सत्यमेव जयते

Government of India
Ministry of Environment, Forest and Climate Change
IA Division
(INFRA-1)
***

Minutes of 422nd meeting of Expert Appraisal Committee to be held on 31st October, 2025 for Projects related to Infrastructure Development, All Ship breaking yards including ship breaking units 7(b); Industrial Estate/ Parks/ Complexes/ Areas, Export Processing Zone meeting INFRA-1 held from 31/10/2025 to 31/10/2025

Date: 10/11/2025

MoM ID: EC/MOM/EAC/132790/10/2025

Agenda ID: EC/AGENDA/EAC/132790/10/2025

Meeting Venue: N/A

Meeting Mode: Virtual

Date & Time:

31/10/2025	11:30 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.

2. Confirmation of the minutes of previous meeting

The Committee confirmed the Minutes of the 420th EAC meeting held on 15th October, 2025.

3. Details of proposals considered by the committee

Day 1 -31/10/2025

3.1. Agenda Item No 1:

3.1.1. Details of the proposal

Environment and CRZ Clearance for Expansion of Navlakhi Port, Village: Navlakhi, Taluka: Maliya, District: Morbi, Gujarat by **Gujarat Maritime Board** located at **MORBI,GUJARAT**			
Proposal For		Fresh ToR	
Proposal No	**File No**	**Submission Date**	**Activity** **Sub-Activity** **(Schedule Item)**
IA/GJ/INFRA1/555262/2025	10-14/2015-IA-III	17/10/2025	Ports, harbors, breakwaters, dredging Cargo handling (7(e))

3.1.2. Project Salient Features

Subject: The proposal is for Expansion of Navlakhi Port, located at Village: Navlakhi, Taluka: Maliya, District: Morbi, Gujarat by M/S Gujarat Maritime Board.-Terms of References regarding.
[Proposal No.: IA/GJ/INFRA1/555262/2025; 10-14/2015-IA-III]
The EAC noted that the Project Proponent and the consultant have given 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 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 considered before the EAC during its 422th EAC meeting of the Expert Appraisal Committee held on 31st October 2025 the project proponent and EIA Consultants M/s Ultra-Tech, made a presentation through video conference and submitted the following information.

3.1.2 The Proposed project is for Expansion of Navlakhi Port, located at Village: Navlakhi, Taluka: Maliya, District: Morbi, Gujarat by M/s. Gujarat Maritime Board. Geocordinates of the projects lies in 22°57'15.77"N and 70°27'32.46".

3.1.3 M/s Gujarat Maritime Board obtained the Environment and CRZ clearance from the Ministry for Modernization of Navlaki Port by way of 1) Mechanization of the existing facilities & 2) Construction of new mechanized jetty vide letter 10-14/2015-IA-III on 20/11/2020.

3.1.4 Details of Existing Berths and Major Cargo Handled at Navlakhi Port

S. No.	Terminal Name	Berth Type	Berth Dimensions	Cargo Handled	Year of Commission	Details of EC: File No:10-14/2015-IA-III dated 20.11.2020
1.	Navlakhi GMB Jetty	GMB Jetty	Length:163 m Width: 25.25 m Draft: 4.5	Coal, Cement	Commissioned prior to 1991	• Mechanization of the existing port facility. • Increase in cargo handling capacity of Navlakhi

			m			Port from 4 M MTPA to 20 M MTPA • Construction of 5 new mechanized jetties of length 1284.8 m (Sagarmala project Jetty 870 m) • Capital Dredging of 4,07,592 m^3,and an annual maintenance dredging of 41, 350 m^3 to maintain a depth of (-) 4 m.
2.	United Shipping Liners	Private Jetty	Length: 102 m Width: 15 m Draft: 4.5 m	Coal	Commissioned prior to 1991	
3.	Jaydeep Associates	Private Jetty	Length: 77 m Width: 4.5 m Draft: 2 m	Coal	Commissioned prior to 1991	
4.	Shreeji Shipping	Private Jetty	Length: 92 m Width: 9 m Draft: 2 m	Coal	Commissioned prior to 1991	
5.	GMB Jetty (Newly constructed)	GMB Jetty	Length: 485 m Width: 25 m	-	2024	

3.1.5 Summary of Existing and Proposed Jetties and Berths

S. No.	Terminal Name as per EC/CRZ clearance obtained in the year 2020	Berth Type	Berth Dimension	Remarks / Status
1.	New GMB Jetty (770.00 m x 25.00 m)	GMB Jetty	Length: 485 m,Width: 25 m,	Construction completed
2.	Right of USL Jetty	Proposed Bulk Cargo/Coal Ber	Length: 260 m,	The existing USL jetty will be demolished, and a coal be

	(100.00 m x 25.00 m)	th	Width: 32.5 m,	rth will be constructed in its place
3.	Left of USL Jetty (181.05 m x 25.00 m)			
5.	Right of M/s Shreeji Wharf (87.75 m x 10.00 m)	Proposed Salt Berth	Length: 400 m,Width: 25 m,	The existing M/s. Shreeji Wharf will be demolished, and a salt berth will be developed in place of it.
6.	-	Container Berths (Sui Creek)	Length: 660 m, Width: 60 m,	In Sui Creek, the existing GMB jetty will be demolished, and container berths will be developed.

3.1.6 Details of the Proposed Facilities.

Component	Phase-1 (2038)	Phase-2 (2045)	Master Plan Phase (2060)
Commissioning Year	2029	2038	2045
Dredging	Total 7.5 Mcum – approach channel & manoeuvring area; capital dredging to -9.0 m CD, berth pockets to -12.5 m CD	Total 7.7 Mcum – only berth pockets of container berths; capital dredging to -9.0 m CD	Total 8.2 Mcum – manoeuvring area & berth pockets under master plan
Reclamation	0.95 Mcum reclaimed and developed as storage area	a. Total quantity of reclamation is about 1.04 Mcum in phase 2.	1.08 Mcum reclaimed and developed as storage & yard area
Navigation Infrastructure	Approach channel 160 m wide, turning circle 450 m, navigational aids proposed	Approach channel 160 m, turning circle 460 m, navigational aids	Approach channel 160 m, turning circle 460 m, navigational aids (same as Phase-2)

Berth Types & Sizes	Total four types of berths i.e., - Coal Berth for direct Berthing (260 m), - Coal Berth for Barge Berthing (300 m), - Container Berth (220 m) - Salt Berth (210 m) The coal handled through barges shall be handled at the existing non-operational GMB berths.	Total four types i.e., - Coal Berth for direct Berthing (260 m), - Coal Berth for barge Berthing (300 m), - Container Berth (660 m) - Salt Berth (210 m) The coal handled through barges shall be handled at the existing non-operational GMB berths.	Total four types of berths i.e., - Coal Berths for direct Berthing (260 m), - Coal Berths for Barge Berthing (400 m), - Container Berth (880 m) - Salt Berth (400 m) The coal handled through barges shall be handled at the existing non-operational GMB berth.
Cargo Handling Equipment	2 screw unloaders (coal); 2 MHCs (container); 1 mobile loader (salt); 6 crawler cranes (barge coal); 3stacker-cum-reclaimers; 6 RTGs; adequate pay loaders & dumpers	2 screw unloaders (coal); 6 MHCs (container); 1 mobile loader (salt); 6 crawler cranes (barge coal); 3stacker-cum-reclaimers; RTGs – not specified	2 screw unloaders (coal); 8 MHCs (container); 2 mobile loaders (salt); 8 crawler cranes (barge coal); 3 stacker-cum-reclaimers; 26 RTGs; adequate pay loaders & dumpers
Back-up Area	79 Ha – fully mechanized & manual bulk yard, container yard, salt yard, ancillary facilities (roads, admin, ops, workshops, substation, fuel depot, etc.)	84 Ha – expanded area with similar but enlarged facilities	88 Ha – final expanded back-up with full mechanized bulk yard, container yard, salt yard, workshops & utilities
Utilities & Services	Water supply incl. Desalination plant, Fire-fighting, drainage, sewerage (STP), p	Same utilities, scaled to Phase-2 capacity	Same utilities (desalination, fire-fighting, STP, power supply, DGs) scaled to master-plan capacity

	ower & DGs based o n Phase-1 needs		
Design Vessel Size	Depth -9.0 m CD (ba sin), berth pockets -1 2.5 m CD; Panamax (~11 m draft)	Similar draft capacity; Panamax/ feeder vesse ls	Panamax/feeder vessels; maintained dredge dept hs as per master plan
Demolition	To facilitate redevelopment of Navlakhi Port, the existing GMB Jetty, USL je tty and M/s Shreeji Wharves will be demolished and replaced with new bert hs. The total demolition area is about 6473.75 sq.m, including the USL jetty (1530 sq.m), Shreeji Jetty (828 sq. m) and GMB Jetty (4115.75 sq.m).		
Berge Jetties	The planning for barge jetties considers the narrow end width, with operati onal clearance and alignment finalized to ensure safe navigation and efficie nt handling post dredging in front of berths.		

3.1.7 The project/activity is covered under the category 'A' of item 7(e**)** i.e. Ports, of the schedule to the EIA Notification, 2006, and its subsequent amendments. Total cost of the project is Rs.514200 Lakhs.

3.1.8 Land use/Cover: Land required for port

Sr. No.	Commodity	Requirement of Backup Yard (in Ha)		
		Phase 1	Phase 2	Master Plan
1.	Storage Space for various Cargo es	42	52	55
2.	Internal Roads and Circulation Sp ace within Port @ 10%	13	16	17
3.	Port Building Complexes includin g parking	5	5	5
4.	Landscaping, Green belt and oth er for expansion @ 10%	8	10	11
Minimum Land Area Required (Hectares)		68.0	83.0	88.0

3.1.9 Terrain and Topography: Navlakhi Port lies on a flat, low-lying coastal plain along the Gulf of Kutch in Gujarat. The area comprises mudflats, salt marshes, and clay soil, with minimal

elevation and a gentle gradient. Tidal creeks and high tides shape the landscape, while the surrounding region is mostly barren scrubland and salt-pans.

3.1.10 Details of water bodies, Impact on drainage: The Jhijhoda River is located at an approximate distance of 7.50 km from the site, while the Phulku River lies about 7.60 km away. The Demi River is situated at a distance of around 9.70 km. In addition, several creeks are present in the vicinity, the Sui Creek directly abuts the project site, Hansthal Creek is located approximately 0.50 km away, and Phuljhana Creek is about 2.00 km from the site.

3.1.11 Water Requirements: Water for construction phase will be met from water transported through private water tankers. During the operation phase, the estimated water demand is 0.36 MLD for Phase 10.42 MLD for Phase 2 and 0.47 MLD for the Master Plan phase. Potable water is sourced from water wells at Dahisara, located 15 km from the port, and is currently supplied via water tankers. Water is stored on-site in one overhead tank (200,000 litres) and two underground sumps (125,000 litres and 90,000 litres).

3.1.12 Tree Cutting: The proposed project does not involved any cutting of trees.

3.1.13 Diversion of forest land: The proposed project does not involved any forest land, hence no forest diversion is required. The project is not located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc and Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC.

3.1.14 Details of CRZ area: The proposed expansion project falls within CRZ-IB, CRZ-III, and CRZ-IVB zones as per the approved Coastal Zone Management Plan (CZMP) map. The recommendations of the Gujarat State Coastal Management Authority (GSCMA) will be obtained and submitted along with the EIA/EMP report.

3.1.15 Details of Shoreline Change: According to the shoreline change map of Gujarat (41J/5/NE, Map No. NCCR/SCM/046) prepared by the National Centre for Coastal Research (NCCR), the area is classified under the low erosion to stable coast category.

3.1.16 Details of channel, breakwaters, dredging, disposal and reclamation: The Navlakhi Port expansion project includes development of approach channels, berths, and associated maritime infrastructure to handle larger vessels efficiently. The details are as follows:

i. Channel: The approach channel is designed to be 160 m wide, with turning circles of 450–460 m, providing safe navigation for Panamax and feeder vessels. Navigational aids will be installed to ensure smooth vessel movement.

ii. Dredging: Capital dredging will be carried out to achieve depths of −9.0 m CD in approach channels and −12.5 m CD in berth pockets. Total dredging volumes are estimated at 7.5 Mcum for Phase-1, 7.7 Mcum for Phase-2, and 8.2 Mcum under the Master Plan. Dredged material will be disposed of at designated offshore sites in compliance with environmental regulations, ensuring minimal impact on marine ecology.

iii. Reclamation: Reclamation will be undertaken to develop storage and yard areas, with approximately 0.95 Mcum in Phase-1, 1.04 Mcum in Phase-2, and 1.08 Mcum under the Master Plan, creating additional land for cargo handling, roads and ancillary facilities.

3.1.17 Details of Handling of cargo, storage, transport: Cargo such as coal, salt, fertilizer, and containers will be handled through mechanized systems like conveyors, cranes, and stacker–reclaimers. Covered conveyors, enclosed transfer points, and water sprinkling or misting systems will control dust during handling, storage, and transport. Trucks will be covered with tarpaulins, and paved surfaces with proper drainage will prevent spillage. Cargo residues and wash water will be collected and disposed of as per GPCB norms, with regular housekeeping to

ensure clean and safe port operations.

3.1.18 Waste Management: No effluents at the project site is envisaged. No significant industrial process waste is expected. Minor oil spills and equipment waste will be handled as per applicable environmental norms. STPs of 70 KLD (Phase 1), 95 KLD (Phase 2) and 115 KLD (Master Plan) are proposed for treating domestic wastewater with treated water reused for landscaping and dust control.

3.1.19 Land Acquisition and R&R: The proposed expansion of Navlakhi Port will be carried out primarily within the existing port area under the administrative control of the GMB. Additional land required for the project, about 40 hectares, will be acquired by GMB as part of the planned expansion. The identified land is government- owned and free from any habitation or cultivation. Hence, there are no issues of displacement, R& R involved in the project. The expansion will not affect any residential areas, private properties, or community structures.

3.1.20 Employment opportunities: The development and operationalization of the port will play a pivotal role in generating employment opportunities within the region. Various categories of manpower will be required to support administrative functions, as well as operations and maintenance activities associated with the port's infrastructure and services. It is estimated that approximately 600 personnel will be employed during Phase 1 of the project and 795 personnel during Phase 2. As the port expands to its full capacity under the Master Plan, the manpower requirement is expected to rise to around 950 personnel. In addition to direct employment within port operations, the project is anticipated to create nearly 2,000 indirect employment opportunities through ancillary and support services. Overall, this expansion will make a substantial contribution to the socio-economic growth of the surrounding region.

3.1.21 Benefits of Project: The Navlakhi Port project is expected to drive significant financial growth by boosting regional trade, attracting investments and generating substantial revenue through increased cargo handling and port services. It will create employment opportunities for around 600 people in the initial phase, expanding further as the port develops. Socially, the project will improve local livelihoods by providing jobs and enhancing infrastructure such as roads, utilities, and community services.

3.1.22 Details of Court cases: There is no court case involved in the project

3.1.3. Deliberations by the committee in previous meetings

N/A

3.1.4. Deliberations by the EAC in current meetings

3.1.23 Observation of the committee:

1. The Committee noted that the project was earlier granted Environmental Clearance (EC) in the year 2020. The Committee sought details from the Project Proponent (PP) regarding the validity and compliance status of the earlier EC, including implementation progress and any changes made since the previous approval.
2. Further The Committee also sought the following clarifications:

i. The committee observed that there appears to be a lack of long term planning for the port development. In 2020 only the PP obtained EC for undertaking extensive expansion activities in port including handling capacity enhancement from 4MMTPA to 20 MMTPA, construction of 5 mechanised jetties, mechanization of the existing jetties and dredging.

And now they are proposing the redevelopment of the port after the demolition of existing jetties. Such short term planning unduly compelled the PP to seek environmental clearance frequently.

ii. The PP could not clarify why they are not able to complete the entire 870 meters length of New GMB jetty which was approved as per the EC issued in 2020 and what is the reason for change in their approach to limit the length of the jetty to 485 meter only.

iii. As per PP during the redevelopment of the port the over 10 lakh CuM will be used for reclamation of land. However they were not clear how much area of the land will be reclaimed

iv. The Committee observed the status of expansion-related activities being undertaken during the process of obtaining a fresh ToR needs to be verified. Therefore PP shall furnish detailed information along with a detailed chart indicating the balance and new activities should be prepared and submitted.

v. The PP shall clarify whether any forest land exists on the backside of the project site and, if so, provide details of its distance from the project boundary.

vi. The PP may provide the width of the jetty along with relevant design specifications such as deck width, approach width, and loading capacity to facilitate a comprehensive technical assessment.

vii. Details of the Cargo Handling of the existing and proposed capacities needs to be provided.

viii. The Committee advised the PP to indicate the distance of the project site from the nearest ESZ/ERZ boundary, if applicable, and to submit the project layout on a 1:4000 scale map duly authenticated by the concerned authority. Although such a map is typically required at the EC stage, the Committee opined that it should also be provided at the ToR stage for clarity. Meanwhile, the PP may commence data collection for the preparation of the EIA/EMP report.

ix. The committee opined that in view of the above observations in field inspection may be required.

3.1.24 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 422nd meeting of Expert Appraisal Committee held on 31st October, 2025 **deferred** the proposal and the EAC recommended that the sub-committee shall conduct the site visit for further appraisal and the committee also requested to the PP to submit the above mentioned information as sought during the EAC meeting.

3.1.5. Recommendation of EAC

Deferred for ADS

3.2. Agenda Item No 2:

3.2.1. Details of the proposal

Proposed Bagepalli Industrial Area Phase 2 at Kondereddipalle village, Bagepalli Taluk, Chikkaballapura District, Karnataka State by **KARNATAKA INDUSTRIAL AREAS DEVELOPMENT BOARD** located at **CHIKKABALLAPURA,KARNATAKA**	
Proposal For	Fresh ToR

Proposal No	File No	Submission Da te	Activity Sub-Activity (Schedule Item)
IA/KA/INFRA1/554 535/2025	10/25/2025-I A.III	26/10/2025	Industrial estates/ parks/ complexes/ areas, expor t processing Zones (EPZs), Special Economic Zon es Housing at least one Category A project/activity (7(c))

3.2.2. Project Salient Features

Subject: The proposal is for development of Bagepalli Industrial Area Phase-2 at Kondereddipalle village, Bagepalli Taluk, Chikkaballapura District, Karnataka State by M/S Karnataka Industrial Areas Development Board.-Terms of Reference regarding.

[Proposal No.: IA/KA/INFRA1/554535/2025; F.No:10/25/2025-IA.III]

The EAC noted that the Project Proponent and the consultant have given 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 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 considered before the EAC during its 422nd EAC meeting of the Expert Appraisal Committee held on 31stOctober 2025 the project proponent and EIA Consultants J. M. Environet Pvt. Ltd. made a presentation through video conference and submitted the following information.

3.2.2 The proposed project is for development of Industrial Area Phase 2 at Kondereddipalle village, Bagepalli Taluk, Chikkaballapura District, Karnataka State by Karnataka Industrial Areas Development Board at an area of 93.94 ha.

3.2.3 The proposed project is an Industrial Area Development listed as ScheduleNo.7(c) under Category'A' as per the EIA Notification, 2006. Due to the applicability of General conditions (Andhra Pradesh State Border is located at distance of 3.62Km from the proposed project site boundary), the project will be appraised at MoEF&CC. The total cost of the project is Rs.33626.13 lakhs.

3.2.4 Land use/Cover: Land use breakup.

S.No.	Particular	Area (Acres.)	Percentage of the area.
1	Industrial Plot	163.51	70.44
2	Amenity	5.00	2.15
3	Utilities	6.80	2.93

4	Green belt	23.29	10.03
5	Parking	11.60	5.00
6	Road	21.93	9.45
Total		232.13	100.00

3.2.5 Terrain and Topography: The study area has plain terrain without major undulation. The land has an elevation ranging between of approx. 763 m and 795 m.

3.2.6 Details of water bodies, Impact on drainage:

S.No	Water bodies	Distance (km)	Direction
1.	Kadehalli Lake	0.17	W
2.	Kushavathi River	1.48	W
3.	Nilagumba Pond	3.08	SW
4.	Chitravathi River	2.45	E
5.	Chitravathi RiverReservoir	3.55	SE
6.	Chilamatur Lake	8.27	NW
7.	Kadapalli Lake	1.41	N
8.	Gadidham Lake	4.55	NW

Apart from the above water bodies, there are 3 small seasonal streams are generating from the project site, and also there are various seasonal Nallahs/Streams are present in the study area which will not be disturbed for the proposed project

3.2.7 Water Requirements: During construction phase water requirement of 100 KLD will be met from treatment plants and tankers. No ground water at the site will be utilized for the construction. During operation phase 1845 KLD water will be required, 511 KLD fresh water demand will be met from Yettina hole Project, remaining 1334 KLD treated water will be used for process, utility and greenbelt area development. In the proposed industrial area 250 KLD CSTP and 1300 KLD CETP will be proposing to achieve the zero liquid discharge

3.2.8 Tree Cutting: The proposed project does not involved any trees cutting.

3.2.9 Diversion of forest land: There is no involvement of forest land in the project.The project is not located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc and Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC.

3.2.10 Waste Management: During construction stage solid waste will used within the site as

much as possible and shall be segregated for further reusability/disposal. The construction wastes are massive and insert waste having soil, sand, gravel, bricks, concrete metal etc... Solid waste to be generated in office building will be domestic in nature solid wastes generated will be segregated into biodegradable (waste vegetables and foods etc) and treated in organic converter inside the premises and non- biodegradable (Paper, plastic, glass etc...) components are collected in separate bins and disposed to the recyclers. Dewatered/ dried sludge from STP will be used as manure in landscaping area.

3.2.11 Land Acquisition and R&R: As the proposed project area is already under the position of KIADB, there are no human settlements within the Project site. Hence rehabilitation and Resettlement plan is not required.

3.2.12 Employment opportunities: During development of the project, it will create direct and indirect employment generation in large numbers. During construction phase around 200 personnel will be required. Over 5000 employees (Permanent- 2000; Contractual-3000) will be working in the industries to be proposed in the industrial area.

3.2.13 Benefits of Project: There will be an opportunity for job at different cadres and work force. This project will have positive impact on the socio economic status of the surrounding human environment. Proposed Industrial Area will help in revenue generation for the State as well as to the Country. Socioeconomic benefit to the locals it would be provide direct employment and indirect employment.

3.2.14. Details of Court cases: There is no court case involved 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

3.2.15 Observation of the committee:

i. *While analyzing the project KML file, the Committee observed several distinct patches within the project area which are not part of the project. The Project Proponent (PP) intimated that these patches of land are not yet acquired therefore these patches are excluded from the project. They further clarified that acquisition of these land parcels is in advance stage and these patches will be part of the project in later stages after completion of the projects. The committee was of the opinion that if the PP has the intention to include these patches in the project area they should come up with the revised area and layout of the project including these patches.*

ii. *The Committee sought clarification from the Project Proponent (PP) regarding the provisions made for the protection and management of surface water bodies located in or near the project area, including measures for drainage control, runoff management, sedimentation, and prevention of contamination?*

iii. *Whether any specific provision has been made for rainwater harvesting or drainage water management, particularly focusing on groundwater recharge measures.*

iv. *The PP shall provide details of the proposed green belt plan, including species, width, and area coverage.*

v. *To clarify and provide the complete list of industries proposed or existing within the project area and its vicinity, along with their respective activities, type (red/orange/green category), and consent status from the State Pollution Control Board.*

3.2.16 After examining the documents submitted by the project proponent and detailed deliberations in its 422nd meeting held on 31st October, 2025 and in view of the above observations the EAC recommended to **return the proposal** in the present form for grant of Terms of References (ToR).

3.2.5. Recommendation of EAC

Returned in present form

3.3. Agenda Item No 3:

3.3.1. Details of the proposal

Construction of Access Controlled Super Communication Pune - Nashik Industrial Expressway Corridor Maharashtra by **MAHARASHTRA STATE ROAD DEVELOPMENT CORPORATION LIMITED** located at **PUNE, MAHARASHTRA**			
Proposal For		Fresh ToR	
Proposal No	**File No**	**Submission Date**	**Activity** **Sub-Activity** **(Schedule Item)**
IA/MH/INFRA1/493891/2024	10/24/2024-IA.III	29/08/2024	Road New State Highway/expressway (7(f))

3.3.2. Project Salient Features

Subject: The proposal is for Construction of Access Controlled Super Communication Pune - Nashik Industrial Expressway Corridor Maharashtra by M/S Maharashtra State Road Development Corporation Limited. Terms of References regarding.
[Proposal No.: IA/MH/INFRA1/493891/2024; File no:10/24/2024-IA.III]
The EAC noted that the Project Proponent and the consultant have given 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 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 earlier considered before the EAC during its 395th meeting and the Committee after detailed deliberation deffer the proposal and sought the requisite information. At this stage the proposal is further placed in the 422th EAC meeting of the Expert Appraisal Committee held on 31st October 2025 the project proponent and EIA Consultants Enviro Resources made a presentation though video conference and submitted the following information:

3.3.2 The Proposed project is for Construction of Access Controlled Super Communication Pune-Nashik Industrial Expressway Corridor Maharashtra by Maharashtra State Road Development Corporation Limited. Geocordinates of the project starts 18°41'16.94" N, 73°51'41.97" E - at Chimbali, 19°39'7.51" N, 74°22'37.43" E- near Shirdi town.
3.3.3 The project/activity is covered under the category 'A' of item 7(f) Road of the schedule to the EIA Notification, 2006, and its subsequent amendments. Total cost of the project is Rs. 1753900 lakhs.

<table>
<tr><td>ADS Query raised in 395th EAC meeting held on 17th March 2025.</td><td>ADS Response submitted by pp in 422nd EAC held on 31st October 2025</td></tr>
<tr><td>The proposed project activity is listed at schedule S.No.7(f) Highways under Category- ‘A’, of the schedule of the EIA Notification, 2006 due to applicability of ‘General Condition’ i.e., the proposed project alignment falling within 5 km from the critically polluted areas such as Pimpari Chinchwad Municipal Corporation and Industrial area (Pune) and Satpur MIDC area (Nashik).</td><td>PP submitted the area with exact location and mapping details.</td></tr>
<tr><td>The length of the main carriageway is approx. 134 Km in which 11 Tunnels have been proposed for a length of approx. 3.22 Km and the entire alignment does not pass through the Western Ghats.</td><td>The proposed alignment does not pass through the western ghat as it is 14 km from ESA of western ghat.</td></tr>
<tr><td>The EAC observed that it is receiving a number of road proposals in the state of Maharashtra, especially from the ecologically sensitive areas like western ghats from the multiple road development agencies of the state as well as of the central government like MSRDC. PWD and NHAI. The PP has not given any evidence to establish that any inter agency consultation is being taken place before finalisation of the road proposals, especially in ecologically sensitive western ghat area. Such absence of consultation and coordination between the agencies may lead to unplanned development of roads in the ecologically sensitive areas</td><td>• MSRDC has consulted with the concerned road development agencies in these areas such as MSIDC, PWD and NHAI collected the data.
• As per MSIDC the proposed road from Chakan to Shikrapur crossing the road at 6+700 in Perpendicular direction where Interchange is proposed.
• NHAI- NHAI does not have any other proposal parallel to it.
• PWD-ROW has collected from PWD to propose at grade junctions and grade separator structures for proper planned traffic movement in the region.
• MSRDC has proposed the Eight Interchanges and four connectors to provide proper planned industrial vehicle traffic movement.
The list of Interchange and connector and Key plan
<table>
<tr><td>IC No</td><td>Chainage</td><td>Cross Road</td><td>Type</td></tr>
<tr><td>IC 01</td><td>0+000</td><td>Pune Ring Road</td><td>Pune Ring Road</td></tr>
<tr><td>IC 02</td><td>6+815</td><td>Chakan-Shikrapur Roa</td><td>Rotary</td></tr>
</table>
</td></tr>
</table>

		d (NH-548D)	
IC 03	27+980 Shirur-	Shirur- Mumbai Road (SH-54)	Rotary
IC 04	68+800	Murbad-Ahmednagar Road (NH-61)	Double Trumpet
IC 05	91+410	Pune-Nashik Road (NH-60)	Double Trumpet
IC 06	102+200	Sakur village Road	Rotary
IC 07	124+100	Rahuri-Sangamner Road	Rotary
IC 08	133+944	Chennai Surat Expressway in Km 207+800	Full Cloverleaf

In view of the iii above the EAC is of the opinion that ministry take up the matter with MoRTH and state government to know whether any inter agency coordination mechanism has been established for developing the road network by the various agencies, especially in the ecologically sensitive areas. And if not steps need to be taken to establish such coordination mechanism.	It has been informed by the Member Secretary that an Alignment Approval Committee (AAC) is constituted by Ministry of Road Transport and Highways (MoRTH), responsible for approving the route or layout for road infrastructure projects for the national highways and the state highways. These committees review and approve project alignments, often using digital tools like the PM Gati Shakti Portal to ensure optimal finalization. The approval process involves technical, economic, and environmental considerations.
It is also observed by the EAC that the PP is submitting considerable number of stand-alone projects, especially in the ecologically sensitive western ghat areas which does not help in giving a clear picture traffic requirement and the cumulative impact of these projects on ecologically sensitive areas. Therefore there is need that PP makes a detailed presentation of the its plan of developing road network in these sensitive areas, giving details of the road network developed new road proposals initiated/likely to be initiated in future, justification for these proposals, related traffic studies and cumulative impact assessment of these projects on the environment of these ecologically sensitive areas. The user agencies shall ta	M/s. Monarch has presented the EAC the detailed presentation on “TRANSFORMING MAHARASHTRA: THE EXPRESSWAY ADVANTAGE” including the existing road network and proposed road networks for Overall development of Maharashtra on 9th July, 2025.

keup the proposal in holistic approach for cla rity regarding the proposal considering the di fferent upcoming projects and road networks of all the agencies concerned. PP mentioned that due to elevation differences across the p roposed alignment, viaducts have been prop osed throughout the stretch wherever possib le.	
The EAC suggested PP for a reduction in hea vy earth-cutting at hillocks and instead, flyov ers/viaducts length/height shall be optimize d/ increased to ensure that drainage in the gh at areas is not obliterated, landscape is not u nduly altered and soil erosion is avoided .	The PP mentioned that the suggestion of the EAC shall be incorporated during DPR stage.
The EAC suggested some revisions in the alig nment at Ch. 52+200, PP shall ensure that th e viaduct length is optimum. Tunnel opening s, at Ch. 94+100 to Ch. 94+120, Ch. 95+40 0 to Ch. 95+731, and Ch. 98+450 to Ch. 9 9+850 shall be revised, and viaducts with op timum lengths shall be provided instead of th e proposed at-grade tunnel openings to avoi d unnecessary heavy earth cutting/ deep box cutting.	The reassessment of the proposed alignment and vertical profile has carried out to avoid u nnecessary heavy earth cutting/deep box cut ting as suggested by EAC considering existin g terrain along the proposed alignment. Desi gn of vertical profile is carried out as per IRC: SP: 99-2023 norms for vertical alignment.
Feasibility analysis shall be carried out for the following stretch suggested by the EAC and t he details of the same shall be submitted. Th e suggested stretch shall be Alternative align ment Option-3 commencing at Ch. 45+300 on the Pune Ring Road near Sneh precast uni t No.1 to be followed up to Ch. 109+300 int ersection. From Ch. 109+300 the preferred Option-1 alignment shall be followed termin ating at Ch. 207+800 of the proposed Surat-Chennai Expressway Interchange near Shirdi town. From the Shirdi Interchange (Ch.207+ 800) to the Nashik-Niphad Interchange (Ch. 143+400) of the Surat-Chennai Expressway i s followed.	The main objective of the proposed road is t o cater to the infrastructural need of the rapi dly growing industrial sectors between Pune, Nashik, with rest of the country. The proposed Option 1 is traversing in the cl ose proximity of the already developed and r apidly expanding industrial areas in Pune and Nagar District than suggested Option 3. The average length of connectors for Option 1 is 63.47km, whereas the suggested option 3 is 95.92km. This will require additional travel fo r the Industrial and commercial traffic which will degrade the economic prospectus of the road alignment The proposed option connects the industrial areas in Bhosari, Chakan, Rajgurunagar, Rajan goan Sangamner, and Nashik to the rest of t he country via Surat Chennai, and rest of Ma harashtra via Samruddhi Mahamarg with Hig h-Speed Corridors of Expressways. This will promote sustainable growth in the region. Further, in view of environmental aspect opti on 3 requires 45.60 ha of forest land wherea s option 1 requires 43.82 ha. Length of tunn el & viaduct in option 3 is also more than opt

	ion 1 being passing through hilly area. Overall evaluation matrix of Option 1 & optio n 3 based on IRC: SP:19-2020 is submitted h ere with as per evaluation matrix Option 1 scores highest marks therefore rec ommended as most preferred option for pro posed Pune Nashik Industrial Corridor.

3.3.3. Deliberations by the committee in previous meetings

Date of EAC 1 :11/09/2024

Deliberations of EAC 1 :

The EAC deferred the proposal and requested the Ministry that the proposal may be considered only after receiving the Request from the PP.

Date of EAC 2 :17/03/2025

Deliberations of EAC 2 :

3.2.21 During the EAC, the committee observed the following:

i. The proposed project activity is listed at schedule S.No.7(f) Highways under Category- 'A', of the schedule of the EIA Notification, 2006 due to applicability of 'General Condition' i.e., the proposed project alignment falling within 5 km from the critically polluted areas such as Pimpari Chinchwad Municipal Corporation and Industrial area (Pune) and Satpur MIDC area (Nashik).

ii. The length of the main carriageway is approx. 134 Km in which 11 Tunnels have been proposed for a length of approx. 3.22 Km and the entire alignment does not pass through the Western Ghats.

iii. The EAC observed that it is receiving a number of road proposals in the state of Maharashtra, especially from the ecologically sensitive areas like western ghats from the multiple road development agencies of the state as well as of the central government like MSRDC. PWD and NHAI. The PP has not given any evidence to establish that any inter agency consultation is being taken place before finalisation of the road proposals, especially in ecologically sensitive western ghat area. Such absence of consultation and coordination between the agencies may lead to unplanned development of roads in the ecologically sensitive areas

v. It is also observed by the EAC that the PP is submitting considerable number of stand-alone projects, especially in the ecologically sensitive western ghat areas which does not help in giving a clear picture traffic requirement and the cumulative impact of these projects on ecologically sensitive areas. Therefore there is aneed that PP makes a detailed presentation of the its plan of developing road network in these sesitive areas , giving details of the road network developed new road proposals initiated/likely to be initiated in future, justification for these proposals, related traffic studies and cumulative impact assessment of these projects on the environment of these ecologically sensitive areas. The user agencies shall takeup the proposal in holistic approach for clarity regarding the proposal considering the different upcoming projects and road networks of all the agencies concerned.

vi. PP mentioned that due to elevation differences across the proposed alignment, viaducts have been proposed throughout the stretch wherever possible.

viii. The EAC suggested some revisions in the alignment at Ch. 52+200, PP shall ensure that the viaduct length is optimum. Tunnel openings, at Ch. 94+100 to Ch. 94+120, Ch. 95+400 to Ch. 95+731, and Ch. 98+450 to Ch. 99+850 shall be revised, and viaducts with optimum lengths shall be provided instead of the proposed at-grade tunnel openings to avoid unnecessary heavy earth cutting/ deep box cutting.

ix. Feasibility analysis shall be carried out for the following stretch suggested by the EAC and the details of the same shall be submitted. The suggested stretch shall be Alternative alignment Option-3 commencing at Ch. 45+300 on the Pune Ring Road near Sneh precast unit No.1 to be followed up to Ch. 109+300 intersection. From Ch. 109+300 the preferred Option-1 alignment shall be followed terminating at Ch. 207+800 of the proposed Surat-Chennai Expressway Interchange near Shirdi town. From the Shirdi Interchange (Ch.207+800) to the Nashik-Niphad Interchange (Ch. 143+400) of the Surat-Chennai Expressway is followed.

3.2.2 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 395th meeting during 17th March 2025 and **deferred** the proposal and

requested to the PP to submit the information as mentioned at para no. 3.2.21 above for further consideration.

3.3.4. Deliberations by the EAC in current meetings

3.3.4 **Observation of the committee:**

i. *PP were asked to confirm and provide details regarding the three tunnels proposed under the project, including their location, length, design features, safety provisions, and environmental management measures during construction and operation phases.*

ii. *PP were asked to clarify whether any tree cutting is involved in the proposed project. If yes, the PP shall provide details of the number of trees likely to be affected, the permission status from the Forest Department, and the compensatory plantation plan proposed. Forest clearance whether obtained or not.*

iii. *The Blue Tunnel is proposed to be of approximately 180 meters in length. The PP shall provide detailed specifications, construction methodology, and environmental safeguards proposed for this tunnel.*

3.3.5 In view of the above, M/s MSRDC vide letter no.MSRDC/PNIC/EC/TOR/2025/8164 dated 06th November, 2025 has submitted the following which was examined during the approval of the minutes and accepted :

i) The total length of project: 191.492 km

S.No.	Particulars	Length in Km
1	Main Alignment	133.944
2	Bhosari Connector	3.671
3	Ranjangaon Connector	24.460
4	NH -60 Connector	1.937
5	Shirdi Connector	9.100
6	Nashik Nihad Connector	18.380
	Total length	191.492

ii) The EAC suggested some revisions in the alignment at Ch. 52+200, PP shall ensure that the viaduct length shall be optimum.

The section from ch. 52+00 to 52+400 is proposed in Embankment by reducing the average filling about 6 to 7 m with provision for storm water drains as per terrain.

iii) The list of tunnels and viaducts proposed as per instructions are as under

Sr. N	Chainage	Chainage T	Length	Proposed St	Remarks

o.	From	o		ructure	
1	-0+240	0+240	480	Viaduct	-
2	5+782	7+072	1290	Viaduct	-
3	15+820	16+060	240	Viaduct	-
4	17+040	17+240	200	Viaduct	-
5	17+380	17+780	400	Viaduct	-
6	18+820	19+000	180	Viaduct	-
7	19+500	19+740	240	Viaduct	-
8	20+852	21+516	664	tunnel	-
9	75+350	75+710	360	Viaduct	-
10	75+795	77+835	2040	Viaduct	-
11	80+175	80+505	360	Viaduct	30 m length of viaduct is inc reased by raising the design profile as suggested in EAC meeting.
12	80+600	80+725	160	Viaduct	35 m length of viaduct is inc reased by raising the design profile as suggested in EAC meeting.
13	85+485	85+685	200	Viaduct	-
14	85+989	86+569	580	Viaduct	-
15	93+285	93+705	420	tunnel	-
16	93+880	94+680	800	Viaduct	New viaduct of length 800 m is introduced by raising th e design profile as suggeste d in EAC meeting.

17	95+035	95+275	240	tunnel	-
18	99+845	100+175	330	Viaduct	-
19	101+715	101+855	140	Viaduct	-
20	103260	103920	660	Viaduct	New viaduct of length 660 m is introduced by raising th e design profile as suggeste d in EAC meeting.
21	108+195	109+355	1160	Viaduct	-
22	118+115	118+755	640	Viaduct	-
23	121+875	122+295	420	Viaduct	-
24	127+755	127+935	180	tunnel	-

The proposed length of tunnel & Viaduct may vary slightly depending on the grade requirement as per codal provisions & site constraints. The Final length of tunnel & Viaduct will be incorporated in the EIA report with its reasons for modification if any. Efforts will be made to keep within the spirit of the instructions issued by the Committee.

3.3.6 The EAC, after examining the documents submitted by the project proponent and detailed deliberations in its 422nd meeting held on 31st October, 2025 **recommended** the proposal for grant of Terms of References (ToR)for Construction of Access Controlled Super Communication Pune - Nashik Industrial Expressway Corridor Maharashtra by M/S Maharashtra State Road Development Corporation 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 Terms of Reference

3.3.6.1. Specific

Specific Conditions	
1.	The project shall be executed as per the revised alignment and design of the tunnels and viaducts in sub clause iii of para 3.3.5 above.
2.	A comprehensive hydrological and hydrogeological investigation shall be conducted by a

	reputed institute for the site and should be incorporated in the EIA report.
3.	A comprehensive assessment of the impact of seismicity on tunnel stability as well as the study for assessing the impact of vibration during tunnel boring operation needs to be carried out by a reputed institute and should be incorporated in the EIA report.
4.	Details regarding the ventilation system envisaged for the tunnels need to be presented in the EIA report.
5.	Detailed muck and dredge material disposal plan including specific earmarked locations be identified.
6.	Evacuation plans in case of fire, floods, earthquake etc be carefully studied with models and explanations be presented as a part of the EIA report.
7.	The proponent shall carry out a detailed traffic flow study to assess inflow of traffic frm adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/PUP (Pedestrian underpass) needs to be included.
8.	Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by way of road kill management plan.
9.	Passage for animal movement has to be detailed in the EIA/EMP Report. Animal underpasses shall be constructed at least at two places which are closer to WLS boundary and ESZ boundary to ensure free movement of the animals from the WLS to nearby forest and wildlife areas.
10.	A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided. Such plantation alongside forest stretch will be over and above the compensatory afforestation. Tree species shall be the same as per the forest type.
11.	The PP shall not use groundwater/surface water without obtaining approval from CGWA/ SGWA as the case may be. The project proponent shall apply to the Central Ground Water Authority (CGWA)/ State Ground Water Authority (SGWA)/Competent Authority, as the case may be, for obtaining No Objection Certificate (NOC), for withdrawal of ground water.
12.	Detailed Biodiversity assessment and conservation/ mitigation plan be developed by a reputed institute or by a team of experts of national repute.

13.	Detailed information about the nature and species of trees (exotic/native/planted) and their numbers.
14.	The alignment of roads should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. Alignment also should be such that it will avoid cutting old, large and heritage trees if any. All such trees should be geo-tagged, photographed and details to be submitted in the EIA/EMP report.
15.	Rainwater harvesting structures to be constructed at the either side of the road with special precautions of oil filters and de-silting chambers.
16.	The proponent shall carry out a comprehensive socio-economic assessment and also impact on biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.
17.	The proponent will ensure installation of Advanced Traffic Management Systems (ATMS) and weigh in motion to prevent overloading of vehicles for safety while in motion as per NHAI and MORTH guidelines.
18.	As per the Ministry's Office Memorandum F.No.22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the Ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
19.	In pursuance of Ministry's OM stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC along with the detailed EIA/ EMP Report.
20.	The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA. I (M), dated 25th October 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/ EMP Report.

3.3.6.2. Standard

7(f)	**Road**
Project Details	

1.	Examine and submit a brief description of the project, project name, nature, size, its importance to the region/state and the country.
2.	Submit detailed alignment plan, with details such as nature of terrain (plain, rolling, hilly), land use pattern, habitation, cropping pattern, forest area, environmentally sensitive places, mangroves, notified industrial areas, sand dunes, sea, river, lake, details of villages, teshils, districts and states, latitude and longitude for important locations falling on the alignment by employing remote sensing techniques followed by ground truthing and also through secondary data sources.
3.	Describe various alternatives considered, procedures and criteria adopted for selection of the final alternative with reasons.
4.	If the proposed route is passing through a city or town, with houses and human habitation on the either side of the road, the necessity for provision of bypasses/diversions/under passes shall be examined and submitted. The proposal should also indicate the location of wayside amenities, which should include petrol station/service centre, rest areas including public conveyance,etc.Noice reduction measures should also be indicated.
5.	Submit details about measures taken for the pedestrian safety and construction of underpasses and foot-over bridges along with flyovers and interchanges. If any.
6.	Assess whether there is a possibility that the proposed project will adversely affect road traffic in the surrounding areas (e.g. by causing increases in traffic congestion and traffic accidents). Specific care be also taken to ensure that by passes have a sufficient buffer to prevent unwanted obstructions defying the purpose of the by pass
7.	If the proposed route involves cutting of earth, the details of area to be cut, depth of cut, locations, soil type, volume and quantity of earth and other materials to be removed with location of disposal/ dump site along with necessary permission.
8.	If the proposed route is passing through low lying areas, details of fill materials and initial and final levels after filling above MSL, should be examined and submit.
9.	Examine and submit the water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, quality likely impacts on them due to the project.
10.	Examine and submit the details of use of fly ash in the road construction, if the project road is located within the 100 km from the Thermal Power Plant.
11.	Explore the possibilities of utilizing the debris/ waste materials available in and around the project area.
Forest	
1.	In case the project involves diversion of forests land, guidelines under OM dated 20.03.2013 may be followed and necessary action taken accordingly.
2.	The information should be provided about the details of the trees to be cut including their species and whether it also involves any protected or endangered species. Measures taken to reduce the number of the trees to be removed should be explained in detail. Submit the details of compensatory plantation.
3.	Necessary green belt shall be provided on both sides of the highway with proper central verge and cost provision should be made for regular maintenance

4.	If there is a possibility that the construction/widening of road will cause impact such as destruction of forest, poaching, reductions in wetland areas, if so, examine the impact and submit details.
Court Matters	
1.	Details of any litigation(s) pending against the project and/or any directions or orders passed by any court of law/any statutory authority against the project to be detailed out.
Land Environment	
1.	Submit Land use map of the study area to a scale of 1: 25,000 based on recent satellite imagery delineating the crop lands (both single and double crop), agricultural plantations, fallow lands, waste lands, water bodies, built-up areas, forest area and other surface features such as railway tracks, ports, airports, roads, and major industries etc.
2.	submit a detailed ground surveyed map on 1:2000 scale showing the existing features falling within the right of way namely trees, structures including Archeological& religious, monuments etc. if any.
3.	If the proposed route is passing through any hilly area, examine and submit the stability of slopes, if the proposed road is to pass through cutting or embankment / control of soil erosion from embankment. Landslide, rock fall protection measures to be indicated.
Wildlife	
1.	The projects is located within 10km. of the sanctuary a map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon should be furnished at the stage of EC.
2.	Details of blasting if any, methodology/technique adopted, applicable regulations/permissions, timing of blasting, mitigation measures proposed.keeping in view mating season of wild life.
3.	Explore the possibilities of relocating the existing trees. Animal and wild life crossings to be provided in areas inhabited by wild life.
4.	Study regarding the Animal bypasses / underpasses etc. across the habitation areas shall be carried out. Adequate cattle passes for the movement of agriculture material shall be provided at the stretches passing through habitation areas.
5.	Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan.
Soil Quality Analysis	
1.	Submit the details on compliance with respect to Research Track Notification of MoRTH 20) Examine and submit the details of sand quarry and borrow area as per OM no.2-30/2012-IA-III dated 18.12.2012 on 'Rationalization of procedure for Environmental Clearance for Highway Projects involving borrow areas for soil and earth as modified vide OM of even no. dated March 19, 2013.
Climate and Meteorology	
1.	Climate and meteorology (max and min temperature, relative humidity, rainfall, frequency of tropical cyclone and snow fall); the nearest IMD meteorological station from which climatological data have been

	obtained to be indicated.
Air Environment	
1.	The air quality monitoring should be carried out as per the new notification issued on 16th November, 2009.
2.	Examine the impact during construction activities due to generation of fugitive dust from crusher units, air emissions from hot mix plants and vehicles used for transportation of materials and prediction of impact on ambient air quality using appropriate mathematical model.
3.	Description of model, input requirement and reference of derivation, distribution of major pollutants and presentation in tabular form for easy interpretation shall be carried out.
Noise Environment	
1.	Identify project activities during construction and operation phases, which will affect the noise levels and the potential for increased noise resulting from this project.
2.	Discuss the effect of noise levels on near by habitation during the construction and operational phases of the proposed highway
3.	Identify noise reduction measures and traffic management strategies to be deployed for reducing the negative impact if any.
4.	Prediction of noise levels should be done by using mathematical modeling at different representative locations.
5.	Also examine and submit the details about the protection to existing habitations from dust, noise, odour etc. during construction stage.
6.	If the proposed route is passing through low lying areas, details of fill materials and initial and final levels after filling above MSL, should be examined and submit.
Water Environment	
1.	Examine and submit the water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, quality likely impacts on them due to the project.
2.	Examine and submit details of water quantity required and source of water including water requirement during the construction stage with supporting data and also categorization of ground water based on the CGWB classification
3.	Examine and submit the details of measures taken during constructions of bridges across river/ canal/major or minor drains keeping in view the flooding of the rivers and the life span of the existing bridges.
4.	In case of river/ creek crossing, details of the proposed bridges connecting on either banks, the design and traffic circulation at this junction with simulation studies.
5.	Details to ensure free flow of water in case the alignment passes through water bodies/river/ streams etc.

Drainage	
1.	If there will be any change in the drainage pattern after the proposed activity, details of changes shall be examined and submitted.
2.	If the proposed route involves tunneling, the details of the tunnel and locations of tunneling with geological structural fraction should be provided. In case the road passes through a flood plain of the river, the details of micro drainage, flood passages and information on high levels flood periodicity at least of last 50 years in the area should be examined.
Rain Water Harvesting	
1.	Rain water harvesting pit should be at least 3 - 5 m. above the highest ground water table.
2.	Provision shall be made for oil and grease removal from surface runoff
Road and Traffic	
1.	Submit the details of road safety, signage, service roads, vehicular under passes, accident prone zone and the mitigation measures.
2.	IRC guidelines shall be followed for widening &upgradation of road.
3.	IRC guidelines to be followed for traffic safety while passing through the habitat.
4.	Provision of speed breakers, safety signals, service lanes and foot paths should be examined at appropriate locations throughout the proposed road to avoid the accidents.
5.	In case of bye passes, the details of access control from the nearby habitation/habitation which may come up after the establishment of road.
6.	Submit details of social impact assessment due to the proposed construction of road.
7.	Examine road design standards, safety equipment specifications and Management System training to ensure that design details take account of safety concerns and submit the traffic management plan.
8.	Accident data and geographic distribution should be reviewed and analyzed to predict and identify trends - incase of expansion of the existing highway and provide Post accident emergency assistance and medical care to accident victims.
9.	The proponent shall carry out a detailed traffic flow study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required, adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.
Land Acquisition and R&R	
1.	Details of the properties, houses, businesses religious and social placesetc. activities likely to be effected by land acquisition and their financial loses annually.
2.	Detailed R&R plan with data on the existing socio-economic status of the population in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternative

	livelihood concerns/employment and rehabilitation of the displaced people, civil and housing amenities being offered, etc and the schedule of the implementation of the project specific.
3.	whether governmental or on the basis of BOT etc and provide details of budget provisions (capital & recurring) for the project specific R&R Plan.
4.	Examine and submit the details of sand quarry, borrow area and rehabilitation
5.	If the proposed project involves any land reclamation, details to be provided for which activity land to reclaim and the area of land to be reclaimed.
Socio-Economic Environment	
1.	The proponent shall carry out a comprehensive socio-economic assessment and alsoimpactonbiodiversitywithemphasisonimpactofongoinglandacquisitiononthelocalpeople living around the proposed alignment. The Social Impact Assessment shouldhave social indicators which can reflect on impact of acquisition on fertile land. TheSocialImpactAssessmentshalltakeintoconsiderationofkeyparameterslikepeople'sde pendencyonfertileagriculturalland,socio-economicspectrum,impactoftheprojectatlocal and regional levels.
2.	AspertheMinistry'sOfficeMemorandumF.No.22-65/2017-IA.IIIdated30thSeptember, 2020, the project proponent, based on the commitments made during thepublic hearing, shall include all the activities required to be taken to fulfil thesecommitments in the Environment Management Plan along with cost estimates of these activities inadditiontotheactivitiesproposedasperrecommendationsofEIAStudiesand the same shall be submitted to the ministry as part of the EIA Report. The EMPshall be implemented at the project cost or any other funding source available with the projectproponent.
Environmental Monitoringand Management	
1.	Estimated cost of the project including environmental monitoring cost and funding agencies. Submit environmental management and monitoring plan for all phases of the project viz. construction and operation.
2.	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
3.	Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure.
Alignment, ESZ & CRZ	
1.	In case of alignment passing through coastal zones
2.	HTL/LTL map prepared by authorized agencies superimposed with alignment and recommendation of Coastal Zone Management Authority
3.	Details of CRZ-I areas, mangroves required to be removed for the project along with the compensatory afforestation, area and location with budget
4.	Details of road on stilt in CRZ-I areas, design details to ensure free tidal flow
Employment	

1.	Details of Labour camps, machinery location.
Miscellaneous	
1.	The Action Planon thecomplianceof the recommendations of the CAG asperMinistry's Circular No. J-11013/71/2016-IA. I (M), dated 25th October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.

3.4. Agenda Item No 4:

3.4.1. Details of the proposal

Development of an all-weather multi-user Greenfield Port at Astaranga, Puri District, Odisha by **NAVAYUGA ENGINEERING COMPANY LIMITED** located at **PURI,ODISHA**			
Proposal For		Fresh ToR	
Proposal No	**File No**	**Submission Date**	**Activity Sub-Activity (Schedule Item)**
IA/OR/INFRA1/531495/2025	11-60/2013-IA.III	05/04/2025	Ports, harbors, breakwaters, dredging Cargo handling (7(e))

3.4.2. Project Salient Features

i. , the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the Ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.

ii. In pursuance of Ministry's OM stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC along with the detailed EIA/ EMP Report.

iii. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's

Circular No. J-11013/71/2016-IA.I (M), dated 25th October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/ EMP Report.

Agenda Sr. No. 3.4

Subject: The proposal is for development of an all-weather multi-user Greenfield Port over an area of 1578.27 Ha (3899.987 Acres) located at Astaranga, Puri District, Odisha by M/s Navayuga Engineering Company Limited-Terms of Reference regarding.

[Proposal Number: IA/OR/INFRA1/531495/2025; F.No: 11-60/2013-IA.III]

The EAC noted that the Project Proponent and the consultant have given 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 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 aforementioned proposal was earlier considered before the EAC during its 399th meeting of Expert Appraisal Committee to be 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 project proponent and EIA Consultants Cholamandalam M/s Risk Services Made a presentation through video conference and submitted the following information.

ADS Query raised during 409th EAC held on 30th-31st July, 2025	ADS Responses submitted by PP in 422nd EAC held on 31st October 2025
In response to the suggestions of the EAC to realign the layout of the project so as to avoid non permissible storage and railway siding activities in	Based on the suggestions and feedback from the 409th EAC(Infra- I) Meeting, NECL has analysed the feasibility of alternative layout configuration within the selected location alternative of option-II. Optimized layout excluding western creek meandering has been studied the details are as follows: NECL has undertaken the historical satellite imagery analysis for

CRZ lA area and to avoid the mangroves, made du ring its 399th meeting, t he PP reiterated its stan d taken in 2015 that alte rnatives were already ex plored and only after thi s option II was proposed. The EAC clarified to PP t hat it wanted the PP to r ealign the layout within the option II proposed b y them. Therefore the co mmittee observed that t he project proponent did not examine the feasibili ty of realignment of lay out within this option II so as to avoid non permi ssible storage and railwa y siding activities in CRZ lA area and to avoid the mangroves.	evaluating the alternative layout options to minimize the env ironmental impacts on mangroves. Based on the assessment, it is inferred that the northern meander represents a natural water path that existed earlier (2012) inline to the aligned na rrowing, with this consideration, the layout has been worked out excluding the western meandering narrowing and reclam ation. In order to effectively utilize the land area and also to over-come the technical difficulty in railway development an d storage area development, it is proposed to reclaim (appro ximately 42.91 Ha) in the northern meander and narrowing t he creek without affecting the flow. In this alternative, the western meander of creek (approximately 3000 m) is retaine d, while the northern meander is proposed for straightening. The main objective for this alternative is to minimise the ext ent of mangrove disturbance by avoiding reclamation in the western meander and shifting of storage yards from CRZ are a to Non CRZ area. The revised masterplan layout alignment will have 14 berths and two liquid cargo berths. The total qu ay length is 5100 m. The phase-lA layout of the development will have total 4 berths with quay length of 1250 m. The red uction in number of berths and corresponding stock yard are a, results the decreases Cargo handling capacity from 150 M TPA to 120 MTPA. The phase-lA development will have the c argo handling of l7.7 MTPA. Retention of the western meand er reduces mangrove displacement from 52.6 acres (original l ayout) to 28.51 acres. This option achieves minimum displace ment of mangrove and partial shifting of the storage yards f rom CRZ area to Non CRZ area as per the CRZ notifications. The optimized layout achieves nearly 46% reduction in mangr ove disturbance, about 60% reduction in reclamation area, an d restricts creek intervention to only essential stretches. Im portantly, it shifts non permissible activities entirely out of CRZ-IA areas, ensuring full compliance with CRZ 2019 Notifi cation. This optimization reflects a careful balance between technical feasibility and environmental protection Optimized layout excluding western creek meandering is enclosed as An nexure-1. The proposed 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 ar ms (South, Eastern, and Northern Arms): two arms parallel t o the shoreline and one perpendicular to the shoreline. Berth s were aligned along these dock arms, comprising 18 berths and 2 liquid berths to handle a cargo capacity of 150MTPA. C oal 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 p ort 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 ca rgo, 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. Tidal influenced KaduaNadi traverses through the project site. The creek meanders at two places, namely at i) Nanpur-in the northern part of the creek. And ii) at Kanamana on the western part of the creek. For effective usage of the scarce land area, it has been proposed 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. 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. As suggested by the EAC, NECL has evaluated the alternative layout option and arrived at Optimized layout as a feasible option with minimal environmental footprint on the mangrove and creek environment. However, the number of berths is reduced from 18 to 14 and the overall cargo handling capacity decreased from 150 MTPA to 120 MTPA. The irregular creek alignment restricts the optimal placement of open stock yards, and covered goods sheds for fertilisers. The absence of adequate contiguous land parcels prevents efficient cargo handling operations, increases utilised circulation space and raises operating costs. Accordingly, avoiding the rerouting of creek is financially not viable for sustainable port development.
The expert members in the committee were of the opinion that the PP or consultant could not convincingly explain the inferences drawn from the hydraulic model study that re-routing of the Kaduva Nadi creek does not significantly impact flood inundation outside the port area, even under maximum rainfall and tidal flow. There is some possibility of avoiding the rerouting of the creek.	As per ToR F.No.11-60/2013-IA.III (28.01.2016), Condition (xi), NIOT, Chennai carried out numerical model studies (MIKE 21) to evaluate hydrodynamic behaviour of the Kadua Nadi creek system under extreme rainfall and tidal conditions. Simulations covered existing and rerouted conditions with combined high rainfall (252 mm/day) and spring tide (+2.05 m CD) to test flood resilience. Key Inferences from NIOT Study: i. Discharge volume remained nearly constant between existing and rerouted conditions. ii. Two rerouted reaches (840 m and 3000 m, 54 m width, 1:2 slope) found hydraulically adequate for flood conveyance. iii. No significant flood inundation observed outside the port boundary under worst-case rainfall and tidal scenarios. iv. Peripheral drainage system (7 m top width, 4 m bottom width) recommended along western and southern periphery for efficient runoff management.

<table>
<tr><td></td><td>v. Sluices proposed to prevent tidal backflow into the drainage channels.</td></tr>
<tr><td>Shifting of storage areas and railway siding to non CRZ 1A area from mangrove need to be explored.</td><td>A detailed re-evaluation of land use within the Option-II layout was undertaken using the Odisha CZMP (2019) CRZ boundary layer and high-resolution satellite base maps.

All bulk cargo stockyards (coal, iron ore) and associated rail sidings located near the northern and western meanders have been shifted landward into the central upland portion of the site beyond CRZ-IA influence.

The revised configuration ensures:

i. Zero encroachment into mangrove / intertidal zones.

ii. Complete removal of non-permissible activities from CRZ-IA.

iii. Relocation of rail corridor and associated facilities along the upland ridge, minimizing fill and floodplain obstruction.

iv. Only container and general cargo yards (clean cargo) are now retained near the eastern boundary, which falls under CRZ-III, where such activities are permissible subject to CZMP approval.

v. The revised layout achieves a substantial reduction in environmental footprint, while maintaining logistical efficiency and operational viability.
<table>
<tr><th>Aspect</th><th>Earlier layout</th><th>Revised layout</th><th>CRZ / ecological effect</th></tr>
<tr><td>Location of bulk storage yards</td><td>Shown adjacent to creek meander - likely inside CRZ fringe</td><td>Shifted/ landward to upland/non-CRZ areas in revised plan (Storage area reduction)</td><td>Original layout: non-permissible in CRZ-IA/NDZ; Revised lay out: compliant (moved to upland/non CRZ)</td></tr>
<tr><td>Rail sidings</td><td>Aligned close to meander— potential CRZ intrusion on reclamation area (Upland/Non-CRZ)</td><td>Re-routed to upland corridor or aligned along bunds/roads.

Western creek meander retained – bridges are proposed on stilts.</td><td>Revised layout avoids CRZ-IA intrusion (compliant)</td></tr>
</table>
</td></tr>
</table>

	Reclamation/creek straightening (upland/Non CRZ)	Both western & northern meanders were proposed for straightening/ fill (large reclamation)	Only limited straightening of northern meander proposed; western meander retained	Revised layout reduces reclamation and mangrove loss; post-reclamation CRZ boundaries will shift landward where straightening occurs (requires CZMP update)
	Berths / foreshore	Berths present -permissible as foreshore function but risk if stockyard spillover occurs	Berths retained; storage explicitly moved upland	Berths permissible in CRZ-IB; ensure no adjacent storage spillover
	Mangrove impact	Higher(more meander fill)	Lower (western meander retained; less fill)	Revised layout is less ecologically damaging
	The optimized masterplan achieves regulatory compliance with CRZ Notification, 2019 by: • Eliminating non-permissible storage/rail activities from CRZ-IA. • Retaining only permissible foreshore structures in CRZ-IB. • Reducing NDZ involvement in CRZ-III. • Significantly reducing mangrove displacement.			

3.4.3. Deliberations by the committee in previous meetings

Date of EAC 1 :21/04/2025

Deliberations of EAC 1 :

3.4.47 During the EAC, the committee observed the following:

i. Project proponent has requested the Committee that for the instant proposal Public hearing was conducted three times however, could not submitted the EIA/EMP report. Due to delay of SCZMA recommendations and Other reasons, Thus PP has requested to the Committee exempt the project from PH consultation and grant the ToR.

The Committee is of the view that PP has already conducted Public Hearing 3 times public hearing which has lead to delay in submission of EIA/EMP report thus the Committee agreed for exemption of PH. However fresh Base line data shall be collected.

ii. The committee observed that the PP has proposed to straightened the creek and the existing bunds would have to be raised for the development of the port. About 21.29 Ha (52.6 acres) of mangrove existing in the two meanders of Kadua Nadi creek proposed for training is required to be replaced to the required extent in a suitable area.

iii. The proposed diversion area is covered under the CRZ IA area, the diversion is require for development of storage and rail siding area which is not permissible. However there is a scope to avoid the mangrove area for the said developmental activity. Accordingly the Committee was of the opinion to examine the possibility of realigning the layout of the project.

iv. The Committee also observed that earlier the Sub-Committee of the EAC had conducted the site visit and made certain recommendations which could be the basis for issue of TOR for the project in the past. The PP could not place these recommendations before the committee.

3.4.48 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 399th meeting during 21st-22nd April 2025 and **defer** the proposal for want of above information as mentioned at para 3.4.27 of Sl.ii to iv. The PP shall submit the above information . Ministry may also consider examine the Subcommittee report and place its recommendations before the committee.

Date of EAC 2 :30/07/2025

Deliberations of EAC 2 :

3.1.1 **Observation of the Committee**:

i. In response to the suggestions of the EAC to realign the layout of the project so as to avoid non permissible storage and railway siding activities in CRZ 1A area and to avoid the mangroves, made during its 399th meeting, the PP reiterated its stand taken in 2015 that alternatives were already explored and only after this option II was proposed. The EAC clarified to PP that it wanted the PP to realign the layout within the option II proposed by them. Therefore the committee observed that the project proponent did not examine the feasibility of realignment of layout within this option II so as to avoid non permissible storage and railway siding activities in CRZ 1A area and to avoid the mangroves.

ii. The expert members in the committee were of the opinion that the PP or consultant could not convincingly explain the inferences drawn from the hydraulic model study that re-routing of the Kaduva Nadi creek does not significantly impact flood inundation outside the port area, even under maximum rainfall and tidal flow. There is some possibility of avoiding the rerouting of the creek.

iii. Shifting of storage areas and railway siding to non CRZ 1A area from mangrove need to be explored.

3.1.5. After making any possible changes as suggested above PP shall make detailed presentation along with representative of the agency who conducted hydraulic modelling studies.

3.1.6 The Expert Appraisal Committee (EAC), after considering the submissions made by the project proponent, held detailed deliberations during its 409th meeting on 30th–31st August, 2025. The Committee decided to **defer** the proposal and advised the project proponent to furnish their comments/action taken on the observations made by the committee in para 3.1.4 above the proposal.

3.4.4. Deliberations by the EAC in current meetings

3.4.2 **Observation of the committee**:

i. It is observed that Tidal influenced KaduaNadi traverses through the project site and it was proposed to be rerouting of creek system at two places where the creek meanders at two places, namely at i) Nanpur- in the northern part of the creek, and ii) at Kanamana on the western part of the creek.

ii. The EAC observed that as suggested by the EAC the PP has excluded the rerouting of the western part of the creek. PP further submitted that 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.

iii. The committee further noted that the alignment proposed for rerouting of the northern part of the creek follows the old route of the creek.

iv. Accordingly, 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 total 4 berths with quay length of 1250 m. The reduction in number of berths and corresponding stock yard area, results in decreased Cargo handling capacity from 150 MTPA to 120 MTPA.

v. The phase-lA development will have the cargo handling of l7.7 MTPA. 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 as per the CRZ notifications. The optimized layout achieves nearly 46% reduction in mangrove disturbance, about 60% reduction in reclamation area, and restricts creek intervention to only essential stretches.

vi. The Committee opined that 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 revise the layout plan accordingly to ensure that the disturbance to mangroves is minimized or eliminated.

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

viii. 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 behaviour and ensure maintenance of natural flow conditions and free drainage during flood and cyclone events for the revised layout.

ix. The drainage pattern in 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.

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

xi. Orissa is known for turtle breeding grounds and hence development of port on nesting grounds should be studied.

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

xiii PP were informed for the site inspection by a subcommittee

3.4.5. Recommendation of EAC

Recommended

3.4.6. Details of Terms of Reference

3.4.6.1. Specific

Specific Conditions	
1.	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.
2.	The augmentation of railroad infrastructure and connectivity should be detailed. Mangroves at the proposed site should be mapped by authorized agency and management plan for mangrove system should be submitted, in case of likely disturbance due to construction of port.
3.	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.
4.	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.
5.	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.
6.	Long-term shoreline change analysis due to port on adjacent coast including Devi River should be carried out.
7.	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.
8.	Details of Dredging/Excavation and disposal strategies supported by impact study on

	marine/aquatic life should be studied.
9.	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.
10.	Importance and benefits of the project.
11.	Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.
12.	Recommendation of the Orissa CZMA shall be obtained and submitted.
13.	Submit superimposing of latest CZMP as per CRZ (2019) on the CRZ map.
14.	Submit a complete set of documents required as per para 4.2 (i) of CRZ Notification, 2019.
15.	Hydrodynamics study on impact of dredging on flow characteristics shall be carried out.
16.	Hydrodynamics study on impact of dredging on flow characteristics shall be carried out.
17.	Marine biodiversity conservation plan be prepared by an institute of national repute.
18.	Study the impact of dredging and dumping on marine ecology and draw up a management plan through the NIO or any other institute specializing in marine ecology.
19.	Erosion and accretion studies shall be carried out.
20.	Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
21.	A certificate from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This

	should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
22.	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.
23.	A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
24.	An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA.
25.	Disaster Management Plan for the project shall be prepared and submitted.
26.	Details and status of court cases pending against the project, if any.
27.	Public hearing already conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
28.	PP shall submit all the Public hearing (already conducted) proceeding documents/information, along with the EIA/EMP report.
29.	A tabular chart with index for point-wise compliance of above ToRs. The specific ToRs as recommended above are in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.
30.	As per the Ministry's Office Memorandum F.No.22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfill these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall

	be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
31.	In pursuance of Ministry's OM No stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.

3.4.6.2. Standard

7(e)	**Ports, harbors, breakwaters, dredging**
Project details	
1.	Reasons for selecting the site with details of alternate sites examined/rejected/selected on merit with comparative statement and reason/basis for selection.
2.	The examination should justify site suitabilityin terms of environmental angle, resources sustainability associated with selected site as compared to rejected sites.
3.	The anlysis should include parameters considered along with weightage criteria for short-listing selected site.
4.	Submit the status of shore line change at the project site
5.	A detailed draft EIA/EMP report should be prepared in accordance with the above additional TOR and should be submitted to the Ministry in accordance with the Notification.
6.	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
7.	Any further clarification on carrying out the above studies including anticipated impacts due to theproject and mitigative measure, project proponent can refer to the model ToR available on Ministry.
Land use,Land Acquisition and R&R	
1.	Details of the land use break-up for the proposed project. Details of land use around 10 km radiusof the project site.
2.	Submit details regarding R&R involved in the project
ESZ, CRZ, International Boundary and Acts	
1.	Examine and submit detail of land use around 10 km radius of the project site and map of the project area and 10 km area from boundary of the proposed/existing project area, delineating project areas notified under the wild life (Protection) Act, 1972/critically polluted areas as identifiedby the CPCB from time to time/notified eco-sensitive areas/interstate boundaries and international boundaries.
2.	Erosion and accretion study at the mouth of the creek which is adjacent to the proposed site be carried

	out and submitted
3.	Detailed modelling studies to understand whether the selected site can withstand severe cyclones and develop design in accordance to due safety measures.
4.	Submit superimposing of latest CZMP as per CRZ Notification (2011) on the CRZ map. And also submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scales.
5.	Submit a complete set of documents required as per para 4.2 (i) of CRZ Notification, 2011.
6.	Hydrodynamics study on impact of dredging on flow characteristics shall be carried out.
7.	A detailed study on the impact of proposed activity on marine ecology and marine biodiversity with specific focus on the corals, mangroves and Mud flats in the proximity of the site should be conducted and required mitigation plan be submitted.
8.	A management plan for the area under which mangroves are or likely to be removed and compensatory mangrove plantation plan be submitted.
Remote Sensing & GIS	
1.	Analysis should be made based on latest satellite imagery for land use with raw images.
Forest and Wildlife	
1.	Submit the present land use and permission required for any conversion such as forest, agriculture etc.
2.	land acquisition status, rehabilitation of communities/ villages and present status of acquiring Forest and Agricultural activities.
3.	Submit details of the trees to be cut including their species and whether it also involves any protected or endangered species.
4.	Measures taken to reduce the number of the trees to be removed should be explained in detail.
5.	Submit the details of compensatory plantation.
6.	Explore the possibilities of relocating the existing trees.
7.	Examine the details of afforestation measures indicating land and financial outlay
8.	Landscape plan, green belts and open spaces may be described. A thick green belt should be planned all around the nearest settlement to mitigate noise and vibrations.
9.	The identification of species/ plants should be made based on the botanical studies.
Water Environment/Quality Analysis/ Hydrology and Water Bodies	
1.	Examine the details of water requirement, impact on competitive user, treatment details, use oftreated waste water. Prepare a water balance chart.
2.	Examine and submit the water bodies including the seasonal ones within the corridor of impactsalong

	with their status, volumetric capacity, quality likely impacts on them due to the project.
3.	Submit the details of fishing activity and likely impacts on the fishing activity due to the project.
4.	Specific study on effects of construction activity and pile driving on marine life
Waste Management, Drainage and STPs	
1.	Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area
2.	Examine details of Solid waste generation treatment and its disposal.
3.	Details of oil spill contingency plan.
4.	Details of the layout plan including details of channel, breakwaters, dredging, disposal and reclamation.
Terrain and Topography	
1.	Submit the details of terrain, level with respect to MSL, filling required, source of filling materials and transportation details etc.
2.	Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agencyon 1:4000 scale along with the recommendation of the SCZMA.
3.	Details of bathymetry study.
4.	Details of ship tranquillity study.
5.	The ecologically fragile area including CRZ 1A area etc. shall be demarcated and superimposed on the layout plan and submitted.
Road/Transport Connectivity and Traffic measures	
1.	Examine road/rail connectivity to the project site and impact on the existing traffic network due tothe proposed project/activities
2.	A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
3.	Details of handling of each cargo, storage, transport along with spillage control, dust preventivemeasures.
4.	In case of coal, mineral cargo, details of storage and closed conveyance , dust suppressionand prevention filters.
5.	An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA.
Rain Water Harvesting	

1.	Details of rainwater harvesting and utilization of rain water.
Baseline data	
1.	Examine baseline environmental quality along with projected incremental load due to the proposedproject/activities.
Air Environment	
1.	The air quality monitoring should be carried out according to the notification issued on 16th November, 2009.
Environment Management/ Monitoring, Mitigative Measures and RiskAssessment details	
1.	Examine separately the details for construction and operation phases both for EnvironmentalManagement Plan and Environmental Monitoring Plan with cost and parameters.
2.	Submit details of a comprehensive Risk Assessment and Disaster Management Plan includingemergency evacuation during natural and man-made disasters.
3.	Details of desalination plant and the study for outfall and intake
Court/ Litigation records	
1.	Details of litigation pending against the project, if any, with direction /order passed by any Court ofLaw against the Project should be given.
Environment Responsibility	
1.	As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, specific studies shall include all the activities required to be taken to fulfill these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.

3.5. Agenda Item No 5:

3.5.1. Details of the proposal

Development of 558.95 Hectare Industrial Estate of Khushkhera-Bhiwadi-Neemrana Investment Region (KBNIR) by **RAJASTHAN INDUSTRIAL CORRIDORS DEVELOPMENT CORPORATION LIMITED** located at **KOT PUTLI-BEHROR,RAJASTHAN**			
Proposal For		Fresh ToR	
Proposal No	**File No**	**Submission Da te**	**Activity Sub-Activity (Schedule Item)**
IA/RJ/INFRA1/5549	21-18/2011-I	14/10/2025	Industrial estates/ parks/ complexes/ areas, expo

94/2025	A.III		rt processing Zones (EPZs), Special Economic Zones Housing at least one Category A project/activity (7(c))

3.5.2. Project Salient Features

The proposal is for Development of 558.95 Hectare Industrial Estate of Khushkhera-Bhiwadi-Neemrana Investment Region (KBNIR) at, Lamachpur, Beerod, Mirzapur, Manka, Bawad, Palawa Tehsil – Mundawar, District – Kotputli-Behror and villaes Gugalkota, Chaubara Tehsil – Neemrana, District – Khairtal-Tijara, Rajasthan by M/s Rajasthan Industrial Corridors Development Corporation Limited.

[Proposal No.: IA/RJ/INFRA1/554994/2025;F.no: 21-18/2011-IA.III]

The EAC noted that the Project Proponent and the consultant have given 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 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 aforementioned proposal was considered before the EAC during its 422nd EAC meeting of the Expert Appraisal Committee held on 31st October 2025 the project proponent and EIA Consultants Eco Orbit Consultancy Pvt Ltd Ghaziabad, Uttar Pradesh Made a presentation through video conference and submitted the following information.

3.5.2 The Proposed project is for Development of 558.95 Hectare Industrial Estate of Khushkhera-Bhiwadi-Neemrana Investment Region(KBNIR) at, Lamachpur, Beerod, Mirzapur, Manka, Bawad, Palawa Tehsil – Mundawar, District – Kotputli-Behror and villaes Gugalkota, Chaubara Tehsil – Neemrana, District – Khairtal-Tijara, Rajasthan by M/s Rajasthan Industrial Corridors Development Corporation Limited. Geocordinates of the project lies in 27° 59′ 23.70″and Longitude 76° 28′ 29.34.

3.5.3 Details of Environment clearance: The earlier EC was accorded vide F.No. 21-18/2011-IA.III dated 13th October 2014 to M/s Delhi Mumbai Industrial Corridor Development Corporation Limited (DMICDC) (now National Industrial Corridor Development Corporation – NICDC) for the

development of an industrial area covering 165.6 sq km (16,562 ha). To streamline implementation within Rajasthan, the Government of Rajasthan (GoR) subsequently constituted M/s Rajasthan Industrial Corridor Development Corporation Limited (RIDCO). Accordingly, EC was transferred from DMIDC to RIDCO vide Letter F.No.21-18/2011-IA.III dated 20th June, 2023. Subsequently, RIDCO undertook amendments in the approved Master Plan, involving change in land use for an area of 558.95 hectares within the originally approved 165.6 sq km region, accordingly obtained the amendment in EC from MoEF&CC vide letter No.21-18/2011-IA.III dated 02nd July 2024. Based on recent land reassessments, field verification, and consultations with RIICO and other stakeholders, it had been observed that the availability of contiguous land suitable for industrial use is significantly constrained. Accordingly, the total project area for the proposed industrial estate under KBNIR has been rationalized and reduced to 558.95 hectares, representing Phase-I development. However, the PP could not able to complete the work within timeline of the EC, therefore the PP has applied for fresh ToR.

3.5.4 The project/activity is covered under the category 'A' of item 7(c**)** i.e. Indutries of the schedule to the EIA Notification, 2006, and its subsequent amendments. Total cost of the project is Rs. 89201lakhs.

3.5.5 Landuse/Landcover of project site.

S.No.	Landuse/Landcover	Area (ha)	Percentage(%)	Remarks, if any
1.	Area under industrial plots	166.71	29.83	-
2.	Area under Residential	19.35	3.46	-
3.	Area under commercial plots	34.42	6.16	-
4.	Area under knowledge city	47.43	8.49	-
5.	Govt. Office	7.03	1.26	-
6.	Mixed Land use	20.95	3.75	-
7.	Aabadi Development Area	13.49	2.41	-
8.	Utility	9.20	1.65	-
9.	Recreational	81.62	14.60	-
10.	Roadside Plantation Corridor	7.42	1.33	-
11.	Green Buffer (HT, Gas & Site)	27.45	4.91	-

S.No.	Landuse/Landcover	Area (ha)	Percentage(%)	Remarks, if any
12.	Transportation (With Parking)	3.61	0.65	-
13.	Road	119.18	21.32	-
14.	Pond/Lake	1.09	0.19	-
Total		**558.95**	**100**	-

3.5.6 List to industries to be housed with the proposed project site, and their categories as per the EIA Notification, 2006:

Category 'A' Industries:

- Pesticide industries (5(b)-A)
- Distilleries – Molasses-based, capacity >100 KLD (5(g)-A)

Category 'B' Industries:

- Secondary metallurgical processing industries (3(a)-B)
- Synthetic organic chemical industries including bulk drugs and intermediates (5(f)-B)

Other anticipated industrial sectors include:

- Food and agro-processing industries
- Packaging and material handling industries
- Auto parts and component manufacturing
- General engineering and fabrication units
- Electronic and electrical component industries
- Logistics and warehousing facilities
- Solar panel assembly and renewable component manufacturing
- Electric vehicle (EV) battery and ancillary manufacturing units

3.5.7 Terrain and Topography: The project site covering 558.95 hectares forms part of the gently undulating terrain characteristic of the north-eastern plains of Rajasthan. The topography is nearly level with minor local undulations, sloping gradually from north-east to south-west. The site elevation ranges between 278 m and 295 m amsl.

3.5.8 Details of water bodies, Impact on drainage: Sahibi River (3.26 Km, South) and Banganaga River (6.66 Km, South). No direct impact is anticipated on the Sahibi (3.26 km S) and Banganga (6.66 km S) Rivers, as the project lies in an established industrial area

3.5.9 Water Requirements: During the construction phase, total water demand will be about 200 KLD, sourced legally by contractors through CGWA-approved tankers or authorized suppliers in nearby areas (Neemrana, Behror, Mundawar). RIDCO will ensure only permitted groundwater sources are used and provide piped water and sanitation facilities at labour camps. During the operation phase, the total water demand for KBNIR Phase-I is 10.67 MLD, including 3.17 MLD for domestic use and 7.5 MLD for industries (of which 6.0 MLD will be met through recycling under ZLD). The net freshwater demand will thus be 1.5 MLD.

3.5.10 Details of Tree Cutting: The proposed project does not involved any trees cutting.

3.5.11 Diversion of forest land: The proposed project does not involved any diversion of forest land. The project is not located within the 10 km radius of the any National Parks, Sanctuaries, Tiger Reserves, and Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC.

3.5.12 Waste Management: A 3.0 MLD Sewage Treatment Plant (STP) based on Membrane Bio-Reactor (MBR) technology is proposed within the utility zone of the estate. The STP will treat all domestic wastewater generated from residential, commercial, and institutional areas, producing

Class-A treated effluent (≤10 mg/L BOD and TSS) suitable for reuse. The treated water will be fully reused within the township for non-potable applications such as greenbelt irrigation, road sprinkling, flushing, and fire-fighting, ensuring Zero Liquid Discharge (ZLD) from the estate. The system will include odor-control measures, real-time monitoring under the RIDCO Centralized EMS, and provision for future modular expansion as population and industrial load increase.

3.5.13 Land Acquisition and R&R: No Land Acquisition and R&R is involved in the project.

3.5.14 Employment opportunities: Total 31546 (Direct: 16670 and Indirect: 14876). When fully built-out, the wider KBNIR node is expected to sustain over 5.37 lakh employment opportunities (2.15 lakh direct + 3.21 lakh indirect), thereby contributing substantially to Rajasthan's and India's employment goals.

3.5.15 Benefits of Project:

i. The KBNIR Industrial Estate (Phase-I) is a critical node in India's industrial corridor network, delivering both state-level and national benefits:

ii. Creation of clustered manufacturing ecosystems for automotive, engineering, chemicals, and renewable sectors, Direct and indirect employment during construction and operation phases,Compact, energy-efficient planning reducing pressure on natural resources, Strengthened connectivity to DFC and NH-8, enhancing regional trade flows and industrial logistics, Village integration and skill development initiatives for local communities.

3.5.16. Details of Court cases: There is no court case involved in the project

3.5.3. Deliberations by the committee in previous meetings

N/A

3.5.4. Deliberations by the EAC in current meetings

3.5.17 Observation of the committee:

i. Initially EC was accorded vide F.No. 21-18/2011-IA.III dated 13th October, 2014 to M/s Delhi Mumbai Industrial Corridor Development Corporation Limited (DMICDC) (now National Industrial Corridor Development Corporation – NICDC) for the development of an industrial area covering 165.6 sq km (16,562 ha). Later EC was transferred from DMIDC to RIDCO vide Letter F. No. 21-18/2011-IA.III dated 20 June 2023. Subsequently, RIDCO undertook minor amendments in the approved Master Plan, involving change in land use for an area of 558.95 hectares within the originally approved 165.6 sq km region, vide letter no. 21-18/2011-IA.III dated 02nd July 2024.

ii. Now RIICO, mentioned that the availability of contiguous land suitable for industrial use is significantly constrained. Accordingly, the total project area for the proposed industrial estate under KBNIR has been rationalized and reduced to 558.95 hectares, representing Phase-I development. However, the PP could not able to complete the work within timeline of the EC, therefore the PP has applied for fresh ToR over an area of 558.95 hectares.

iii. The instant proposal is for Development of 558.95 Hectare Industrial Estate of Khushkhera-Bhiwadi-Neemrana Investment Region (KBNIR) at, Lamachpur, Beerod, Mirzapur, Manka, Bawad, Palawa Tehsil – Mundawar, District – Kotputli-Behror and villaes Gugalkota, Chaubara Tehsil – Neemrana, District – Khairtal-Tijara, Rajasthan by M/s Rajasthan Industrial Corridors Development Corporation Limited.

iv. PP is requested to exempt the public hearing, however, the Committee noted that PH exemption is not applicable since less than 50% of the work has been completed after the grant of the earlier Environmental Clearance (EC).

v. If a gas pipeline passes through or near the project area, the Project Proponent (PP) shall ensure the implementation of appropriate safety precautions and mitigation measures as per the guidelines of the Petroleum and Natural Gas Regulatory Board (PNGRB) and other relevant safety standards. The PP shall also submit details of the pipeline alignment, safety buffer zone, and risk management plan for committee review.

vi. The Committee observed that the proposed water requirement of the project is higher than the estimated water generation, and sought clarification from the Project Proponent (PP) regarding the water balance, source sustainability, and measures proposed for water conservation and recycling.

vii. The plantation and greenbelt development should be carried out in a phase-wise manner, corresponding with the progress of construction and operation activities, to ensure effective ecological restoration and dust suppression.

viii. The Committee advised that the location of key project facilities should be finalized considering the wind rose pattern of the area, so as to minimize the impact of emissions and air pollution on nearby settlements and sensitive receptors.

ix. Project Proponent (PP) whether provisions have been made for the use of renewable energy sources to improve the project's carbon footprint.

3.5.18 The EAC, after examining the documents submitted by the project proponent and detailed deliberations in its 422nd meeting held on 31st October, 2025 **recommended** the proposal Development of 558.95 Hectare Industrial Estate of Khushkhera-Bhiwadi-Neemrana Investment Region (KBNIR**)**for grant of Terms of References (ToR) with the following specific conditions in addition to all standard ToR conditions applicable for such projects.

3.5.5. Recommendation of EAC

Recommended

3.5.6. Details of Terms of Reference

3.5.6.1. Specific

Specific Conditions	
1.	List of existing and proposed industries and their layout shall be drawn and shall be submitted along with the EIA/EMP report.
2.	Categorization of industries as per CPCB/SPCB norms and as per EIA notification, 2006 has to be mentioned. PP shall submit the estimation/assessment of the wastewater generation from the proposed Industries and the feasibility of the proposed Zero Liquid Discharge facility.

3.	Provision for Reuse/Recycling of treated wastewater, wherever feasible. Explore possibilities for recycling and reusing treated water in the unit to reduce the freshwater demand and waste disposal. A detailed water harvesting plan needs to be submitted. Provision for Zero liquid discharge whenever techno-economically feasible. Provision for Continuous monitoring of effluent quality/quantity.
4.	A detailed rainwater harvesting plan including the provisions for check dams across all major and minor drains/streams and water recharge wells along the banks of these drains/nallah/khad, shall be prepared and submitted as part of the EIA Report.
5.	PP has to develop and plan greenbelt plantation strategy according to the soil parameters viz soil stabilization, comprehensive soil types, dividing area according to the pH values, and the budget for the greenbelt plantation to be allocated accordingly as the proposed Industrial Area is in nature of acidic soil.
6.	The planning of Industrial Estate should be based on the criteria mentioned in this Ministry's Technical EIA Guidance Manual for Industrial Estate (2009) prepared by IL&FS as well as CPCB's Zoning Atlas Guidelines for siting industries.
7.	A Detailed layout of the proposed Industrial area is to be submitted along with the EIA/EMP report.
8.	The layout shall be planned in such a way that all red-category industries with higher pollution potential (highly polluting or hazardous) industries shall be kept away as far as possible from human habitations, and water bodies to minimize environmental and health risks to nearby communities.
9.	A detailed plan for risk assessment and mitigation plan for the worst-case scenario providing an analysis of potential pollutant dispersion in case of accidents such as chemical spills, fires, or gas leaks.
10.	A detailed hydro-geological study on the catchment area of the drainage system within the core zone and at least 5 km perimeter of the project area shall be conducted.
11.	Groundwater Rejuvenation Plan, as well as water body rejuvenation plan, shall be submitted and drainage mapping shall be carried out and a plan for the rejuvenation of groundwater through the aquifers shall be submitted along with the EIA/EMP report with budgetary provisions as part of the Environmental Management Plan in consultation with gram panchayat for the restoration of structures, construction and maintenance of greenbelt buffer, garland drains for the Industrial Area.
12.	The Water balancing chart and its resources for obtaining the groundwater shall be submitted.
13.	PP shall submit a clarification regarding the purpose and requirement for setting up Petrol and diesel storage units in the proposed Industrial Estate. Further, details of the

	mode of receipt of petroleum products and distribution methodology, etc. Safety features and area required for the same etc. to be highlighted and submitted.
14.	Green belt development Plan shall be submitted with minimum 10% of the common Industrial area earmarked for the Green belt. . A considerable portion of the recreational zone of the industrial area shall be developed as thick multilayered forest preferably through Miyawaki technique. At least 15 m wide green belt shall be developed along the boundary of the park and mandatory green buffer shall be maintained along the gas pipeline and HT Power lines passing through the project area.
15.	No industry highly prone to fire accidents and also the industries manufacturing the inflammable materials shall be planned in the vicinity of these gas and HT power line corridor.
16.	PP shall specify their commitment regarding the power generated through renewable sources like Solar etc.
17.	PP shall calculate and submit the carbon footprint of the proposed Industrial Area in the detailed EIA/EMP Report.
18.	Detailed air quality study for each point source to be conducted along with the Micro metallurgical data.
19.	The industrial layout/zones shall be planned in such a way that no tree can be felled/transplanted unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned Authority. Where the trees need to be cut/transplanted with prior permission from the concerned local Authority, a compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut/non-survival of any transplanted tree) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). All the plantation will be done by the State Forest Department as deposit work and not by private contractors.
20.	The plan for afforestation should be such that it is free from pesticides with flowering plants of native species for attracting bees and insects, which in turn is beneficial to agriculture. Farmers around the project site shall be involved in developing such an afforestation Plan.
21.	Activity-wise, a time-bound action plan along with budgetary provision for occupational health & surveillance, environment management plan, and green belt development plan. Assessment of the carrying capacity of transportation load on roads inside the notified industrial premises shall be carried out and submitted.
22.	n addition to the above, the EIA/EMP report shall also address issues such as i) Effective fugitive emission control measures for process, transportation, packing, etc. ii) use of cleaner fuels, and iii) best available technology for the plan.

3.5.6.2. Standard

7(c)	**Industrial estates/ parks/ complexes/ areas, export processing Zones (EPZs), Special Economic Zones**
Project details	
1.	Reasons for selecting the site with details of alternate sites examined/rejected/selected on merit with comparative statement and reason/basis for selection. The examination should justify site suitability in terms of environmental damage, resources sustainability associated with selected site as compared to rejected sites.
2.	The analysis should include parameters considered along with weightage criteria for shortlisting selected site.
3.	Zoning of the area in terms of 'type of industries' coming-up in the industrial area based on the resource requirement along with likely pollutants with quantity from the various industries.
4.	Submit Roles and responsibility of the developer etc for compliance of environmental regulations under the provisions of EP Act.
5.	Examine the details of National Highways/State Highways/ expressways falling along the corridor and the impact of the development on them.
6.	Submit the details of the infrastructure to be developed.
7.	Justification of the parameters, frequency and locations shall be discussed in the EIA.
Environment Status/Baseline Data Methodology	
1.	Examine baseline environmental quality along with projected incremental load due to the project taking into account of the existing developments nearby. (ii) Environmental data to be considered in relation to the project development would be (a) land, (b) groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.
2.	Site justification of the identified industry sectors from environmental angle and the details of the studies conducted if any.
3.	Identify, predict and assess the environmental and sociological impacts on account of the project.
Remote Sensing/ GIS	
1.	Analysis should be made based on latest satellite imagery for land use with raw images.
2.	Check on flood plain of any river.
Land Use, Land Acquisition, R&R	
1.	Submit the details of the land use break-up for the proposed project. Details of land use around 10 km radius of the project site.

2.	Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/villages and present status of such activities.
3.	Examine the impact of proposed project on the nearest settlements.
4.	Submit details regarding R&R involved in the project
5.	The project boundary area and study area for which the base line data is generated should be indicated through a suitable map.
ESZ, CRZ Details	
1.	Details regarding project boundary passing through any eco- sensitive area and within 10 km from eco-sensitive area.
Forest and Wildlife Related Details	
1.	An overall green area of at-least 33% of the Industrial Area should be developed with native species. The green area shall be 40% in case of critically polluted area. Green buffer in the form of green belt to a width of 15 meters should be provided all along the periphery of the industrial area.
2.	Submit the details of the trees to be felled for the project.
3.	Submit the present land use and permission required for any conversion such as forest, agriculture etc.
Court/ Litigation Related	
1.	Submit Legal frame work for the implementation of Environmental Clearance conditions - to be clearly spelt out in the EIA report.
2.	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
Water Environment/Quality/Hydrology	
1.	Ground water classification as per the Central Ground Water Authority
2.	Submit the source of water, requirement vis-à-vis waste water to be generated along with treatment facilities, use of treated waste water along with water balance chart taking into account all forms of water use and management.
Rain Water Harvesting	
1.	Rain water harvesting proposals should be made with due safeguards for ground water quality
2.	Maximize recycling of water and utilization of rain water. Examine details.
3.	Examine soil characteristics and depth of ground water table for rainwater harvesting.
Waste Management, Drainage and STPs Details	
1.	Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area, and any obstruction of the same by the project.

2.	Examine details of solid waste generation treatment and its disposal.
Soil Environment	
1.	Examine soil characteristics and depth of ground water table for rainwater harvesting.
Energy and Resources	
1.	Examine and submit details of use of solar energy and alternative source of energy to reduce the fossil energy consumption.
Air Environment	
1.	In case DG sets are likely to be used during construction and operational phase of the project. emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.
Road/Transport Safety and Traffic Aspects	
1.	Examine road/rail connectivity to the project site and impact on the traffic due to the proposed project.
2.	Present and future traffic and transport facilities for the region should be analysed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.
3.	A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
4.	Examine the details of transport of materials for construction which should include source and availability.
Noise Environment	
1.	Examine noise levels - present and future with noise abatement measures.
Environmental Management Plans and Mitigative Measures	
1.	Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
2.	Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
3.	Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry.

3.6. Agenda Item No 6:

3.6.1. Details of the proposal

Proposed Integrated Manufacturing & Logistic Cluster (IMLC) – Meerut at Villages- Bijoli, and Kharkhaud a, Tehsil- Sadar, District- Meerut, State-Uttar Pradesh by Uttar Pradesh Expressways Industrial Develop

ment Authority (UPEIDA). by **UTTAR PRADESH EXPRESSWAYS INDUSTRIAL DEVELOPMENT AUTHORITY (UPEIDA)** located at **MEERUT,UTTAR PRADESH**			
Proposal For		Fresh ToR	
Proposal No	**File No**	**Submission Date**	**Activity** **Sub-Activity** **(Schedule Item)**
IA/UP/INFRA1/555408/2025	10/26/2025-IA.III	17/10/2025	Industrial estates/ parks/ complexes/ areas, export processing Zones (EPZs), Special Economic Zones Housing at least one Category A project/ activity (7(c))

3.6.2. Project Salient Features

The proposal is for development of Integrated Manufacturing & Logistic Cluster (IMLC) over an area of 213.8956 Ha at Villages- Bijoli, and Kharkhauda, Tehsil- Sadar, District- Meerut, State- Uttar Pradesh by M/s Uttar Pradesh Expressways Industrial Development Authority (UPEIDA).

[Proposal No.: IA/UP/INFRA1/555408/2025; F.No:10/26/2025-IA.III]

The EAC noted that the Project Proponent and the consultant have given 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 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.

3.6.1 The aforementioned proposal was considered before the EAC during its 422nd EAC meeting of the Expert Appraisal Committee held on 31st October, 2025 the project proponent and EIA Consultants Ecomen Mining Private Limited (formerly known as Ecomen Laboratories Pvt Ltd.) made a presentation through video conference and submitted the following information:

3.6.2 The Proposed project is for Proposed to develop Integrated Manufacturing & Logistic Cluster (IMLC) over an area of 213.8956 Ha at Villages- Bijoli, and Kharkhauda, Tehsil- Sadar, District-Meerut, State-Uttar Pradesh by M/s Uttar Pradesh Expressways Industrial Development Authority (UPEIDA).

3.6.3 The project/activity is covered under the category 'A' of item 7(c**)** i.e. Industries of the schedule to the EIA Notification, 2006, and its subsequent amendments. Total cost of the project is Rs. 122389 Lakhs.

3.6.4 Land use/Cover: Land use/Land cover of project site are as follows

Description of activity / facility/plant/others	Land requirement in Ha	Percentage(%)	Remarks
Area proposed Under industrial plots	152.0574	71.09	-

Area proposed For Administrative Zone	1.1875	0.56	-
Total area proposed for utility services	3.7505	1.75	-
Area proposed under roads	16.6050	7.76	-
Area proposed as common green and green belt	40.2953	18.84	-
Total	213.8956	100	-

3.6.5 List to industries to be housed with the proposed project site:

S.No	Name of the Industry	Schedule under EIA notification, 2006
1	Distilleries: Molasses based Distilleries > 100 KLD and Non-molasses based distilleries >200 KLD	5(g) 'A' Category
2	Rubber:	5(f)
3	Metallurgy (ferrous & nonferrous): Secondary Metallurgical Processing Industries (Non Toxic)	3(a) 'B' Category)
4	Automobile: Manufacturing of Automobiles (integrated facilities)	Not categorized under Category A or B
5	Herbal Products: Herbal Extracts, agricultural products and essential oils	Not categorized under Category A or B
6	Carogated Box	Not categorized under Category A or B
7	Bad Bottle: Bad Bottle	Not categorized under Category A or B
8	Recycling E-waste	Not categorized under Category A or B
9	RO Plant water for injection plant, pure steam generation, tanks, vessels, autoclave zero liquid discharge plant	Not categorized under Category A or B
10	Plastic Products and Plastic manufacturers: Plastic processed products manufacturing	Not categorized under Category A or B

11	Packaging Products	Not categorized under Category A or B
12	Fabrication: Engineering Fabrication works, Fabrication & alloy, casting	Not categorized under Category A or B
13	Solar Cell: Manufacturing of Solar module/ non-conventional energy apparatus	Not categorized under Category A or B
14	Other Expected Industries: Manufacturing of Glass Sheet Plant, Aluminum Extrusion Plant, Textile Plastic Products, Nil, Fab rate, Development, Staple Fiber, Recycled Paper Packaging, Transformers, Sodium silicate industry, Logistic & Warehouses projects, Building Construction, Manufacturing Units, Infrastructure development Projects & Assembly Units etc.	Not categorized under Category A or B

3.6.6 Terrain and Topography: The proposed site is situated in mostly plain terrain.

3.6.7 Details of water bodies, Impact on drainage: Kali Nadi -3.0 Km (E) Chhaiya Nadi-7.3 Km (E),Kharauli Drain-5.0 (W), Pond near Bijauli- 0.3 km (N) There will be no/minimal impact on drainage as canal present within project site will be protected.

3.6.8 Water Requirements: Approximately 20 KLD (Domestic- 15 KLD and Construction purpose- 5 KLD) of water will be required during construction phase, out of which fresh water for Domestic purpose will be met through tanker supply. The total water requirement during operation phase, will be 6289 KLD (Domestic- 918 KLD + Industrial- 4509 KLD + Landscaping - 862 KLD (@2 L/m2). The freshwater demand will be met from groundwater abstraction after taking permission form concerned statutory authorities. Fresh water requirement will be 3110 KLD. The rest of the water requirement 3179 KLD will be met by available treated water from in-house water treatment facilities.Necessary permission shall be taken for the use of surface water. Additional water requirements of individual industries will be arranged by industry owners with prior permission, as applicable.

3.6.9 Tree Cutting: Cutting of trees not involved in the project.

3.6.10 Diversion of forest land: No diversion of forest land is involved in the project. The project is not located within the 10 km radius of the any National Parks, Sanctuaries, Tiger Reserves, and Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC.

3.6.11 Waste Management: During the construction phase, about 90 kg/day of solid waste will be generated, comprising 54 kg/day biodegradable and 36 kg/day non-biodegradable waste. Biodegradable waste will be composted in a vermicomposting pit for greenbelt use, while non-biodegradable waste will be handed over to the municipality for proper disposal.During the operation phase, around 19,133 persons (including visitors) will generate approximately 5,314 kg/day of solid waste, with 3,104 kg/day biodegradable and 2,210 kg/day non-biodegradable. Biodegradable waste will be treated in a Common Organic Waste Converter (OWC) facility, and non-biodegradable waste will be sent to the municipal disposal site after due permission .Each industrial unit will obtain necessary authorizations for hazardous and other wastes under applicable rules. Estimated hazardous waste generation includes 630 kg/day of industrial waste, 420 L/day of used oil, 42 kg/day of ETP sludge, and 42 used batteries per year.

3.6.12 Land Acquisition and R&R: There is no land Acquisition and R&R involved

3.6.13 Employment opportunities: The project will employee about 300 nos. of local labours during construction phase, which extend to about 18 months. However, during operation phase about 19133 numbers of persons will be engaged by different Industrial units.

3.6.14 Benefits of Project: Uttar Pradesh is the fourth largest state in India and the third largest economy in the country. With a population of more than 200 million, UP has the highest number

of available labour force and is one of the top five manufacturing states in India. The state also ranks first in terms of number of MSMEs in the country and ranks 2nd in Ease of Doing Business (EODB).Integrated Manufacturing and Logistic Cluster (IMLC) Meerut is an aspirational project that intends to reduce foreign dependency of various engineering goods, chemicals and also support indigenous Aerospace & Defence Sector. With self- reliance as the motto, the aim is to move away from licensed production to Design, Develop and produce, wherein the Nation owns the Design Rights and IP of the systems. Employment Generation in terms of direct employment in upcoming industries and indirect employment and small-scale business opportunities for local people from the proposed Industrial Estate.
3.6.15 Details of Court cases: There is no court case involved in the project

3.6.3. Deliberations by the committee in previous meetings

N/A

3.6.4. Deliberations by the EAC in current meetings

3.6.16 Observation of the committee:

i. *The project proposes to cover and protect groundwater resources, including measures for groundwater recharge, monitoring of water levels and quality, and prevention of contamination during construction and operation phases.*

ii. *The EAC advised the Project Proponent (PP) to undertake appropriate measures for groundwater rejuvenation and conservation.*

3.6.17 The EAC, after examining the documents submitted by the project proponent and detailed deliberations in its 422nd meeting held on 31st October, 2025 **recommended** the proposal Proposed Integrated Manufacturing & Logistic Cluster (IMLC) – Meerut at Villages- Bijoli, and Kharkhauda, Tehsil- Sadar, District- Meerut, State-Uttar Pradesh for grant of Terms of References (ToR) with exemption of conduct of Public Hearing with the following:

3.6.5. Recommendation of EAC

Recommended

3.6.6. Details of Terms of Reference

3.6.6.1. Specific

Specific Conditions	
1.	Project Proponent (PP) to undertake appropriate measures for groundwater rejuvenation and conservation and rejuvenation plan for the village pond adjacent to project area shall also be prepared.
2.	A Detailed layout of the proposed Industrial area is to be submitted along with the EIA/EMP report.

3.	The layout shall be planned in such a way that all red-category industries with higher pollution potential (highly polluting or hazardous) industries shall be kept away as far as possible from human habitations, and water bodies to minimize environmental and health risks to nearby communities.
4.	A detailed plan for risk assessment and mitigation plan for the worst-case scenario providing an analysis of potential pollutant dispersion in case of accidents such as chemical spills, fires, or gas leaks.
5.	A detailed hydro-geological study on the catchment area of the drainage system within the core zone and at least 5 km perimeter of the project area shall be conducted.
6.	Groundwater Rejuvenation Plan, as well as water body rejuvenation plan, shall be submitted and drainage mapping shall be carried out and a plan for the rejuvenation of groundwater through the aquifers shall be submitted along with the EIA/EMP report with budgetary provisions as part of the Environmental Management Plan in consultation with gram panchayat for the restoration of structures, construction and maintenance of greenbelt buffer, garland drains for the Industrial Area.
7.	The Water balancing chart and its resources for obtaining the groundwater shall be submitted.
8.	PP shall submit a clarification regarding the purpose and requirement for setting up Petrol and diesel storage units in the proposed Industrial Estate. Further, details of the mode of receipt of petroleum products and distribution methodology, etc. Safety features and area required for the same etc. to be highlighted and submitted.
9.	PP shall specify their commitment regarding the power generated through renewable sources like Solar etc.
10.	PP shall calculate and submit the carbon footprint of the proposed Industrial Area in the detailed EIA/EMP Report.
11.	Detailed air quality study for each point source to be conducted along with the Micro metallurgical data.
12.	The industrial layout/zones shall be planned in such a way that no tree can be felled/transplanted unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned Authority. Where the trees need to be

	cut/transplanted with prior permission from the concerned local Authority, a compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut/non-survival of any transplanted tree) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). All the plantation will be done by the State Forest Department as deposit work and not by private contractors.
13.	The plan for afforestation should be such that it is free from pesticides with flowering plants of native species for attracting bees and insects, which in turn is beneficial to agriculture. Farmers around the project site shall be involved in developing such an afforestation Plan.
14.	Details of Onsite and Offsite emergency plans as per provisions of the MSIHC Rules need to be submitted.
15.	Obtain the most recent wind data relevant to the area of the proposed industrial park, ensuring that the data reflects prevailing wind directions and speeds over an extended period of at least one year, and create a Wind Rose Diagram that accurately represents the collected wind data.
16.	Activity-wise, a time-bound action plan along with budgetary provision for occupational health & surveillance, environment management plan, and green belt development plan. Assessment of the carrying capacity of transportation load on roads inside the notified industrial premises shall be carried out and submitted
17.	In addition to the above, the EIA/EMP report shall also address issues such as i) Effective fugitive emission control measures for process, transportation, packing, etc. ii) use of cleaner fuels, and iii) best available technology for the plan.

3.6.6.2. Standard

7(c)	**Industrial estates/ parks/ complexes/ areas, export processing Zones (EPZs), Special Economic Zones**
Project details	
1.	Reasons for selecting the site with details of alternate sites examined/rejected/selected on merit with comparative statement and reason/basis for selection. The examination should justify site suitability in terms of environmental damage, resources sustainability associated with selected site as compared to rejected sites.
2.	The analysis should include parameters considered along with weightage criteria for shortlisting selected site.

3.	Zoning of the area in terms of 'type of industries' coming-up in the industrial area based on the resource requirement along with likely pollutants with quantity from the various industries.
4.	Submit Roles and responsibility of the developer etc for compliance of environmental regulations under the provisions of EP Act.
5.	Examine the details of National Highways/State Highways/ expressways falling along the corridor and the impact of the development on them.
6.	Submit the details of the infrastructure to be developed.
7.	Justification of the parameters, frequency and locations shall be discussed in the EIA.
Environment Status/Baseline Data Methodology	
1.	Examine baseline environmental quality along with projected incremental load due to the project taking into account of the existing developments nearby. (ii) Environmental data to be considered in relation to the project development would be (a) land, (b) groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.
2.	Site justification of the identified industry sectors from environmental angle and the details of the studies conducted if any.
3.	Identify, predict and assess the environmental and sociological impacts on account of the project.
Remote Sensing/ GIS	
1.	Analysis should be made based on latest satellite imagery for land use with raw images.
2.	Check on flood plain of any river.
Land Use, Land Acquisition, R&R	
1.	Submit the details of the land use break-up for the proposed project. Details of land use around 10 km radius of the project site.
2.	Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/villages and present status of such activities.
3.	Examine the impact of proposed project on the nearest settlements.
4.	Submit details regarding R&R involved in the project
5.	The project boundary area and study area for which the base line data is generated should be indicated through a suitable map.
ESZ, CRZ Details	
1.	Details regarding project boundary passing through any eco- sensitive area and within 10 km from eco-sensitive area.
Forest and Wildlife Related Details	

1.	An overall green area of at-least 33% of the Industrial Area should be developed with native species. The green area shall be 40% in case of critically polluted area. Green buffer in the form of green belt to a width of 15 meters should be provided all along the periphery of the industrial area.
2.	Submit the details of the trees to be felled for the project.
3.	Submit the present land use and permission required for any conversion such as forest, agriculture etc.
Court/ Litigation Related	
1.	Submit Legal frame work for the implementation of Environmental Clearance conditions - to be clearly spelt out in the EIA report.
2.	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
Water Environment/Quality/Hydrology	
1.	Ground water classification as per the Central Ground Water Authority
2.	Submit the source of water, requirement vis-à-vis waste water to be generated along with treatment facilities, use of treated waste water along with water balance chart taking into account all forms of water use and management.
Rain Water Harvesting	
1.	Rain water harvesting proposals should be made with due safeguards for ground water quality
2.	Maximize recycling of water and utilization of rain water. Examine details.
3.	Examine soil characteristics and depth of ground water table for rainwater harvesting.
Waste Management, Drainage and STPs Details	
1.	Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area, and any obstruction of the same by the project.
2.	Examine details of solid waste generation treatment and its disposal.
Soil Environment	
1.	Examine soil characteristics and depth of ground water table for rainwater harvesting.
Energy and Resources	
1.	Examine and submit details of use of solar energy and alternative source of energy to reduce the fossil energy consumption.
Air Environment	
1.	In case DG sets are likely to be used during construction and operational phase of the project. emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.

Road/Transport Safety and Traffic Aspects	
1.	Examine road/rail connectivity to the project site and impact on the traffic due to the proposed project.
2.	Present and future traffic and transport facilities for the region should be analysed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.
3.	A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
4.	Examine the details of transport of materials for construction which should include source and availability.
Noise Environment	
1.	Examine noise levels - present and future with noise abatement measures.
Environmental Management Plans and Mitigative Measures	
1.	Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
2.	Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
3.	Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry.

4. Any Other Item(s)

N/A

5. List of Attendees

Sr. No.	Name	Designation	Email ID	Remarks
1	Dr Amardeep Raju	Scientist E	ad.****@nic.in	
2	Shri Manmohan Singh Negi	Chairman, EAC	neg*****@hotmail.com	
3	Dr V K Jain	Member (EAC)	drv*******@hotmail.com	
4	Shri S. Jeyakrishnan	Member(EAC)	suk******************@gmail.com	
5	Dr. Jaya Kumar Seelam	Member(EAC)	jay@nio.res.in	
6	Dr. P. K. Dinesh Kumar	Member(EAC)	pkd**********@gmail.com	
7	Col. Prakash Tewari	Member(EAC)	pra**********@gmail.com	
8	Dr.R.S.Kankara	Member(EAC)	rsk******@gmail.com	Absent

9	Dr.Nasim Akhtar	Member(EAC)	nas*******@csir.res.in	
10	Shri Sharandeep Singh	Member(EAC)	sha**********@nic.in	Absent
11	Shri Ashok Kumar Patre	Member(EAC)	ash**********@gov.in	Absent
12	Ms. Bindu Manghat	Member(EAC)	del**********@gov.in	Absent
13	Shri Amardeep Raju	Member(EAC)	ad.****@nic.in	

Minutes of the 422th meeting of Expert Appraisal Committee (EAC) of Infra–I (IA–III) through Hybrid Mode held on 31st October, 2025 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, Harbors, Breakwaters, Dredging 7(e) and National Highways 7(f).

The 422th Meeting of Expert Appraisal Committee (EAC) of Infra–1(IA–III) through Hybrid Mode held on 31st October, 2025 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.

1. CONFIRMATION OF THE MINUTES OF THE LAST MEETING.

The Committee confirmed the Minutes of the 420th EAC meeting held on 15th October, 2025.

2. AGENDA WISE CONSIDERATION OF PROPOSALS.

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

Agenda Sr. No. 3.1

Subject: The proposal is for Expansion of Navlakhi Port, located at Village: Navlakhi, Taluka: Maliya, District: Morbi, Gujarat by M/S Gujarat Maritime Board.-Terms of References regarding.

[Proposal No.: IA/GJ/INFRA1/555262/2025; 10-14/2015-IA-III]

The EAC noted that the Project Proponent and the consultant have given 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 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 considered before the EAC during its 422th EAC meeting of the Expert Appraisal Committee held on 31st October 2025 the project proponent and EIA Consultants M/s Ultra-Tech, made a presentation through video conference and submitted the following information.

3.1.2 The Proposed project is for Expansion of Navlakhi Port, located at Village: Navlakhi, Taluka: Maliya, District: Morbi, Gujarat by M/s. Gujarat Maritime Board. Geocordinates of

the projects lies in 22°57'15.77"N and 70°27'32.46".

3.1.3 M/s Gujarat Maritime Board obtained the Environment and CRZ clearance from the Ministry for Modernization of Navlaki Port by way of 1) Mechanization of the existing facilities & 2) Construction of new mechanized jetty vide letter 10-14/2015-IA-III on 20/11/2020.

3.1.4 Details of Existing Berths and Major Cargo Handled at Navlakhi Port

S. No.	Terminal Name	Berth Type	Berth Dimensions	Cargo Handled	Year of Commission	Details of EC: File No:10-14/2015-IA-III dated 20.11.2020
1.	Navlakhi GMB Jetty	GMB Jetty	Length:163 m Width: 25.25 m Draft: 4.5 m	Coal, Cement	Commissioned prior to 1991	• Mechanization of the existing port facility. • Increase in cargo handling capacity of Navlakhi Port from 4 MMTPA to 20 MMTPA • Construction of 5 new mechanized jetties of length 1284.8 m (Sagarmala project Jetty 870 m) • Capital Dredging of 4,07,592 m^3,and an annual maintenance dredging of 41,350 m^3 to maintain a depth of (-) 4 m.
2.	United Shipping Liners	Private Jetty	Length: 102 m Width: 15 m Draft: 4.5 m	Coal	Commissioned prior to 1991	
3.	Jaydeep Associates	Private Jetty	Length: 77 m Width: 4.5 m Draft: 2 m	Coal	Commissioned prior to 1991	
4.	Shreeji Shipping	Private Jetty	Length: 92 m Width: 9 m Draft: 2 m	Coal	Commissioned prior to 1991	
5.	GMB Jetty (Newly constructed)	GMB Jetty	Length: 485 m	-	2024	

			Width: 25 m			

3.1.5 Summary of Existing and Proposed Jetties and Berths

S. No.	Terminal Name as per EC/CRZ clearance obtained in the year 2020	Berth Type	Berth Dimension	Remarks / Status
1.	New GMB Jetty (770.00 m x 25.00 m)	GMB Jetty	Length: 485 m,Width: 25 m,	Construction completed
2.	Right of USL Jetty (100.00 m x 25.00 m)	Proposed Bulk Cargo/Coal Berth	Length: 260 m, Width: 32.5 m,	The existing USL jetty will be demolished, and a coal berth will be constructed in its place
3.	Left of USL Jetty (181.05 m x 25.00 m)			
5.	Right of M/s Shreeji Wharf (87.75 m x 10.00 m)	Proposed Salt Berth	Length: 400 m,Width: 25 m,	The existing M/s. Shreeji Wharf will be demolished, and a salt berth will be developed in place of it.
6.	-	Container Berths (Sui Creek)	Length: 660 m, Width: 60 m,	In Sui Creek, the existing GMB jetty will be demolished, and container berths will be developed.

3.1.6 Details of the Proposed Facilities.

Component	Phase-1 (2038)	Phase-2 (2045)	Master Plan Phase (2060)
Commissioning Year	2029	2038	2045
Dredging	Total 7.5 Mcum – approach channel & manoeuvring area; capital dredging to -9.0	Total 7.7 Mcum – only berth pockets of container berths; capital dredging to -9.0 m CD	Total 8.2 Mcum – manoeuvring area & berth pockets under master plan

	m CD, berth pockets to -12.5 m CD		
Reclamation	0.95 Mcum reclaimed and developed as storage area	a. Total quantity of reclamation is about 1.04 Mcum in phase 2.	1.08 Mcum reclaimed and developed as storage & yard area
Navigation Infrastructure	Approach channel 160 m wide, turning circle 450 m, navigational aids proposed	Approach channel 160 m, turning circle 460 m, navigational aids	Approach channel 160 m, turning circle 460 m, navigational aids (same as Phase-2)
Berth Types & Sizes	Total four types of berths i.e., - Coal Berth for direct Berthing (260 m), - Coal Berth for Barge Berthing (300 m), - Container Berth (220 m) - Salt Berth (210 m) The coal handled through barges shall be handled at the existing non-operational GMB berths.	Total four types i.e., - Coal Berth for direct Berthing (260 m), - Coal Berth for barge Berthing (300 m), - Container Berth (660 m) - Salt Berth (210 m) The coal handled through barges shall be handled at the existing non-operational GMB berths.	Total four types of berths i.e., - Coal Berths for direct Berthing (260 m), - Coal Berths for Barge Berthing (400 m), - Container Berth (880 m) - Salt Berth (400 m) The coal handled through barges shall be handled at the existing non-operational GMB berth.
Cargo Handling Equipment	2 screw unloaders (coal); 2 MHCs (container); 1 mobile loader (salt); 6 crawler cranes (barge coal); 3stacker-cum-reclaimers;	2 screw unloaders (coal); 6 MHCs (container); 1 mobile loader (salt); 6 crawler cranes (barge coal); 3stacker-cum-reclaimers; RTGs – not specified	2 screw unloaders (coal); 8 MHCs (container); 2 mobile loaders (salt); 8 crawler cranes (barge coal); 3 stacker-cum-reclaimers; 26 RTGs; adequate pay loaders & dumpers

	6 RTGs; adequate pay loaders & dumpers		
Back-up Area	79 Ha – fully mechanized & manual bulk yard, container yard, salt yard, ancillary facilities (roads, admin, ops, workshops, substation, fuel depot, etc.)	84 Ha – expanded area with similar but enlarged facilities	88 Ha – final expanded back-up with full mechanized bulk yard, container yard, salt yard, workshops & utilities
Utilities & Services	Water supply incl. Desalination plant, Fire-fighting, drainage, sewerage (STP), power & DGs based on Phase-1 needs	Same utilities, scaled to Phase-2 capacity	Same utilities (desalination, fire-fighting, STP, power supply, DGs) scaled to master-plan capacity
Design Vessel Size	Depth -9.0 m CD (basin), berth pockets -12.5 m CD; Panamax (~11 m draft)	Similar draft capacity; Panamax/ feeder vessels	Panamax/feeder vessels; maintained dredge depths as per master plan
Demolition	To facilitate redevelopment of Navlakhi Port, the existing GMB Jetty, USL jetty and M/s Shreeji Wharves will be demolished and replaced with new berths. The total demolition area is about 6473.75 sq.m, including the USL jetty (1530 sq.m), Shreeji Jetty (828 sq. m) and GMB Jetty (4115.75 sq.m).		
Berge Jetties	The planning for barge jetties considers the narrow end width, with operational clearance and alignment finalized to ensure safe navigation and efficient handling post dredging in front of berths.		

3.1.7 The project/activity is covered under the category 'A' of item 7(e**)** i.e. Ports, of the schedule to the EIA Notification, 2006, and its subsequent amendments. Total cost of the project is Rs.514200 Lakhs.

3.1.8 Land use/Cover: Land required for port

Sr. No.	Commodity	Requirement of Backup Yard (in Ha)		
		Phase 1	Phase 2	Master Plan
1.	Storage Space for various Cargoes	42	52	55

2.	Internal Roads and Circulation Space within Port @ 10%	13	16	17
3.	Port Building Complexes including parking	5	5	5
4.	Landscaping, Green belt and other for expansion @ 10%	8	10	11
Minimum Land Area Required (Hectares)		68.0	83.0	88.0

3.1.9 Terrain and Topography: Navlakhi Port lies on a flat, low-lying coastal plain along the Gulf of Kutch in Gujarat. The area comprises mudflats, salt marshes, and clay soil, with minimal elevation and a gentle gradient. Tidal creeks and high tides shape the landscape, while the surrounding region is mostly barren scrubland and salt-pans.

3.1.10 Details of water bodies, Impact on drainage: The Jhijhoda River is located at an approximate distance of 7.50 km from the site, while the Phulku River lies about 7.60 km away. The Demi River is situated at a distance of around 9.70 km. In addition, several creeks are present in the vicinity, the Sui Creek directly abuts the project site, Hansthal Creek is located approximately 0.50 km away, and Phuljhana Creek is about 2.00 km from the site.

3.1.11 Water Requirements: Water for construction phase will be met from water transported through private water tankers. During the operation phase, the estimated water demand is 0.36 MLD for Phase 10.42 MLD for Phase 2 and 0.47 MLD for the Master Plan phase. Potable water is sourced from water wells at Dahisara, located 15 km from the port, and is currently supplied via water tankers. Water is stored on-site in one overhead tank (200,000 litres) and two underground sumps (125,000 litres and 90,000 litres).

3.1.12 Tree Cutting: The proposed project does not involved any cutting of trees.

3.1.13 Diversion of forest land: The proposed project does not involved any forest land, hence no forest diversion is required. The project is not located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc and Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC.

3.1.14 Details of CRZ area: The proposed expansion project falls within CRZ-IB, CRZ-III, and CRZ-IVB zones as per the approved Coastal Zone Management Plan (CZMP) map. The recommendations of the Gujarat State Coastal Management Authority (GSCMA) will be obtained and submitted along with the EIA/EMP report.

3.1.15 Details of Shoreline Change: According to the shoreline change map of Gujarat (41J/5/NE, Map No. NCCR/SCM/046) prepared by the National Centre for Coastal Research (NCCR), the area is classified under the low erosion to stable coast category.

3.1.16 Details of channel, breakwaters, dredging, disposal and reclamation: The Navlakhi Port expansion project includes development of approach channels, berths, and associated maritime infrastructure to handle larger vessels efficiently. The details are as follows:

i. Channel: The approach channel is designed to be 160 m wide, with turning circles of 450–460 m, providing safe navigation for Panamax and feeder vessels. Navigational aids will be installed to ensure smooth vessel movement.

ii. Dredging: Capital dredging will be carried out to achieve depths of –9.0 m CD in approach channels and –12.5 m CD in berth pockets. Total dredging volumes are estimated at 7.5 Mcum for Phase-1, 7.7 Mcum for Phase-2, and 8.2 Mcum under the Master Plan. Dredged material will be disposed of at designated offshore sites in compliance with environmental regulations, ensuring minimal impact on marine ecology.

iii. Reclamation: Reclamation will be undertaken to develop storage and yard areas, with approximately 0.95 Mcum in Phase-1, 1.04 Mcum in Phase-2, and 1.08 Mcum under the Master Plan, creating additional land for cargo handling, roads and ancillary facilities.

3.1.17 Details of Handling of cargo, storage, transport: Cargo such as coal, salt, fertilizer, and containers will be handled through mechanized systems like conveyors, cranes, and stacker–reclaimers. Covered conveyors, enclosed transfer points, and water sprinkling or misting systems will control dust during handling, storage, and transport. Trucks will be covered with tarpaulins, and paved surfaces with proper drainage will prevent spillage. Cargo residues and wash water will be collected and disposed of as per GPCB norms, with regular housekeeping to ensure clean and safe port operations.

3.1.18 Waste Management: No effluents at the project site is envisaged. No significant industrial process waste is expected. Minor oil spills and equipment waste will be handled as per applicable environmental norms. STPs of 70 KLD (Phase 1), 95 KLD (Phase 2) and 115 KLD (Master Plan) are proposed for treating domestic wastewater with treated water reused for landscaping and dust control.

3.1.19 Land Acquisition and R&R: The proposed expansion of Navlakhi Port will be carried out primarily within the existing port area under the administrative control of the GMB. Additional land required for the project, about 40 hectares, will be acquired by GMB as part of the planned expansion. The identified land is government- owned and free from any habitation or cultivation. Hence, there are no issues of displacement, R& R involved in the project. The expansion will not affect any residential areas, private properties, or community structures.

3.1.20 Employment opportunities: The development and operationalization of the port will play a pivotal role in generating employment opportunities within the region. Various categories of manpower will be required to support administrative functions, as well as operations and maintenance activities associated with the port’s infrastructure and services. It is estimated that approximately 600 personnel will be employed during Phase 1 of the project

and 795 personnel during Phase 2. As the port expands to its full capacity under the Master Plan, the manpower requirement is expected to rise to around 950 personnel. In addition to direct employment within port operations, the project is anticipated to create nearly 2,000 indirect employment opportunities through ancillary and support services. Overall, this expansion will make a substantial contribution to the socio-economic growth of the surrounding region.

3.1.21 Benefits of Project: The Navlakhi Port project is expected to drive significant financial growth by boosting regional trade, attracting investments and generating substantial revenue through increased cargo handling and port services. It will create employment opportunities for around 600 people in the initial phase, expanding further as the port develops. Socially, the project will improve local livelihoods by providing jobs and enhancing infrastructure such as roads, utilities, and community services.

3.1.22 Details of Court cases: There is no court case involved in the project.

3.1.23 Observation of the committee:

1. The Committee noted that the project was earlier granted Environmental Clearance (EC) in the year 2020. The Committee sought details from the Project Proponent (PP) regarding the validity and compliance status of the earlier EC, including implementation progress and any changes made since the previous approval.

2. Further The Committee also sought the following clarifications:

i. *The committee observed that there appears to be a lack of long term planning for the port development. In 2020 only the PP obtained EC for undertaking extensive expansion activities in port including handling capacity enhancement from 4MMTPA to 20 MMTPA, construction of 5 mechanised jetties, mechanization of the existing jetties and dredging. And now they are proposing the redevelopment of the port after the demolition of existing jetties. Such short term planning unduly compelled the PP to seek environmental clearance frequently.*

ii. *The PP could not clarify why they are not able to complete the entire 870 meters length of New GMB jetty which was approved as per the EC issued in 2020 and what is the reason for change in their approach to limit the length of the jetty to 485 meter only.*

iii. *As per PP during the redevelopment of the port the over 10 lakh CuM will be used for reclamation of land. However they were not clear how much area of the land will be reclaimed*

iv. *The Committee observed the status of expansion-related activities being undertaken during the process of obtaining a fresh ToR needs to be verified.*

Therefore PP shall furnish detailed information along with a detailed chart indicating the balance and new activities should be prepared and submitted.

v. *The PP shall clarify whether any forest land exists on the backside of the project site and, if so, provide details of its distance from the project boundary.*

vi. *The PP may provide the width of the jetty along with relevant design specifications such as deck width, approach width, and loading capacity to facilitate a comprehensive technical assessment.*

vii. *Details of the Cargo Handling of the existing and proposed capacities needs to be provided.*

viii. *The Committee advised the PP to indicate the distance of the project site from the nearest ESZ/ERZ boundary, if applicable, and to submit the project layout on a 1:4000 scale map duly authenticated by the concerned authority. Although such a map is typically required at the EC stage, the Committee opined that it should also be provided at the ToR stage for clarity. Meanwhile, the PP may commence data collection for the preparation of the EIA/EMP report.*

ix. *The committee opined that in view of the above observations in field inspection may be required.*

3.1.24 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 422nd meeting of Expert Appraisal Committee held on 31st October, 2025 **deferred** the proposal and the EAC recommended that the sub-committee shall conduct the site visit for further appraisal and the committee also requested to the PP to submit the above mentioned information as sought during the EAC meeting.

Agenda Sr. No. 3.2

Subject: The proposal is for development of Bagepalli Industrial Area Phase-2 at Kondereddipalle village, Bagepalli Taluk, Chikkaballapura District, Karnataka State by M/S Karnataka Industrial Areas Development Board.-Terms of Reference regarding.

[Proposal No.: IA/KA/INFRA1/554535/2025; F.No:10/25/2025-IA.III]

The EAC noted that the Project Proponent and the consultant have given 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 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 considered before the EAC during its 422nd EAC meeting of the Expert Appraisal Committee held on 31stOctober 2025 the project proponent

and EIA Consultants J. M. Environet Pvt. Ltd. made a presentation through video conference and submitted the following information.

3.2.2 The proposed project is for development of Industrial Area Phase 2 at Kondereddipalle village, Bagepalli Taluk, Chikkaballapura District, Karnataka State by Karnataka Industrial Areas Development Board at an area of 93.94 ha.

3.2.3 The proposed project is an Industrial Area Development listed as ScheduleNo.7(c) under Category'A' as per the EIA Notification, 2006. Due to the applicability of General conditions (Andhra Pradesh State Border is located at distance of 3.62Km from the proposed project site boundary), the project will be appraised at MoEF&CC. The total cost of the project is Rs.33626.13 lakhs.

3.2.4 Land use/Cover: Land use breakup.

S.No.	Particular	Area (Acres.)	Percentage of the area.
1	Industrial Plot	163.51	70.44
2	Amenity	5.00	2.15
3	Utilities	6.80	2.93
4	Green belt	23.29	10.03
5	Parking	11.60	5.00
6	Road	21.93	9.45
Total		232.13	100.00

3.2.5 Terrain and Topography: The study area has plain terrain without major undulation. The land has an elevation ranging between of approx. 763 m and 795 m.

3.2.6 Details of water bodies, Impact on drainage:

S.No	Water bodies	Distance (km)	Direction
1.	Kadehalli Lake	0.17	W
2.	Kushavathi River	1.48	W
3.	Nilagumba Pond	3.08	SW
4.	Chitravathi River	2.45	E
5.	Chitravathi RiverReservoir	3.55	SE
6.	Chilamatur Lake	8.27	NW
7.	Kadapalli Lake	1.41	N
8.	Gadidham Lake	4.55	NW

Apart from the above water bodies, there are 3 small seasonal streams are generating from the project site, and also there are various seasonal Nallahs/Streams are present in the study area which will not be disturbed for the proposed project

3.2.7 Water Requirements: During construction phase water requirement of 100 KLD will be met from treatment plants and tankers. No ground water at the site will be utilized for the construction. During operation phase 1845 KLD water will be required, 511 KLD fresh water

demand will be met from Yettina hole Project, remaining 1334 KLD treated water will be used for process, utility and greenbelt area development. In the proposed industrial area 250 KLD CSTP and 1300 KLD CETP will be proposing to achieve the zero liquid discharge

3.2.8 Tree Cutting: The proposed project does not involved any trees cutting.

3.2.9 Diversion of forest land: There is no involvement of forest land in the project.The project is not located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc and Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC.

3.2.10 Waste Management: During construction stage solid waste will used within the site as much as possible and shall be segregated for further reusability/disposal. The construction wastes are massive and insert waste having soil, sand, gravel, bricks, concrete metal etc... Solid waste to be generated in office building will be domestic in nature solid wastes generated will be segregated into biodegradable (waste vegetables and foods etc) and treated in organic converter inside the premises and non- biodegradable (Paper, plastic, glass etc...) components are collected in separate bins and disposed to the recyclers. Dewatered/ dried sludge from STP will be used as manure in landscaping area.

3.2.11 Land Acquisition and R&R: As the proposed project area is already under the position of KIADB, there are no human settlements within the Project site. Hence rehabilitation and Resettlement plan is not required.

3.2.12 Employment opportunities: During development of the project, it will create direct and indirect employment generation in large numbers. During construction phase around 200 personnel will be required. Over 5000 employees (Permanent- 2000; Contractual-3000) will be working in the industries to be proposed in the industrial area.

3.2.13 Benefits of Project: There will be an opportunity for job at different cadres and work force. This project will have positive impact on the socio economic status of the surrounding human environment. Proposed Industrial Area will help in revenue generation for the State as well as to the Country. Socioeconomic benefit to the locals it would be provide direct employment and indirect employment.

3.2.14 Details of Court cases: There is no court case involved in the project.

3.2.15 Observation of the committee:

i. *While analyzing the project KML file, the Committee observed several distinct patches within the project area which are not part of the project. The Project Proponent (PP) intimated that these patches of land are not yet acquired therefore these patches are excluded from the project. They further clarified that acquisition of these land parcels is in advance stage and these patches will be part of the project in later stages after completion of the projects. The committee was of the opinion that if the PP has the*

intention to include these patches in the project area they should come up with the revised area and layout of the project including these patches.

ii. *The Committee sought clarification from the Project Proponent (PP) regarding the provisions made for the protection and management of surface water bodies located in or near the project area, including measures for drainage control, runoff management, sedimentation, and prevention of contamination?*

iii. *Whether any specific provision has been made for rainwater harvesting or drainage water management, particularly focusing on groundwater recharge measures.*

iv. *The PP shall provide details of the proposed green belt plan, including species, width, and area coverage.*

v. *To clarify and provide the complete list of industries proposed or existing within the project area and its vicinity, along with their respective activities, type (red/orange/green category), and consent status from the State Pollution Control Board.*

3.2.16 After examining the documents submitted by the project proponent and detailed deliberations in its 422nd meeting held on 31st October, 2025 and in view of the above observations the EAC recommended to **return the proposal** in the present form for grant of Terms of References (ToR).

Agenda Sr. No. 3.3

Subject: The proposal is for Construction of Access Controlled Super Communication Pune - Nashik Industrial Expressway Corridor Maharashtra by M/S Maharashtra State Road Development Corporation Limited. Terms of References regarding.

[Proposal No.: IA/MH/INFRA1/493891/2024; File no:10/24/2024-IA.III]

The EAC noted that the Project Proponent and the consultant have given 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 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 earlier considered before the EAC during its 395th meeting and the Committee after detailed deliberation deffer the proposal and sought the requisite information. At this stage the proposal is further placed in the 422th EAC meeting of the Expert Appraisal Committee held on 31st October 2025 the project proponent and EIA Consultants Enviro Resources made a presentation though video conference and submitted the following information:

3.3.2 The Proposed project is for Construction of Access Controlled Super Communication Pune-Nashik Industrial Expressway Corridor Maharashtra by Maharashtra State Road Development Corporation Limited**.** Geocordinates of the project starts 18°41'16.94" N, 73°51'41.97" E - at Chimbali, 19°39'7.51" N, 74°22'37.43" E- near Shirdi town.

3.3.3 The project/activity is covered under the category 'A' of item 7(f) Road of the schedule to the EIA Notification, 2006, and its subsequent amendments. Total cost of the project is Rs. 1753900 lakhs.

ADS Query raised in 395th EAC meeting held on 17th March 2025.	ADS Response submitted by pp in 422nd EAC held on 31st October 2025
The proposed project activity is listed at schedule S.No.7(f) Highways under Category- 'A', of the schedule of the EIA Notification, 2006 due to applicability of 'General Condition' i.e., the proposed project alignment falling within 5 km from the critically polluted areas such as Pimpari Chinchwad Municipal Corporation and Industrial area (Pune) and Satpur MIDC area (Nashik).	PP submitted the area with exact location and mapping details.
The length of the main carriageway is approx. 134 Km in which 11 Tunnels have been proposed for a length of approx. 3.22 Km and the entire alignment does not pass through the Western Ghats.	The proposed alignment does not pass through the western ghat as it is 14 km from ESA of western ghat.
The EAC observed that it is receiving a number of road proposals in the state of Maharashtra, especially from the ecologically sensitive areas like western ghats from the multiple road development agencies of the state as well as of the central government like MSRDC. PWD and NHAI. The PP has not given any evidence to establish that any inter agency consultation is being taken place before finalisation of the road proposals, especially in ecologically sensitive western ghat area. Such absence of consultation and coordination between the agencies may lead to unplanned development of roads in the ecologically sensitive areas	• MSRDC has consulted with the concerned road development agencies in these areas such as MSIDC, PWD and NHAI collected the data. • As per MSIDC the proposed road from Chakan to Shikrapur crossing the road at 6+700 in Perpendicular direction where Interchange is proposed. • NHAI- NHAI does not have any other proposal parallel to it. • PWD-ROW has collected from PWD to propose at grade junctions and grade separator structures for proper planned traffic movement in the region.

- MSRDC has proposed the Eight Interchanges and four connectors to provide proper planned industrial vehicle traffic movement.

The list of Interchange and connector and Key plan

IC No	Chainage	Cross Road	Type
IC 01	0+000	Pune Ring Road	Pune Ring Road
IC 02	6+815	Chakan-Shikrapur Road (NH-548D)	Rotary
IC 03	27+980 Shirur-	Shirur-Mumbai Road (SH-54)	Rotary
IC 04	68+800	Murbad-Ahmednagar Road (NH-61)	Double Trumpet
IC 05	91+410	Pune-Nashik Road (NH-60)	Double Trumpet
IC 06	102+200	Sakur village Road	Rotary
IC 07	124+100	Rahuri-Sangamner Road	Rotary
IC 08	133+944	Chennai Surat Expressway in Km 207+800	Full Cloverleaf

In view of the iii above the EAC is of the opinion that ministry take up the matter with MoRTH and state government to know whether any inter agency coordination mechanism has been established for developing the road network by the various agencies, especially in the ecologically sensitive areas. And if not steps need to be taken to establish such coordination mechanism.	It has been informed by the Member Secretary that an Alignment Approval Committee (AAC) is constituted by Ministry of Road Transport and Highways (MoRTH), responsible for approving the route or layout for road infrastructure projects for the national highways and the state highways. These committees review and approve project alignments, often using digital tools like the PM Gati Shakti Portal to ensure optimal finalization. The approval process involves technical, economic, and environmental considerations.
It is also observed by the EAC that the PP is submitting considerable number of stand-alone projects, especially in the ecologically sensitive western ghat areas which does not help in giving a clear picture traffic requirement and the cumulative impact of these projects on ecologically sensitive areas. Therefore there is need that PP makes a detailed presentation of the its plan of developing road network in these sensitive areas, giving details of the road network developed new road proposals initiated/likely to be initiated in future, justification for these proposals, related traffic studies and cumulative impact assessment of these projects on the environment of these ecologically sensitive areas. The user agencies shall takeup the proposal in holistic approach for clarity regarding the proposal considering the different upcoming projects and road networks of all the agencies concerned. PP mentioned that due to elevation differences across the proposed alignment, viaducts have been proposed throughout the stretch wherever possible.	M/s. Monarch has presented the EAC the detailed presentation on "TRANSFORMING MAHARASHTRA: THE EXPRESSWAY ADVANTAGE" including the existing road network and proposed road networks for Overall development of Maharashtra on 9th July, 2025.
The EAC suggested PP for a reduction in heavy earth-cutting at hillocks and instead, flyovers/viaducts length/height shall be	The PP mentioned that the suggestion of the EAC shall be incorporated during DPR stage.

optimized/ increased to ensure that drainage in the ghat areas is not obliterated, landscape is not unduly altered and soil erosion is avoided .	
The EAC suggested some revisions in the alignment at Ch. 52+200, PP shall ensure that the viaduct length is optimum. Tunnel openings, at Ch. 94+100 to Ch. 94+120, Ch. 95+400 to Ch. 95+731, and Ch. 98+450 to Ch. 99+850 shall be revised, and viaducts with optimum lengths shall be provided instead of the proposed at-grade tunnel openings to avoid unnecessary heavy earth cutting/ deep box cutting.	The reassessment of the proposed alignment and vertical profile has carried out to avoid unnecessary heavy earth cutting/deep box cutting as suggested by EAC considering existing terrain along the proposed alignment. Design of vertical profile is carried out as per IRC: SP: 99-2023 norms for vertical alignment.
Feasibility analysis shall be carried out for the following stretch suggested by the EAC and the details of the same shall be submitted. The suggested stretch shall be Alternative alignment Option-3 commencing at Ch. 45+300 on the Pune Ring Road near Sneh precast unit No.1 to be followed up to Ch. 109+300 intersection. From Ch. 109+300 the preferred Option-1 alignment shall be followed terminating at Ch. 207+800 of the proposed Surat-Chennai Expressway Interchange near Shirdi town. From the Shirdi Interchange (Ch.207+800) to the Nashik-Niphad Interchange (Ch. 143+400) of the Surat-Chennai Expressway is followed.	The main objective of the proposed road is to cater to the infrastructural need of the rapidly growing industrial sectors between Pune, Nashik, with rest of the country. The proposed Option 1 is traversing in the close proximity of the already developed and rapidly expanding industrial areas in Pune and Nagar District than suggested Option 3. The average length of connectors for Option 1 is 63.47km, whereas the suggested option 3 is 95.92km. This will require additional travel for the Industrial and commercial traffic which will degrade the economic prospectus of the road alignment The proposed option connects the industrial areas in Bhosari, Chakan, Rajgurunagar, Rajangoan Sangamner, and Nashik to the rest of the country via Surat Chennai, and rest of Maharashtra via Samruddhi Mahamarg with High-Speed Corridors of Expressways. This will promote sustainable growth in the region. Further, in view of environmental aspect option 3 requires 45.60 ha of forest land whereas option 1 requires 43.82 ha. Length of tunnel & viaduct in option 3 is also more than option 1 being passing through hilly area.

	Overall evaluation matrix of Option 1 & option 3 based on IRC: SP:19-2020 is submitted here with as per evaluation matrix Option 1 scores highest marks therefore recommended as most preferred option for proposed Pune Nashik Industrial Corridor.

3.3.4 **Observation of the committee:**

i. *PP were asked to confirm and provide details regarding the three tunnels proposed under the project, including their location, length, design features, safety provisions, and environmental management measures during construction and operation phases.*

ii. *PP were asked to clarify whether any tree cutting is involved in the proposed project. If yes, the PP shall provide details of the number of trees likely to be affected, the permission status from the Forest Department, and the compensatory plantation plan proposed. Forest clearance whether obtained or not.*

iii. *The Blue Tunnel is proposed to be of approximately 180 meters in length. The PP shall provide detailed specifications, construction methodology, and environmental safeguards proposed for this tunnel.*

3.3.5 In view of the above, M/s MSRDC vide letter no.MSRDC/PNIC/EC/TOR/2025/8164 dated 06th November, 2025 has submitted the following which was examined during the approval of the minutes and accepted :

i. The proposed alignment and its proposed structures prominently regarding tunnel and viaduct covering all the instructions given by the EAC committee in 395th & 422nd meetings to minimize the loss of agriculture land and hill cuttings and thereby of Environment. Therefore, in compliance with the instructions, details of the Alignment finalised in the meeting regarding the tunnel & Viaduct are submitted as:

i) The total length of project: 191.492 km

S.No.	Particulars	Length in Km
1	Main Alignment	133.944
2	Bhosari Connector	3.671
3	Ranjangaon Connector	24.460
4	NH -60 Connector	1.937
5	Shirdi Connector	9.100
6	Nashik Nihad Connector	18.380

	Total length	191.492

ii) The EAC suggested some revisions in the alignment at Ch. 52+200, PP shall ensure that the viaduct length shall be optimum.

The section from ch. 52+00 to 52+400 is proposed in Embankment by reducing the average filling about 6 to 7 m with provision for storm water drains as per terrain.

iii) The list of tunnels and viaducts proposed as per instructions are as under

Sr. No.	Chainage From	Chainage To	Length	Proposed Structure	Remarks
1	-0+240	0+240	480	Viaduct	-
2	5+782	7+072	1290	Viaduct	-
3	15+820	16+060	240	Viaduct	-
4	17+040	17+240	200	Viaduct	-
5	17+380	17+780	400	Viaduct	-
6	18+820	19+000	180	Viaduct	-
7	19+500	19+740	240	Viaduct	-
8	20+852	21+516	664	tunnel	-
9	75+350	75+710	360	Viaduct	-
10	75+795	77+835	2040	Viaduct	-
11	80+175	80+505	360	Viaduct	30 m length of viaduct is increased by raising the design profile as suggested in EAC meeting.
12	80+600	80+725	160	Viaduct	35 m length of viaduct is increased by raising the design profile as suggested in EAC meeting.
13	85+485	85+685	200	Viaduct	-
14	85+989	86+569	580	Viaduct	-
15	93+285	93+705	420	tunnel	-

16	93+880	94+680	800	Viaduct	New viaduct of length 800 m is introduced by raising the design profile as suggested in EAC meeting.
17	95+035	95+275	240	tunnel	-
18	99+845	100+175	330	Viaduct	-
19	101+715	101+855	140	Viaduct	-
20	103260	103920	660	Viaduct	New viaduct of length 660 m is introduced by raising the design profile as suggested in EAC meeting.
21	108+195	109+355	1160	Viaduct	-
22	118+115	118+755	640	Viaduct	-
23	121+875	122+295	420	Viaduct	-
24	127+755	127+935	180	tunnel	-

The proposed length of tunnel & Viaduct may vary slightly depending on the grade requirement as per codal provisions & site constraints. The Final length of tunnel & Viaduct will be incorporated in the EIA report with its reasons for modification if any. Efforts will be made to keep within the spirit of the instructions issued by the Committee.

3.3.6 The EAC, after examining the documents submitted by the project proponent and detailed deliberations in its 422nd meeting held on 31st October, 2025 **recommended** the proposal for grant of Terms of References (ToR)for Construction of Access Controlled Super Communication Pune - Nashik Industrial Expressway Corridor Maharashtra by M/S Maharashtra State Road Development Corporation Limited with specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

i. The project shall be executed as per the revised alignment and design of the tunnels and viaducts in sub clause iii of para 3.3.5 above.

ii. A comprehensive hydrological and hydrogeological investigation shall be conducted by a reputed institute for the site and should be incorporated in the EIA report.

iii. A comprehensive assessment of the impact of seismicity on tunnel stability as well as the study for assessing the impact of vibration during tunnel boring operation needs to be carried out by a reputed institute and should be incorporated in the EIA report.

iv. Details regarding the ventilation system envisaged for the tunnels need to be presented in the EIA report.

v. Detailed muck and dredge material disposal plan including specific earmarked locations be identified.

vi. Evacuation plans in case of fire, floods, earthquake etc be carefully studied with models and explanations be presented as a part of the EIA report.

vii. The proponent shall carry out a detailed traffic flow study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/PUP (Pedestrian underpass) needs to be included.

viii. Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by way of road kill management plan.

ix. Passage for animal movement has to be detailed in the EIA/EMP Report. Animal underpasses shall be constructed at least at two places which are closer to WLS boundary and ESZ boundary to ensure free movement of the animals from the WLS to nearby forest and wildlife areas.

x. A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided. Such plantation alongside forest stretch will be over and above the compensatory afforestation. Tree species shall be the same as per the forest type.

xi. The PP shall not use groundwater/surface water without obtaining approval from CGWA/ SGWA as the case may be. The project proponent shall apply to the Central Ground Water Authority (CGWA)/ State Ground Water Authority (SGWA)/Competent Authority, as the case may be, for obtaining No Objection Certificate (NOC), for withdrawal of ground water.

xii. Detailed Biodiversity assessment and conservation/ mitigation plan be developed by a reputed institute or by a team of experts of national repute.

xiii. Detailed information about the nature and species of trees (exotic/native/planted) and their numbers.

xiv. The alignment of roads should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. Alignment also should be such that it will avoid cutting old, large and heritage trees if any. All such trees should be geo-tagged, photographed and details to be submitted in the

EIA/EMP report.

xv. Rain water harvesting structures to be constructed at the either sides of the road with special precautions of oil filters and de-silting chambers.

xvi. The proponent shall carry out a comprehensive socio-economic assessment and also impact on biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.

xvii. The proponent will ensure installation of Advanced Traffic Management Systems (ATMS) and weigh in motion to prevent overloading of vehicles for safety while in motion as per NHAI and MORTH guidelines.

xviii. As per the Ministry's Office Memorandum F.No.22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the Ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.

xix. In pursuance of Ministry's OM stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC along with the detailed EIA/ EMP Report.

xx. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25th October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/ EMP Report.

Agenda Sr. No. 3.4

Subject: The proposal is for development of an all-weather multi-user Greenfield Port over an area of 1578.27 Ha (3899.987 Acres) located at Astaranga, Puri District, Odisha by M/s Navayuga Engineering Company Limited-Terms of Reference regarding.

[Proposal Number: IA/OR/INFRA1/531495/2025; F.No: 11-60/2013-IA.III]

The EAC noted that the Project Proponent and the consultant have given 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 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 aforementioned proposal was earlier considered before the EAC during its 399th meeting of Expert Appraisal Committee to be 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 project proponent and EIA Consultants Cholamandalam M/s Risk Services Made a presentation through video conference and submitted the following information.

ADS Query raised during 409th EAC held on 30th-31st July, 2025	ADS Responses submitted by PP in 422nd EAC held on 31st October 2025
In response to the suggestions of the EAC to realign the layout of the project so as to avoid non permissible storage and railway siding activities in CRZ lA area and to avoid the mangroves, made during its 399th meeting, the PP reiterated its stand taken in 2015 that alternatives were already explored and only after this option II was proposed. The EAC clarified to PP that it wanted the PP to realign the layout within the option Il proposed by them. Therefore the committee observed that the project proponent did not examine the feasibility of realignment of layout within this option II so as to avoid non permissible storage and railway siding activities in CRZ lA area and to avoid the mangroves.	Based on the suggestions and feedback from the 409th EAC(Infra- I) Meeting, NECL has analysed the feasibility of alternative layout configuration within the selected location alternative of option-II. Optimized layout excluding western creek meandering has been studied the details are as follows: NECL has undertaken the historical satellite imagery analysis for evaluating the alternative layout options to minimize the environmental impacts on mangroves. Based on the assessment, it is inferred that the northern meander represents a natural water path that existed earlier (2012) inline to the aligned narrowing, with this consideration, the layout has been worked out excluding the western meandering narrowing and reclamation. In order to effectively utilize the land area and also to over-come the technical difficulty in railway development and storage area development, it is proposed to reclaim (approximately 42.91 Ha) in the northern meander and narrowing the creek without affecting the flow. In this alternative, the western meander of creek (approximately 3000 m) is retained, while the northern meander is proposed for straightening. The main objective for this alternative is to minimise the extent of mangrove disturbance by avoiding reclamation in the western meander and shifting of storage yards from CRZ area to Non CRZ area. 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 total 4 berths with quay length of 1250 m. The reduction in number of berths and corresponding stock yard area, results the decreases Cargo handling capacity from 150 MTPA to 120 MTPA. The phase-lA development will have the cargo handling of l7.7 MTPA. 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 as per the CRZ notifications. The optimized layout

	achieves nearly 46% reduction in mangrove disturbance, about 60% reduction in reclamation area, and restricts creek intervention to only essential stretches. Importantly, it shifts non permissible activities entirely out of CRZ-IA areas, ensuring full compliance with CRZ 2019 Notification. This optimization reflects a careful balance between technical feasibility and environmental protection Optimized layout excluding western creek meandering is enclosed as Annexure-1. The proposed 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. 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. Tidal influenced KaduaNadi traverses through the project site. The creek meanders at two places, namely at i) Nanpur- in the northern part of the creek. And ii) at Kanamana on the western part of the creek. For effective usage of the scarce land area, it has been proposed 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. 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. As suggested by the EAC, NECL has evaluated the alternative layout option and arrived at Optimized layout as a feasible option with minimal environmental footprint on the mangrove and creek environment. However, the number of berths is reduced from 18 to 14 and the overall cargo handling capacity decreased from 150 MTPA to 120 MTPA. The irregular creek alignment restricts the optimal

	placement of open stock yards, and covered goods sheds for fertilisers. The absence of adequate contiguous land parcels prevents efficient cargo handling operations, increases utilised circulation space and raises operating costs. Accordingly, avoiding the rerouting of creek is financially not viable for sustainable port development.
The expert members in the committee were of the opinion that the PP or consultant could not convincingly explain the inferences drawn from the hydraulic model study that re-routing of the Kaduva Nadi creek does not significantly impact flood inundation outside the port area, even under maximum rainfall and tidal flow. There is some possibility of avoiding the rerouting of the creek.	As per ToR F.No.11-60/2013-IA.III (28.01.2016), Condition (xi), NIOT, Chennai carried out numerical model studies (MIKE 21) to evaluate hydrodynamic behaviour of the Kadua Nadi creek system under extreme rainfall and tidal conditions. Simulations covered existing and rerouted conditions with combined high rainfall (252 mm/day) and spring tide (+2.05 m CD) to test flood resilience. **Key Inferences from NIOT Study:** i. Discharge volume remained nearly constant between existing and rerouted conditions. ii. Two rerouted reaches (840 m and 3000 m, 54 m width, 1:2 slope) found hydraulically adequate for flood conveyance. iii. No significant flood inundation observed outside the port boundary under worst-case rainfall and tidal scenarios. iv. Peripheral drainage system (7 m top width, 4 m bottom width) recommended along western and southern periphery for efficient runoff management. v. Sluices proposed to prevent tidal backflow into the drainage channels.
Shifting of storage areas and railway siding to non CRZ 1A area from mangrove need to be explored.	A detailed re-evaluation of land use within the Option-II layout was undertaken using the Odisha CZMP (2019) CRZ boundary layer and high-resolution satellite base maps. All bulk cargo stockyards (coal, iron ore) and associated rail sidings located near the northern and western meanders have been shifted landward into the central upland portion of the site beyond CRZ–IA influence. The revised configuration ensures: i. Zero encroachment into mangrove / intertidal zones. ii. Complete removal of non-permissible activities from CRZ–IA. iii. Relocation of rail corridor and associated facilities along the upland ridge, minimizing fill and floodplain obstruction.

iv. Only container and general cargo yards (clean cargo) are now retained near the eastern boundary, which falls under CRZ–III, where such activities are permissible subject to CZMP approval.

v. The revised layout achieves a substantial reduction in environmental footprint, while maintaining logistical efficiency and operational viability.

Aspect	Earlier layout	Revised layout	CRZ / ecological effect
Location of bulk storage yards	Shown adjacent to creek meander - likely inside CRZ fringe	Shifted/ landward to upland/non-CRZ areas in revised plan (Storage area reduction)	Original lay out: non-permissible in CRZ–IA/NDZ; Revised lay out: compliant (moved to upland/non CRZ)
Rail sidings	Aligned close to meander— potential CRZ intrusion on reclamation area (Upland/Non-CRZ)	Re-routed to upland corridor or aligned along bunds/roads. Western creek meander retained – bridges are proposed on stilts.	Revised layout avoids CRZ–IA intrusion (compliant)

Reclamation/creek straightening (upland/Non CRZ)	Both western & northern meanders were proposed for straightening/fill (large reclamation)	Only limited straightening of northern meander proposed; western meander retained	Revised lay out reduces reclamation and mangrove loss; post-reclamation CRZ boundaries will shift landward where straightening occurs (requires CZMP update)
Berths / foreshore	Berths present - permissible as foreshore function but risk if stockyard spillover occurs	Berths retained; storage explicitly moved upland	Berths permissible in CRZ-IB; ensure no adjacent storage spillover
Mangrove impact	Higher(more meander fill)	Lower (western meander retained; less fill)	Revised lay out is less ecologically damaging

The optimized masterplan achieves regulatory compliance with CRZ Notification, 2019 by:

- Eliminating non-permissible storage/rail activities from CRZ–IA.
- Retaining only permissible foreshore structures in CRZ–IB.
- Reducing NDZ involvement in CRZ–III.
- Significantly reducing mangrove displacement.

3.4.2 **Observation of the committee**:

i. It is observed that Tidal influenced KaduaNadi traverses through the project site and it was proposed to rerouting of creek system at two places where the creek meanders at two places, namely at i) Nanpur- in the northern part of the creek, and ii) at Kanamana on the western part of the creek.

ii. The EAC observed that as suggested by the EAC the PP has excluded the rerouting of the western part of the creek. PP further submitted that 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.

iii. The committee further noted that the alignment proposed for rerouting of the northern part of the creek follows the old route of the creek.

iv. Accordingly 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 total 4 berths with quay length of 1250 m. The reduction in number of berths and corresponding stock yard area, results in decreased Cargo handling capacity from 150 MTPA to 120 MTPA.

v. The phase-lA development will have the cargo handling of l7.7 MTPA. 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 as per the CRZ notifications. The optimized layout achieves nearly 46% reduction in mangrove disturbance, about 60% reduction in reclamation area, and restricts creek intervention to only essential stretches.

vi. The Committee opined that 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 revise the layout plan accordingly to ensure that the disturbance to mangroves is minimized or eliminated.

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

viii. 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 behaviour and ensure maintenance of natural flow conditions and free drainage during flood and cyclone events for the revised layout.

ix. The drainage pattern in 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.

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

xi. Orissa is known for turtle breeding grounds and hence development of port on nesting grounds should be studied.

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

xiii. PP were informed for the site inspection by a subcommittee.

3.3.1 The EAC, after examining the documents submitted by the project proponent and detailed deliberations in its 422nd meeting held on 31st October, 2025 **recommended** the proposal for grant of Terms of References (ToR) for Development of an all-weather multi-user Greenfield Port at Astaranga, Puri District, and Odisha by Navayuga Engineering Company Limited with standard conditions applicable for such projects.

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 authorized agency and management plan for mangrove system should be submitted, in case of likely disturbance due to construction of 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 behaviour 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.

x. Importance and benefits of the project.

xi. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.

xii. Recommendation of the Orissa CZMA shall be obtained and submitted.

xiii. Submit superimposing of latest CZMP as per CRZ (2019) on the CRZ map.

xiv. Submit a complete set of documents required as per para 4.2 (i) of CRZ Notification, 2019.

xv. Hydrodynamics study on impact of dredging on flow characteristics shall be carried out.

xvi. Marine biodiversity conservation plan be prepared by an institute of national repute.

xvii. Study the impact of dredging and dumping on marine ecology and draw up a management plan through the NIO or any other institute specializing in marine ecology.

xviii. Erosion and accretion studies shall be carried out.

xix. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).

xx. A certificate from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

xxi. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.

xxii. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.

xxiii. An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA.

xxiv. Disaster Management Plan for the project shall be prepared and submitted.

xxv. Details and status of court cases pending against the project, if any.

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

xxvii. PP shall submit all the Public hearing (already conducted) proceeding documents/information, along with the EIA/EMP report.

xxviii. A tabular chart with index for point-wise compliance of above ToRs. The specific ToRs as recommended above are in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

xxix. As per the Ministry's Office Memorandum F.No.22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the

public hearing, shall include all the activities required to be taken to fulfill these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.

xxx. In pursuance of Ministry's OM No stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.

Agenda Sr. No. 3.5

The proposal is for Development of 558.95 Hectare Industrial Estate of Khushkhera-Bhiwadi-Neemrana Investment Region (KBNIR) at, Lamachpur, Beerod, Mirzapur, Manka, Bawad, Palawa Tehsil – Mundawar, District – Kotputli-Behror and villaes Gugalkota, Chaubara Tehsil – Neemrana, District – Khairtal-Tijara, Rajasthan by M/s Rajasthan Industrial Corridors Development Corporation Limited.

[Proposal No.: IA/RJ/INFRA1/554994/2025;F.no: 21-18/2011-IA.III]

The EAC noted that the Project Proponent and the consultant have given 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 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 aforementioned proposal was considered before the EAC during its 422nd EAC meeting of the Expert Appraisal Committee held on 31st October 2025 the project proponent and EIA Consultants Eco Orbit Consultancy Pvt Ltd Ghaziabad, Uttar Pradesh Made a presentation through video conference and submitted the following information.

3.5.2 The Proposed project is for Development of 558.95 Hectare Industrial Estate of Khushkhera-Bhiwadi-Neemrana Investment Region(KBNIR) at, Lamachpur, Beerod, Mirzapur, Manka, Bawad, Palawa Tehsil – Mundawar, District – Kotputli-Behror and villaes Gugalkota, Chaubara Tehsil – Neemrana, District – Khairtal-Tijara, Rajasthan by M/s Rajasthan Industrial Corridors Development Corporation Limited. Geocordinates of the project lies in 27° 59′ 23.70″and Longitude 76° 28′ 29.34.

3.5.3 Details of Environment clearance: The earlier EC was accorded vide F.No. 21-18/2011-IA.III dated 13th October 2014 to M/s Delhi Mumbai Industrial Corridor Development Corporation Limited (DMICDC) (now National Industrial Corridor Development Corporation – NICDC) for the development of an industrial area covering 165.6 sq km (16,562 ha). To streamline implementation within Rajasthan, the Government of Rajasthan (GoR)

subsequently constituted M/s Rajasthan Industrial Corridor Development Corporation Limited (RIDCO). Accordingly, EC was transferred from DMIDC to RIDCO vide Letter F.No.21-18/2011-IA.III dated 20th June, 2023. Subsequently, RIDCO undertook amendments in the approved Master Plan, involving change in land use for an area of 558.95 hectares within the originally approved 165.6 sq km region, accordingly obtained the amendment in EC from MoEF&CC vide letter No.21-18/2011-IA.III dated 02nd July 2024. Based on recent land reassessments, field verification, and consultations with RIICO and other stakeholders, it had been observed that the availability of contiguous land suitable for industrial use is significantly constrained. Accordingly, the total project area for the proposed industrial estate under KBNIR has been rationalized and reduced to 558.95 hectares, representing Phase-I development. However, the PP could not able to complete the work within timeline of the EC, therefore the PP has applied for fresh ToR.

3.5.4 The project/activity is covered under the category 'A' of item 7(c**)** i.e. Indutries of the schedule to the EIA Notification, 2006, and its subsequent amendments. Total cost of the project is Rs. 89201lakhs.

3.5.5 Landuse/Landcover of project site.

S.No.	Landuse/Landcover	Area (ha)	Percentage(%)	Remarks, if any
1.	Area under industrial plots	166.71	29.83	-
2.	Area under Residential	19.35	3.46	-
3.	Area under commercial plots	34.42	6.16	-
4.	Area under knowledge city	47.43	8.49	-
5.	Govt. Office	7.03	1.26	-
6.	Mixed Land use	20.95	3.75	-
7.	Aabadi Development Area	13.49	2.41	-
8.	Utility	9.20	1.65	-
9.	Recreational	81.62	14.60	-
10.	Roadside Plantation Corridor	7.42	1.33	-
11.	Green Buffer (HT, Gas & Site)	27.45	4.91	-
12.	Transportation (With Parking)	3.61	0.65	-
13.	Road	119.18	21.32	-
14.	Pond/Lake	1.09	0.19	-
Total		**558.95**	**100**	-

3.5.6 List to industries to be housed with the proposed project site, and their categories as per

the EIA Notification, 2006:

Category 'A' Industries:

- Pesticide industries (5(b)-A)
- Distilleries – Molasses-based, capacity >100 KLD (5(g)-A)

Category 'B' Industries:

- Secondary metallurgical processing industries (3(a)-B)
- Synthetic organic chemical industries including bulk drugs and intermediates (5(f)-B)

Other anticipated industrial sectors include:

- Food and agro-processing industries
- Packaging and material handling industries
- Auto parts and component manufacturing
- General engineering and fabrication units
- Electronic and electrical component industries
- Logistics and warehousing facilities
- Solar panel assembly and renewable component manufacturing
- Electric vehicle (EV) battery and ancillary manufacturing units

3.5.7 Terrain and Topography: The project site covering 558.95 hectares forms part of the gently undulating terrain characteristic of the north-eastern plains of Rajasthan. The topography is nearly level with minor local undulations, sloping gradually from north-east to south-west. The site elevation ranges between 278 m and 295 m amsl.

3.5.8 Details of water bodies, Impact on drainage: Sahibi River (3.26 Km, South) and Banganaga River (6.66 Km, South). No direct impact is anticipated on the Sahibi (3.26 km S) and Banganga (6.66 km S) Rivers, as the project lies in an established industrial area

3.5.9 Water Requirements: During the construction phase, total water demand will be about 200 KLD, sourced legally by contractors through CGWA-approved tankers or authorized suppliers in nearby areas (Neemrana, Behror, Mundawar). RIDCO will ensure only permitted groundwater sources are used and provide piped water and sanitation facilities at labour camps. During the operation phase, the total water demand for KBNIR Phase-I is 10.67 MLD, including 3.17 MLD for domestic use and 7.5 MLD for industries (of which 6.0 MLD will be met through recycling under ZLD). The net freshwater demand will thus be 1.5 MLD.

3.5.10 Details of Tree Cutting: The proposed project does not involved any trees cutting.

3.5.11 Diversion of forest land: The proposed project does not involved any diversion of forest

land. The project is not located within the 10 km radius of the any National Parks, Sanctuaries, Tiger Reserves, and Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC.

3.5.12 Waste Management: A 3.0 MLD Sewage Treatment Plant (STP) based on Membrane Bio-Reactor (MBR) technology is proposed within the utility zone of the estate. The STP will treat all domestic wastewater generated from residential, commercial, and institutional areas, producing Class-A treated effluent (≤10 mg/L BOD and TSS) suitable for reuse. The treated water will be fully reused within the township for non-potable applications such as greenbelt irrigation, road sprinkling, flushing, and fire-fighting, ensuring Zero Liquid Discharge (ZLD) from the estate. The system will include odor-control measures, real-time monitoring under the RIDCO Centralized EMS, and provision for future modular expansion as population and industrial load increase.

3.5.13 Land Acquisition and R&R: No Land Acquisition and R&R is involved in the project.

3.5.14 Employment opportunities: Total 31546 (Direct: 16670 and Indirect: 14876). When fully built-out, the wider KBNIR node is expected to sustain over 5.37 lakh employment opportunities (2.15 lakh direct + 3.21 lakh indirect), thereby contributing substantially to Rajasthan's and India's employment goals.

3.5.15 Benefits of Project:

i. The KBNIR Industrial Estate (Phase-I) is a critical node in India's industrial corridor network, delivering both state-level and national benefits:

ii. Creation of clustered manufacturing ecosystems for automotive, engineering, chemicals, and renewable sectors, Direct and indirect employment during construction and operation phases,Compact, energy-efficient planning reducing pressure on natural resources, Strengthened connectivity to DFC and NH-8, enhancing regional trade flows and industrial logistics, Village integration and skill development initiatives for local communities.

3.5.16 Details of Court cases: There is no court case involved in the project.

3.5.17 Observation of the committee:

i. Initially EC was accorded vide F.No. 21-18/2011-IA.III dated 13th October, 2014 to M/s Delhi Mumbai Industrial Corridor Development Corporation Limited (DMICDC) (now National Industrial Corridor Development Corporation – NICDC) for the development of an industrial area covering 165.6 sq km (16,562 ha). Later EC was transferred from DMIDC to RIDCO vide Letter F. No. 21-18/2011-IA.III dated 20 June 2023. Subsequently, RIDCO undertook minor amendments in the approved Master Plan, involving change in land use for an area of 558.95 hectares within the originally approved 165.6 sq km region, vide letter no. 21-18/2011-IA.III dated 02nd July 2024.

ii. *Now RIICO, mentioned that the availability of contiguous land suitable for industrial use is significantly constrained. Accordingly, the total project area for the proposed industrial estate under KBNIR has been rationalized and reduced to 558.95 hectares, representing Phase-I development. However, the PP could not able to complete the work within timeline of the EC, therefore the PP has applied for fresh ToR over an area of 558.95 hectares.*

iii. *The instant proposal is for Development of 558.95 Hectare Industrial Estate of Khushkhera-Bhiwadi-Neemrana Investment Region (KBNIR) at, Lamachpur, Beerod, Mirzapur, Manka, Bawad, Palawa Tehsil – Mundawar, District – Kotputli-Behror and villaes Gugalkota, Chaubara Tehsil – Neemrana, District – Khairtal-Tijara, Rajasthan by M/s Rajasthan Industrial Corridors Development Corporation Limited.*

iv. *PP is requested to exempt the public hearing, however, the Committee noted that PH exemption is not applicable since less than 50% of the work has been completed after the grant of the earlier Environmental Clearance (EC).*

v. *If a gas pipeline passes through or near the project area, the Project Proponent (PP) shall ensure the implementation of appropriate safety precautions and mitigation measures as per the guidelines of the Petroleum and Natural Gas Regulatory Board (PNGRB) and other relevant safety standards. The PP shall also submit details of the pipeline alignment, safety buffer zone, and risk management plan for committee review.*

vi. *The Committee observed that the proposed water requirement of the project is higher than the estimated water generation, and sought clarification from the Project Proponent (PP) regarding the water balance, source sustainability, and measures proposed for water conservation and recycling.*

vii. *The plantation and greenbelt development should be carried out in a phase-wise manner, corresponding with the progress of construction and operation activities, to ensure effective ecological restoration and dust suppression.*

viii. *The Committee advised that the location of key project facilities should be finalized considering the wind rose pattern of the area, so as to minimize the impact of emissions and air pollution on nearby settlements and sensitive receptors.*

ix. *Project Proponent (PP) whether provisions have been made for the use of renewable energy sources to improve the project's carbon footprint.*

3.5.18 The EAC, after examining the documents submitted by the project proponent and detailed deliberations in its 422nd meeting held on 31st October, 2025 **recommended** the proposal Development of 558.95 Hectare Industrial Estate of Khushkhera-Bhiwadi-Neemrana Investment Region (KBNIR**)**for grant of Terms of References (ToR) with the following specific conditions in addition to all standard ToR conditions applicable for such projects.

i. List of existing and proposed industries and their layout shall be drawn and shall be submitted along with the EIA/EMP report.

ii. Categorization of industries as per CPCB/SPCB norms and as per EIA notification, 2006 has to be mentioned. PP shall submit the estimation/assessment of the wastewater generation from the proposed Industries and the feasibility of the proposed Zero Liquid Discharge facility.

iii. Provision for Reuse/Recycling of treated wastewater, wherever feasible. Explore possibilities for recycling and reusing treated water in the unit to reduce the freshwater demand and waste disposal. A detailed water harvesting plan needs to be submitted. Provision for Zero liquid discharge whenever techno-economically feasible. Provision for Continuous monitoring of effluent quality/quantity.

iv. A detailed rainwater harvesting plan including the provisions for check dams across all major and minor drains/streams and water recharge wells along the banks of these drains/nallah/khad, shall be prepared and submitted as part of the EIA Report.

v. PP has to develop and plan greenbelt plantation strategy according to the soil parameters viz soil stabilization, comprehensive soil types, dividing area according to the pH values, and the budget for the greenbelt plantation to be allocated accordingly as the proposed Industrial Area is in nature of acidic soil.

vi. The planning of Industrial Estate should be based on the criteria mentioned in this Ministry's Technical EIA Guidance Manual for Industrial Estate (2009) prepared by IL&FS as well as CPCB's Zoning Atlas Guidelines for siting industries.

vii. A Detailed layout of the proposed Industrial area is to be submitted along with the EIA/EMP report.

viii. The layout shall be planned in such a way that all red-category industries with higher pollution potential (highly polluting or hazardous) industries shall be kept away as far as possible from human habitations, and water bodies to minimize environmental and health risks to nearby communities.

ix. A detailed plan for risk assessment and mitigation plan for the worst-case scenario providing an analysis of potential pollutant dispersion in case of accidents such as chemical spills, fires, or gas leaks.

x. A detailed hydro-geological study on the catchment area of the drainage system within the core zone and at least 5 km perimeter of the project area shall be conducted.

xi. Groundwater Rejuvenation Plan, as well as water body rejuvenation plan, shall be submitted and drainage mapping shall be carried out and a plan for the rejuvenation of groundwater through the aquifers shall be submitted along with the EIA/EMP report with budgetary provisions as part of the Environmental Management Plan in

consultation with gram panchayat for the restoration of structures, construction and maintenance of greenbelt buffer, garland drains for the Industrial Area.

xii. The Water balancing chart and its resources for obtaining the groundwater shall be submitted.

xiii. PP shall submit a clarification regarding the purpose and requirement for setting up Petrol and diesel storage units in the proposed Industrial Estate. Further, details of the mode of receipt of petroleum products and distribution methodology, etc. Safety features and area required for the same etc. to be highlighted and submitted.

xiv. Green belt development Plan shall be submitted with minimum 10% of the common Industrial area earmarked for the Green belt. . A considerable portion of the recreational zone of the industrial area shall be developed as thick multilayered forest preferably through Miyawaki technique. At least 15 m wide green belt shall be developed along the boundary of the park and mandatory green buffer shall be maintained along the gas pipeline and HT Power lines passing through the project area.

xv. No industry highly prone to fire accidents and also the industries manufacturing the inflammable materials shall be planned in the vicinity of these gas and HT power line corridor.

xvi. PP shall specify their commitment regarding the power generated through renewable sources like Solar etc.

xvii. PP shall calculate and submit the carbon footprint of the proposed Industrial Area in the detailed EIA/EMP Report.

xviii. Detailed air quality study for each point source to be conducted along with the Micro metallurgical data.

xix. The industrial layout/zones shall be planned in such a way that no tree can be felled/transplanted unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned Authority. Where the trees need to be cut/transplanted with prior permission from the concerned local Authority, a compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut/non-survival of any transplanted tree) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). All the plantation will be done by the State Forest Department as deposit work and not by private contractors.

xx. The plan for afforestation should be such that it is free from pesticides with flowering plants of native species for attracting bees and insects, which in turn is beneficial to agriculture. Farmers around the project site shall be involved in developing such an afforestation Plan.

xxi. Activity-wise, a time-bound action plan along with budgetary provision for

occupational health & surveillance, environment management plan, and green belt development plan. Assessment of the carrying capacity of transportation load on roads inside the notified industrial premises shall be carried out and submitted.

xxii. In addition to the above, the EIA/EMP report shall also address issues such as i) Effective fugitive emission control measures for process, transportation, packing, etc. ii) use of cleaner fuels, and iii) best available technology for the plan.

Agenda Sr. No. 3.6

The proposal is for development of Integrated Manufacturing & Logistic Cluster (IMLC) over an area of 213.8956 Ha at Villages- Bijoli, and Kharkhauda, Tehsil- Sadar, District-Meerut, State-Uttar Pradesh by M/s Uttar Pradesh Expressways Industrial Development Authority (UPEIDA).

[Proposal No.: IA/UP/INFRA1/555408/2025; F.No:10/26/2025-IA.III]

The EAC noted that the Project Proponent and the consultant have given 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 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.

3.6.1 The aforementioned proposal was considered before the EAC during its 422nd EAC meeting of the Expert Appraisal Committee held on 31st October, 2025 the project proponent and EIA Consultants Ecomen Mining Private Limited (formerly known as Ecomen Laboratories Pvt Ltd.) made a presentation through video conference and submitted the following information:

3.6.2 The Proposed project is for Proposed to develop Integrated Manufacturing & Logistic Cluster (IMLC) over an area of 213.8956 Ha at Villages- Bijoli, and Kharkhauda, Tehsil-Sadar, District-Meerut, State-Uttar Pradesh by M/s Uttar Pradesh Expressways Industrial Development Authority (UPEIDA).

3.6.3 The project/activity is covered under the category 'A' of item 7(c**)** i.e. Industries of the schedule to the EIA Notification, 2006, and its subsequent amendments. Total cost of the project is Rs. 122389 Lakhs.

3.6.4 Land use/Cover: Land use/Land cover of project site are as follows

Description of activity / facility/plant/others	Land requirement in Ha	Percentage(%)	Remarks
Area proposed Under industrial plots	152.0574	71.0	-

		9	
Area proposed For Administrative Zone	1.1875	0.56	-
Total area proposed for utility services	3.7505	1.75	-
Area proposed under roads	16.6050	7.76	-
Area proposed as common green and green belt	40.2953	18.84	-
Total	213.8956	100	-

3.6.5 List to industries to be housed with the proposed project site:

S.No	Name of the Industry	Schedule under EIA notification, 2006
1	Distilleries: Molasses based Distilleries > 100 KLD and Non-molasses based distilleries >200 KLD	5(g) 'A' Category
2	Rubber:	5(f)
3	Metallurgy (ferrous & nonferrous): Secondary Metallurgical Processing Industries (Non Toxic)	3(a) 'B' Category)
4	Automobile: Manufacturing of Automobiles (integrated facilities)	Not categorized under Category A or B
5	Herbal Products: Herbal Extracts, agricultural products and essential oils	Not categorized under Category A or B
6	Carogated Box	Not categorized under Category A or B
7	Bad Bottle: Bad Bottle	Not categorized under Category A or B
8	Recycling E-waste	Not categorized under Category A or B
9	RO Plant water for injection plant, pure steam generation, tanks, vessels, autoclave zero liquid discharge plant	Not categorized under Category A or B
10	Plastic Products and Plastic manufacturers: Plastic processed products manufacturing	Not categorized under Category A or B
11	Packaging Products	Not categorized under Category A or B
12	Fabrication: Engineering Fabrication works, Fabrication & alloy, casting	Not categorized under Category A or B
13	Solar Cell: Manufacturing of Solar module/ non-	Not categorized under

	conventional energy apparatus	Category A or B
14	Other Expected Industries: Manufacturing of Glass Sheet Plant, Aluminum Extrusion Plant, Textile Plastic Products, Nil, Fab rate, Development, Staple Fiber, Recycled Paper Packaging, Transformers, Sodium silicate industry, Logistic & Warehouses projects, Building Construction, Manufacturing Units, Infrastructure development Projects & Assembly Units etc.	Not categorized under Category A or B

3.6.6 Terrain and Topography: The proposed site is situated in mostly plain terrain.

3.6.7 Details of water bodies, Impact on drainage: Kali Nadi -3.0 Km (E) Chhaiya Nadi-7.3 Km (E),Kharauli Drain-5.0 (W), Pond near Bijauli- 0.3 km (N) There will be no/minimal impact on drainage as canal present within project site will be protected.

3.6.8 Water Requirements: Approximately 20 KLD (Domestic- 15 KLD and Construction purpose- 5 KLD) of water will be required during construction phase, out of which fresh water for Domestic purpose will be met through tanker supply. The total water requirement during operation phase, will be 6289 KLD (Domestic- 918 KLD + Industrial- 4509 KLD + Landscaping - 862 KLD (@2 L/m2). The freshwater demand will be met from groundwater abstraction after taking permission form concerned statutory authorities. Fresh water requirement will be 3110 KLD. The rest of the water requirement 3179 KLD will be met by available treated water from in-house water treatment facilities.Necessary permission shall be taken for the use of surface water. Additional water requirements of individual industries will be arranged by industry owners with prior permission, as applicable.

3.6.9 Tree Cutting: Cutting of trees not involved in the project.

3.6.10 Diversion of forest land: No diversion of forest land is involved in the project. The project is not located within the 10 km radius of the any National Parks, Sanctuaries, Tiger Reserves, and Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC.

3.6.11 Waste Management: During the construction phase, about 90 kg/day of solid waste will be generated, comprising 54 kg/day biodegradable and 36 kg/day non-biodegradable waste. Biodegradable waste will be composted in a vermicomposting pit for greenbelt use, while non-biodegradable waste will be handed over to the municipality for proper disposal.During the operation phase, around 19,133 persons (including visitors) will generate approximately 5,314 kg/day of solid waste, with 3,104 kg/day biodegradable and 2,210 kg/day non-biodegradable. Biodegradable waste will be treated in a Common Organic Waste Converter (OWC) facility, and non-biodegradable waste will be sent to the municipal disposal site after due permission .Each industrial unit will obtain necessary authorizations for hazardous and other wastes under

applicable rules. Estimated hazardous waste generation includes 630 kg/day of industrial waste, 420 L/day of used oil, 42 kg/day of ETP sludge, and 42 used batteries per year.

3.6.12 Land Acquisition and R&R: There is no land Acquisition and R&R involved

3.6.13 Employment opportunities: The project will employee about 300 nos. of local labours during construction phase, which extend to about 18 months. However, during operation phase about 19133 numbers of persons will be engaged by different Industrial units.

3.6.14 Benefits of Project: Uttar Pradesh is the fourth largest state in India and the third largest economy in the country. With a population of more than 200 million, UP has the highest number of available labour force and is one of the top five manufacturing states in India. The state also ranks first in terms of number of MSMEs in the country and ranks 2nd in Ease of Doing Business (EODB).Integrated Manufacturing and Logistic Cluster (IMLC) Meerut is an aspirational project that intends to reduce foreign dependency of various engineering goods, chemicals and also support indigenous Aerospace & Defence Sector. With self- reliance as the motto, the aim is to move away from licensed production to Design, Develop and produce, wherein the Nation owns the Design Rights and IP of the systems. Employment Generation in terms of direct employment in upcoming industries and indirect employment and small-scale business opportunities for local people from the proposed Industrial Estate.

3.6.15 Details of Court cases: There is no court case involved in the project.

3.6.16 Observation of the committee:

i. The project proposes to cover and protect groundwater resources, including measures for groundwater recharge, monitoring of water levels and quality, and prevention of contamination during construction and operation phases.

ii. The EAC advised the Project Proponent (PP) to undertake appropriate measures for groundwater rejuvenation and conservation.

3.6.17 The EAC, after examining the documents submitted by the project proponent and detailed deliberations in its 422nd meeting held on 31st October, 2025 **recommended** the proposal Proposed Integrated Manufacturing & Logistic Cluster (IMLC) – Meerut at Villages- Bijoli, and Kharkhauda, Tehsil- Sadar, District- Meerut, State-Uttar Pradesh for grant of Terms of References (ToR) with exemption of conduct of Public Hearing with the following:

i. Project Proponent (PP) to undertake appropriate measures for groundwater rejuvenation and conservation and rejuvenation plan for the village pond adjacent to project area shall also be prepared.

ii. A Detailed layout of the proposed Industrial area is to be submitted along with the EIA/EMP report.

iii. The layout shall be planned in such a way that all red-category industries with higher pollution potential (highly polluting or hazardous) industries shall be kept away as far as possible from human habitations, and water bodies to minimize environmental and health risks to nearby communities.

iv. A detailed plan for risk assessment and mitigation plan for the worst-case scenario providing an analysis of potential pollutant dispersion in case of accidents such as chemical spills, fires, or gas leaks.

v. A detailed hydro-geological study on the catchment area of the drainage system within the core zone and at least 5 km perimeter of the project area shall be conducted.

vi. Groundwater Rejuvenation Plan, as well as water body rejuvenation plan, shall be submitted and drainage mapping shall be carried out and a plan for the rejuvenation of groundwater through the aquifers shall be submitted along with the EIA/EMP report with budgetary provisions as part of the Environmental Management Plan in consultation with gram panchayat for the restoration of structures, construction and maintenance of greenbelt buffer, garland drains for the Industrial Area.

vii. The Water balancing chart and its resources for obtaining the groundwater shall be submitted.

viii. PP shall submit a clarification regarding the purpose and requirement for setting up Petrol and diesel storage units in the proposed Industrial Estate. Further, details of the mode of receipt of petroleum products and distribution methodology, etc. Safety features and area required for the same etc. to be highlighted and submitted.

ix. PP shall specify their commitment regarding the power generated through renewable sources like Solar etc.

x. PP shall calculate and submit the carbon footprint of the proposed Industrial Area in the detailed EIA/EMP Report.

xi. Detailed air quality study for each point source to be conducted along with the Micro metallurgical data.

xii. The industrial layout/zones shall be planned in such a way that no tree can be felled/transplanted unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned Authority. Where the trees need to be cut/transplanted with prior permission from the concerned local Authority, a compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut/non-survival of any transplanted tree) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). All the plantation will be done by the State Forest Department as deposit work and not by private contractors.

xiii. The plan for afforestation should be such that it is free from pesticides with flowering plants of native species for attracting bees and insects, which in turn is beneficial to agriculture. Farmers around the project site shall be involved in developing such an afforestation Plan.

xiv. Details of Onsite and Offsite emergency plans as per provisions of the MSIHC Rules need to be submitted.

xv. Obtain the most recent wind data relevant to the area of the proposed industrial park, ensuring that the data reflects prevailing wind directions and speeds over an extended period of at least one year, and create a Wind Rose Diagram that accurately represents the collected wind data.

xvi. Activity-wise, a time-bound action plan along with budgetary provision for occupational health & surveillance, environment management plan, and green belt development plan. Assessment of the carrying capacity of transportation load on roads inside the notified industrial premises shall be carried out and submitted.

xvii. In addition to the above, the EIA/EMP report shall also address issues such as i) Effective fugitive emission control measures for process, transportation, packing, etc. ii) use of cleaner fuels, and iii) best available technology for the plan.

Annexure-I

The list of the Expert Appraisal Committee (Infra-I) Members participated during the 422nd Meeting held on 31st October 2025.

S.No	Name	Designation	31st October, 2025
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)	Absent
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