tankers. Hence, Ennore is an ideal port of call for ships from the west and from Singapore, Malaysia, Korea and other far-east countries. In the long run, the Port would benefit from higher traffic and hence higher revenues Employment potential - skilled, Semi- skilled, Un-skilled the project has a potential to generate employment for unskilled, semi-skilled and skilled manpower Other Tangible Benefits Both, State Government and Government of India would be benefited. Government will earn huge revenue by way of various taxes and levies and transportation through sea route.

3.3.22 Details of court cases: There are no court cases involves in the project.

3.3.3. Deliberations by the committee in previous meetings

N/A

3.3.4. Deliberations by the EAC in current meetings

3.3.23 Observation of the committee:

i. The Project Proponent shall provide details of operational arrangements, storage facilities, traffic management, safety measures, and pollution control mechanisms to avoid congestion, operational conflicts, and environmental impacts during concurrent handling activities.

ii. The Project Proponent shall carry out a comprehensive Cumulative Impact Assessment Study covering all existing and proposed activities within the project area, including cargo handling operations, floating dry dock facilities, ship-breaking activities, and associated marine and land-based infrastructure. The study shall assess the cumulative impacts on air quality, water quality, marine ecology, sediment quality, noise levels, traffic movement, socio-economic environment, occupational health and safety, and disaster risk management. The assessment shall also evaluate the combined effects of emissions, effluent discharges, dredging activities, waste generation, and increased vessel movement. Appropriate mitigation measures and a monitoring plan shall be incorporated into the Environmental Management Plan (EMP).

iii. The number of vessels is increasing; however, there is no change in the jetty capacity. The proposal involves only a change in the configuration of vessel berthing for increasing cargo handling. Therefore, due care shall be taken to carefully design the vessel berthing arrangement so as to avoid any congestion at the jetty.

iv. The Project Proponent shall submit a clarification on the distance between the proposed jetty and the LNG jetty. Details of safety measures, risk assessment, emergency response plan, and vessel movement management shall be provided to demonstrate that cargo handling operations can be carried out safely without affecting the operation of the LNG jetty.

v. Further, the cargo-handling plan at the jetty shall be prepared with due caution, particularly where POL, chemicals, LPG or other cargo are proposed to be handled. The handling, storage and movement of such cargo shall be designed in a manner that ensures adequate safety, segregation, emergency response and operational efficiency.

vi. The facilities needs to adhere to OISD norms and pre certification and approval from OISD to be obtained before commissioning.

vii. While handling LPG other hazardous product handling should be restricted.

viii. Berth Occupancy and Traffic Management: The Project Proponent shall prepare and implement a detailed berth occupancy and marine traffic management plan demonstrating that the proposed increase in vessel numbers can be accommodated within the existing jetty infrastructure without causing congestion, delays, or compromising navigational safety.

ix. Cargo Handling and Segregation Plan: The Project Proponent shall prepare a cargo compatibility and segregation plan for handling POL, chemicals, LPG and other cargoes, ensuring that incompatible cargoes are not handled simultaneously and that adequate safety distances and operational safeguards are maintained.

x. Risk and Emergency Management: The Project Proponent shall undertake a detailed risk assessment covering vessel traffic, berthing operations and hazardous cargo handling, and accordingly strengthen firefighting systems, spill containment measures, emergency response mechanisms and standard operating procedures prior to commencement of the proposed operations.

xi. Fire Fighting Arrangement Condition: The Project Proponent shall augment and maintain adequate firefighting infrastructure commensurate with the proposed increase in vessel traffic and handling of POL, chemicals, LPG and other hazardous cargoes. The firefighting system shall conform to the applicable standards of the concerned statutory authorities and shall include dedicated firewater storage, hydrant networks, foam-based firefighting systems, emergency shutdown arrangements, gas detection systems, and trained emergency response personnel. Periodic mock drills shall be conducted and records thereof shall be maintained.

3.3.24 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 448th meeting during 29th May 2026 and **recommended** for grant of expansion of Environmental and CRZ clearance "Capacity Augmentation of Existing Operational Marine Liquid Terminal (MLT) from 3 MMTPA to 6 MMTPA at Kamarajar Port Limited, Chennai by

M/s Kamarajar Port Limited" With specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

3.3.5. Recommendation of EAC

Recommended

3.3.6. Details of Environment Conditions

3.3.6.1. Specific

Specific Conditions	
1.	
2.	
3.	
4.	
5.	The Project Proponent shall submit details of the distance between the proposed jetty and the LNG jetty along with a risk assessment, vessel movement plan, safety measures and emergency response arrangements demonstrating that the proposed operations will not affect the safe functioning of the LNG facilities.
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	

3.3.6.2. Standard

7(e)	**Ports, harbors, breakwaters, dredging**
Statutory compliance	
1.	Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
2.	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
3.	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.
Air quality monitoring and preservation	
1.	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the project area at least at four locations, covering upwind and downwind directions.
2.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.
3.	Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.
4.	Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.
5.	The Vessels shall comply the emission norms prescribed from time to time.
6.	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
7.	A detailed traffic management and traffic decongestion plan shall be drawn up 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./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
Water quality monitoring and preservation	

1.	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
2.	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
3.	No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.
4.	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
5.	The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.
6.	Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
7.	Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
8.	Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.
9.	A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
10.	No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.
11.	All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.
Noise monitoring and prevention	
1.	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
2.	Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
3.	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
4.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
Energy Conservation measures	

1.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
2.	Provide LED lights in offices and project areas.
Waste management	
1.	Dredged material shall be disposed safely in the designated areas.
2.	Shoreline should not be disturbed due to dumping. 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 reports.
3.	Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they 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.
4.	The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
5.	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
6.	A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
7.	Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.
8.	Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered.
Green Belt	
1.	Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.
2.	Top soil shall be separately stored and used in the development of green belt.
Marine Ecology	
1.	Dredging shall not be carried out during the fish breeding and spawning seasons.
2.	Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.
3.	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
4.	While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any

	adverse impact is observed.
5.	A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal 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 standards survey methods and include underwater photography.
6.	Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity.
7.	The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.
Public hearing and human health issues	
1.	The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.
2.	Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.
3.	In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos materials at site before disposal to CTSDF.
4.	Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents.
5.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
6.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
7.	Occupational health surveillance of the workers shall be done on a regular basis.
Environment Responsibility	
1.	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements /

	deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
2.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
3.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
4.	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
Miscellaneous	
1.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
2.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
5.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
6.	The criteria pollutant levels namely; PM2.5, PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
7.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
8.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
9.	No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

10.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
12.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
13.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
14.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
15.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
Specific Conditions	
1.	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.

3.4. Agenda Item No 4:

3.4.1. Details of the proposal

Proposed development of All-weather Multi Cargo Greenfield Deepwater port at Murbe, District Palghar, Maharashtra by **JSW MURBE PORT PRIVATE LIMITED** located at **PALGHAR,MAHARASHTRA**			
Proposal For		Fresh EC	
Proposal No	**File No**	**Submission Date**	**Activity Sub-Activity (Schedule Item)**
IA/MH/INFRA1/567840/2026	10/16/2025-IA.III	04/02/2026	Ports, harbors, breakwaters, dredging Cargo handling (7(e))

3.4.2. Project Salient Features

Subject: The proposal is for development of All-weather Multi Cargo Greenfield Deepwater port at Murbe, District Palghar, and Maharashtra by M/s JSW Murbe Port Private Limited. Environmental and CRZ Clearance regarding.
[Proposal Number: IA/MH/INFRA1/567840/2026, File No.: 10/16/2025-IA.III]

The EAC noted that the Project Proponent and the consultant have given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/ information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

3.4.1 The proposal was earlier placed before the EAC during its 436th EAC held on 18.02.2026. The EAC, after detailed deliberations, observed that the proposal involves multipurpose cargo handling, including POL, chemicals and other hazardous cargoes, along with associated marine infrastructure in an ecologically sensitive coastal environment comprising mangroves, intertidal areas and the Banganga creek system. The Committee noted the need for additional technical studies and safeguards with respect to shoreline dynamics, hydrodynamic modelling, mangrove conservation, hazardous cargo handling, navigational safety and socio-economic impacts. The EAC, therefore, recommended that the Project Proponent undertake revised shoreline and hydrodynamic modelling incorporating the complete creek system, carry out a comprehensive cumulative impact assessment and BLEVE risk study, submit detailed breakwater design and impact assessments, and prepare suitable mitigation and monitoring plans. The Committee further emphasized the need to protect mangrove ecosystems, maintain natural tidal exchange and littoral drift, undertake credible marine biodiversity and social impact assessments through reputed institutions, and implement livelihood restoration measures for affected fishing communities. All recommendations of CMFRI and other expert institutions shall be incorporated into the project design, Environmental Management Plan (EMP) and Environmental Monitoring Programme before the proposal is considered further.

3.4.2 At this instance the project is again placed in the 448th meeting held on 29th May 2026.The Project Proponent, along with the EIA consultant M/s. Building Environment (India) Pvt. Ltd. made a presentation through hybrid mode and submitted the following information.

S. No.	EAC Observations	JSW Murbe Port Submissions
1	The low water line and the intertidal regi on shown in the maps provided by PP are not in line with the satellite information a vailable in public domain. Ground truthin g of the low water line and the intertidal region should be carried out and revised maps to be submitted.	LTL, HTL Demarcation and CRZ maps were prepared by NCSCM Chennai, an authorized agency of MoEFCC. These CRZ maps were prepared after g round truthing and field verification co nducted on 2nd March 2025, and as pe r the approved CZMP 2019.
2	It is observed that the numerical model si mulations carried out for the assessment of shoreline changes have not incorporat ed the adjoining Banganga river and cree k system within the study domain. The cr eek may significantly influence sediment transport dynamics, tidal area, and local hydrodynamic conditions. Exclusion of the river and creek may resu lt in inaccurate shoreline evolution predic tions, particularly in the vicinity of the cre ek mouth. Moreover, the Banganga river and creek system has dense mangroves, the impact of the project on these mangr oves and intertidal regions needs to be st udied.	Banganga river and creek system have been incorporated within the model st udy domain and carried out the shoreli ne change assessment. To access long term (50 year and 100 year) shore line evolution, we have use d LITPACK software suite developed by the Danish Hydraulic Institute (DHI) for modelling shoreline evolution and coas tal processes. To access shoreline evolution for 1 yea r, 5 year and 10 year periods, we have used TELEMAC 2D model (developed b y Laboratoire National d'Hydraulique et Environment (LNHE) Paris), coupled wi th TOMAWAC wave model and its sub

3	Thus, the Project Proponent (PP) shall undertake revised shoreline change modelling by incorporating the complete creek system within the model domain, including seasonal freshwater discharge, tidal interactions, and sediment transport processes. The updated simulations shall assess the influence of the creek on shoreline behaviour, especially near the creek mouth, and submit the revised model study for further consideration.	routines GAIA sediment transport model. The revised model studies including Banganga river & creek system and, the 2 km stilt allowing longshore sediment transport from North to South & Vice versa has indicated that overall shoreline behavior remains within acceptable limits under the simulated conditions, and the projected coastal response remains manageable over the assessment period. As the 2 km stilt on piles is facilitating longshore sediment transport and intertidal flows, the proposed project has no impact on mangroves in intertidal regions and in Banganga river & creek system.
4	The Committee observed that, while granting the Terms of Reference (ToR), it was specifically recommended that a BLEVE (Boiling Liquid Expanding Vapor Explosion) study be conducted to assess the risk under extreme scenarios, along with mitigation measures. However, the Project Proponent (PP) has submitted an LSRI study instead, which does not address the specific explosion and thermal radiation risks associated with a potential BLEVE scenario. The PP is requested to furnish a clear justification for not conducting the BLEVE study as recommended in the ToR.	BLEVE modelling study for all relevant LPG systems including LPG storage systems and associated facilities, unloading/ loading arms at jetty and transfer pipelines has been conducted to assess the impact on consequence modelling, risk scenarios, and overall risk inclusions. Suggested remedial measures shall be incorporated in the design and implemented. Quantitative Risk Assessment (QRA) Report with BLEVE scenario were evaluated and presented.
5	This proposal involving multipurpose cargos handling of hazardous petroleum products and chemicals conducting BLEVE study (basis wind rose) is a must. Total impact assessment study needs to be undertaken with clear mitigation measures.	
6	South Breakwater, Road, POL Pipeline and Belt Conveyor are proposed in the CRZ IA (Mangrove area) area, the details submitted with respect to the proposed breakwater are not adequate to assess its technical suitability and potential coastal impacts. The Project Proponent (PP) shall submit comprehensive details of the proposed breakwater, including: Potential impacts on Mangroves and Proposed mitigation measures. Further, Post-construction	Port approach and Connectivity corridor containing the rail-road corridor, POL Pipeline, Belt Conveyor and utility pipeline are passing through the mangroves near the Coast and Banganga River. The alignment of the port approach and rail-road corridor and its construction methodology has been re-evaluated to reduce the potential impacts on the mangroves. The alignment of the south breakwater has been changed which will b

	monitoring plans with measurable indicators shall be submitted.	e 2 km away from the shoreline. The 2 km Port approach and connectivity corridor passing over the mangroves will be on pile/stilts so that the mangrove destruction will be minimal. Consequently, the mangroves destruction will be reduced from 4859 to 2398. Out of which, about 1849 mangroves will be impacted permanently falling in the footprint area of piles and about 549 mangroves will be impacted temporarily which will be restored. Apart from this, adequate spacing and elevation of the stilt ensures uninterrupted tidal flow and continuous supply of seawater to the mangroves existing along the coast and on the banks of the Banganga river.
7	As discussed during the meeting, it has been decided that the breakwater commencing from the shoreline landing point and extending up to a length of 2 km seawards shall be constructed on stilts. The design shall ensure that the natural littoral flow from the northern side to the southern side and vice versa remains unobstructed. Adequate spacing and elevation of the stilts shall be maintained so as to facilitate uninterrupted tidal exchange and hydrodynamic connectivity. This arrangement shall ensure continuous supply of intertidal waters to the mangrove areas and adjoining shoreline stretches, thereby maintaining the natural flow regime and preventing any alteration of coastal processes.	The alignment of the south breakwater has been changed which will be 2 km away from the shoreline. The 2 km Port approach from the shoreline landing point will be on pile/stilts. The revised model studies including Banganga river & creek system and, the 2 km stilt allowing longshore sediment transport from North to South & Vice versa has indicated that overall shoreline behavior remains within acceptable limits under the simulated conditions, and the projected coastal response remains manageable over the assessment period. As the 2 km stilt on piles is facilitating longshore sediment transport and intertidal flows, the proposed project has no impact on mangroves in intertidal regions and in Banganga river & creek system.
8	The Project Proponent (PP) shall submit comprehensive technical details of the proposed breakwater, including its design basis, layout, dimensions, and structural configuration. The submission shall also include an assessment of anticipated morphological changes in the surrounding coastal stretch, supported by shoreline evolution modelling outputs, input parameters, boundary conditions, calibration/ validation details, and interpretation of results to substantiate the predicted impacts.	Technical details of the proposed breakwater, including its design basis, layout, dimensions, and structural configuration attached along with this response. The revised model studies report including Banganga river & creek system and 2 km stilt assessing anticipated morphological changes in the surrounding coastal stretch attached along with this response.

9	The Project Proponent (PP) requested to clearly delineate the extent of mangrove area, indicating its precise location and p resent ecological condition within the pr oject influence area. However, it is obser ved that adequate details need to be sub mitted. Further, the potential impacts of the pro posed activities-such as land reclamatio n, dredging, and marine construction on mangrove ecosystems have not been co mprehensively assessed. The details shall be submitted.	The extent of mangroves, its presence and ecological conditions within the pr oject area is elaborated. Construction o n piles in the mangroves and its impact has already been elaborated in our earli er submission The detailed submissions on the impact s of the proposed activities-such as lan d reclamation, dredging, and marine co nstruction on the mangroves have bee n comprehensively assessed
10	While granting the ToR the EAC prescrib ed the specific condition to study on the impact of proposed activity on marine ec ology and marine biodiversity with specifi c focus on the corals, mangroves and mu dflats in the proximity of the site should be conducted including mitigation plan th rough nationally recognized institution or university. However, the study has been carried out through Thakur College of Science and C ommerce. The Committee opined that th e study conducted by Thakur College sha ll be vetted by National Institute of Ocea nography (NIO) or any other nationally re puted institute with relevant domain exp ertise. The vetted report, along with com ments shall be submitted.	The marine environment study report p repared by Thakur College of Science & Commerce, Virar is vetted by the Ce ntre of Advanced Study (CAS) in Marin e Biology, Annamalai University, a repu ted marine institute in India. The vetted report highlighting the salie nt features and findings of the marine e cology study, including the mitigation measures for anticipated environmenta l impacts has been evaluated and subm itted.
11	The PP is proposed to develop the green belt over an area of 203.68 m^2 in the CR Z IA area. The details shall be submitted i n this regard.	In the CRZ map, greenbelt is shown alo ng the port approach and connectivity corridor which is passing over the man groves (CRZ IA area). However, as the port approach and corridor passing ove r the mangroves is proposed on stilts, greenbelt will be developed along thos e stilt corridors. Therefore, the greenb elt proposed on the port approach and connectivity corridor will not be precis ely over the mangroves.
12	Details of the Cargo handling and its cap acity.	Detailed cargo handling and its capacit y has been presented and submitted.
13	The Committee deliberated in detail on t he social and economic issues of the loca l communities likely to be affected by the proposed project.	Project Proponent is committed to ado pt CMFRI recommendations in the proj ect plan.

14	The Committee further noted that the st udies presently being carried out by the Central Fisheries Research Institute (CFR I) are yet to be concluded. The Project Pr oponent (PP) shall take into account all r ecommendations made by CFRI and incor porate the same in the project design an d mitigation measures	
15	Considering the potential social risks ass ociated with the project, the Committee directed that a Social Risk Materiality Ma pping be carried out by a reputed institut e, along with a detailed Social Impact Ass essment (SIA) by a nationally recognized institution such as Tata Institute of Social Sciences, (TISS) or an equivalent organiz ation. These studies shall be conducted i n a participatory manner, ensuring: Partic ipatory Rural Appraisal (PRA), Focus Grou p Discussions (FGD) with relevant stakeh olders, Comprehensive stakeholder enga gement mapping. Based on the outcome s of the above, the PP shall prepare and i mplement a comprehensive Livelihood R estoration and Enhancement Plan.	The Social Risk Materiality Mapping exe rcise was undertaken and the work inv olved preparation of a Social Impact As sessment (SIA) using multiple tools an d approaches, including Focus Group D iscussions (FGDs), stakeholder consult ations, and field-level interactions. B ased on these FGDs and consultat ions, a village-wise livelihood Enh ancement Plan was recommende d in the report. The report is prim arily based on community-level F GDs and consultations with stake holders identifying social risks, co ncerns, and potential intervention s at the village level to ensure tha t all relevant social, livelihood, an d developmental aspects are fully addressed. Based on the outcomes of the enhance d and participatory process, a compreh ensive and robust village-wise Livelih ood Restoration, and Enhanceme nt Plan shall be prepared, ensurin g practicality, community accepta nce, and full compliance with reg ulatory expectations.
16	The livelihood programs shall be designe d to protect and strengthen the income s ecurity of the fishermen community thro ugh community-level models, including b ut not limited to: Facilities enabling temporary storage of c atch to prevent distress sale, aggregation mechanisms and better market timing to improve price realization and income sta bility, measures to reduce post-harvest l osses and quality degradation, introducti on of temperature-controlled logistics so lutions for transportation and storage, pr ovision for community-owned cold stora ge facilities at village level and distributio n of temperature-controlled fish storage	The recommendations related to livelih ood programmes for protecting and str engthening the income security of the f ishermen community are duly noted. A s part of the initial Social Impact Asses sment, Focus Group Discussions (FGD s) and stakeholder consultations are ca rried out at the village level, based on which key livelihood concerns were ide ntified and village-wise measures we re suggested. As advised by the EAC that such studie s to be undertaken or strengthened thr ough a reputed and nationally recogniz ed institution, the School of Planning a nd Architecture (SPA), New Delhi has b

	boxes' Integration of storage and logistics facilities with hybrid solar and wind energy systems to reduce operational costs and improve utilization efficiency.	een engaged. The study covers comprehensive stakeholder consultation and participatory assessment using tools such as focused group consultations with the fishermen community and other relevant stakeholders. As part of the study, livelihood programmes shall be designed with a community-level approach to improve income stability and reduce vulnerability of fishermen households. The study also includes trend analysis of marine fishery production. These shall, inter alia, examine provisions for temporary storage facilities to avoid distress sale of fish catch, aggregation mechanisms for improved market access and timing, measures to minimize post-harvest losses and quality deterioration, and introduction of temperature-controlled transportation and storage solutions. The feasibility of village-level, community-owned cold storage facilities and distribution of insulated fish storage boxes shall also be assessed. Further, it evaluates the integration of storage and logistics infrastructure with hybrid renewable energy systems such as solar and wind, with the objective of reducing operational costs and improving long-term efficiency and sustainability. The final livelihood interventions and implementation framework shall be developed based on the outcomes of the SPA study, ensuring that the measures are practical, community-driven, and compliant with regulatory requirements.
17	The PP shall prepare and implement a comprehensive Livelihood Restoration and Enhancement Plan. The livelihood programs shall be designed to protect and strengthen the income security of the fishermen community through community-level models	The proposal and recommendations ensure the implementation strategies for Comprehensive Livelihood Restoration and Enhancement Plan. SPA also ensures that the CLRE Plan shall protect and strengthen the income security of the fishermen community.

3.4.3 Details of Court case: There is no court case involves in the project.

3.4.3. Deliberations by the committee in previous meetings

Date of EAC 1 :18/02/2026

Deliberations of EAC 1 :

3.1.21 **Observation of the Committee:**

i. The low water line and the intertidal region shown in the maps provided by PP are not in line with the satellite information available in public domain. Ground truthing of the low water line and the intertidal region should be carried out and revised maps to be submitted.

ii. It is observed that the numerical model simulations carried out for the assessment of shoreline changes have not incorporated the adjoining Banganga river and creek system within the study domain. The creek may significantly influence sediment transport dynamics, tidal area, and local hydrodynamic conditions. Exclusion of the river and creek may result in inaccurate shoreline evolution predictions, particularly in the vicinity of the creek mouth. Moreover, the Banganga river and creek system has dense mangroves, the impact of the project on these mangroves and intertidal regions need to be studied.

iii. Thus, the Project Proponent (PP) shall undertake revised shoreline change modelling by incorporating the complete creek system within the model domain, including seasonal freshwater discharge, tidal interactions, and sediment transport processes. The updated simulations shall assess the influence of the creek on shoreline behaviour, especially near the creek mouth, and submit the revised model study for further consideration.

iv. The Committee observed that, while granting the Terms of Reference (ToR), it was specifically recommended that a BLEVE (Boiling Liquid Expanding Vapor Explosion) study be conducted to assess the risk under extreme scenarios, along with mitigation measures. However, the Project Proponent (PP) has submitted an LSRI (Land–Sea Risk Interaction) study instead, which does not address the specific explosion and thermal radiation risks associated with a potential BLEVE scenario. The PP is requested to furnish a clear justification for not conducting the BLEVE study as recommended in the ToR.

v. This proposal involving multipurpose cargoe handling of hazardous petroleum products and chemicals conducting BLEVE study (basis wind rose) is a must. Total impact assessment study needs to be undertaken with clear mitigation measures.

vi. South Breakwater, Road, POL Pipeline and Belt Conveyor are proposed in the CRZ IA (Mangrove area) area, the details submitted with respect to the proposed breakwater are not adequate to assess its technical suitability and potential coastal impacts. The Project Proponent (PP) shall submit comprehensive details of the proposed breakwater, including: Potential impacts on Mangroves and Proposed mitigation measures. Further, Post-construction monitoring plans with measurable indicators shall be submitted.

vii. As discussed during the meeting, it has been decided that the breakwater commencing from the shoreline landing point and extending up to a length of 2 km seawards shall be constructed on stilts. The design shall ensure that the natural littoral flow from the northern side to the southern side and vice versa remains unobstructed. Adequate spacing and elevation of the stilts shall be maintained so as to facilitate uninterrupted tidal exchange and hydrodynamic connectivity. This arrangement shall ensure continuous supply of intertidal waters to the mangrove areas and adjoining shoreline stretches, thereby maintaining the natural flow regime and preventing any alteration of coastal processes.

viii. The Project Proponent (PP) shall submit comprehensive technical details of the proposed breakwater, including its design basis, layout, dimensions, and structural

configuration. The submission shall also include an assessment of anticipated morphological changes in the surrounding coastal stretch, supported by shoreline evolution modelling outputs, input parameters, boundary conditions, calibration/validation details, and interpretation of results to substantiate the predicted impacts.

ix. The Project Proponent (PP) requested to clearly delineate the extent of mangrove area, indicating its precise location and present ecological condition within the project influence area. However, it is observed that adequate details need to be submitted. Further, the potential impacts of the proposed activities-such as land reclamation, dredging, and marine construction-on mangrove ecosystems have not been comprehensively assessed. The details shall be submitted.

x. While granting the ToR the EAC prescribed the specific condition to study on the impact of proposed activity on marine ecology and marine biodiversity with specific focus on the corals, mangroves and mudflats in the proximity of the site should be conducted including mitigation plan through nationally recognized institution or university. However, the study has been carried out through Thakur College of Science and Commerce. The Committee opined that the study conducted by Thakur College shall be vetted by National Institute of Oceanography (NIO) or any other nationally reputed institute with relevant domain expertise. The vetted report, along with comments shall be submitted.

xi. The PP is proposed to develop the green belt over an area of 203.68m^2 in the CRZ IA area. The details shall be submitted in this regard.

xii. Details of the Crago handling and its capacity.

xiii. The Committee deliberated in detail on the social and economic issues of the local communities likely to be affected by the proposed project.

xiv. The Committee further noted that the studies presently being carried out by the Central Fisheries Research Institute (CFRI) are yet to be concluded. The Project Proponent (PP) shall take into account all recommendations made by CFRI and incorporate the same in the project design and mitigation measures.

xv. Considering the potential social risks associated with the project, the Committee directed that a Social Risk Materiality Mapping be carried out by a reputed institute, along with a detailed Social Impact Assessment (SIA) by a nationally recognized institution such as Tata Institute of Social Sciences, (TISS) or an equivalent organization. These studies shall be conducted in a participatory manner, ensuring: Participatory Rural Appraisal (PRA), Focus Group Discussions (FGD) with relevant stakeholders, Comprehensive stakeholder engagement mapping. Based on the outcomes of the above, the PP shall prepare and implement a comprehensive Livelihood Restoration and Enhancement Plan.

xvi. The livelihood programs shall be designed to protect and strengthen the income security of the fishermen community through community-level models, including but not limited to:

Facilities enabling temporary storage of catch to prevent distress sale, aggregation mechanisms and better market timing to improve price realization and income stability, measures to reduce post-harvest losses and quality degradation, introduction of temperature-controlled logistics solutions for transportation and storage, provision for community-owned cold storage facilities at village level

and distribution of temperature-controlled fish storage boxes' Integration of storage and logistics facilities with hybrid solar and wind energy systems to reduce operational costs and improve utilization efficiency.

xvii. The PP shall prepare and implement a comprehensive Livelihood Restoration and Enhancement Plan. The livelihood programs shall be designed to protect and

strengthen the income security of the fishermen community through community-level models

3.1.22 The EAC, taking into account the submission made by the project proponent has detailed deliberation in its 436th meeting held on 18thFebruary 2025 and **deferred** the proposal for want of above information mentioned at para 3.1.21 above.

3.4.4. Deliberations by the EAC in current meetings

3.4.3 Observation of the committee:

i. LPG Safety and BLEVE Risk: The EAC observed that the proposal involves handling of LPG and other hazardous cargoes. The Project Proponent shall ensure that all LPG storage, handling and transfer facilities are designed and operated in accordance with applicable OISD/NFPA standards, with adequate safety distances, fire and gas detection systems, emergency shutdown systems, remote-operated isolation valves, firewater spray arrangements and a comprehensive On-site Emergency Response Plan to address BLEVE and other major accident scenarios.

ii. Pre OISD audit and approval from OISD to be obtained before commissioning of facilities.

iii. While LPG handling / berthing is on handling of other hazaderous products to be restricted

iv. Mangrove Protection through Stilt-Based Design: The EAC noted the revised project layout incorporating stilt/pile-supported infrastructure over mangrove areas. The Project Proponent shall ensure that the port approach, connectivity corridor and associated facilities traversing mangrove ecosystems are developed on stilts/piles so as to maintain natural tidal flow, hydrological connectivity and longshore sediment transport, while minimizing permanent loss of mangroves.

v. Mangrove Conservation and Restoration: The EAC emphasized that a comprehensive Mangrove Conservation and Restoration Plan shall be implemented. Appropriate construction practices, including controlled access, use of precast elements, turbidity control measures and restoration of temporarily affected areas, shall be adopted. Compensatory plantation of native mangrove species and shoreline restoration measures shall be undertaken in consultation with the Mangrove Cell, Maharashtra Forest Department.

vi. Breakwater Design and Stability: The EAC observed that the breakwater shall be designed considering hydraulic, geotechnical and seismic stability under normal and extreme conditions. The design shall account for 1-in-100-year return period waves, tidal variations, storm surge, sea level rise and permissible overtopping limits in accordance with recognized engineering standards and applicable guidelines.

vii. Fisheries Impact Mitigation: The EAC noted that the Fisheries and Socio-economic Impact Assessment is being carried out by CMFRI. The Project Proponent shall implement all recommendations of the CMFRI study, including fisheries habitat restoration, artificial reef deployment, marine biodiversity conservation measures and livelihood enhancement programmes for fishing communities.

viii. Fishermen Compensation and Grievance Redressal: The EAC recommended that compensation, livelihood restoration and grievance redressal measures for affected fishermen shall be implemented in accordance with the applicable Government Resolution of Maharashtra and recommendations of CMFRI, through the prescribed Government mechanism and in consultation with the State Fisheries Department.

ix. Livelihood Enhancement for Fishing Communities: The EAC further observed that the Project Proponent shall undertake measures for strengthening fishermen livelihoods, including support for fisheries infrastructure, cold-storage facilities, skill development, fishermen cooperatives, Self-Help Groups, value-addition activities and market access initiatives in consultation with the concerned State authorities and local communities.

x. Shoreline and Coastal Process Monitoring: The EAC recommended that periodic monitoring

of shoreline behaviour, erosion/accretion trends and coastal processes shall be carried out during construction and operation phases. Appropriate mitigation measures shall be implemented wherever adverse impacts are observed.

3.4.4 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 448th meeting during 29th May 2026 and **recommended** for grant of Environmental and CRZ clearance "development of All-weather Multi Cargo Greenfield Deepwater port at Murbe, District Palghar, and Maharashtra by m/s JSW Murbe Port Private Limited' with specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

3.4.5. Recommendation of EAC

Recommended

3.4.6. Details of Environment Conditions

3.4.6.1. Specific

Specific Conditions	
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3.4.6.2. Standard

7(e)	**Ports, harbors, breakwaters, dredging**
Statutory compliance	
1.	Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
2.	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
3.	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.
Air quality monitoring and preservation	
1.	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the project area at least at four locations, covering upwind and downwind directions.
2.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.
3.	Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.
4.	Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.
5.	The Vessels shall comply the emission norms prescribed from time to time.
6.	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets

	should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
7.	A detailed traffic management and traffic decongestion plan shall be drawn up 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./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
Water quality monitoring and preservation	
1.	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
2.	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
3.	No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.
4.	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
5.	The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.
6.	Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
7.	Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
8.	Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.
9.	A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
10.	No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.
11.	All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.
Noise monitoring and prevention	
1.	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be

	submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
2.	Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
3.	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
4.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
Energy Conservation measures	
1.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
2.	Provide LED lights in offices and project areas.
Waste management	
1.	Dredged material shall be disposed safely in the designated areas.
2.	Shoreline should not be disturbed due to dumping. 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 reports.
3.	Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they 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.
4.	The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
5.	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
6.	A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
7.	Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.
8.	Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered.
Green Belt	
1.	Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.

2.	Top soil shall be separately stored and used in the development of green belt.
Marine Ecology	
1.	Dredging shall not be carried out during the fish breeding and spawning seasons.
2.	Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.
3.	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
4.	While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
5.	A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal 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 standards survey methods and include underwater photography.
6.	Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity.
7.	The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.
Public hearing and human health issues	
1.	The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.
2.	Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.
3.	In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos materials at site before disposal to CTSDF.
4.	Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents.
5.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

6.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
7.	Occupational health surveillance of the workers shall be done on a regular basis.
Environment Responsibility	
1.	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
2.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
3.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
4.	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
Miscellaneous	
1.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
2.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
5.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
6.	The criteria pollutant levels namely; PM2.5, PM10, SO2, NOx (ambient levels) or critical sectoral

	parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
7.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
8.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
9.	No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
10.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
12.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
13.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
14.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
15.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
Specific Conditions	
1.	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.

3.5. Agenda Item No 5:

3.5.1. Details of the proposal

Proposed Construction of Math – Kudal – Humarmala – Jambhawade – Ghotage – Sonawade – Shivdav - Gargoti Ghat Road (Missing Link of SH-179) District connectivity in Kudal Taluka to connect Kolhapur an d Sindhudurg Districts. Section from Km. 43+480 to Km. 56+820 in the Kolhapur & Sindhudurg districts of the State of Maharashtra by **Public Works Department** located at **SINDHUDURG,MAHARASHTRA**	
Proposal For	Fresh ToR

Proposal No	File No	Submission Date	Activity Sub-Activity (Schedule Item)
IA/MH/INFRA1/442217/2023	10/62/2023-IA.III	30/08/2023	Road New State Highway/expressway (7(f))

3.5.2. Project Salient Features

Subject: The proposal is for Construction of Math- Kudal- Humarmala- Jambhawade - Ghotage-Sonawade-Shivdav-Gargoti Ghat Road (Missing Link of SH-179) District connectivity in Kudal Taluka to connect Kolhapur and Sindhudurg Districts. Section from Km. 43+480 to Km. 56+820 in the Kolhapur & Sindhudurg districts of the State of Maharashtra M/s Public Works Department. Terms of References regarding.

Proposal Number: :IA/MH/INFRA1/442217/2023 , File No.: 10/62/2023-IA.III

The EAC noted that the Project Proponent and the consultant have given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/ information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

3.5.1 The proposal was earlier placed before the EAC during its 432nd meeting of Expert Appraisal Committee held on 15th-16th January, 2026 wherein the EAC recommended the project for grant of Terms of References.

3.5.2 Looking into the sensitivity of the project, the Ministry further examined the proposal and requested the PP to provide details by exploring the available alternate routes? What is the likely traffic scenario on this road? Also specify the overall benefits of the project vis a vis its environmental impacts.

3.5.3 At this instance the proposal is again considered in 448th EAC held on 29th May 2026. The Project Proponent, along with the EIA consultant M/s Centre for Envotech and Management Consultancy Private Limited made a presentation through virtual mode and submitted the following information.

3.5.4 The Project Proponent has submitted a response regarding the availability of alternate routes, likely traffic scenario, and the overall benefits of the proposed project vis-à-vis its environmental impacts. The submission explains that the existing connectivity between the Konkan region and Kolhapur is primarily dependent on Amboli Ghat and Phonda Ghat routes and that the proposed SH-179 missing link would function as an additional corridor, particularly during disruptions such as landslides or congestion on the existing routes. The submission further states that alternative alignments were examined during the planning stage and that the selected alignment was finalized after considering engineering, environmental, and socio-economic parameters.

3.5.5 The traffic analysis report also provides traffic survey data collected from adjacent road networks and indicates Average Daily Traffic (ADT) ranging from approximately 1,951 PCU to 10,716 PCU, thereby suggesting the existence of significant regional traffic demand. The report further highlights the expected benefits of improved accessibility, reduction in travel time, enhanced emergency services, and socio-economic development in the region.

3.5.6 However, upon examination, the reply appears to be only partially satisfactory. While the Project Proponent has identified the existing routes and broadly justified the need for an alternative corridor, the submission does not provide a detailed comparative assessment of the existing and proposed routes. The information furnished is largely qualitative in nature and does not include comparative details such as route lengths, travel times, carrying capacities, accident records, frequency of closures due to landslides, or the extent of traffic likely to be diverted from Amboli Ghat and Phonda Ghat to the proposed road. In the absence of such information, it

is difficult to assess the actual necessity and strategic advantage of the proposed corridor vis-à-vis the existing road network.

3.5.7 Similarly, although the Project Proponent has provided traffic survey data from nearby corridors and intersections, the submission does not adequately address the likely traffic scenario on the proposed road itself. The traffic analysis primarily presents existing traffic volumes observed on adjacent roads and major junctions and concludes that there is latent traffic demand in the region. However, no traffic forecasting has been provided to estimate the traffic likely to use the proposed road during the opening year or over the design life of the project. The submission does not indicate the methodology adopted for traffic projection, anticipated growth rates, traffic diversion percentages, level of service analysis, or the expected composition of passenger and freight traffic on the proposed corridor. Consequently, while the existing demand in the region has been demonstrated, the likely traffic scenario on the proposed road remains insufficiently substantiated.

3.5.8 With regard to the overall benefits of the project vis-à-vis its environmental impacts, the Project Proponent has highlighted benefits such as improved connectivity, better access to healthcare, education and markets, reduced travel time, and enhanced regional development. While these benefits establish the utility of the project, the submission does not provide a balanced assessment of the corresponding environmental costs. No quantitative information has been furnished regarding forest land diversion, tree felling, impacts on wildlife movement, habitat fragmentation, slope cutting, or other ecological impacts in the Sahyadri landscape. Further, the submission does not demonstrate whether the anticipated socio-economic and transportation benefits outweigh the environmental impacts arising from the construction and operation of the proposed road. Therefore, the benefit–impact assessment remains largely qualitative and requires further substantiation through a comparative environmental analysis.

3.5.9 In view of the above the EAC opined that, it may be appropriate to seek additional information from the Project Proponent in the form of a comprehensive comparative analysis of existing and proposed routes, including route lengths, travel times, traffic carrying capacities, and anticipated traffic diversion. The Project Proponent may also be requested to furnish a detailed traffic forecast study indicating projected traffic volumes for the opening year and design year, along with the assumptions adopted for traffic growth and diversion. Further, a quantified benefit–impact assessment may be submitted demonstrating the socio-economic gains, travel time savings, reduction in fuel consumption and vehicular emissions, and comparing these benefits against the environmental impacts arising from forest diversion, tree felling, biodiversity disturbance, slope stabilization measures, and other ecological considerations. Such information would enable a more informed assessment of whether the overall public benefits of the project outweigh the environmental costs associated with its implementation.

3.5.3. Deliberations by the committee in previous meetings

Date of EAC 1 :06/09/2023

Deliberations of EAC 1 :

1. During the EAC, the Committee observed the following:
2. The PP obtained earlier EC for the other alignment for the same connectivity road. However, PP submitted that they will surrender the Existing EC. The details of the alignment along with the copy of EC shall be submitted.
3. Justification for the new alignment and the status of the already granted EC.
4. The EAC, after examining the documents submitted by the project proponent and detailed deliberations in its 337th meeting on 06th September, 2023 and deferred the proposal for want of following information for further consideration.
5. Committee noted that the proposed alignment is extremely deleterious for the pristine nature of Western Ghats. The proposed alignment may bisect and/or adversely affect the wildlife corridors in the region.

- State Government of Maharashtra has recently declared seven new Conservation Reserves around Sahyadri Tiger Reserve and Radhanagari Wildlife Sanctuary.
- Few important corridor connectivity includes a) Amboli-Dodamarg, Chandgad, and Ajara forests connecting Tillari Conservation Reserve to Radhanagari Wildlife Sanctuary, b) Panhalgad and Vishalgad forests connecting the Radhanagari Wildlife Sanctuary to Sahyadri Tiger Reserve and c) Jor-Jambhali Forest on the northern part of Sahyadri Tiger Reserve have been declared as Conservation Reserves.

1. The details of the alignment including KML along with the copy of EC and the status of the already granted EC shall submit.
2. PP shall submit the differentiation between two alignments along with the exploration of the no of tunnels, flying bridge provided in both the tunnels.
3. Cutting road through the steep slopes with 30 m proposed RoW of the Western Ghats will leads to landslides affecting settlements at the foothills.
4. 30m RoW with median also seems unreasonable considering extremely fragile parts of Western Ghats as well as risks of corridor fragmentation
5. Evaluation of both the alignments by NTCA in terms of its impact on wildlife corridors should be done prior to the application for ToR.
6. Prior to the application for ToR, a detailed boundary map of all the conservation reserves stated above should be prepared by state forest department showing both the alignments and whether these alignments impact and/or bisect this wildlife corroder connectivity.
7. Justification for the new alignment.

Date of EAC 2 :11/09/2024

Deliberations of EAC 2 :

3.1.1 During the EAC, the committee observed the following:

i. The Environmental Clearance vide letter no.10-81/2016-IA.III dated, 20th August, 2018 was obtained for construction of New Road Math- Kudal – Pandur-Ghotage - Sonawade-Naikwadi - Gargoti Ghat Road, State Highway 120 and 121 in Sindhudurg and Kolhapur Districts of Maharashtra State (Math-kudal Pandur Ghotage Sonwade Shivdav Kadgaon Gargot Road SH-179 km 45/00 to 58/00 Taluk Kudal & Bhudargad, District Sindhudurga & Kolhapur) by M/s Public Works (South) Division Kolhapur.

ii. As informed by the project proponent the above said road becomes inevitable as alignment is not physically possible. Thus PP applied for new alignment and applied for the fresh ToR.

iii. The Committee suggested that the project proponent shall surrender the earlier EC dated 20th August, 2018 to the Ministry.

iv. Also the committee opined that there is an existing road in between chainage no. 43+480 to 56+820 thus, project proponent shall explore the option to utilize the existing road at this stretch.

v. During the meeting project proponent proposed to construct tunnel from the chainage 42+00 to 56+00 to minimize impacts on the Western Ghats.

vi. The Committee also opined that the proposed alignment is passing through the ESZ of Radhanagari Wildlife Sanctuary and Tiger corridor. The proposed alignment is also bisecting the Western Ghats considering the sensitive nature of the alignment a sub-committee of the EAC and NTCA will undertake a site visit before considering the proposal further for ToR.

3.1.2 The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 373rd meeting held during 11th-12th September, 2024 and **deferred** the proposal considering the sensitive nature of the alignment. The Committee also recommended that a sub-committee of the EAC and NTCA and WII will undertake a site visit before considering the proposal further for ToR.

3.1.3 The committee further recommended that IA division may also request the ADG NTCA and Director WII to depute their officer with the subcommittee so that joint inspection may help in taking a well informed decision about alignment and design of road from environmental and wildlife/tiger conservation angle within least possible time.

Date of EAC 3 :16/01/2026

Deliberations of EAC 3 :

3.9.1 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 432th meeting during 15th-16th January and **recommended** the project for grant of Terms of References for Construction of Math – Kudal – Humarmala – Jambhawade – Ghotage – Sonawade – Shivdav - Gargoti Ghat Road (Missing Link of SH-179) District connectivity in Kudal Taluka to connect Kolhapur and Sindhudurg Districts. Section from Km. 43+480 to Km. 56+820 in the Kolhapur & Sindhudurg districts of the State of Maharashtra with following specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

3.5.4. Deliberations by the EAC in current meetings

3.5.10 The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 448th meeting during 29th May 2026 and deferred the proposal.

3.5.5. Recommendation of EAC

Deferred for ADS

4. Any Other Item(s)

N/A

5. List of Attendees

Sr. No.	Name	Designation	Email ID	Remarks
1	Shri Manmohan Singh Negi	Chairman, EAC	neg*****@hotmail.com	
2	Dr V K Jain	Member (EAC)	drv*******@hotmail.com	
3	Shri S Jeyakrishnan	Member (EAC)	suk**********@gmail.com	
4	Dr. Jaya Kumar Seelam	Member, EAC	jay@nio.res.in	
5	Dr. P. K. Dinesh Kumar	Member, EAC	pkd**********@gmail.com	
6	Col. Prakash Tewari	Member, EAC	pra**********@gmail.com	
7	Dr.R.S.Kankara	Member, EAC	kan****@nccr.gov.in	
8	Dr.Nasim Akhtar	Member, EAC	nas*******@csir.res.in	
9	Shri Sharandeep Singh	Member, EAC	sha**********@nic.in	Absent
10	Shri Ashok Kumar Patre	Member, EAC	ash**********@gov.in	Absent
11	Ms. Bindu Manghat	Member, EAC	bin**********@gov.in	Absent
12	Shri Amardeep Raju	Member Secretary, EAC	ad.****@nic.in	

Minutes of the 448th meeting of Expert Appraisal Committee (EAC) of Infra–I (IA–III) through Video conferencing held on 29thMay, 2026, for the projects related to Infrastructure Development, All Ship breaking yards including Ship breaking units 7(b); Industrial Estate/Parks/Complexes/Areas, Export Processing Zones, Special Economic Zones, Biotech Parks, Leather Complexes 7(c); Ports, Harbours, Breakwaters, Dredging 7(e) and National Highways 7(f).

The 448th Meeting of Expert Appraisal Committee (EAC) of Infra–1(IA–III) through Virtual mode held on 29th May, 2026 under the Chairmanship of Shri Manmohan Singh Negi. The list of participants is annexed as **Annexure-A.**

OPENING REMARKS OF THE CHAIRMAN

At the outset, Shri Manmohan Singh Negi, Chairman, EAC, welcomed the Members of the EAC and requested Shri Amardeep Raju, the Member Secretary of the EAC, to initiate the proceedings of the meeting with a brief account of the activities undertaken by the Ministry under Infra–1 Division.

Dr. Jaykumar Seelam recused himself from the deliberations pertaining to Agenda Item No. 2.

CONFIRMATION OF THE MINUTES OF THE LAST MEETING.

The Committee confirmed the Minutes of the 446th EAC meeting held on 14-15th May 2026 with following corrections:

1. In the MoM of 446 EAC meeting held on 14th-15th May, 2026 in the agenda no.3.6 the proposal of Expansion of Port Facilities Essar Bulk Terminal (Salaya) at Village Salaya, Taluka Khambhaliya, District Devbhumi Dwarka, Gujarat by M/s Essar Bulk Terminal (Salaya), the following may be included

<table>
<tr><td>S. No.</td><td>Original Proposed Development (as per EC dated August 17, 2009)</td><td>Status as per Existing EC</td><td colspan="2">Proposed EC</td></tr>
<tr><td rowspan="5">1</td><td rowspan="5">Capacity</td><td rowspan="5">Bulk Handling Capacity : 12 MTPA</td><td>Cargo</td><td>Volumes in MTPA</td></tr>
<tr><td>Dry bulk and break bulk</td><td>20</td></tr>
<tr><td>Liquid Cargo including POL, Biofuels , LPG , Ammonia</td><td>12</td></tr>
<tr><td>Veg Oil, Chemicals</td><td>4</td></tr>
<tr><td>Crude (SPM)</td><td>20</td></tr>
</table>

			LNG	6	
			Solids/containers (MTeu)	(1 Mn Teu)	
			Total	62+1Mn Teu	

2. AGENDA WISE CONSIDERATION OF PROPOSALS.

Agenda-wise details of proposals discussed and decided in the meeting are as follows:

Agenda No. 3.1

Subject: The proposal is for expansion of LNG handling capacity from 6.28 MMTPA to 26.2 MMTPA (25 MMTPA regasification & 1.2 MMTPA truck loading terminal) by M/s Shell Energy India Private Limited- Environmental and CRZ Clearances regarding.

[Proposal Number: IA/GJ/INFRA1/548783/2025, File No:10/6/2023-IA.III].

The EAC noted that the Project Proponent and the consultant have given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/ information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent

3.1.1 The aforementioned proposal was placed before the EAC during its 414th meeting of the Expert Appraisal Committee held on 02nd September, 2025. The project proponent and EIA Consultants M/s. Cholamandalam MS Risk Services. Tamil Nadu, made a presentation in the Ministry and submitted the following information.

3.1.2 It has been noted that the EAC during its 414th meeting held on 02nd September, 2025 observed certain non-compliance of the EC conditions. Therefore, the committee recommended the Ministry to forward the compliance report to the CMD division separately for further necessary action.

3.1.3 The Ministry has examined the issue and noted that a site inspection of the project was carried out by IRO Gandhinagar on 19.07.2024, following which a Certified Compliance Report (CCR) dated 05.09.2024 identified certain EC conditions as partly complied and requiring further action. The matter was considered in the 414th EAC (Infrastructure-I) meeting held on 02.09.2025, and the Minutes were issued on 11.09.2025. Subsequently, the observations of the EAC were communicated to the Project Proponent by EC Compliance & Monitoring Division dated 10.11.2025 seeking compliance/action taken on the observations. In response, the Project Proponent submitted an Action Taken Report (ATR) on 21.11.2025. Thereafter, MoEF&CC (C&M Division), vide letter dated 19.12.2025, forwarded the ATR to IRO Gandhinagar for verification. Upon review, IRO Gandhinagar issued an Action Taken Review Report on 13.04.2026 confirming compliance of the outstanding observations. Based on the CCR dated 05.09.2024, ATR dated 21.11.2025, and Review Report dated 13.04.2026,

MoEF&CC issued an Action Closure Letter on 12.05.2026, confirming that all EC compliance observations had been satisfactorily addressed and complied with.

3.1.4 The EAC, after taking into consideration the submissions made by the Project Proponent and having deliberations in its 448th meeting held on 29th May, 2026, observed that the proposal had already been considered and recommended by the Committee in its 414th meeting held on 02nd September 2025. However, at that stage, certain deficiencies/non-compliances with respect to Environmental Clearance conditions were observed, and while recommending the proposal, the EAC had advised the Ministry to separately refer the compliance issues to the Compliance & Monitoring Division (CMD) for necessary action.

3.1.5 The Committee further noted that subsequent to the recommendations of the 414th EAC, the matter was examined by the Compliance & Monitoring Division. Following submission of the Action Taken Report by the Project Proponent, verification by IRO Gandhinagar, and issuance of the Action Closure Letter dated 12.05.2026 by the Compliance & Monitoring Division, the compliance issues stand satisfactorily addressed.

3.1.6 In view of the above, the EAC has no further observations to offer in the matter and reiterates its recommendation made in the 414th meeting held on 02nd September, 2025 for grant of Environmental Clearance for the project "Expansion of LNG Handling Capacity from 6.28 MMTPA to 26.2 MMTPA (25 MMTPA Regasification and 1.2 MMTPA Truck Loading Terminal) at Hazira Terminal, Hazira, Surat, Gujarat by M/s Shell Energy India Pvt.Ltd.", subject to the specific conditions stipulated therein, in addition to all applicable standard conditions.

Agenda Sr. No. 3.2

Subject: The Proposed is for developing the Shipyard (total ship solution project) on the shore of gulf of Khambat with waterfront of 1.4 kms and spread over an area of nearly 58 Ha at Ratanpar, Bhavnagar by M/s Modest Infrastructure Private Limited- Environmental clearance regarding.

[Proposal Number: IA/GJ/INFRA1/575062/2026, File No:10/60/2023-IA.III]

The EAC noted that the Project Proponent and the consultant have given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/ information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

3.2.1 The aforementioned proposal was placed before the EAC during its 448th meeting held on 29th May 2026. The Project Proponent, along with the EIA consultant M/s. CSIR- Central Salt and Marine Chemicals Research Institute (CSMCRI), Bhavnagar made a presentation through virtual modes and submitted the following information.

3.2.2 The project is for developing the Shipyard(Total Ship Solution Project) on the shore of gulf of Khambat with waterfront of 1.4 kms and spread over an area of nearly 58Ha at Ratanpar, Bhavnagar by M/s Modest Infrastructure Private Limited the geo-coordinates of the project Latitude: 21°39'10.83"N, Longitude: 72°17'41.40"E respectively.

3.2.3 The proposed project falls under Schedule 7(b) Ship breaking yards including ship breaking units, Category 'A' as per the EIA Notification 2006. The cost of the project is Rs. 66778lakhs.

3.2.4 Details of Terms of References (ToR): The proposal was earlier considered in 338th meeting during 24thAugust 2023, the EAC after detailed deliberation recommended for grant of ToR, Accordingly the ToR was granted by the Ministry vide letter no**.** 10/60/2023dated 09/10/2023.

3.2.5 Details of public hearing: Public hearing was conducted on 8/01/2025 at district Bhavnagar, Gujarat and the main issues raised by public is regarding the Employment Generation.

S. No	Date of Public Hearing	Detail of Paper advertisement	Venue and Location	Presided by
1.	08/01/2025	Advertisement was published in Saurashtra Samachar and The Indian Express on 07/12/2024.	Located at village-Nava Ratanpar, District Bhavnagar, Gujarat	Assistant Collector & Sub Divisional Magistrate

3.2.6 Land use/cover: Land use/cover of given project site is as follows

S.N.	Title	Area Break Up	
		Area, Ha	% of total Area
1.	Construction/project components Area	24.85	43.0
.2	Road area	2.15	3.7
3.	Greenbelt area	19.14	33.3
4.	Open area	11.55	20.0
	Total Plot Area	57.69 (~ 58.00)	100.0

3.2.7 Terrain and Topography: Proposed project site is located at 21.39°N and 72.17°E. It has an average elevation of 21 meters above sea level. The site area is plain with little undulating at few places. Coastal area, Barren and Agricultural land are most predominant in this area. There is no Eco Fragile Zone or Natural Forest near project site in study area.

3.2.8 Details of water bodies Impact on drainage: There is no water bodies in the project sites and no proper drainage system as there is no human habitation. So, no impact on drainage.

3.2.9 Water Requirement: The total water requirement for the project is 70 KLD which will be collected from the GWSSB/Gram Panchayat. Further, it is proposed that industrial fresh water is contained in storage tanks strategically proposed around the dock and slipway facilities. The water would be used for production purposes such as ship machinery commissioning, wash down, bunkering and firefighting. It is anticipated potable fresh water will be taken directly from the mains with the largest demands being made from processes. Water will be transported to the proposed area through tankers/ pipeline during construction and operation phase.

3.2.10 Details of tree cutting and green belt development: There is no tree cutting involved in the project, as the site area is barren land and as part of the proposed project 19.14 ha. Area (i.e. 33.3% of the total project area) will be developed as greenbelt area.

3.2.11 Diversion of forest land: There is no forestland involves in the project. The project is not located within 10 km of Projected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves, Eco-Sensitive Zone(ESZ) or Eco-Sensitive Area(ESA) notified by the MoEF&CC. However, in the study area Schedule-I species Indian Peafowl (Pavo cristatus), Common Indian Monitor Lizard (Varanus bengalensis), Indian Rat Snake (Ptyas mucosa), Common Krait (Bungarus caeruleus), Indian Grey Mongoose (Urva edwardsi) was recorded as Scheduled -I species. Wildlife Conservation Plan for Schedule-I Species.

3.2.12 Details of Rainwater Harvesting: Rainwater Chamber will be provided for collection of Rainwater runoff from Roof top and paved surface. The water collected in water chamber will be treated in primary treatment unit. The primary treatment unit will consist of clay packing, sand medium, gravel packing and ‘V’ wire screen. The water will be passed through this arrangement for treatment. The treated water from primary treatment will be collected in collection tank and will be reused in premises. Tanks with 300 KL capacity for storage of treated waste water are planned in the project area. During monsoon season runoff would be channelized into this storage tank after appropriate sediment settlement mechanism. This water would be used as fresh water source for utilization. The approx. cost for construction of Rain water Harvesting system including storage tanks is approx. Rs. 40,00,000/-.

3.2.13 Details of CRZ Area: Base on the field survey the proposed project activity falls under categories such as CRZ IB (Intertidal Zone), CRZ III (No development Zone, 200 to 500 m from HTL) and CRZ IVA (Waterbody). The CRZ map at a 1:4000 scale has been prepared by the National Centre for Sustainable Coastal Management. The project components falls under CRZ area is as follows:

SI No.	Proposed Project	CRZ Categories area in Sq.m				Out of CRA
		Intertidal	No	200 to 500	Waterbody-	

	Activities	Zone- CRZ IB	Development Zone- CRZ III	m From HTL- CRZ III	CRZ IVA	Area
1	10 m Wide Road	9507.68	988.56	-	-	-
2	5 m Wide Road	4801.35	879.9	-	-	-
3	7.5 m wide Road	5648.71	490.57	-	-	-
4	Building & Utility Area	25894.64	14541.63	3130.82	-	-
5	Dry Dock – 1 Primary Cutting Area	28881.23	583.58	-	-	-
6	Green Area	85624.12	66625.27	29784.25	-	5605.84
7	Hall Block Area	12665.61	-	-	-	-
8	Parking Area	11390.63	7531.4	-	-	-
9	Repair Bay-1	193.84	2778.23	-	-	-
10	Repair Bay- 2	344.17	2641.54	-	-	-
11	Repair Bay- 3	476.33	2556.23	-	-	-
12	Repair Bay- 4	599.98	2340.61	-	-	-
13	Repair Bay- 5	692.51	2317.14	-	-	-
14	Repair Bay- 6	671.26	2303.32	-	-	-
15	Repair Bay- 7	674.44	2312.35	-	-	-
16	Repair Bay- 8	720.93	2307.2	-	-	-
17	Secondary Cutting Area	10625.41	457.05	-	-	-
18	Ship Shifting Way	1692.64	5762.5	-	-	-
19	Teritary Cutting Area	13720.51	1104.64	-	-	-
20	Slip Way	8894.35	-	-	-	-
21	Working Area	3999.29	18323.16	-	-	-
22	Navigation Channel	99529.56	32231.76	-	16266.8	-
23	Open Storage Area	1780.94	17567.01	-	-	-
24	Open Area	33445.59	23945.3	27.77	-	
25	External Approach Road	0.02	7628.65	-	-	402.58
26	Open Working Area	41157.27	23236.71	-	-	-
27	50 T Bollard (Typ)	545	53.36	-	-	-

28	Winch	953.46	301.37	-	-	-
	Total	405131.4	241809.9	32942.84	16266.8	6008.42

The Gujarat Coastal Zone Management Authority (GCZMA) recommended the project, vide recommendation letter no.ENV/10/2025/15/T dated 25/03/2026.

3.2.14 Details of shoreline: The Mathematical Studies for Prediction of Siltation and Shoreline Changes and Recommendations thereof for the Total Ship Solution is carried out by National Institute of Oceanography, Goa. It is concluded that the proposed development of the new shipyard at Ratanpar is expected to have a negligible impact on the overall hydrodynamic conditions. Changes in currents would be confined to areas immediately adjacent to the proposed structure, with insignificant variations at more distant locations. The proposed shipyard would result in negligible alterations to seabed morphology, with changes limited to approximately 0.2 m. While temporary seabed disturbances may occur during the construction phase of the new shipyard, no significant morphological impacts on the seabed or shoreline are anticipated once the construction is completed. It is expected to have a negligible impact on shoreline stability. This suggests that the project is unlikely to cause any significant alteration to the existing coastal morphology.

3.2.15 Details of dredging and reclamation: Dredging activities are proposed as part of the project to create a navigational channel. The operation will involve the removal of sediment from designated areas to achieve the required depth for safe vessel movement. It is estimated that a total dredging quantity of around 11.71 lakh cubic meters will be generated. For the management of dredged/excavated material, reuse has been identified as a sustainable option under this project, and the dredged material will be used for levelling within the site premises.

3.2.16 Waste Management: Ballast water (1,800 TPA) generated from the ballast tanks of ships will be collected, stored, and sent to the ETP for treatment. ETP sludge (80 TPA) generated from the ETP will be collected, stored, transported, and disposed of by sending it to authorized TSDF sites. Blast steel grit (50 TPA) generated from blasting operations will be collected, stored, transported, and disposed of by sending it to authorized TSDF sites. Paint scrap (0.5 TPA) generated from shipbuilding, repairing, and recycling activities will be collected, stored, transported, and disposed of by sending it to authorized TSDF sites. Discarded asbestos and asbestos-containing materials (0.5 TPA) generated from insulation removal during repairing/recycling of ships will be collected, stored, transported, and disposed of at TSDF sites for landfilling. Oily sludge emulsion (0.2 TPA) generated from machinery maintenance will be collected, stored, transported, and disposed of at TSDF sites or through incineration or co-processing. Used oil (0.5 TPA) generated from transformers and ship engines used for cooling purposes will be collected, stored, transported, and disposed of by selling it to registered recyclers. Empty barrels/containers/liners contaminated with hazardous chemicals or wastes (25 TPA) generated from empty paint containers and oil drums will be collected, stored, transported, and disposed of by sending them to registered recycler units. Other waste (rubber, fiber, glass wool, rexine, etc.) (345 TPA) generated from

insulation removal during ship repair will be collected, stored, transported, and disposed of at TSDF sites for landfilling.

3.2.17 Solid Waste: Municipal solid waste (100 TPA) generated from household activities will be collected, stored, transported, and disposed of at landfill sites. Cement tiles (25 TPA per 10 vessels) generated during ship repairing will be collected, stored, transported, and disposed of at landfill sites. Construction waste (25 TPA) generated during the construction phase will be disposed of in low-lying land within the premises. Cardboard and packing material (1.5 TPA per 10 vessels) generated during ship repair and recycling activities will be collected, stored, transported, and sent to recyclers. Chicken mesh (5 TPA per 10 vessels) generated during ship repair will be reused. STP: The treatment process is planned to be based on MBR (Membrane Bio Reactor) / SBR (Sequential Batch Reactor)/MBBR (moving Bed Bio Reactor) technology. Capacities of sewage treatment plant is 30 KLD. STP sludge (4 TPA) generated during wastewater treatment will be recycled by registered recyclers, and the residue will be disposed of at authorized facilities apart from this electronic waste (0.5 TPA) generated after discarding electrical goods as per the E-Waste Management Rules, 2016, will be stored, transported, and disposed of through authorized e-waste recyclers. Decommissioned batteries (0.3 TPA) generated from power backup systems in substations and vehicles will be sent to authorize recyclers.

3.2.18 Land Acquisition and R&R: The land area involved in the project is 57.69 Ha., from which 16.1 Ha is owned by Modest Infrastructure Pvt. Ltd. and the remaining 44 Ha. land, applied to the Collector and District Magistrate Office, Motibaug, which is under process. There is no. Resettlement and Rehabilitation (R&R) is required since no private land is involved in the project.

3.2.19 Employment Opportunity: The proposed project will have potential to generates the employment approx. 1100 person (direct and indirect) during construction and operational phase.

3.2.20 Benefits of the project: The proposed new project has a potential for employment of skilled, semi-skilled and unskilled employees during construction phase as well as operational phase. There will be scope for improved social infrastructure and socio-economic benefits in the surrounding area. Dispose of Old Resource Guzzling Ships. Recover about ~5.5 Mt/yr of Steel, other metals and machinery. Peripheral development and creation of social capital. Improvements in the Physical Infrastructure. Adoption of new technology. Improvement in local amenities facilities. Improvement in road link facilities as transportation through truck and other vehicles will increase due to project. Increase income of local population Increase requirement of manpower. Improvement in Social Infrastructure. Social Infrastructure will improve by means of Civilization, Basic Amenities. Employment Potential. The proposed project will give employment to 1,300 personnel(Approx.). Economic benefits to local people and businesses/contractors. The proposed project will create opportunities for direct and indirect employment and business opportunities for the company. A total amount of Rs. 667.78 lacs would be utilized for CER. Environmental Benefits of Ship Recycling: ETP

followed by RO treated water and STP treated water will be reused for industrial and gardening purpose respectively to reduce the load of fresh water requirement. Complete ZLD system is proposed. Unit will install rain water harvesting system and it will be collected, stored and reused to reduce the fresh water requirement. Solar energy will be utilized.

3.2.21 Details of court cases: There is no court case involves in the project.

3.2.22 Observation of committee:

i. *The EAC observed that the project involves cargo handling, floating dry dock and ship-breaking activities. The Project Proponent shall undertake a cumulative impact assessment covering air quality, water quality, noise, marine ecology, traffic and socio-economic aspects, and implement suitable mitigation measures through the EMP.*

ii. *The EAC observed that adequate storm water management measures are required. The Project Proponent shall provide a properly designed garland drain system with suitable treatment arrangements to ensure that no untreated runoff or wastewater is discharged outside the project premises.*

iii. *The EAC observed that effective waste management is essential during construction and operation. The Project Proponent shall ensure collection, segregation, storage, recycling and disposal of all solid and hazardous wastes through authorized agencies in accordance with applicable waste management rules.*

iv. *The EAC observed that shipbuilding, repair and recycling activities may generate hazardous residues. The Project Proponent shall establish adequate systems for handling, storage and disposal of hazardous waste, used oil, sludge, scrap and other recyclable materials as per statutory requirements.*

v. *The EAC observed that there is a potential risk of accidental oil spills during vessel handling and oil transfer operations. The Project Proponent shall implement a comprehensive Oil Spill Prevention and Response Plan, including containment measures, emergency equipment, trained personnel and periodic mock drills.*

vi. *The EAC observed that oil transfer and ship recycling operations require stringent safeguards. The Project Proponent shall ensure decontamination of vessels prior to dismantling, leak testing of pipelines, deployment of trained personnel during oil transfer operations and installation of secondary containment systems at critical locations.*

vii. *The EAC observed that dry dock, shipbuilding, repair and recycling facilities may generate contaminated wastewater and residues. The Project Proponent shall provide impervious working surfaces, separate collection systems for oily wastewater and*

other effluents, and ensure that no untreated discharge enters the marine environment.

viii. *The EAC observed that the project involves handling of flammable materials and operation in a coastal environment vulnerable to natural hazards. The Project Proponent shall maintain adequate firefighting and emergency response infrastructure, prepare an On-site Emergency Plan, provide necessary PPE to workers, and conduct regular mock drills and safety training programmes.*

ix. *It was noted that an area of approximately 241,809.9 sq. m of the proposed project falls within CRZ-III (No Development Zone). However, the provisions of the No Development Zone (NDZ) shall not be applicable within the notified port limits.*

x. *Earlier CRZ clearance was obtained by the Ministry vide letter no 11-61/2008-IA.III dated 23rd June, 2009 for development of ship building/repairing yard at Nava Ratanpur, near Ghogha, district Bhavnagar in GMB Port limit, Gujarat by M/s Modest Infrastructure Ltd. However due to acute recession in the ship building and repairing sector could not construct the facility and the validity of the CRZ clearance is expired. The Committee advised the Project Proponent to surrender the existing Coastal Regulation Zone (CRZ) clearance, as the same is no longer valid. The Project Proponent shall ensure that no activities are undertaken under the said expired CRZ clearance.*

3.2.23 The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 448th meeting during 29thMay 2026 **recommended** for grant of Environment and CRZ clearance for "developing the Shipyard (total ship solution project) on the shore of gulf of Khambat with waterfront of 1.4 kms and spread over an area of nearly 58 Ha at Ratanpar, Bhavnagar by M/s Modest Infrastructure Private Limited" with the following specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects. With the following specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

i. All the recommendations and conditions specified by the Gujarat Coastal Zone Management Authority (CZMA) vide letter No.ENV/10/2025/15/T dated 25th March, 2026 shall be complied with and the status of the implementation shall be submitted to the Concern IRO, MoEF&CC along with the six monthly EC compliance report.

ii. Wildlife Conservation Plan for Schedule-I Species prepared by the PP shall be submitted to the concern DFO of state forest department for necessary action. If any specific mitigation measures are recommended by the Forest Department, the same shall be incorporated in the Plan. The progress of implementation of the conservation/mitigation plan shall be submitted to the Concern IRO, MoEFCC every 6 months along with the 6- monthly EC compliance reports.

iii. A cumulative impact assessment shall be carried out considering the combined impacts of cargo handling operations, floating dry dock facilities and ship-breaking activities within the study area. The assessment shall evaluate impacts on air quality, water quality, noise levels, marine ecology, traffic and socio-economic environment, and the mitigation measures identified shall be incorporated in the Environmental Management Plan (EMP).

iv. The Project Proponent shall establish adequate facilities for the collection, treatment, and disposal of bilge water, ballast water, and oily sludge generated during ship repair and ship recycling activities. No untreated or partially treated oily waste shall be discharged into the marine or coastal environment under any circumstances. The monitoring data shall be regularly compiled and submitted along with the six-monthly Environmental Clearance (EC) and Coastal Regulation Zone (CRZ) compliance reports to the concerned Integrated Regional Office (IRO) of MoEF&CC.

v. The Project Proponent shall prepare and maintain a comprehensive inventory of all hazardous materials, including asbestos, polychlorinated biphenyls (PCBs), oil sludge, and other contaminated residues generated during ship dismantling and repair activities. All hazardous wastes shall be stored in designated areas with impervious flooring, leachate collection systems, and proper labeling in accordance with applicable rules and regulations. Disposal of hazardous waste shall be carried out only through authorized recyclers or Treatment, Storage, and Disposal Facilities (TSDFs).

vi. The Project Proponent shall install adequate groundwater monitoring wells within and around the project site. Groundwater quality shall be monitored on a quarterly basis for parameters including pH, Total Dissolved Solids (TDS), oil and grease, and heavy metals. Soil quality monitoring shall also be carried out periodically to assess contamination from hydrocarbons and other toxic substances. The monitoring data shall be compiled and submitted along with the six-monthly Environmental Clearance (EC) compliance reports. In the event of any contamination, immediate remedial measures shall be undertaken and the same shall be reported to the concerned authorities.

vii. The Project Proponent shall ensure zero discharge of oil and grease into the sea.

viii. The Project Proponent shall ensure that noise levels from all project activities remain within the limits prescribed by the Central Pollution Control Board (CPCB). Periodic noise monitoring shall be carried out at the project boundary and at identified sensitive receptors, and appropriate mitigation measures shall be implemented in case of any exceedance.

ix. A properly designed garland drain system shall be provided around the project site for collection and channelization of storm water runoff. The runoff shall be routed

through appropriate treatment facilities, wherever required, before discharge. No untreated runoff or wastewater shall be discharged outside the project premises.

x. The Project Proponent shall ensure proper collection, segregation, storage, transportation, reuse, recycling and disposal of all solid, hazardous and other wastes generated during construction and operation phases in accordance with the applicable Waste Management Rules and through authorized recyclers and disposal facilities.

xi. Adequate facilities shall be provided for safe handling, storage and disposal of hazardous wastes, used oil, sludge, scrap materials and other recyclable wastes generated from shipbuilding, ship repair and ship recycling activities in accordance with applicable statutory provisions.

xii. The Project Proponent shall install appropriate oil spill detection and containment systems and shall develop and implement a comprehensive Oil Spill Prevention and Response Plan (OSPRP) covering all operational phases of ship repair and ship recycling activities.

xiii. All areas involving oil handling, including dismantling zones, storage areas, and transfer points, shall be provided with impervious flooring and an adequate drainage system connected to appropriately designed oil-water separators to prevent contamination of soil and marine environment.

xiv. A comprehensive Oil Spill Prevention and Response Plan covering shipbuilding, ship repair, ship recycling and oil transfer operations shall be implemented. Adequate containment measures, emergency response equipment, trained personnel and periodic mock drills shall be ensured to prevent and mitigate accidental oil spills.

xv. Prior to commencement of shipbuilding, ship repair and ship recycling activities, the Project Proponent shall implement an oil spill prevention system including vessel decontamination, leak testing of pipelines, deployment of trained personnel during oil transfer operations and provision of secondary containment measures at all critical locations.

xvi. All dry dock, shipbuilding, ship repair and ship recycling activities shall be carried out on impervious surfaces with adequate drainage arrangements connected to treatment facilities. Separate collection systems shall be provided for oily wastewater, bilge water, wash water and storm water, and no untreated effluent or contaminated runoff shall be discharged into the marine environment.

xvii. The Project Proponent shall undertake periodic health check-ups of workers, particularly those exposed to asbestos and other hazardous substances, and shall maintain proper health records. Adequate Personal Protective Equipment (PPE) shall be provided to all workers and its usage shall be strictly ensured. Acoustic enclosures

and other necessary noise control measures shall be installed, wherever required, to minimize occupational exposure to noise.

xviii. An On-site Emergency Management Plan covering fire, explosion, cyclone, tsunami, flood, earthquake and other emergencies shall be implemented. Adequate firefighting infrastructure, emergency response systems, Personal Protective Equipment (PPE), periodic mock drills and safety training programmes shall be provided and maintained throughout the project life.

xix. Project Proponent shall strive to enhance the Green Belt under the campaign" एक_पेड़_म ा ा _के_नाम " and the details of the trees planted would be uploaded on the portal https://merilife.nic.in.

Agenda Sr. No. 3.3

Subject: The proposal is for Capacity Augmentation of Existing Operational Marine Liquid Terminal (MLT) from 3 MMTPA to 6 MMTPA at Kamarajar Port Limited, Chennai by M/s Kamarajar Port Limited. -Expansion in EC and CRZ clearance regarding.

Proposal Number: IA/TN/INFRA1/565345/2026, File No: 10/15/2024-IA.III

The EAC noted that the Project Proponent and the consultant have given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/ information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

3.3.1 The aforementioned proposal was placed before the EAC during its 448th meeting held on 29th May 2026. The Project Proponent, along with the EIA consultant M/s.Chaitanya Projects Consultancy Limited. Ltd made a presentation through virtual mode and submitted the following information.

3.3.2 The proposal is for Capacity Augmentation of Existing Operational Marine Liquid Terminal (MLT) from 3MMTPA to 6MMTPA at Kamarajar Port Limited, Chennai by m/s Kamarajar Port Limited. The geo-coordinates of the project Start Latitude 8°46'35.48"N and longitude : 78°11'57.15"E and ends at latitude : 8°46'21.45"N and longitude : 78°11'55.26"E.

3.3.3 The details of the Existing and proposed group of products/cargo handled:

S.No	Product Group	Existing throughput capacity in MMTPA	Proposed throughput Capacity in MMTPA
1	LPG (Refrigerated propane and	1.20	1.60

	Butane)		
2	Petroleum, Oil and Lubricants (POL) products	1.45	3.20
3	Black Oil	0.20	0.90
4	Chemicals and Petrochemicals	0.15	0.30
Total		3.00	6.00

3.3.4 The proposed project falls under Schedule 7(e) Ports, harbour's, breakwaters, dredging under Category 'A' as per the EIA Notification 2006. The cost of the project is Rs. 45962Lakhs.

3.3.5 Details of terms of references: The ToR proposal was considered in 367th meeting of Expert Appraisal Committee held on 26th June, 2024, the committee after detailed deliberation recommended the proposal for grant of ToR, Accordingly the Ministry granted the ToR vide letter no. 10/15/2024-IA.III dated on 06/09/2024.

3.3.6 Details of Environmental and CRZ Clearance: Initially M/s Ennore Port Limited obtained the EC vide letter no.10-28/2005-IA.III dated 19th May, 2006 by the Ministry for Expansion Proposals-development of Terminals for marine liquids, coal, Iron and containers in second phase and associated capital dredging at Ennore Port. Subsequently, Ennore Port obtained modification in EC by the Ministry vide letter dated 10th September, 2007. Subsequently, Environmental and CRZ clearance vide letter no 11- 21/2009-IA.II dated 23rd July, 2009 was obtained for the construction of general Cargo berth at Ennore Port Cargo Terminal project, Ennore, Ponneri Taluk, District Tiruvallur,Tamilnadu, in the name of M/s Ennore Port Terminal. Thereafter the name of the Ennore port has changed from M/s Ennore port limited to M/s Kamarajar Port limited, after change of the name PP has submitted that the Kamarajar Port ltd (formerly known as Ennore Port ltd.) and obtained environmental and CRZ clearance for expansion and modernization of existing handling of Multicargo container terminal at Kamarajar Port, Tamil Nadu by M/s Kamarajar Port Limited (Formally known as Ennore Port Ltd). Subsequently Environmental and CRZ clearance for construction of (CB3 and CB4) at Kamarajar Port, Tamilnadu vide letter dated 1st March, 2015 was obtained. Further, M/s Kamarajar Port Ltd obtained the EC vide letter no F.No.11-51/2012-IA-II dated 30th October, 2018 for development of the facilities envisaged in the Port Master Plan (Phase III) by M/s. Kamarajar Port Limited. Further, Kamarajar Port limited has applied in the Ministry for capacity optimisation of the ECTPL from present 8 MTPA to 9.6 MTPA, the proposal was considered by the Expert Appraisal Committee (EAC) in its 321st meeting during 28th February-1st March, 2023. The MoEF&CC granted Environment and CRZ Clearance under clause 7 (ii) of EIA Notification, 2006 vide letter no.10-28/2005-IA.III dated 17/07/2023.

3.3.7 Details of Public Hearing: The public hearing was conducted on 17/09/2025 at village kattupali, sub-district-ponneri, Tamil Nadu presided by District Revenue officer and issues raised by public are related to manpower and Road facilities.

S. No	Date of Public Hearing	Detail of Paper advertisement	Venue and Location	Presided by
1.	17/09/2025	Advertisement was published on the New Indian Express (Tamilnadu)" & "Dinakaran (Chennai)" on 14.08.2025 and 17/09/2025	Located at village-Kattupalli, Sub-district-Ponneri District-Thiruvallur, Tamil Nadu.	District Revenue officer

3.3.8 Right of Way (Row): This is a port project and hence it does not involves Row.

3.3.9 Land use/cover: Land use and land over breakup of project sites the land of about 13.46 ha (33.26 acres) is allotted initially by EPL is fully utilized for the development of Tank Farm, Administrative office building, TLF, internal roads, development of greeneries etc.is given as follows.

Details of entities	Land use & land cover(Sq. mtrs)	Area (ha)	Percentage(%)
Tank farm area	56958.7928	5.69587928	42.3170823
TLF area	2645.98	0.26459781	1.9658084
Utilities & others	3649.46285	0.364946285	2.71133941
Admin block	1129.5476	0.11295476	0.83918841
Greeneries area	1617.2609	0.16172609	1.20153113
Internal roads & empty area	68598.95775	6.859895775	50.9650503
Total Area	1,34,600	13.46	100

3.3.10 Terrain and topography: The coastal region is mostly flat while certain areas in Tiruttani and Pallipet taluks are undulated and even hilly. However, there are not many hills of any considerable height in this district. There are a few conical hills or ridges of small elevation, like the St. Thomas Mount. Most of the hills and hillocks are rocky and no verdant vegetation is seen in the slopes of these hills. The area under forests, all of 19,736 sq. km., is only 5.8 % of the total geographical area of the district.

3.3.11 Details of water bodies, impact on drainage: There are no. of water bodies involves in the project

Description	Distance(km_)	Direction
Bay of Bengal	Site is within the Bay of Bengal	
Buckingham Canal	0.26km	W
Korttalaiyar/Kosisttalaiyar River	0.30	W
Lake near Uranamedu	3.97	WNW

Ennur Creek	4.25	S
Tiruvellavayal Lake	4.68	WNW
Arani River/Araniya Nad	10.50	NW
Perumbedu Lake	12.34	NW
Lake near Nayar	13.90	W
Pulicat Lake	15	N

3.3.12 Water requirement: There is no water required during construction activity and For Firefighting at Jetty, sea water is being used and the same will be continued after expansion.

S.No	Water Requirement	Qty (KLD)		
		Existing	Proposed	After Expansion
1	Fresh water Requirement	6.7	2.5	9.2
2	Recycled Water	1.6	4.2	5.8
Total Water Requirement		8.3	6.7	15

3.3.13 Tree cutting and green belt development: There is no tree cutting and involved in the project while during the year 1992, the Kamarajar Port was conceived as a satellite port to handle coal through two (2) coal berths. The Port is continuously developing green belt area. The total area of the port is 1127.94 ha (2787.2 acres) and out of which green belt developed is 257.4 ha (636.14 acres - 22.82%) which includes inside & outside the custom bound area. Proposed Green belt of 2.03 ha (5.01 acres) will be developed inside and outside the Tank Farm area. The treated wastewater will be used for green-belt areas to reduce the water requirements. The local plant species will be used for the green belt development as per the norms

3.3.14 Diversion of forest land: The proposal does not involved any forest land diversion. The project is not located within10 km of Protected Areas(PA) including National Parks, Sanctuaries and Tiger Reserves, Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC.

3.3.15 Waste Management: The project is expected to generate a total of 46.35 kg/day of solid waste after expansion, comprising 18.54 kg/day of inorganic waste and 27.81 kg/day of organic waste. Inorganic waste will be collected and disposed of through authorized vendors, as per the existing practice. Organic waste will be treated in the existing 50 kg/day capacity Organic Waste Converter (OWC**)** available at the facility. Appropriate waste management measures will be continued to ensure safe handling, treatment, and disposal of all generated waste.

3.3.16 Details of CRZ area: The proposed project site falls in CRZ-III,CRZ-III(NDZ) and CRZ-IAA areas. The TamilNadu Coastal Zone Management Authority (CZMA) vide letter No.P1/896/2023 dated 10.01.2024.

3.3.17 IRO, MOEF&CC, Chennai conducted the site visit on 13.10.2025 and issued the Certified EC compliance report.

3.3.18 Details of Rainwater Harvesting: The Port has Rainwater Harvesting System in its Administrative Building consists of Open well. The details of the same are furnished herewith as below: Submerged RCC ring of diameter 3- 0 into a pit of 3 m depth. Filter chamber of size 0.6 x 0.6 x 0.9 m in brickwork CM 1:5. River sand to a depth of 0.15 m, Pebbles to a depth of 0.15 m Nylon mesh between river sand and Pebble stone. PVC pipes of 110 mm dia connecting terrace, well and filter chamber have been laid

3.3.19 Land Acquisition and R&R: There is no land acquisition is involved and no R&R Plan involved in this project

3.3.20 Employment opportunity: There are approximately 103 person will be employed permanent and temporary.

3.3.21 Benefits of the project: Greater flexibility in terms of handling multiple products simultaneously, Handling berthing of two smaller tankers simultaneously, The jetty can handle higher level of traffic with minimal waiting time for Tankers, Customers can import/export in larger parcels and benefit from lower ocean freight,,Kamara jar Port is located very close to Manali Industrial Belt and the CPCL and hence can cater to the raw material & finished goods movement of the industries located in this area. Improvements in the social infrastructure: Chennai Port does not have storage facility for handling LPG. Also, there is no storage infrastructure for Class A/B products, which is forcing importers in the hinterland of Chennai to route their import through other ports such as Cochin and Mangalore. Ennore would therefore be an automatic choice for importers and exporters. Kamarajar Port is located on the international shipping route. Kamarajar Port is a major port of call for Products, chemicals and vegetable oil tankers. Hence, Ennore is an ideal port of call for ships from the west and from Singapore, Malaysia, Korea and other far-east countries. In the long run, the Port would benefit from higher traffic and hence higher revenues Employment potential - skilled, Semi- skilled, Un-skilled the project has a potential to generate employment for unskilled, semi-skilled and skilled manpower Other Tangible Benefits Both, State Government and Government of India would be benefited. Government will earn huge revenue by way of various taxes and levies and transportation through sea route.

3.3.22 Details of court cases: There are no court cases involves in the project.

3.3.23 Observation of the committee:

i. The Project Proponent shall provide details of operational arrangements, storage facilities, traffic management, safety measures, and pollution control mechanisms to avoid congestion, operational conflicts, and environmental impacts during concurrent handling activities.

ii. The Project Proponent shall carry out a comprehensive Cumulative Impact Assessment Study covering all existing and proposed activities within the project area, including cargo handling operations, floating dry dock facilities, ship-breaking activities, and associated marine and land-based infrastructure. The study shall assess the cumulative impacts on air quality, water quality, marine ecology, sediment quality, noise levels, traffic movement, socio-economic environment, occupational health and safety, and disaster risk management. The assessment shall also evaluate the combined effects of emissions, effluent discharges, dredging activities, waste generation, and increased vessel movement. Appropriate mitigation measures and a monitoring plan shall be incorporated into the Environmental Management Plan (EMP).

iii. The number of vessels is increasing; however, there is no change in the jetty capacity. The proposal involves only a change in the configuration of vessel berthing for increasing cargo handling. Therefore, due care shall be taken to carefully design the vessel berthing arrangement so as to avoid any congestion at the jetty.

iv. The Project Proponent shall submit a clarification on the distance between the proposed jetty and the LNG jetty. Details of safety measures, risk assessment, emergency response plan, and vessel movement management shall be provided to demonstrate that cargo handling operations can be carried out safely without affecting the operation of the LNG jetty.

v. Further, the cargo-handling plan at the jetty shall be prepared with due caution, particularly where POL, chemicals, LPG or other cargo are proposed to be handled. The handling, storage and movement of such cargo shall be designed in a manner that ensures adequate safety, segregation, emergency response and operational efficiency.

vi. The facilities needs to adhere to OISD norms and pre certification and approval from OISD to be obtained before commissioning.

vii. While handling LPG other hazardous product handling should be restricted.

viii. Berth Occupancy and Traffic Management: The Project Proponent shall prepare and implement a detailed berth occupancy and marine traffic management plan demonstrating that the proposed increase in vessel numbers can be accommodated within the existing jetty infrastructure without causing congestion, delays, or compromising navigational safety.

ix. Cargo Handling and Segregation Plan: The Project Proponent shall prepare a cargo compatibility and segregation plan for handling POL, chemicals, LPG and other cargoes, ensuring that incompatible cargoes are not handled simultaneously and that adequate safety distances and operational safeguards are maintained.

x. Risk and Emergency Management: The Project Proponent shall undertake a detailed risk assessment covering vessel traffic, berthing operations and hazardous cargo handling, and accordingly strengthen firefighting systems, spill containment measures, emergency response mechanisms and standard operating procedures prior to commencement of the proposed operations.

xi. Fire Fighting Arrangement Condition: The Project Proponent shall augment and maintain adequate firefighting infrastructure commensurate with the proposed increase in vessel traffic and handling of POL, chemicals, LPG and other hazardous cargoes. The firefighting system shall conform to the applicable standards of the concerned statutory authorities and shall include dedicated firewater storage, hydrant networks, foam-based firefighting systems, emergency shutdown arrangements, gas detection systems, and trained emergency response personnel. Periodic mock drills shall be conducted and records thereof shall be maintained.

3.3.1 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 448th meeting during 29th May 2026 and **recommended** for grant of expansion of Environmental and CRZ clearance "Capacity Augmentation of Existing Operational Marine Liquid Terminal (MLT) from 3 MMTPA to 6 MMTPA at Kamarajar Port Limited, Chennai by M/s Kamarajar Port Limited" With specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

i. All the recommendations and conditions specified by the TamilNadu Coastal Zone Management Authority (CZMA) vide letter No.P1/896/2023 dated 10.01.2024 shall be complied with and the status of the implementation shall be submitted to the Concern IRO, MoEF&CC along with the six monthly EC compliance report.

ii. The Project Proponent shall submit details of operational arrangements, storage facilities, traffic management measures, safety systems and pollution control mechanisms to ensure safe and efficient handling of cargo and vessel operations without causing congestion or adverse environmental impacts.

iii. A comprehensive Cumulative Impact Assessment Study shall be carried out covering cargo handling operations, floating dry dock facilities, and associated infrastructure. The study shall assess cumulative impacts on air quality, water quality, marine ecology, sediment quality, noise, traffic, socio-economic environment, occupational health and safety, and disaster management, and the recommendations shall be incorporated into the Environmental Management Plan (EMP).

iv. The Project Proponent shall ensure that the proposed increase in vessel numbers and revised berthing configuration are designed and managed in a manner that avoids congestion, delays and navigational safety concerns within the existing jetty infrastructure.

v. The Project Proponent shall submit details of the distance between the proposed jetty

and the LNG jetty along with a risk assessment, vessel movement plan, safety measures and emergency response arrangements demonstrating that the proposed operations will not affect the safe functioning of the LNG facilities.

vi. The cargo handling plan shall be designed with due consideration to the handling of POL, chemicals, LPG and other hazardous cargoes. Adequate safety measures, segregation arrangements, emergency response systems and operational safeguards shall be provided in accordance with applicable standards.

vii. The facilities needs to adhere to OISD norms and pre certification and approval from OISD to be obtained before commissioning.

viii. While handling LPG other hazardous product handling should be restricted.

ix. A detailed Berth Occupancy and Marine Traffic Management Plan shall be prepared and implemented to demonstrate that the proposed vessel traffic can be accommodated safely within the existing infrastructure without compromising navigational safety or operational efficiency.

x. The Project Proponent shall prepare and implement a Cargo Compatibility and Segregation Plan to ensure safe handling of POL, chemicals, LPG and other cargoes. Incompatible cargoes shall not be handled simultaneously, and adequate safety distances and operational controls shall be maintained.

xi. A detailed Risk Assessment covering vessel traffic, berthing operations and hazardous cargo handling shall be carried out. Based on the findings, the Project Proponent shall strengthen firefighting systems, spill containment facilities, emergency response mechanisms and Standard Operating Procedures prior to commencement of operations.

xii. The Project Proponent shall provide and maintain firefighting infrastructure commensurate with the proposed increase in vessel traffic and hazardous cargo handling. The system shall include firewater storage, hydrant networks, foam-based firefighting systems, emergency shutdown arrangements, gas detection systems and trained emergency response personnel. Periodic mock drills shall be conducted and records maintained.

xiii. Project Proponent shall strive to enhance the Green Belt under the campaign" एक_पेड़_म ा ा _के_नाम " and the details of the trees planted would be uploaded on the portal https://merilife.nic.in.

Agenda Sr. No. 3.4

Subject: The proposal is for development of All-weather Multi Cargo Greenfield Deepwater port at Murbe, District Palghar, and Maharashtra by M/s JSW Murbe Port Private Limited. Environmental and CRZ Clearance regarding.

[Proposal Number: IA/MH/INFRA1/567840/2026, File No.: 10/16/2025-IA.III]

The EAC noted that the Project Proponent and the consultant have given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/ information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

3.4.1 The proposal was earlier placed before the EAC during its 436th EAC held on 18.02.2026. The EAC, after detailed deliberations, observed that the proposal involves multipurpose cargo handling, including POL, chemicals and other hazardous cargoes, along with associated marine infrastructure in an ecologically sensitive coastal environment comprising mangroves, intertidal areas and the Banganga creek system. The Committee noted the need for additional technical studies and safeguards with respect to shoreline dynamics, hydrodynamic modelling, mangrove conservation, hazardous cargo handling, navigational safety and socio-economic impacts. The EAC, therefore, recommended that the Project Proponent undertake revised shoreline and hydrodynamic modelling incorporating the complete creek system, carry out a comprehensive cumulative impact assessment and BLEVE risk study, submit detailed breakwater design and impact assessments, and prepare suitable mitigation and monitoring plans. The Committee further emphasized the need to protect mangrove ecosystems, maintain natural tidal exchange and littoral drift, undertake credible marine biodiversity and social impact assessments through reputed institutions, and implement livelihood restoration measures for affected fishing communities. All recommendations of CMFRI and other expert institutions shall be incorporated into the project design, Environmental Management Plan (EMP) and Environmental Monitoring Programme before the proposal is considered further.

3.4.2 At this instance the project is again placed in the 448th meeting held on 29th May 2026.The Project Proponent, along with the EIA consultant M/s. Building Environment (India) Pvt. Ltd. made a presentation through hybrid mode and submitted the following information.

S. No.	EAC Observations	JSW Murbe Port Submissions
1	The low water line and the intertidal region shown in the maps provided by PP are not in line with the satellite information available in public domain. Ground truthing of the low water line and the intertidal region should be carried out and revised maps to be submitted.	LTL, HTL Demarcation and CRZ maps were prepared by NCSCM Chennai, an authorized agency of MoEFCC. These CRZ maps were prepared after ground truthing and field verification conducted on 2nd March 2025, and as per the approved CZMP 2019.

2	It is observed that the numerical model simulations carried out for the assessment of shoreline changes have not incorporated the adjoining Banganga river and creek system within the study domain. The creek may significantly influence sediment transport dynamics, tidal area, and local hydrodynamic conditions. Exclusion of the river and creek may result in inaccurate shoreline evolution predictions, particularly in the vicinity of the creek mouth. Moreover, the Banganga river and creek system has dense mangroves, the impact of the project on these mangroves and intertidal regions needs to be studied.	Banganga river and creek system have been incorporated within the model study domain and carried out the shoreline change assessment. To access long term (50 year and 100 year) shore line evolution, we have used LITPACK software suite developed by the Danish Hydraulic Institute (DHI) for modelling shoreline evolution and coastal processes. To access shoreline evolution for 1 year, 5 year and 10 year periods, we have used TELEMAC 2D model (developed by Laboratoire National d'Hydraulique et Environment (LNHE) Paris), coupled with TOMAWAC wave model and its sub routines GAIA sediment transport model.
3	Thus, the Project Proponent (PP) shall undertake revised shoreline change modelling by incorporating the complete creek system within the model domain, including seasonal freshwater discharge, tidal interactions, and sediment transport processes. The updated simulations shall assess the influence of the creek on shoreline behaviour, especially near the creek mouth, and submit the revised model study for further consideration.	The revised model studies including Banganga river & creek system and, the 2 km stilt allowing longshore sediment transport from North to South & Vice versa has indicated that overall shoreline behavior remains within acceptable limits under the simulated conditions, and the projected coastal response remains manageable over the assessment period. As the 2 km stilt on piles is facilitating longshore sediment transport and intertidal flows, the proposed project has no impact on mangroves in intertidal regions and in Banganga river & creek system.
4	The Committee observed that, while granting the Terms of Reference (ToR), it was specifically recommended that a BLEVE (Boiling Liquid Expanding Vapor Explosion) study be conducted to assess the risk under extreme scenarios, along with mitigation measures.	BLEVE modelling study for all relevant LPG systems including LPG storage systems and associated facilities, unloading/ loading arms at jetty and transfer pipelines has been conducted to assess the impact on consequence modelling, risk scenarios,

	However, the Project Proponent (PP) has submitted an LSRI study instead, which does not address the specific explosion and thermal radiation risks associated with a potential BLEVE scenario. The PP is requested to furnish a clear justification for not conducting the BLEVE study as recommended in the ToR.	and overall risk inclusions. Suggested remedial measures shall be incorporated in the design and implemented. Quantitative Risk Assessment (QRA) Report with BLEVE scenario were evaluated and presented.
5	This proposal involving multipurpose cargos handling of hazardous petroleum products and chemicals conducting BLEVE study (basis wind rose) is a must. Total impact assessment study needs to be undertaken with clear mitigation measures.	
6	South Breakwater, Road, POL Pipeline and Belt Conveyor are proposed in the CRZ IA (Mangrove area) area, the details submitted with respect to the proposed breakwater are not adequate to assess its technical suitability and potential coastal impacts. The Project Proponent (PP) shall submit comprehensive details of the proposed breakwater, including: Potential impacts on Mangroves and Proposed mitigation measures. Further, Post-construction monitoring plans with measurable indicators shall be submitted.	Port approach and Connectivity corridor containing the rail-road corridor, POL Pipeline, Belt Conveyor and utility pipeline are passing through the mangroves near the Coast and Banganga River. The alignment of the port approach and rail-road corridor and its construction methodology has been re-evaluated to reduce the potential impacts on the mangroves. The alignment of the south breakwater has been changed which will be 2 km away from the shoreline. The 2 km Port approach and connectivity corridor passing over the mangroves will be on pile/stilts so that the mangrove destruction will be minimal. Consequently, the mangroves destruction will be reduced from 4859 to 2398. Out of which, about 1849 mangroves will be impacted permanently falling in the footprint area of piles and about 549 mangroves will be impacted temporarily which will be restored. Apart from this, adequate spacing and elevation of the stilt ensures

		uninterrupted tidal flow and continuous supply of seawater to the mangroves existing along the coast and on the banks of the Banganga river.
7	As discussed during the meeting, it has been decided that the breakwater commencing from the shoreline landing point and extending up to a length of 2 km seawards shall be constructed on stilts. The design shall ensure that the natural littoral flow from the northern side to the southern side and vice versa remains unobstructed. Adequate spacing and elevation of the stilts shall be maintained so as to facilitate uninterrupted tidal exchange and hydrodynamic connectivity. This arrangement shall ensure continuous supply of intertidal waters to the mangrove areas and adjoining shoreline stretches, thereby maintaining the natural flow regime and preventing any alteration of coastal processes.	The alignment of the south breakwater has been changed which will be 2 km away from the shoreline. The 2 km Port approach from the shoreline landing point will be on pile/stilts. The revised model studies including Banganga river & creek system and, the 2 km stilt allowing longshore sediment transport from North to South & Vice versa has indicated that overall shoreline behavior remains within acceptable limits under the simulated conditions, and the projected coastal response remains manageable over the assessment period. As the 2 km stilt on piles is facilitating longshore sediment transport and intertidal flows, the proposed project has no impact on mangroves in intertidal regions and in Banganga river & creek system.
8	The Project Proponent (PP) shall submit comprehensive technical details of the proposed breakwater, including its design basis, layout, dimensions, and structural configuration. The submission shall also include an assessment of anticipated morphological changes in the surrounding coastal stretch, supported by shoreline evolution modelling outputs, input parameters, boundary conditions, calibration/ validation details, and interpretation of results to substantiate the predicted impacts.	Technical details of the proposed breakwater, including its design basis, layout, dimensions, and structural configuration attached along with this response. The revised model studies report including Banganga river & creek system and 2 km stilt assessing anticipated morphological changes in the surrounding coastal stretch attached along with this response.
9	The Project Proponent (PP) requested to clearly delineate the extent of mangrove area, indicating its precise location and	The extent of mangroves, its presence and ecological conditions within the project area is elaborated. Construction

	present ecological condition within the project influence area. However, it is observed that adequate details need to be submitted. Further, the potential impacts of the proposed activities-such as land reclamation, dredging, and marine construction on mangrove ecosystems have not been comprehensively assessed. The details shall be submitted.	on piles in the mangroves and its impact has already been elaborated in our earlier submission The detailed submissions on the impacts of the proposed activities-such as land reclamation, dredging, and marine construction on the mangroves have been comprehensively assessed
10	While granting the ToR the EAC prescribed the specific condition to study on the impact of proposed activity on marine ecology and marine biodiversity with specific focus on the corals, mangroves and mudflats in the proximity of the site should be conducted including mitigation plan through nationally recognized institution or university. However, the study has been carried out through Thakur College of Science and Commerce. The Committee opined that the study conducted by Thakur College shall be vetted by National Institute of Oceanography (NIO) or any other nationally reputed institute with relevant domain expertise. The vetted report, along with comments shall be submitted.	The marine environment study report prepared by Thakur College of Science & Commerce, Virar is vetted by the Centre of Advanced Study (CAS) in Marine Biology, Annamalai University, a reputed marine institute in India. The vetted report highlighting the salient features and findings of the marine ecology study, including the mitigation measures for anticipated environmental impacts has been evaluated and submitted.
11	The PP is proposed to develop the green belt over an area of 203.68 m^2 in the CRZ IA area. The details shall be submitted in this regard.	In the CRZ map, greenbelt is shown along the port approach and connectivity corridor which is passing over the mangroves (CRZ IA area). However, as the port approach and corridor passing over the mangroves is proposed on stilts, greenbelt will be developed along those stilt corridors. Therefore, the greenbelt proposed on the port approach and connectivity corridor will not be precisely over the mangroves.
12	Details of the Cargo handling and its	Detailed cargo handling and its

	capacity.	capacity has been presented and submitted.
13	The Committee deliberated in detail on the social and economic issues of the local communities likely to be affected by the proposed project.	The study carried out by CMFRI, as mandated by MMB, includes a comprehensive assessment of marine fisheries, fishery resources, socio-economic conditions of the fishing communities, and identification of affected fishermen. The interim report of CMFRI after six months of field investigations provides preliminary findings and recommends a detailed mitigation and management framework covering livelihood enhancement measures, restoration of critical fishing habitats, deployment of artificial reefs, and conservation measures for ecologically sensitive species. The final report will be submitted after completion of 13 months impact assessment study on the fishery resources and livelihood impact of the fishermen community, and necessary compensatory measures will be suggested as per the prevailing compensation policy of the State Government *vide* Govt. Resolution No.: Mastyavi 1121/CR 152/ADF 14, dated 9th March 2023. Project Proponent is committed to adopt CMFRI recommendations in the project plan.
14	The Committee further noted that the studies presently being carried out by the Central Fisheries Research Institute (CFRI) are yet to be concluded. The Project Proponent (PP) shall take into account all recommendations made by CFRI and incorporate the same in the project design and mitigation measures	
15	Considering the potential social risks associated with the project, the Committee directed that a Social Risk Materiality Mapping be carried out by a reputed institute, along with a detailed Social Impact Assessment (SIA) by a nationally recognized institution such as Tata Institute of Social Sciences, (TISS) or an equivalent organization. These studies shall be conducted in a	The Social Risk Materiality Mapping exercise was undertaken and the work involved preparation of a Social Impact Assessment (SIA) using multiple tools and approaches, including Focus Group Discussions (FGDs), stakeholder consultations, and field-level interactions. Based on these FGDs and consultations, a village-wise livelihood Enhancement Plan was recommended

	participatory manner, ensuring: Participatory Rural Appraisal (PRA), Focus Group Discussions (FGD) with relevant stakeholders, Comprehensive stakeholder engagement mapping. Based on the outcomes of the above, the PP shall prepare and implement a comprehensive Livelihood Restoration and Enhancement Plan.	in the report. The report is primarily based on community-level FGDs and consultations with stakeholders identifying social risks, concerns, and potential interventions at the village level to ensure that all relevant social, livelihood, and developmental aspects are fully addressed. Based on the outcomes of the enhanced and participatory process, a comprehensive and robust village-wise Livelihood Restoration, and Enhancement Plan shall be prepared, ensuring practicality, community acceptance, and full compliance with regulatory expectations.
16	The livelihood programs shall be designed to protect and strengthen the income security of the fishermen community through community-level models, including but not limited to: Facilities enabling temporary storage of catch to prevent distress sale, aggregation mechanisms and better market timing to improve price realization and income stability, measures to reduce post-harvest losses and quality degradation, introduction of temperature-controlled logistics solutions for transportation and storage, provision for community-owned cold storage facilities at village level and distribution of temperature-controlled fish storage boxes' Integration of storage and logistics facilities with hybrid solar and wind energy systems to reduce operational costs and improve utilization efficiency.	The recommendations related to livelihood programmes for protecting and strengthening the income security of the fishermen community are duly noted. As part of the initial Social Impact Assessment, Focus Group Discussions (FGDs) and stakeholder consultations are carried out at the village level, based on which key livelihood concerns were identified and village-wise measures were suggested. As advised by the EAC that such studies to be undertaken or strengthened through a reputed and nationally recognized institution, the School of Planning and Architecture (SPA), New Delhi has been engaged. The study covers comprehensive stakeholder consultation and participatory assessment using tools such as focused group consultations with the fishermen community and other relevant stakeholders. As part of the study, livelihood programmes shall be designed with a

		community-level approach to improve income stability and reduce vulnerability of fishermen households. The study also includes trend analysis of marine fishery production. These shall, inter alia, examine provisions for temporary storage facilities to avoid distress sale of fish catch, aggregation mechanisms for improved market access and timing, measures to minimize post-harvest losses and quality deterioration, and introduction of temperature-controlled transportation and storage solutions. The feasibility of village-level, community-owned cold storage facilities and distribution of insulated fish storage boxes shall also be assessed. Further, it evaluates the integration of storage and logistics infrastructure with hybrid renewable energy systems such as solar and wind, with the objective of reducing operational costs and improving long-term efficiency and sustainability. The final livelihood interventions and implementation framework shall be developed based on the outcomes of the SPA study, ensuring that the measures are practical, community-driven, and compliant with regulatory requirements.
17	The PP shall prepare and implement a comprehensive Livelihood Restoration and Enhancement Plan. The livelihood programs shall be designed to protect and strengthen the income security of the fishermen community through community-level models	The proposal and recommendations ensure the implementation strategies for Comprehensive Livelihood Restoration and Enhancement Plan. SPA also ensures that the CLRE Plan shall protect and strengthen the income security of the fishermen community.

3.4.3 Details of Court case: There is no court case involves in the project.

3.4.4 Observation of the committee:

i. LPG Safety and BLEVE Risk: The EAC observed that the proposal involves handling of LPG and other hazardous cargoes. The Project Proponent shall ensure that all LPG storage, handling and transfer facilities are designed and operated in accordance with applicable OISD/NFPA standards, with adequate safety distances, fire and gas detection systems, emergency shutdown systems, remote-operated isolation valves, firewater spray arrangements and a comprehensive On-site Emergency Response Plan to address BLEVE and other major accident scenarios.

ii. Pre OISD audit and approval from OISD to be obtained before commissioning of facilities.

iii. While LPG handling / berthing is on handling of other hazaderous products to be restricted

iv. Mangrove Protection through Stilt-Based Design: The EAC noted the revised project layout incorporating stilt/pile-supported infrastructure over mangrove areas. The Project Proponent shall ensure that the port approach, connectivity corridor and associated facilities traversing mangrove ecosystems are developed on stilts/piles so as to maintain natural tidal flow, hydrological connectivity and longshore sediment transport, while minimizing permanent loss of mangroves.

v. Mangrove Conservation and Restoration: The EAC emphasized that a comprehensive Mangrove Conservation and Restoration Plan shall be implemented. Appropriate construction practices, including controlled access, use of precast elements, turbidity control measures and restoration of temporarily affected areas, shall be adopted. Compensatory plantation of native mangrove species and shoreline restoration measures shall be undertaken in consultation with the Mangrove Cell, Maharashtra Forest Department.

vi. Breakwater Design and Stability: The EAC observed that the breakwater shall be designed considering hydraulic, geotechnical and seismic stability under normal and extreme conditions. The design shall account for 1-in-100-year return period waves, tidal variations, storm surge, sea level rise and permissible overtopping limits in accordance with recognized engineering standards and applicable guidelines.

vii. Fisheries Impact Mitigation: The EAC noted that the Fisheries and Socio-economic Impact Assessment is being carried out by CMFRI. The Project Proponent shall implement all recommendations of the CMFRI study, including fisheries habitat

restoration, artificial reef deployment, marine biodiversity conservation measures and livelihood enhancement programmes for fishing communities.

viii. Fishermen Compensation and Grievance Redressal: The EAC recommended that compensation, livelihood restoration and grievance redressal measures for affected fishermen shall be implemented in accordance with the applicable Government Resolution of Maharashtra and recommendations of CMFRI, through the prescribed Government mechanism and in consultation with the State Fisheries Department.

ix. Livelihood Enhancement for Fishing Communities: The EAC further observed that the Project Proponent shall undertake measures for strengthening fishermen livelihoods, including support for fisheries infrastructure, cold-storage facilities, skill development, fishermen cooperatives, Self-Help Groups, value-addition activities and market access initiatives in consultation with the concerned State authorities and local communities.

x. Shoreline and Coastal Process Monitoring: The EAC recommended that periodic monitoring of shoreline behaviour, erosion/accretion trends and coastal processes shall be carried out during construction and operation phases. Appropriate mitigation measures shall be implemented wherever adverse impacts are observed.

3.4.5 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 448th meeting during 29th May 2026 and **recommended** for grant of Environmental and CRZ clearance "development of All-weather Multi Cargo Greenfield Deepwater port at Murbe, District Palghar, and Maharashtra by m/s JSW Murbe Port Private Limited' with specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

i. All the recommendations and conditions specified by the Maharashtra State Coastal Zone Management Authority (MSCZMA) vide letter No. IA/MH/CRZ/558958/2025 dated 03rd February, 2026 shall be complied with and the status of the implementation shall be submitted to the Concern IRO, MoEF&CC along with the six monthly EC compliance report.

ii. The Project Proponent shall undertake periodic monitoring of shoreline changes, including erosion-prone and accreting stretches, during construction and operation phases. Appropriate site-specific mitigation measures shall be implemented wherever adverse shoreline changes are observed, and the shoreline evolution shall be periodically reassessed to support long-term coastal management.

iii. The 2 km port approach, connectivity corridor and associated infrastructure traversing mangrove areas shall be constructed on pile/stilt foundations to maintain tidal exchange, longshore sediment transport and hydrological connectivity. No obstruction

to natural tidal flow shall be permitted, and mangrove habitats adjoining the project area shall be protected from direct construction impacts.

iv. The design shall ensure adequate spacing and elevation of stilts to facilitate uninterrupted tidal flow and ecological connectivity.

v. The PP shall ensure that the natural tidal regime and seawater exchange to the mangroves along the coast and the banks of the Banganga River are not obstructed during construction and operation phases.

vi. The Project Proponent shall implement a Mangrove Conservation and Replantation Plan, including compensatory plantation of native mangrove species in consultation with the Mangrove Cell, Maharashtra Forest Department. Temporarily affected mangrove areas shall be restored, and monitoring of mangrove survival, canopy cover, natural regeneration and habitat continuity shall be undertaken through third-party experts until baseline conditions are achieved.

vii. Periodic monitoring of tidal flow, salinity, and water quality in the mangrove areas shall be carried out. Monitoring data shall be submitted along with six-monthly EC and CRZ compliance reports to the concerned IRO, MOEF&CC.

viii. All LPG storage, transfer and handling facilities shall be designed and operated in accordance with applicable OISD and NFPA standards. Continuous temperature and pressure monitoring, fire and gas detection systems, emergency shutdown systems, remote-operated isolation valves, firewater spray systems and real-time alarm monitoring shall be provided to minimize risks associated with BLEVE and other major accident scenarios.

ix. Pre OISD audit and approval from OISD to be obtained before commissioning of facilities.

x. While LPG handling / berthing is on handling of other hazaderous products to be restricted.

xi. The recommendations of the Quantitative Risk Assessment (QRA), including BLEVE scenarios, shall be duly incorporated into the project design and strictly implemented. The status of implementation of these recommendations shall be submitted along with the six-monthly Environmental Clearance (EC) compliance reports.

xii. The Project Proponent shall maintain an updated On-site Emergency Response Plan covering BLEVE impact zones, fire, explosion and other major accident scenarios. Periodic mock drills, emergency communication exercises and coordination with port authorities and external emergency response agencies shall be carried out and documented.

xiii. The LPG unloading/loading arms at the jetty and associated transfer pipelines shall be designed with fail-safe systems, including automatic shut-off valves and leak detection systems.

xiv. The Project Proponent shall implement all recommendations of the CMFRI Fisheries and Socio-economic Impact Assessment, including habitat restoration, artificial reef deployment, marine mammal protection measures and livelihood enhancement programmes. Compensation and livelihood restoration measures for affected fishermen shall be implemented in accordance with the applicable State Government policy and the recommendations of the competent fisheries authorities.

xv. The breakwater shall be designed and periodically reviewed for hydraulic, geotechnical and seismic stability under normal and extreme conditions. The design shall consider 1-in-100-year return period waves, tidal variations, storm surge, sea level rise and permissible overtopping limits in accordance with Bureau of Indian Standards or EurOtop or any other applicable engineering standards.

xvi. The Project Proponent shall undertake habitat-specific ecological restoration measures, including restoration of critical fishing habitats, shoreline restoration and plantation of native mangrove species in ecologically disturbed coastal and intertidal areas. The effectiveness of restoration measures shall be periodically monitored and corrective actions shall be taken wherever required.

xvii. Project Proponent shall strive to enhance the Green Belt under the campaign" एक_पेड़_म ा ा _के_नाम " and the details of the trees planted would be uploaded on the portal https://merilife.nic.in.

Agenda Sr. No. 3.5

Subject: The proposal is for Construction of Math- Kudal- Humarmala- Jambhawade - Ghotage-Sonawade-Shivdav-Gargoti Ghat Road (Missing Link of SH-179) District connectivity in Kudal Taluka to connect Kolhapur and Sindhudurg Districts. Section from Km. 43+480 to Km. 56+820 in the Kolhapur & Sindhudurg districts of the State of Maharashtra M/s Public Works Department. Terms of References regarding.

Proposal Number: :IA/MH/INFRA1/442217/2023 , File No.: 10/62/2023-IA.III

The EAC noted that the Project Proponent and the consultant have given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/ information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

3.5.1 The proposal was earlier placed before the EAC during its 432nd meeting of Expert Appraisal Committee held on 15th-16th January, 2026 wherein the EAC recommended the project for grant of Terms of References.

3.5.2 Looking into the sensitivity of the project, the Ministry further examined the proposal and requested the PP to provide details by exploring the available alternate routes? What is the likely traffic scenario on this road? Also specify the overall benefits of the project vis a vis its environmental impacts.

3.5.3 At this instance the proposal is again considered in 448th EAC held on 29th May 2026. The Project Proponent, along with the EIA consultant M/s Centre for Envotech and Management Consultancy Private Limited made a presentation through virtual mode and submitted the following information.

3.5.4 The Project Proponent has submitted a response regarding the availability of alternate routes, likely traffic scenario, and the overall benefits of the proposed project vis-à-vis its environmental impacts. The submission explains that the existing connectivity between the Konkan region and Kolhapur is primarily dependent on Amboli Ghat and Phonda Ghat routes and that the proposed SH-179 missing link would function as an additional corridor, particularly during disruptions such as landslides or congestion on the existing routes. The submission further states that alternative alignments were examined during the planning stage and that the selected alignment was finalized after considering engineering, environmental, and socio-economic parameters.

3.5.5 The traffic analysis report also provides traffic survey data collected from adjacent road networks and indicates Average Daily Traffic (ADT) ranging from approximately 1,951 PCU to 10,716 PCU, thereby suggesting the existence of significant regional traffic demand. The report further highlights the expected benefits of improved accessibility, reduction in travel time, enhanced emergency services, and socio-economic development in the region.

3.5.6 However, upon examination, the reply appears to be only partially satisfactory. While the Project Proponent has identified the existing routes and broadly justified the need for an alternative corridor, the submission does not provide a detailed comparative assessment of the existing and proposed routes. The information furnished is largely qualitative in nature and does not include comparative details such as route lengths, travel times, carrying capacities, accident records, frequency of closures due to landslides, or the extent of traffic likely to be diverted from Amboli Ghat and Phonda Ghat to the proposed road. In the absence of such information, it is difficult to assess the actual necessity and strategic advantage of the proposed corridor vis-à-vis the existing road network.

3.5.7 Similarly, although the Project Proponent has provided traffic survey data from nearby corridors and intersections, the submission does not adequately address the likely traffic scenario on the proposed road itself. The traffic analysis primarily presents existing traffic volumes observed on adjacent roads and major junctions and concludes that there is

latent traffic demand in the region. However, no traffic forecasting has been provided to estimate the traffic likely to use the proposed road during the opening year or over the design life of the project. The submission does not indicate the methodology adopted for traffic projection, anticipated growth rates, traffic diversion percentages, level of service analysis, or the expected composition of passenger and freight traffic on the proposed corridor. Consequently, while the existing demand in the region has been demonstrated, the likely traffic scenario on the proposed road remains insufficiently substantiated.

3.5.8 With regard to the overall benefits of the project vis-à-vis its environmental impacts, the Project Proponent has highlighted benefits such as improved connectivity, better access to healthcare, education and markets, reduced travel time, and enhanced regional development. While these benefits establish the utility of the project, the submission does not provide a balanced assessment of the corresponding environmental costs. No quantitative information has been furnished regarding forest land diversion, tree felling, impacts on wildlife movement, habitat fragmentation, slope cutting, or other ecological impacts in the Sahyadri landscape. Further, the submission does not demonstrate whether the anticipated socio-economic and transportation benefits outweigh the environmental impacts arising from the construction and operation of the proposed road. Therefore, the benefit–impact assessment remains largely qualitative and requires further substantiation through a comparative environmental analysis.

3.5.9 In view of the above the EAC opined that, it may be appropriate to seek additional information from the Project Proponent in the form of a comprehensive comparative analysis of existing and proposed routes, including route lengths, travel times, traffic carrying capacities, and anticipated traffic diversion. The Project Proponent may also be requested to furnish a detailed traffic forecast study indicating projected traffic volumes for the opening year and design year, along with the assumptions adopted for traffic growth and diversion. Further, a quantified benefit–impact assessment may be submitted demonstrating the socio-economic gains, travel time savings, reduction in fuel consumption and vehicular emissions, and comparing these benefits against the environmental impacts arising from forest diversion, tree felling, biodiversity disturbance, slope stabilization measures, and other ecological considerations. Such information would enable a more informed assessment of whether the overall public benefits of the project outweigh the environmental costs associated with its implementation.

3.5.10 The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 448th meeting during 29th May 2026 and **deferred** the proposal.

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Any other Item with the approval of the Chair.

Agenda Sr. No. 3.6

Subject: Site visit report of EAC (Infra-1 & CRZ) sub-committee, Ministry of Environment, Forest & Climate Change, New Delhi-India for the proposed development of Floating Storage and Regasification Unit (FSRU) based LNG terminal and Jetty at Gopalpur Port, Odisha by M/s. Petronet LNG Limited.-Site visit Report regarding.

[Proposal No.: IA/OR/INFRA1/549500/2025; File No.10/21/2023-IA.III]

A site visit by the Sub-committee constituted by the Ministry on the recommendations of the EAC Infra-1 given in its 420th meeting was conducted on 13th April, 2026 about the proposed project. Following committee members attended the site visit:

i. Shri Manmohan Singh Negi, Chairman (EAC-Infra-I and CRZ)
ii. Shri S. Jeyakrishnan, Member (EAC-Infra-I and CRZ)
iii. Dr. Jaya Kumar Seelam, Member (EAC-Infra-I and CRZ)
iv. Dr. Ramesh Anguluri (Representative of MoEF & CC)

Also following officials of Petronet LNG Limited and Gopalpur Port Ltd attended the visit

Petronet **LNG Limited**

i. Shri Peter Fernandes, CGM & VP (Projects)
ii. Shri Nripendra Mishra, Chief Manager (Projects)
iii. Shri Ravi Kumar Pandey, Sr. Manager (Projects)

Gopalpur Port Ltd

i. Shri Prashanta Patra, Business Head

Background details of the project are as below.

I. The proposed project is for setting up a 5 MMTPA Land-based LNG regasification terminal by M/s Petronet LNG Limited (PLL). This project is located at Gopalpur port at Latitude 19° 17 '8.65"N and Longitude 84° 56' 53.57"E along the coast of Bay of Bengal in Ganjam district of Odisha.

II. PLL had submitted an application for grant of Environmental Clearance for setting up of Floating Storage and Regasification Unit (FSRU) based LNG terminal at Gopalpur Port, which would subsequently be converted into a standalone land-based LNG Storage and Regasification terminal with LNG receipt from LNGC. MoEF&CC had accorded Terms of References (ToR) vide letter no.10/21/2023-IA.III dated 3rd July 2023. Thereafter due to change in implementation methodology from earlier FSRU based terminal to direct implementation of 5 MMTPA land-based LNG Terminal, PLL had resubmitted the proposal for amending the ToR and the title of the project

was requested to be amended as "Gopalpur LNG terminal at Gopalpur Port, Odisha". The amendment in ToR was accordingly granted by MoEF&CC vide amendment dated 21.07.2025 and corrigendum dated 28.08.2025. Accordingly the PP submitted the EIA/EMP report in the Ministry. The proposal was considered in the EAC in its 420th EAC meeting of the Expert Appraisal Committee held on 15th October, 2025.The committee observed the following:

i. The Committee opined that although the activity is presented as an independent entity, it is functionally and spatially a part of the port premises. Therefore, the Committee recommended that the Environmental Impact Assessment (EIA) and Risk Assessment (RA) studies should be carried out cumulatively, considering the port's existing operations-particularly the handling of coal-along with the proposed activity. The findings of the same shall be presented to the EAC.
ii. The Risk Assessment shall bring out the risk contours including BLEVE and other such extreme situations and the mitigation measures thereof.
iii. As regards safety during construction, though addressed usually by the respective Directorate of Industrial Safety and Health (DISH), the project proponent needs to have well documented safety policy, procedures and guidelines. This needs to be coupled with a monitoring and reporting system which will provide the management as well as statutory authorities' prompt and timely information regarding safety incidents, if any, at the project sites.
iv. The EIA shall delineate the cumulative impact on the existing port in relation to the Disaster Management Plan arising from the proposed project, with the roles and responsibilities of the various concerned agencies clearly identified. The same shall be incorporated in the EIA/EMP report.
v. The PP shall also submit detailed information on the navigational channel, breakwaters, dredging activities, disposal of dredged material, and land reclamation.
vi. The study has been carried out by the CSIR–National Institute of Oceanography (NIO); the report shall be submitted accordingly.
vii. The Committee also observed that the proposed project involves a proposed LNG pipeline corridor spread over an area of 3,326.79 hectares. The detailed alignment of the proposed LNG pipeline, along with particulars of the land area covered along its entire length, shall be submitted.

III. Considering the fact that two independent agencies i.e Gopalput Port Ltd and Petronet LNG ltd are using/will be using the same premises of the Gopal Pur Port for the activities like coal handling and LNG handling which are explosion prone and dangerous, and, it not clear whether the risk assessment studies conducted by the PLL has taken into account all the activities including those being taken up/ likely to be taken up by the Gopal Pur Port Ltd., the EAC felt it necessary and recommended that a sub-committee shall conduct the site visit to assess the ground situation for further appraisal of the proposal.

1. Site Visit and Brief of Project

A site visit to the Gopalpur Port (Project site) was conducted by the Sub-committee on 13th April, 2026 along with officials from PLL and Gopalpur Port Limited (GPL). The committee visited Gopalpur Port office wherein a briefing on Port activities was presented by the PLL officials The GPL officials informed the Port has been taken over by the Adani group and briefly about their activities and plan for expansion of the port. Following details were narrated by the PLL and the GPL.

i. It was informed to the sub-committee that the Board of PLL has approved setting up of a 5 MMTPA land-based LNG regasification terminal at Gopalpur Port. The proposed terminal will primarily comprise two LNG storage tanks having a gross storage capacity of 1,84,000 cubic metres each, LNG receiving and unloading facilities, LNG unloading jetty along the southern breakwater within the Gopalpur Port harbour with approximately 1.6 km long LNG transfer pipelines to the terminal, onshore regasification facilities, truck loading facilities for catering to consumers not connected through the pipeline network, and a cross-country pipeline of about 37 km, which will connect the terminal to the existing Srikakulam–Angul gas pipeline at IP-03 near Hinjili in Ganjam District, Odisha.

ii. It was also explained that M/s IDCO (Odisha Industrial Infrastructure Development Corporation) – a State PSU of Government of Odisha, has allotted 80 acres of land to PLL at Gopalpur Port on 3rd May 2025. The Agreement to lease has been executed by IDCO with PLL on 07.08.2025 in the office of District Sub Registrar, Chhatrapur, Ganjam. PLL has also taken over the physical possession of land from IDCO on 08.08.2025. There is an additional requirement of 20 acres of land, which shall be obtained from Gopalpur Port Limited (GPL) on long term lease, for which firm agreement is already signed with GPL.

iii. Institute of Remote Sensing, Anna University Chennai carried out the CRZ study and prepared the 1:4000 scale CRZ map superimposing the project layout and master plan of the were also shown to the sub committee by the PP.

iv. It was further informed that the major materials handled by GPL include limestone, iron ore, and coal. During the 420th EAC meeting held on 15th October 2025, the EAC had advised that a cumulative risk assessment study be conducted considering the existing port operations for bulk materials, which also include coal handling at Gopalpur Port. PLL informed during the site visit that detailed cumulative risk assessment study including coal handling facility has been carried out through their EIA consultant M/s Vimta Labs Limited, Hyderabad, and the results indicate that the resultant concentrations are well within the permissible limits of the National Ambient Air Quality Standards (NAAQS). The said cumulative risk assessment report shall also be shared with EAC along with reply

to ADS.

v. It was informed to the sub-committee that the Board of PLL has approved setting up of a 5 MMTPA land-based LNG regasification terminal at Gopalpur Port. The proposed terminal will primarily comprise two LNG storage tanks having a gross storage capacity of 1,84,000 cubic metres each, LNG receiving and unloading facilities, LNG unloading jetty along the southern breakwater within the Gopalpur Port harbour with approximately 1.6 km long LNG transfer pipelines to the terminal, onshore regasification facilities, truck loading facilities for catering to consumers not connected through the pipeline network, and a cross-country pipeline of about 37 km, which will connect the terminal to the existing Srikakulam–Angul gas pipeline at IP-03 near Hinjili in Ganjam District, Odisha.

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ix. The GPL representative intimated that a Plan for their future expansion is in progress and they are examining the issue of the allocation of land including additional 20 acres of land proposed to be taken on long term lease by the PLL.

x. Thereafter, the Committee visited Bulk Berth No.1 and 2 on the Southwest side of the Port which are under operations by GPL. It was informed by GPL that the two bulk berths are interchangeably used for unloading of bulk materials including

coal.

xi. The Committee also visited South Breakwater through a motorable road on South Breakwater. The committee visited the location of the unloading platform area of the proposed LNG jetty of Petronet LNG Limited. The sub-committee also noted the location of the LPG jetty proposed in future on the Northern Breakwater. After a briefing by PLL representatives regarding the proposed berthing facilities, the Committee walked to the end of Breakwater which was at 2170m. While travelling back towards shore from chainage 2170m, the Committee visited the proposed crossover area of the Pipe trestle of LNG jetty over the south breakwater at chainage 400m. From there, the Committee visited the onshore plot area of the proposed LNG Terminal of PLL. After reviewing the LNG Plot plan the visit was completed.

2. Observations of the Sub-Committee.

i. As per the proposed layout, the LNG jetty is located in close proximity to existing operational port jetties, including one designated for coal handling. The existing jetties of Gopalpur Port Ltd and the Proposed LNG jetty are segregated from each other by the turning circle of around 600 meters and appears to be vulnerable for damage in the the event of any accident during the admission The Committee also observed that an LPG jetty is indicated in the Port Master Plan of Gopalpur Port. It appears that Gopalpur Ports Limited has envisaged a future LPG/other liquid jetty near the northern breakwater. However, in the absence of detailed implementation plans and design parameters, it is not feasible to comprehensively assess cumulative risk impacts. Therefore, the Project Proponent (PP) shall undertake a cumulative risk assessment considering the full capacity and planned development of the port. The Boiling Liquid Expanding Vapor Explosion (BLEVE) study should consider including all the activities proposed by the PLL and the existing as well as proposed /likely to be proposed by the GPL for assessing the level of danger in the extreme situation and as per recommendations of the study the locations of these activities shall be identified or the bulk handling plan should be finalised .

ii. While furnishing details of the plan for storage tanks and the pipeline laying as per the observations the PP shall ensure that the detailed alignment of the pipeline, along with land-use particulars across its entire length including the stretch of pipeline trestle passing over the southern breakwater near existing operational jetties are presented before the EAC.

iii. Considering the handling and storage of large volumes of LNG, the Committee emphasized the necessity of implementing stringent safety measures to mitigate risks such as leaks, fire incidents, and cryogenic hazards. Furthermore, the proximity to ongoing marine and port operations necessitates careful planning to prevent navigational conflicts and ensure safe vessel movement.

iv. It is observed that the storage area is located on the southern side of the Gopalpur Port. This area is a recently formed land as a result of the obstruction of sediment transport due to construction of the southern breakwater in 2012. This accreted land being a recent deposit might require stabilization for its use for installation of storage tanks. In case of failure of the southern breakwater, this accreted land is likely to be eroded, causing damage to the installations.

Recommendations:

i. A detailed BLEVE risk assessment study shall consider including all the activities proposed by the PLL and the existing(coal handling) as well as proposed /likely to be proposed (viz. LPG/other liquid jetty) by the GPL for assessing the level of danger in the extreme situation. The study shall be carried out using established Quantitative Risk Assessment (QRA) methodologies and shall comprehensively evaluate credible initiating events, including fire engulfment scenarios (pool fires and jet fires), mechanical impacts (such as ship berthing incidents or dropped objects), and potential failure or malfunction of pressure relief systems and as per recommendations of the study the locations of these activities shall be decided/ identified or the bulk handling plan should be finalised..

ii. The Impact Assessment (EIA) and Risk Assessment (RA) studies shall be conducted on a cumulative basis, taking into account existing port operations particularly coal handling along with the proposed LNG activities. The risk assessment study should also include the possible risk due to damages to southern breakwater and its impact on the accreted land, and propose appropriate mitigation measures. The findings shall be submitted.

iii. Based on the findings of the study, the Project Proponent shall incorporate appropriate risk mitigation measures, including the provision of passive fire protection systems, fixed water deluge systems for vessel cooling, reliable emergency shutdown systems, and adequate safety separation distances.

iv. The study shall also include recommendations for integrated emergency response and disaster management plans, taking into account simultaneous operations (SIMOPS) within the port.

v. The Committee noted that the proposed LNG jetty is to be located between the southern and northern breakwaters, where the available space for vessel maneuvering appears to be limited. In this context, the feasibility of safe ship navigation and berthing operations shall be critically assessed, and the detailed studies conducted in this regard shall be submitted.

vi. Details of the Storage, backup and administrative facilities proposed in the 80 acre land acquired from M/s IDCO (Odisha Industrial Infrastructure Development Corporation) and additional 20 acre land proposed to be taken on lease from the GPL,

shall be presented before the EAC along with the documents of the possession of the land.

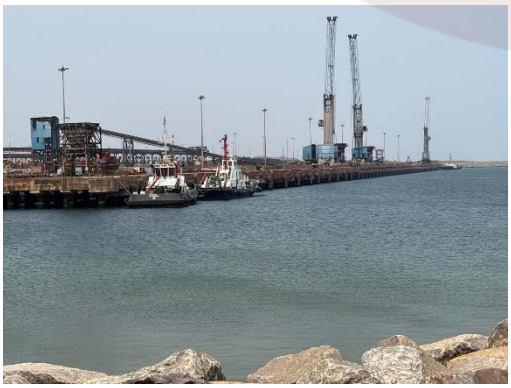
The Expert Appraisal Committee (EAC) noted that a site visit was conducted by the Sub-Committee constituted by the Ministry, based on the recommendations of EAC (Infra-1) in its 420th EAC meeting, on 13th April, 2026. The Sub-Committee made certain recommendations in its site visit report. After detailed deliberations, the EAC, agreed with the observations and recommendations of the Sub-Committee and advised the Project Proponent to comply with the same and submit the requisite details for further consideration.

List of Participants

Members of the EAC Sub Committee	
Shri Manmohan Singh Negi	Chairman, EAC
Shri S. Jeyakrishnan	Member EAC
Dr. Jaya Kumar Seelam	Member EAC
Dr. Ramesh Anguluri	Representative of MoEF & CC
List of Participants from the Petronet LNG Limited	
Shri Peter Fernandes	CGM & VP (Projects),
Shri Nripendra Mishra	Chief Manager (Projects)
Shri Ravi Kumar Pandey	Sr. Manager (Projects)
List of Participants from the Gopalpur Port Ltd	
Shri Prashanta Patra	Business Head

Project Location Map:

Site Visit Photographs:



Agenda Sr. No. 3.7

Subject: Site visit report of EAC (Infra-1 & CRZ) sub-committee, Ministry of Environment, Forest & Climate Change, New Delhi for the proposed development of an all-weather multi-user Greenfield Port over an area of 1578.27ha(3899.987 Acres) located at Astaranga, Puri District, Odisha by M/s Navayuga Engineering Company [Proposal No.: IA/OR/INFRA1/531495/2025; File No.11-60/2013-IA.III].

A site visit by the Sub-committee constituted by the Ministry on the recommendations of the EAC Infra-1 given in its 422th meeting was conducted on 31st October 2025 about the proposed project. Following committee members attended the site visit:

i. Shri Manmohan Singh Negi, Chairman (EAC-Infra-I and CRZ)
ii. Shri S. Jeyakrishnan, Member (EAC-Infra-I and CRZ)
iii. Dr. Jaya Kumar Seelam, Member (EAC-Infra-I and CRZ)
iv. Dr. Ramesh Anguluri (Representative of MoEF & CC)

Also following officials of M/s Navayuga Engineering Company attended the visit.

i. Mr. S. Subba Rao, Head Ports, NEC Ltd.
ii. Dr. (Mrs) D. Jyothi
iii. Mr. G. Ravikanth
iv. Mr. S.K. Sahoo

Officials from the State Government.

i. Mr. Kaibalya Kar, Special Land Acquisition Officer
ii. Mrs. Priyanka Priyadarshini Pati, Tahasildar, Astaranga

1. Background details of the project are as below.

The aforementioned proposal was earlier considered before the EAC during its 399th meeting of Expert Appraisal Committee held on 21st-22th April 2025 and 409th meeting held during

30th-31st July, 2025 and the EAC after detailed deliberation defer the proposal and sought the requisite information. Now at this stage the proposal is further placed in the 422th EAC meeting of the Expert Appraisal Committee held on 31st October 2025. The EAC after detailed deliberation recommended for grant of ToR. Accordingly, Ministry granted the ToR on 23/02/2026 with the certain specific Conditions as following:

i. The primary objective of the proposed alternative is to minimize the extent of mangrove disturbance by avoiding rerouting and reclamation within the creek area. Although the Project Proponent (PP) has reduced the mangrove-affected area from 52.6 acres (as per the original layout) to 28.51 acres, the presence of mangroves still remains. As per the CRZ Notification, 2019, mangrove areas fall under CRZ-IA, which are ecologically sensitive zones. Therefore, the PP shall further explore feasible options to completely avoid mangrove areas and attempt to revise the layout plan accordingly in EIA report to ensure that the disturbance to mangroves is minimized or eliminated.

ii. The augmentation of railroad infrastructure and connectivity should be detailed. Mangroves at the proposed site should be mapped by an authorized agency and a management plan for the mangrove system should be submitted, in case of likely disturbance due to construction of the port.

iii. The proposed rerouting of the creek system may potentially affect surface runoff and groundwater recharge. Therefore, the rerouting proposal shall be studied in detail through a numerical hydrodynamic model by a nationally reputed institute such as NIO or NIOT, to assess flow behavior and ensure maintenance of natural flow conditions and free drainage during flood and cyclone events for the revised layout.

iv. The drainage pattern in the catchment area should be studied for the revised layout to avoid flooding of adjoining villages due to construction of port including raising of embankments and compound wall towards landward side of the outer boundary of the proposed site. The data on bathymetry and topography of the area with suitable resolution should be collected, the peak flows during monsoon/cyclone should be considered for such study.

v. A detailed study for assessing the impact of the rerouting on the mangrove shall be carried out by the nationally reputed institute and as per the recommendation of the study the mangrove conservation and restoration plan shall be prepared by the institute.

vi. Long-term shoreline change analysis due to port on adjacent coast including Devi River should be carried out.

vii. Study for assessing the impact of the port development on turtle breeding grounds shall also be conducted by the nationally reputed institute and Turtle and nesting

ground Conservation Plan shall be prepared accordingly.

viii. Details of Dredging/Excavation and disposal strategies supported by impact study on marine/aquatic life should be studied.

ix. A site visit will be carried out by the subcommittee to check the site details and if required additional terms will be issued as per the recommendations of the subcommittee.

2. Site Visit and Brief of Project.

A site visit to the proposed development of an all-weather multi user Greenfield Port over an area of 1578.27ha(3899.987) located at Astaranga, Puri district, Odisha by M/s Navyuga Engineering Company was conducted by the Sub-committee on 14th April, 2026 along with officials from M/s Navyuga Engineering Company.

i. M/s Navyuga Engineering Company informed the Sub-Committee that initially it was proposed that a port at Astaranga will be developed on the shores of Astaranga covering an area of 1578.270 Ha (3899.987 acres). The master plan layout comprised three arms (South, Eastern, and Northern Arms): two arms parallel to the shoreline and one perpendicular to the shoreline. Berths were aligned along these dock arms, comprising 18 berths and 2 liquid berths to handle a cargo capacity of 150MTPA. Further also informed that the tidal influenced KaduaNadi traverses through the project site and it was involved the creek meanders at two places, namely Nanpur-in the northern part of the creek and Kanamana on the western part of the creek for effective usage of the scarce land area and to train the meanders at the aforementioned two locations and under take the replacement of mangroves existing in the meanders at suitable location after necessary approvals. Thereafter the meandering stretches of the creek would be reclaimed (approximately 100.47 ha) for the development of port infrastructure and storage areas for the cargo storage and bund protection shall be developed along the watercourse.

ii. Based on the suggestions during the EAC meetings NECL has analysed the feasibility of alternative layout configuration within the selected location and optimized layout excluding the western creek meandering to minimize the impacts on mangroves.

iii. The layout has been worked out excluding the western meandering narrowing and reclamation. In order to effectively utilize the land area and also to overcome the technical difficulty in railway development and storage area development, it is proposed to reclaim (approximately 42.91 Ha) in the northern meander and narrow the creek without affecting the flow. In this alternative, the western meander of the creek (approximately 3000 m) is retained, while the northern meander is proposed for straightening. This alternative is to minimize the extent of mangrove disturbance

by avoiding reclamation in the western meander and shifting of storage yards from CRZ area to Non CRZ area.

iv. Retention of the western meander reduces mangrove displacement from 52.6 acres (original layout) to 28.51 acres. This option achieves minimum displacement of mangrove and partial shifting of the storage yards from CRZ area to Non CRZ area. The optimized layout achieves nearly 46% reduction in mangrove disturbance, about 60% reduction in reclamation area, and restricts creek intervention to only essential stretches.

v. The revised masterplan layout alignment will have 14 berths and two liquid cargo berths. The total quay length is 5100 m. The phase-lA layout of the development will have a total 4 berths with a quay length of 1250 m. The reduction in number of berths and corresponding stock yard area, results in the decreased Cargo handling capacity from 150 MTPA to 120 MTPA. The phase-lA development will have the cargo handling of l7.7 MTPA. Importantly, it shifts non permissible activities entirely out of CRZ-IA areas, ensuring full compliance with CRZ 2019 Notification.

vi. Coal stockyards were proposed behind the berths for handling coal, with railway connectivity near the stack yard locations to facilitate loading and unloading operations. The existing port layout has been planned such that bulk dusty cargo (Iron Ore and Coal) will be handled on the south side, in order to minimize pollution impacts on the nearby villages located on the north eastern side. Clean cargo like container, general cargo, and steel products will be handled on the north eastern side. Accordingly, railway lines have been planned near their respective handling berths to ensure efficient cargo evacuation.

vii. Required bridges for road and rail connectivity will be built across the creek duly maintaining the existing cross section of the Waterway. The top of protection bunds shall be above +6.00 m CD due to considerations of high-water level and sto1m surge during cyclones.

viii. The Project Proponent was presented with the project layout map superimposed on the CZMP map. It was observed that the trestle area, as indicated in the CZMP map, falls under CRZ-IA classification. However, the Project Proponent informed that the said area is presently covered with *Casuarina* plantation, with no presence of mangroves, and is classified as forest land. The Project Proponent further stated that the application for forest clearance for this area is currently under process.

3. Observations of the Sub-Committee.

The sub-committee visited the site and held detailed discussions on field about the north meander of the Kaduva Nadi, the area proposed for jetty/storage/ backup and the western

meander of the creek, which is proposed to be retained. The sub-committee's observations are as follows:

i. The Kaduva Nadi creek passes through the proposed project area and connects to the Devi river at a distance of 5 km to the North and the Keluni River at a distance of about 4.5 km to the south of the project boundary.

ii. The northern meander of the (Kaduva Nadi creek,) which is proposed to be rerouted, as per PPs revised layout, is almost a crescent shape creek and as per ocular estimation around 60-70 meter wide.The land mass encircled by the creek has heavy mangrove growths at its margin along the bank of the creek and rest of the land is presently under agriculture use. The project envisages the reclamation of this creek and the mangroves along the creek for developing the railway siding coupled with some storage for bulk cargo and ware house in the land mass encircled by the creek. Therefore there is every likelihood of damage to most of the mangrove along the creek.

iii. The sub-committee was of the opinion that with a minor change in railway siding's alignment and orientation there is a possibility to shift majority of the railway siding to the encircled land mass provided railway lines across the creek are on stilts which will help in unobstructed flow of the creek water and in avoiding damage to the mangroves.

iv. As per the revised proposal submitted in October 2025, the master plan layout comprised two arms(South and Eastren) aligned parallel to the shoreline. Berths were aligned along these dock arms, comprising 14 berths and 2 liquid berths to handle a cargo capacity of 120MTPA.Whole master layout including berthing areas, backup/storage and turning circle is proposed to be created after excavation of land/dredging. During the discussion the Project Proponent informed that some portion of the master layout is presently covered with *Casuarina* plantation, with no presence of mangroves, and is classified as forestland. The Project Proponent further stated that the application for forest clearance for this area is currently under process. The sub-committee was of the opinion that there is a need to examine the revised layout and if needed the layout to be modified to the extent that forest area/CRZ1A area can be excluded.

v. PP had confirmed that no hazardous liquid cargo is planned in the proposed port.

vi. The Committee observed that, for the purpose of detailed examination of the revised proposal, the project layout should be superimposed on the latest approved Coastal Zone Management Plan (CZMP) map, accordingly the following may be submitted.

a. The layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale for the revised proposal.

b. The total forest involved in the proposed proposal and the status also need to be submitted.

4. Recommendations:

i. As observed in para 3(ii)&(iii) above, the PP shall made an attempt to plan the rail infrastructure and connectivity in a manner that avoids rerouting/reclaimation of the northern meander of the creek at Nanpur and damage to the mangrove areas and CRZ-IA area. The Project Proponent shall explore alternative design options, such as accommodating majority of the railway siding area in non mangrove and non creek area on the land mass encircled by the creek, elevated rail corridors on stilts, to minimize ground-level intervention and ensure the preservation of the mangrove ecosystem and CRZ IA Area. Detailed studies shall be undertaken to assess the technical feasibility of such options and to ensure that natural hydrology, tidal flow, and ecological integrity of the area remain unaffected.

ii. The proponent shall also make an attempt for possible revision of the master layout plan in such a way that the port jetty, approach channel , turning circles and associated storage areas or any other non permissible activity do not fall in Forest/CRZ IA area The project layout shall be optimized to preserve the existing geomorphology and hydrodynamic regime, thereby minimizing potential impacts on the coastal and mangrove ecosystem, and shall ensure adequate setbacks and buffer zones, and detailed planning studies shall be undertaken to confirm that the proposed infrastructure does not alter the natural flow patterns or ecological integrity of the area.

iii. The layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale for the revised proposal.

iv. The total forest involved in the proposed proposal and the status also need to be submitted.

v. The committee opined that for further examination, the revised layout shall be superimposed on the latest CZMP map and demarcated by an authorized agency on 1:4000 scale for the revised proposal.

The Expert Appraisal Committee (EAC) noted that a site visit was conducted by the Sub-Committee constituted by the Ministry, based on the recommendations of EAC (Infra-1) in its 422th EAC meeting was conducted on 31st October 2025. The Sub-Committee made certain recommendations in its site visit report. After detailed deliberations, the EAC, agreed with

the observations and recommendations of the Sub-Committee and advised the Project Proponent to comply with the same and submit the requisite details for further consideration.

List of Participants.

Members of the EAC Sub Committee	
Shri Manmohan Singh Negi	Chairman, EAC
Shri S. Jeyakrishnan	Member EAC
Dr. Jaya Kumar Seelam	Member EAC
Dr. Ramesh Anguluri	Representative of MoEF & CC
List of Participants from the M/s Navayuga Engineering Company	
Mr. S. Subba Rao, Head Ports	Officials from the M/s Navayuga Engineering Company
Mrs. Dr. D. Jyothi	
Mr. G. Ravikanth	
Mr. S.K. Sahoo	
List of Participants from the State Government of Odisha	
Mr. Kaibalya Kar	Special Land Acquisition Officer
Mrs. Priyanka Priyadarshini Pati	Tahasildar, Astaranga

Project Location Map

Site Visit Photographs

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Annexure-I

The list of the Expert Appraisal Committee (Infra-I) Members participated during the 448th meeting held on 29th May 2026

Sr. No.	Name	Designation	29ttth May 2026
1	Shri Manmohan Singh Negi	Chairman (EAC)	Present
2	Prof. V. K. Jain	Member (EAC)	Present
3	Shri S. Jeyakrishnan	Member (EAC)	Present
4	Dr. Jaya Kumar Seelam	Member (EAC)	Present
5	Dr. P. K. Dinesh Kumar	Member (EAC)	Present
6	Col. Prakash Tewari	Member (EAC)	Present
7	Dr. R.S Kankara	Member (EAC)	Present
8.	Dr. Nasim Akhtar	Member (EAC)	Present
9	Shri Sharandeep Singh	Member (EAC)	Absent
10	Shri Ashok Kumar Patre	Member (EAC)	Absent
11	Ms. Bindu Manghat	Member (EAC)	Absent
12	Shri Amardeep Raju	Member Secretary (EAC)	Present