

**Minutes of the 286<sup>th</sup> meeting of Expert Appraisal Committee held on 18<sup>th</sup>-19<sup>th</sup> January, 2022 through Video Conferencing 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)**

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The 286<sup>th</sup> Meeting of Expert Appraisal Committee (EAC) of Infra-1 (IA-III) was held through Video Conferencing at the Ministry of Environment, Forest & Climate Change (MoEF&CC), Indira Paryavaran Bhavan, New Delhi during **18<sup>th</sup>-19<sup>th</sup> January, 2022** under the Chairmanship of Dr. Deepak Arun Apte. A list of participants is annexed as **Annexure-A**.

## **1. OPENING REMARKS OF THE CHAIRMAN**

At the outset, Dr. Deepak Arun Apte, 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 THE LAST MEETING**

The Committee confirmed the Minutes of 284<sup>th</sup> EAC meeting held on 29<sup>th</sup>– 30<sup>th</sup> December, 2021.

## **AGENDA WISE CONSIDERATION OF PROPOSALS:**

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

### **Agenda No.3.1**

**Development of Greenfield Non-Major Port at Ramayapatnam in Prakasam District of Andhra Pradesh State by M/s Government of Andhra Pradesh – Further consideration for Environmental and CRZ Clearance.**

**[Proposal No. IA/AP/NCP/228803/2020; File No. 10-8/2020-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 /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 abovementioned proposal was earlier considered in the 278<sup>th</sup> meeting of Expert Appraisal Committee held on 27<sup>th</sup>-28<sup>th</sup> October, 2021. The proposal was deferred for the want of requisite information/documents. The proponent has submitted the reply of ADS raised by the EAC during 278<sup>th</sup> meeting on 27<sup>th</sup> - 28<sup>th</sup> October, 2021 as following-

<b>S. No.</b>	<b>ADS Raised during 278<sup>th</sup> EAC meeting</b>	<b>Reply by PP during 286<sup>th</sup> EAC meeting</b>
i	PP has to submit the data of Sea turtle movement and nesting sites with the help of Andhra Pradesh forest department and Wildlife institute of India. The data should be not only for the sea turtle nesting sites but also its movement in near shore areas including impact of proposed ship traffic on sea turtle movement.	<ul style="list-style-type: none"> <li>• Data from WII, APFD, NCSCM obtained.</li> <li>• Study on migration of sea turtles and their conservation plan prepared and submitted.</li> </ul>
ii	Similarly, occurrence, movement and known locations of Whale Sharks and marine mammals should be marked on the map. The impact on these species due to ship traffic, underwater noise needs to be evaluated along with mitigation plans.	<ul style="list-style-type: none"> <li>• Data on marine mammal stranding from WII obtained.</li> <li>• Status of whale shark and marine mammals and their conservation plan prepared and submitted.</li> </ul>
iii	Greenbelt Development Plan needs to be developed in coordination with Forest Department of Andhra Pradesh. The plan must include only native species. Plan should also detail out sand dune protection and restoration measures.	<ul style="list-style-type: none"> <li>• Species selection was for GB is finalized in consultation with the APFD.</li> <li>• Though sand dunes are not disturbed, effective strategies for management of the sand dunes will be developed</li> </ul>
iv	PP has to submit the details and proper plan of use of renewable energy and energy conservation plan for port operations.	<ul style="list-style-type: none"> <li>• On-grid &amp; off-grid solar power system are proposed.</li> <li>• Energy conservation plan for efficient energy use during port operation suggested.</li> </ul>
v	PP has to revise the capital cost of EMP and submit the revised cost of EMP based on above observations.	<ul style="list-style-type: none"> <li>• EMP cost revised as per suggestions.</li> </ul>
vi	PP should elaborate the details of the shoreline protection measures and superimposed those details on the map. The impact of shoreline protection measures shall also be analyzed and submitted.	<ul style="list-style-type: none"> <li>• Beach nourishment &amp; groynes are proposed for shoreline management.</li> </ul>
vii	It was also decided that EAC sub-committee will make a site visit and evaluate cumulative impacts of several non-major ports proposed in the State along the coastal area including the proposed port at Ramayapatnam.	<ul style="list-style-type: none"> <li>• The committee visited site on 27.12.2021 (<b>Annexure B</b>).</li> </ul>

3.1.2. At this instance, the aforementioned proposal was further placed before the EAC in its 286<sup>th</sup> meeting during 18<sup>th</sup> - 19<sup>th</sup> January, 2022. The project proponent along with the EIA Consultant M/s Indomer Coastal Hydraulics (P) LTD, Chennai made a presentation through Video Conferencing and provided the following information: -

3.1.3. The proposed project is for the development of Greenfield Non-Major Port at Ramayapatnam in Prakasam District of Andhra Pradesh. It will be an all-weather port with state of art terminal facilities to meet the present and future needs of trade. The port has been planned in two phases viz. Phase I handling 24.91 MTPA and Phase II handling additional cargo of 113.63 MTPA. On completion of Phase II, it will handle the total cargo of 138.54 MTPA.

3.1.4. TOR was granted on 19<sup>th</sup> February 2020 during the 48<sup>th</sup>EAC meeting held on 28<sup>th</sup>to 29<sup>th</sup>January, 2020. Amended TOR was granted on 19<sup>th</sup> February 2021 by the 253<sup>rd</sup> EAC meeting held on 18<sup>th</sup>to 19<sup>th</sup>January 2021.

3.1.5. The proposed project falls under 7 (e) Ports, Harbour, Cat –A ( $\geq 5$  million TPA of cargo handling capacity, excluding fishing harbours) as per EIA notification 2006, and its subsequent amendments. Total Project Cost: ₹ 10640.00 Cr comprising of 3736.00 Cr for Phase I and 6904.00 Cr for Phase II.

3.1.6. Geo-coordinates of the project site:

Point ID	Latitude	Longitude
P1	15° 02' 30.271"	80° 01' 29.891"
P2	15° 02' 21.351"	80° 02' 59.293"
P3	15° 02' 59.207"	80° 03' 17.779"
P4	15° 00' 23.415"	80° 03' 29.490"
P5	15° 00' 29.430"	80° 02' 47.926"
P6	15° 00' 18.768"	80° 01' 29.577"
P7	15° 00' 16.399"	80° 00' 35.003"
P8	15° 01' 07.840"	80° 00' 36.360"
P9	15° 01' 07.840"	80° 01' 27.977"

3.1.7. Total proposed land area is 1390.95 Ha comprising of 324.85 ha in Phase I and another 1066.10 ha in Phase II.

3.1.8. Land use /Land cover of project site

Sl. No.	LU/LC	Area (Ha)	Area (%)
1	Aquaculture	170.42	12.25
2	Bay of Bengal	123.10	8.85
3	Crop Land	721.23	51.85
4	Plantation	125.13	9.00
5	Rural Built-Up	56.64	4.07
6	Sandy Area	102.36	7.36
7	Scrubland	71.32	5.13
8	Tank/Pond/Lake	20.75	1.49
<b>Total</b>		1390.95	100.00

3.1.9. Landuse/Landcover around 10 km radius of project site (1 km in case of Highway projects)

Sl. No.	LU/LC	Area (Ha)	Area (%)
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1	Rural Built-Up	524.42	1.67
2	Crop Land	6815.77	21.70
3	Plantation	1543.93	4.91
4	Forest	4182.49	13.31
5	Scrubland	630.48	2.01
6	Barren land	24.67	0.08
7	Gullied Land	126.94	0.40
8	Sandy Area	349.58	1.11
9	River/Creek/Canal	152.05	0.48
10	Tank/Pond/Lake	1595.67	5.08
11	Aquaculture	335.02	1.07
12	Bay of Bengal	15134.89	48.18
<b>Total</b>		31415.92	100.00

3.1.10. Detailed topographic survey was carried out in the project site. Most of the construction activities are proposed over the barren land. Shorefront facilities needed for the port will also be constructed. The R&R plan for the proposed project is approved and undertaken by Government of Andhra Pradesh. Greenbelt is proposed in such a way that the existing trees are covered and thus protected.

3.1.11. Water Bodies & impact on Drainage: Seasonal water bodies like Ravuru and Chevuru ponds are located close to the project site. The only water body falling in the project site is Buckingham Canal. Detailed management plan has been provided in the EIA report to protect the Buckingham Canal. No obstruction on the Buckingham Canal is envisaged due to the proposed port.

3.1.12. Water supply to the proposed Ramayapatnam port has to be provided by Government of Andhra Pradesh. The source for water supply is met from Rallapadu reservoir. No Ground water will be extracted during both construction and operative phase. The estimated water requirement for Ramayapatnam port during operation period is computed and provided in table below.

Sl. No.	Description	Unit	Phase I	Phase II
1	Port personnel and port			
	Requirement	lpd/person	148	148
	No. of persons	Nos.	1,056	3,651
	Water Requirement per Day	liters	1,56,288	5,40,348
2	Fire water			
	Fire Water Storage Tank Proposed	m <sup>3</sup>	275	1,105
	Fire water Requirement Per Day considering utilization every 6 months	liters	1,833	7,366
3	Ship supply			
	Average Requirement	liters per ship	40,000	50,000
	No. of Ships per annum	Nos.	484	1,513
	Water Requirement per annum (assume only 25% of ships take water)	liters	48,40,000	1,89,12,500
	Water Requirement per Day (assuming 350 days)	liters	13,829	54,036

4	Land scaping			
	Requirement	liter/m <sup>2</sup> /day	2.5	2.5
	Area for Landscaping	m <sup>2</sup>	40,000	2,62,500
	Water Requirement per Day	liters	1,00,000	6,56,250
5	Dust suppression			
	Coal Throughput	MTPA	10	34
	Water Requirement for Dust Sup. (@1%)	m <sup>3</sup> /annum	1,00,000	3,40,000
	Water Requirement per Day ( <i>assuming 350 days</i> )	liters	2,85,714	9,71,429
	Water requirement incremental	liters	5,57,664	22,29,428
	Total water requirement	MLD	0.56	2.25

3.1.13. In principle, the A.P. Government has agreed to provide present required capacity of water from Rallapadu Reservoir. The Rallapadu reservoir is located at Kandukur constituency, in Linguara Mandal, Rallapadu. With an area of 2202 km<sup>2</sup>, 31.30 million m<sup>3</sup> of storage capacity is under construction. The new spillway has been built with 5 gates in the 12.19 × 7.62 m evolution with 12 gates in the evolution of 12.19 × 4.57 m. Drinking water and irrigation is done by Kondapur in Nellore district, as a felicitation centre for Goodlaru and Gender Sea zones in Prakasam district. The water is suitable for agriculture and drinking. The Rallapadu reservoir is about 36 km from the proposed port location. From the Somasila Project, through GKN Canal, water will be released to Rallapadu Reservoir. From Rallapadu reservoir, a dedicated pipeline will be provided up to the Port premises. In the proposed port premises, a water storage reservoir of 168000 KL capacity is proposed to meet one-year Phase I water demand of the Port. Similarly, it is also proposed to construct 6,75,000 KL additional storage reservoir to meet the water demand for Phase II. No Ground water will be extracted during both construction and operative phase. ZLD is proposed in the development of Ramayapatnam Port to comply the government regulations and have an efficient water management plan.

3.1.14. The public hearing was conducted on 26.06.2021 at Cyclone Shelter Building, Salipet Panchayat, Ravur Revenue Village, Gudluru Mandal, Prakasam District, Andhra Pradesh. A count of 164 people attended the public hearing meeting.

3.1.15. Andhra Pradesh State Coastal Zone Management Authority (APCZMA) vide letter No 327/CRZ/Port/2021 dated 18<sup>th</sup> September 2021 recommended the project.

3.1.16. Diversion of forest: The proposed rail and roadway corridor passes through small part of Reserve Forest land. Forest clearance is taken up separately.

<i>Reserve Forest</i>	<i>Forest area (acres)</i>
Ravuru	33.73
Chevuru	11.37
<b>Total</b>	<b>45.10</b>

3.1.17. There is no National Parks, Sanctuaries and Tiger Reserves, Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC within 10 km of proposed project site.

3.1.18. Waste Management:

Type of waste	Quantity	Applicable Rule	Management method at site	Mode of disposal to be followed
Domestic and operational waste	65 kg/day	Solid Waste Management Rules, 2016	Source segregation of waste and storage at site using waste bins	Disposed to SWPC at S.No. 37 of Salipeta Gram Panchayat. NoC from Panchayat is obtained.
Hazardous waste	Negligible	Hazardous Waste Management Rules, 2016	Shall be stored in HDPE drums in isolated place	Through authorized vendors
Discarded containers/ barrels	1000 nos./Annum	Hazardous Waste Management Rules, 2016	Shall be kept at isolated place under covered shed	Through authorized vendors

3.1.19. CETP details-

Sl. No.	Equipment	No. of equipment	
		Phase I	Phase II
1	Crawler cranes	1	3
2	Dumpers	30	50
3	Front End loaders	6	10
Total no. of equipment		37	63
Effluent Generated from washing and cleaning of equipment @ 250 lpd/equipment (KLD)		9.25	15.75
Capacity of ETP provided		10	20
The treated water from ETP will be used for non-potable purposes such as flushing, washing, greenbelt development/plantation.			

3.1.20. STP Details- The treated water in STP will be used for non-potable purposes such as flushing, washing, greenbelt development/plantation.

Sl. No.	Berth Type	Manpower	
		Phase I	Phase II
1	Bulk Terminal	60	180
2	Multipurpose Terminal	246	492
3	Containers	0	545
4	Common infrastructure	46	46
Total Manpower for Manning the Terminal		352	1263
Sewage Generated @ 120 lpd/person (KLD)		42.24	151.56
Capacity of STP provided (KLD)		35	105.0
Capacity of Septic Tank & soak Pit (KLD)		7.24	46.56

3.1.21. Tree Cutting and Green belt development- No tree cutting is involved for the proposed

project. Total Area of Green Belt (in ha): 480.83 i.e., 107.24 ha. in Phase I and 373.59 ha. in Phase II. Percentage of Total Project area is 34.57 and No. of Plants to be Planted is 2500/ha. Total cost of Greenbelt (in lakhs): ₹1265.58 i.e., ₹940.55 in Phase I and ₹325.03 in Phase II.

3.1.22. Energy conservation: On-grid solar power system producing 3.5 to 4.5 MW at a cost of ₹27.5 Cr is proposed. Off-grid solar power system consisting 410 nos. of street light poles at a cost of ₹2.5 Cr is proposed.

3.1.23. Rain water Harvesting- No of storage- 401, capacity- 1500m<sup>3</sup>, no of recharge pits- 400, capacity-4.5m<sup>3</sup>

3.1.24. Coastal Regulation Zone: Based on CRZ Notification 2011, the following facilities fall under CRZ areas

CRZ	Facilities Proposed
CRZ I A	No facilities
CRZ I B	Groynes, Greenbelt, Open Storage Yard and Container Yard
CRZ III A	Internal Roads, Covered Storage Sheds, Greenbelt, Truck Parking and Water Storage Reservoir for Phase-I
CRZ III B	Internal Roads, Covered Storage Sheds, Greenbelt, Truck Parking and Water Storage Reservoir for Phase-I
CRZ IV A	Berths, Groynes, Breakwaters, Substations, Open Storage Yard and Container Yard
CRZ IV B	Culvert/Bridge and Railway Bridge

3.1.25. The quantity of cargo to be handled is 138.54 MTPA through 19 berths. A conveyor system covered with steel sheeting and water sprinkling system is used as dust controlling measure. The oil spill contingent management plan is given detailed in Section 7.4 of EIA Report and the dredging and disposal of dredged details is as follows.

Phase	Total Volume	
	Capital dredging (x 10 <sup>6</sup> m <sup>3</sup> )	Maintenance dredging (x 10 <sup>6</sup> m <sup>3</sup> /year)
Phase I	16	1.77
Phase II	32	3.30

3.1.26. The dredged material will be used for reclamation of port area during the construction of port. The quantity of dredged materials used for reclamation is given in the table below.

Phase	Volume (x 10 <sup>6</sup> m <sup>3</sup> )	Total volume (x 10 <sup>6</sup> m <sup>3</sup> )
Phase I	5.5	11.5
Phase II	6	

Part of the remaining dredged materials, if found suitable will be used for raising the backup areas. Rest and unsuitable dredged materials will be disposed offshore at the designated location as identified by APMB.

3.1.27. No Marine disposal is proposed. Zero Liquid Discharge will be followed. The treated water from STP and ETP will be used for non-potable purposes such as flushing, washing, greenbelt development/plantation.

3.1.28. Land acquisition and R&R issues: As per the socio-economic survey conducted, there are 563 houses in the four habitations. But only 483 houses with 675 Project Displaced Families (PDFs) need to be shifted. About 60 acres of land required for construction of houses and other Infrastructure to these people. The abstract of R&R plan is given below

Sl. No.	Description	Cost in lakhs (Rs)
1	Cost of Land Acquisition for R&R colony	1220
2	R&R Cash benefits to the PDFs	6307
3	Provision for infrastructure facilities in Layout –I	2604
4	Provision for infrastructure facilities in Layout-II	1633
Total		11764

R&R plan has been prepared as per G.O.Ms.No.68, Irrig. & CAD Dept. dt. 08.04.2005 and third schedule of RCTLARR Act 2013, No. 30 of 2013 and submitted vide letter no Rc.LA. RMP/21/2021 dt. 16.09.2021.

3.1.29. Employment Potential- Total employment to be generated out of the project is 25000. Moreover 75% of semiskilled and unskilled jobs will be provided to the local/affected people.

3.1.30. Project Benefits: Based on project particulars and the existing environmental conditions, potential positive impacts likely to result from the proposed port development, such as Better Sea transport facilities, Revenue Generation and Employment Opportunities, Improvement in Physical Infrastructure like project infrastructure and ancillary industries, Improvement in social infrastructure like roads, railways, townships, housing, water supply, electrical power, drainage, educational institutions, hospitals, improved environmental conditions etc.

3.1.31. Details of Court cases: No court case is pending against the proposed project.

3.1.32. Brief summary of specialised Studies carried out for the project as per the ToR: Exclusive studies have been undertaken by the following institute/organisation.

Institutions	Work carried out
IIT Madras	Hydrodynamic modelling; Ship simulation; Longshore Sediment transport and Shoreline studies
RITES Limited	Traffic Study; Rail & road alignment; Grade separator and Detailed project report
Indomer Coastal Hydraulics (P) Ltd.	EIA study; Terrestrial and marine baseline study; Impact assessment & mitigation plan; Dredge disposal modelling; Oil spill modelling; Air quality modelling and Qualitative risk assessment studies for coal storage

3.1.33. During deliberation, EAC observed and noted the following:



- i. *Construction of groyne should be avoided since the negative impact of groin on downdrift shorelines is well understood. It may cause a sand deficit and increasing erosion rates on the downdrift side and will create problem in future for other shoreline.*
- ii. *Adequate financial support should be provided to avoid/minimize the shoreline erosion.*

3.1.34. The EAC, taking into account the revised submission made by the project proponent had a detailed deliberation in its 286<sup>th</sup> meeting during 18<sup>th</sup>- 19<sup>th</sup> January, 2022 and **Recommended** the proposal for grant of Environment and CRZ Clearance with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- (i) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (ii) All the recommendations and conditions specified by the Andhra Pradesh State Coastal Zone Management Authority (APCZMA) vide letter No 327/CRZ/Port/2021 dated 18<sup>th</sup> September 2021 shall be complied with.
- (iii) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (iv) The project proponent shall comply with the air pollution mitigation measures as submitted.
- (v) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
- (vi) No underwater blasting is permitted.
- (vii) Necessary approvals to be taken during implementation and commissioning from statutory bodies concerned.
- (viii) Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report.
- (ix) A continuous monitoring programme covering all the seasons on various aspects of the coastal and marine environs needs to be undertaken by a competent and Nationally recognized Institutes/renowned Universities with rich experiences in marine ecology and biodiversity. Monitoring should include sea weeds, sea grasses, mudflats, sand dunes, fisheries, mangroves and other marine biodiversity components as part of the management plan.

- (x) Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance reports to the regional office of MoEF&CC.
- (xi) Sediment concentration should be monitored fortnightly at source and disposal location of dredging while dredging.
- (xii) Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life, particularly benthos. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
- (xiii) Necessary arrangements for the treatment of the effluents and solid wastes/ facilitation of reception facilities under MARPOL must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986. The provisions of Solid Waste Management Rules, 2016. E- Waste Management Rules, 2016, and Plastic Waste Management Rules, 2016 shall be complied with.
- (xiv) Dredging, etc will be carried out in the confined manner to reduce the impacts on marine environment. Dredged material shall be disposed safely in the designated areas as per CWPRS recommendations, and in no case shall be disposed in the marine environment,
- (xv) Dredging shall not be carried out during the fish breeding season and during turtle nesting seasons in adjoining areas.
- (xvi) Construction of groyne should be avoided since the negative impact of groyne on downdrift shorelines is well understood.
- (xvii) While carrying out dredging, an independent monitoring shall be carried out by Government Agency/Institute to check the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
- (xviii) Periodical study on shore line changes shall be conducted for 4 km on either side of the port including estuaries/tidal inlets and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report.
- (xix) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- (xx) Necessary arrangement for general safety and occupational health of people should be done in letter and spirit.
- (xxi) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public

hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory Afforestation etc, either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be implemented and become part of EMP.

### Agenda No. 3.2

**Construction of 6 Lane 'Ganga Expressway' (Expandable upto 8 Lane), an access controlled Greenfield Expressway in district Meerut, Hapur, Bulandsahar, Amroha, Sambhal, Badaun, Shahjahanpur, Hardoi, Unnao, Raibareli, Partapgarh&Paryagraj in the State of Uttar Pradesh (CH 7+900-CH 601+847 Km) by M/s Uttar Pradesh Expressways Industrial Development Authority (UPEIDA) (Total length 593.947 Km) – Terms of Reference**

**[Proposal No. IA/UP/NCP/248152/2021 and File No. 10/1/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.*

3.2.1. The aforementioned proposal was placed before the EAC in its 286<sup>th</sup> meeting during 18<sup>th</sup>-19<sup>th</sup> January, 2022. The project proponent along with DPR consultant M/s L. N. Malviya Infra Projects Pvt. Ltd and EIA Consultant M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar has made a presentation through Video Conferencing and provided the following information:

3.2.2. The proposed project is for “Development of 'Ganga Expressway' from Meerut to Prayagraj, an Access Controlled Greenfield Expressway Project, (CH 7+900 - CH 601+847 Km) in the state of Uttar Pradesh. The proposed Ganga Expressway starts (28°51'53.93"N, 77°44'28.76"E) from km 16+000 of Meerut-Bulandshahar Road (NH-334) near village Bijoli (Dist. Meerut) (CH 7+900) & terminates (25°34'57.22"N, 81°48'45.41"E) at Prayagraj Bypass on NH-19 near village Judapur Dando (Dist. Prayagraj) (CH 601+847).

3.2.3. The total length of the project alignment is approx. 593.947 km and total proposed land area is 7463.44 Ha. The proposed Right of Way (RoW) is 120 meters.

3.2.4. The proposed road will have ROB (07), Major Bridges (14), Minor Bridges (126), and Vehicular underpass (50), LVUP (171), SVUP (154), Diamond Interchanges (08), Flyovers (28), Culverts-(929) and Wayside Amenities/Electric Vehicle charging stations (09).

S. No.	Item	Nos.
1	Major Bridge	14
2	Minor Bridge	126

3	ROB	07
4	Interchange	17
5	Flyover	28
6	VUP	50
7	LVUP	171
8	SVUP	154
9	Box Culvert	929

3.2.5. The proposed project falls under 7 (f), Highway, Category A, Cat –A (located in whole or in part within 5 km from the boundary of the Eco-sensitive areas) as per EIA notification 2006, and its subsequent amendments. Total Project Cost is ₹36230.0 Cr.

3.2.6. Land use/Landover of project site in tabular form:

S. No	Land use/ Land cover	Area (Ha)	Area (%)
1	Govt./Pvt. Land	7341.97	98.37
2	Forest Land	121.47	1.63
	<b>Total</b>	<b>7463.44</b>	

3.2.7. Land use/Landcover around 10 km radius of project site (1 km in case of Highway projects): The existing land use around the proposed Expressway primarily comprises cropland barren land, Wet land, Built-up, water bodies and grass land. The proposed alignment passes mostly through uninhabited areas avoiding village establishments. The agriculture practiced is mostly multi-crop due to the network of canals/rivers and main crops grown in the area are Wheat, rice, cotton, sugarcane etc.

3.2.8. Terrain and topographical features: Terrain of the proposed alignment is plain (flat) land and is predominantly an agricultural land. The Contour Map prepared based on LISS-III and ARC GIS Software.

3.2.9. Details of water bodies: Water bodies/Ponds No. 173 will be impacted due to the proposed expressway. Proposed Alignment passes from 7 major Rivers such as Ganga River, Kali River, Sot River, Aril River, Ram ganga River, Baghul River and Garra River.

S. No	River	Chainage	Span
1	Kali River	17+727	3X30
2	Ganga River	66+850	16X60
3	Sot River	157+356	3 X 35
4	Aril River	207+740	3 X 30
5	Ramganga River	217+920	12 X 60
6	Baghul River	238+190	4 X 38
7	Garra River	317+923	4 X 60

3.2.10. Water requirements: The total water demand of the project is 6,98,20,894 KL. Water will be extracted from suitable surface sources (river/canals). No ground water will be obstructed. If required ground water extraction will be anticipated after obtaining NoC from the CGWA/ State Ground Water Department.

3.2.11. Tree cutting: The alignment will involve cutting of around 180793 nos. of trees (167166

nos. of trees in forest land + 13627 nos. of trees in non-forest land). Approx. 16,83,000 nos. of avenue plantation and median will be carried out within the available ROWs as per IRC SP-21:2009 / MoRTH Code / Guidelines.

3.2.12. Diversion of forest land: The Proposed project will involve diversion of approximately 121.47ha. of forest land. Forest Diversion proposal has been submitted to MoEF&CC vide proposal no. FP/UP/ROAD/144793/2021.

3.2.13. Protected Areas: Notified eco sensitive zone of Saheed Chandrasekhar Azad Bird Sanctuary (Nawabganj) in District Unnao is at a distance of approx. 8.5 km away from the proposed project alignment. Notified Eco sensitive zone of Samaspur Bird Sanctuary in District Rae Bareli is at a distance of approx. 3.5 km away from the proposed project alignment. Notified Eco sensitive zone of Sandi Bird Sanctuary in District Hardoi is at a distance of 4.6 km away from the proposed project alignment. The project is not located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC.

3.2.14. Land acquisition and R&R issues: About 7341.97 (ha.) land have been purchased/acquired for project implementation as per Land Acquisition Act, 2013. R&R issues are not anticipated as the land is procured by mutual consents.

3.2.15. Employment potential: During the construction of the road project around 12000 persons would be employed temporarily. However due to construction of toll plazas approx. 100 persons will be employed on permanent basis.

3.2.16. Benefits of the project: The proposed project will provide better level of service in terms of improved riding quality and smooth traffic flow. Faster transportation will ultimately lead to massive savings in the form of reduced wear and tear of vehicles, reduced vehicle operating costs (VOCs) and total reduction in transportation costs etc. The proposed project would act as the prime artery for the economic flow to this region. Improved road connectivity will help in better implementation and management of government schemes.

3.2.17. Details of Court cases: Execution Application No.17/2021 in Original Application No.75/2021. The application has been disposed of, by the Honorable NGT in hearing on 05/01/2022 stating that "In view of above, the concerned authorities may ensure compliance of environmental norms in execution of the project which may be duly monitored at appropriate level of the UPEIDA in accordance with EMP". If any grievance survives, it will be open to the aggrieved party to take remedy in accordance with the law.

3.2.18. *During deliberation, EAC observed and noted the following:*

- i. A sharp curve at chainage 55800.00 to 20800.00 of the proposed alignment was observed. A clarification is needed why this part is not kept straight line. A straight alignment should be explored between the above mentioned chainage.*
- ii. Distance of all protected area from the proposed alignment should be clearly marked up in KML file.*
- iii. Clarification/consent from the concerned State Government should be provided, that the proposed Expressway/highway is not passing through the active floodplain area of the River/Ganga.*

- iv. *Public hearing cannot be exempted.*
- v. *Tree cutting is very high, which should be minimized. It should be mentioned in the EIA report that which type of trees are going to be felled down, either it is commercial plantation of natural plantation/vegetation.*
- vi. *A detailed information should be provided in tabular form regarding the types of Tree to be planted.*
- vii. *The proposed RoW of 120 m is very high. Please clarify the need for such high RoW in the EIA report. It should also be clarified that how much RoW on both side of the road is being allocated for tree plantation.*

3.2.19. The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 286<sup>th</sup> meeting during 18<sup>th</sup> – 19<sup>th</sup> January, 2022 and **recommended** the proposal for grant of Terms of Reference with specific ToR conditions, as mentioned below, in addition to all standard ToR conditions applicable for such projects:

- i. Cumulative impact assessment study should be carried out along the entire stretch including the other packages and the current stretch under consideration.
- ii. 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.
- iii. Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety.
- iv. 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.
- v. The alignment of road 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 and large and heritage trees if any. All such trees should be geo-tagged, photographed and details be submitted in the EIA –EMP report.
- vi. 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.

- vii. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30<sup>th</sup> 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.
- viii. 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 25<sup>th</sup> October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
- ix. Passage for animal movement has to be detailed in the report (if alignment is passing through Forest area) in consultation with state forest department.
- x. A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided. Such plantation alongside of forest stretch will be over and above the compensatory afforestation. Tree species should be same as per the forest type.
- xi. Detailed Biodiversity assessment and conservation/mitigation plan be developed by a reputed institute or by a team of expert of national repute.
- xii. *A sharp curve at chainage 55800.00 to 20800.00 of the proposed alignment was observed. A clarification is needed why this part is not kept straight line. A straight alignment should be explored between the above mentioned chainage.*

### **Agenda No. 3.3**

#### **Proposed Construction of Training Walls for Permanent Stability of Bar Mouth at Village Pulicat, Taluk Ponneri, District Thiruvallur, Tamil Nadu by M/s Department of Fisheries - Further consideration for Environmental Clearance**

**[Proposal No. IA/TN/NCP/186694/2019; File No. 10-39/2019-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have 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. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and ToR/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 placed before the EAC during its 249<sup>th</sup> meeting on 14<sup>th</sup> December 2020 for the want of Environmental Clearance. It was noted that there is a lack of scientific data/evidence over fisheries and the proposed project may affect the

migratory bird, since Pulicat Bird Sanctuary which is located within 10 km of the project site. In view of the above, the EAC has deferred the proposal and requested the PP to submit a brief report over fisheries and their impacts on fish population, based on scientific data/evidences.

3.3.2 The aforementioned proposal was further placed before the EAC-Infra-1 during its 254<sup>th</sup> meeting on 11<sup>th</sup> February, 2021 and it was deferred based on the following observation made by EAC: “The PP had submitted partial information for the queries raised in the 249<sup>th</sup> meeting on 14<sup>th</sup> December 2020. The PP had submitted the abstract of the report in the last meeting in place of the full report. The abstract does not highlight the finding of the report and the mitigation measures suggested for the area. Further, as mentioned in the earlier meeting that a sub-Committee shall visit the site and will submit the report.

3.3.3 Accordingly, a site visit was conducted by a sub-committee on 7<sup>th</sup> September, 2021 (Copy of the report is enclosed as **Annexure-C**). Based on the observations it has been concluded that the opening of Ponneri bar mouth will be beneficial for the Pulicat lake ecosystem. The exchange of water between sea and lake will stabilize the salinity levels, thereby increasing the diversity and abundance of planktons and other benthic flora and fauna in the lake. This in turn can help in sustaining the overall wetland bird population in Pulicat Bird Sanctuary which lies in the Central Asian Flyway Region that also supports several important migratory bird species. Report prepared by SACON was also placed and discussed by the committee. The report clearly states that the opening of the mouth will benefit the migratory birds.

3.3.4 The aforementioned proposal was further placed before the EAC-Infra-1 during its 279<sup>th</sup> meeting on 15<sup>th</sup> November, 2021. Despite clear cut views of EAC in earlier meetings, no scientific data/evidence over fisheries was submitted by the proponent. In view of the foregoing observations and lack of requisite information, the proposal was deferred.

3.3.5 At this instance, the aforementioned proposal was further placed before the EAC during 286<sup>th</sup> meeting during 18<sup>th</sup> – 19<sup>th</sup> January, 2022. The proponent has submitted the reply of the ADS raised by the EAC on 13<sup>th</sup> January, 2022. The project proponent along with the EIA Consultant M/s. ABC Techno Labs India Private Limited, Chennai made a presentation through Video Conferencing and provided the following information:

3.3.6 The Department of Fisheries, Government of Tamil Nadu have proposed two training walls (160m in North, 150m in South and crest width of 4m) at the coastal stretches of Pulicat Lake for the permanent Stability for Bar Mouth at Pulicat which will give access to fishermen in all seasons of the year and traditional fishing. The dredging of channel of width 30 m to 50 m in between the training walls by dredging the Seabed up to -1.5 m for CD level will be done. The dredging will be carried out after the construction of the training wall. The construction of two short groynes with average length of 50m to avoid severe erosion on North sides of the training walls.

3.3.7 The proposed project falls under Category (B) of item 7(e) as per EIA notification 2006. However, as the project site is located within 5 km of the Inter-State Boundary of Andhra Pradesh and Tamil Nadu States, the proposal is appraised at Central Level as category A. The



Terms of reference (ToR) for the proposed Project was issued vide Ministry's Letter No. 10-39/2019-IA-III, dated 16<sup>th</sup> October, 2019 during 44<sup>th</sup> EAC meeting on 23<sup>rd</sup> -25<sup>th</sup> September 2019. Total Investment/Cost of the project is Rs2700.00 Lakhs.

3.3.8 The project site is well connected by road, rail and air ways. The project site is connected with NH 5 Chennai- Guntur road on Western side at a distance of 23 Km. The nearest railway station is Ponneri Railway Station located at 20 Km from the project site on SW direction. The Chennai International Airport is situated at a distance of 57 Km from project site on SW direction.

3.3.9 The Geo-coordinates of project site is as following:

<b>Particulars</b>	<b>Shoreward Start Location</b>	<b>Seaward Ending</b>
North Training wall	13°27'55.6"N, 80°18'58.8"E	13°27'58"N, 80°19'4"E
South Training wall	13°27'49"N, 80°19'5"E	13°27'52"N, 80°19'7"E

3.3.10 Public Hearing was conducted on 29<sup>th</sup> October 2020 at Fish Market Hall (MSS School Hall), Pazhaverkadu, Ponneri Taluk, Tiruvallur. No Major Issues were raised during the meeting & the project has been welcomed by the fishermen attended the meeting as the project envisages the permanent stability of the bar mouth for free flow vessels & will give access to fishermen for traditional fishing in all seasons.

3.3.11 Total area required for the proposed project is 3.72 ha. The Project Site falls in the ESZ of Pulicat Bird Sanctuary. No tree Cutting is envisaged in the proposed project.

3.3.12 Total Water requirement shall be 4.5 m<sup>3</sup>/day for labor during construction phase and it will be sourced from private Tankers.

3.3.13 Solid Waste Management: The solid waste will be generated only in construction phase & the generated waste will be properly disposed to local authorized person. Dust bin will be provided for the collection of food waste and other domestic solid waste generated by the on-site staff and it shall be disposed off by the local authorities. In the operation phase, no solid waste will be generated from the proposed site. For the disposal of dredged material, huge area is available in either side of the training wall for dumping the dredging material. Hence, no dredging sand will be disposal into the lake.

3.3.14 The proposed project area falls in CRZ-IB and CRZ-IV as per the CRZ demarcation map. The CRZ map was prepared by Indian Institute of Remote Sensing, Chennai & the Recommendation of the TNSCZMA has been obtained *vide* letter Proc.No.P1/2045/2017 dated 08<sup>th</sup> December 2017.

3.3.15 Employment potential: The project will give employment to the fishermen in the nearby 52 villages during operation phase. About 60 persons will be given employment during the Construction Phase.

3.3.16 Benefits of the project: Construction of training walls will give permanent stability to the bar mouth at Pulicat Village & it will allow the continuous access of the vessel for fishermen to do traditional fishing in all the seasons. It will also increase fishing activity in the lake and support fishermen livelihood thereby increasing their social and economic status.

3.3.17 Details of Court cases: No litigation or direction /order passed by any Court of Law are pending against the proposed project.

3.3.18 Brief summary of specialized Studies carried out for the project as per the ToR: Department of Ocean Engineering, IIT Madras had visited the coastal stretch along with the officials of Department of Fisheries and investigated the site conditions and detailed project report (DPR) is prepared & pre-level survey is conducted for the proposed project. Detailed biodiversity impact study on marine, brackish water and fresh water ecology and biodiversity was conducted by Centre of Advanced Study (CAS) in Marine Biology of Annamalai University, Tamil Nadu as prescribed in the ToR. As mentioned in the ToR, The Department of Fisheries has been applied for NBWL clearance (FP/TN/Approach/5454/2020) from the concerned authority and it is under process Public Hearing Meeting was conducted on 29/10/2020 at Fish Market Hall (MSS school Hall) Pulicat village, Ponneri Taluk, of Thiruvallur District.

3.3.19 The proposal was also referred to CRZ sector for comments. It has been mentioned by CRZ sector that Tamil Nadu Coastal Zone Management Authority (TNCZMA) vide its letter No. P1/2045/2017 dated 08.12.2017 has forwarded their recommendation for the above said project subject to compliance of general and specific conditions as mentioned in their letter. TNCZMA in its above mentioned letter stated that the said works should be carried out on approval of the Comprehensive Shoreline Protection Management Plan by the NCZMA (Competent Authority) as per directions of Hon'ble NGT(SZ) in Application No. 04 of 2013.

3.3.20 *During deliberation, EAC observed and noted the following:*

- i. *To establish the precise impacts of training Walls for Permanent Stability of Bar Mouth, institutions such as SACON, NCCR and Fisheries Department, Govt. of Tamil Nadu, must be engaged to collect the environmental data such as Salinity, Temperature, pH, Fish population, Bird population/migration and other flora and fauna and overall ecology of Pulicat Lake on every 3-6 months as a part of this project after construction of Bar Mouth.*

3.3.21 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 286<sup>th</sup> meeting during 18<sup>th</sup> – 19<sup>th</sup> January, 2022 and **recommended** the proposal for grant of Environment Clearance with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- ii. All the recommendations and conditions specified by the Tamil Nadu Coastal Zone Management Authority (TNCZMA) vide letter No.P1/2045/2017 dated 08.12.2017 shall be complied with.
- iii. To established the precise impacts of training Walls for Permanent Stability of Bar Mouth, institutions such as SACON, NCCR and Fisheries Department, Govt. of Tamil Nadu, must be engaged to collect the environmental data such as Salinity, Temperature,

pH, Fish population, Bird population/migration and other flora and fauna and overall ecology of Pulicat Lake on every 3-6 months as a part of this project after construction of Bar Mouth and a report should be submitted to the Ministry along with 6 monthly compliance report. An expertise of Chilika Development Authority may also be sought if necessary.

- iv. No underwater blasting is permitted.
- v. Necessary approvals to be taken during implementation and commissioning from statutory bodies concerned.
- vi. Shoreline should not be disturbed due to dumping. Periodical study on shoreline changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report.
- vii. Sediment concentration should be monitored fortnightly at source and disposal location of dredging while dredging.
- viii. Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life, particularly benthos. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
- ix. Dredging, etc will be carried out in the confined manner to reduce the impacts on marine environment. Dredged material shall be disposed safely in the designated areas.
- x. Dredging shall not be carried out during the fish breeding/turtle nesting season. While carrying out dredging, an independent monitoring shall be carried out by Government Agency/Institute to check the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
- xi. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporated in the Environmental Management Plan.

#### **Agenda No. 3.4**

#### **Proposed Kanagalla Industrial Area Development at Kanagalla Village, Hukeri Taluk, Belagavi District (Karnataka) by M/s Karnataka Industrial Area Development Board – Further consideration for Environmental Clearance [Proposal No. IA/KA/NCP/177810/2017 and File No. 21-141/2017-IA.III]**

3.4.1 The aforementioned proposal was earlier considered in 247<sup>th</sup> EAC meeting held during 23<sup>rd</sup> – 24<sup>th</sup> November, 2020; 262<sup>nd</sup> meeting during 25<sup>th</sup> and 27<sup>th</sup> May, 2021 and 278<sup>th</sup> meeting on 27<sup>th</sup> - 28<sup>th</sup> October, 2021. The proposal was deferred for the want of additional

information/documents.

3.4.2 At this instance, the aforementioned proposal was further placed before the EAC in its 286<sup>th</sup> meeting during 18<sup>th</sup> – 19<sup>th</sup> January, 2022. The proponent has submitted the reply of the ADS raised by the EAC during 278<sup>th</sup> meeting on 27<sup>th</sup> - 28<sup>th</sup> October, 2021. The project proponent along with the EIA consultant M/s MECON Limited, Bengaluru has made a presentation through Video Conferencing and provided the following information-

3.4.3 Reply of ADS raised by the EAC during 278<sup>th</sup> meeting on 27<sup>th</sup> - 28<sup>th</sup> October, 2021:

S. No.	ADS Raised during 278th EAC meeting	Reply by PP during 286th EAC meeting		
		Village	Population as per 2011	Distance from project boundary/Direction
i	PP should mark the point/periphery at particular distances (500m, 1km, 1.5km, 2km etc) of the settlements from the core and buffer area of the proposed project site and mention the population in a particular marked periphery	Hitani	2461	500 to 1 km / SW
		Taundi	1249	1 to 1.5 km / N
		Kanagalla	7709	1.5 to 2 km / S
ii	PP should forecast and detailed out pollution foot print due to proposed red category projects on the health of the villagers of nearby areas.	Industries like Pharmaceuticals, distilleries are not planned in this industrial estate. At this stage no red category industries have approached KIADB. However, the location of red category industrial area is selected in such a way that it is away from the human settlement.		
iii	Avoid some red category projects and relocate some red category projects far from the populated area and villages as was advised in earlier EAC meeting.	Pharmaceuticals, distilleries industries have been avoided. Red category industries foot prints have been reduced from 192 to 71 acre i.e. 23% to 8.5%. Red category is located away from the villages. Further, green belt width as a buffer of red category is increased from 6m to 10m.		
iv	Green belt should be replanned properly by ensuring that greenbelt between habitation and industries and around waterbodies are wide enough	Green belt width of about 263m is provided towards habitation area. The green & white category industries which were planned near Hitani village have been shifted to eastern side of industrial estate to form a same cluster. the park area of about 21 acre is converted to green belt so that the industrial area is isolated from nearby human settlement.  The green belt is increased from 10 to 12% of project area.  Water bodies are not available in the project site.		
v	Health care facilities for the villages should be proposed in unambiguous terms	The nearest Primary Health Centre (PHC) is located at about 4.5 km from project site which will be tied up and the tests as mentioned earlier will be carried out and suitable treatment will be provided to the nearest villagers.		

		Ambulance facilities FOR 24 hrs will be available at Industrial estate that can be availed by local people for emergency purposes. An amount of Rs. 4.5 Crore is earmarked for CER activities. Medical camp is planned to be conducted in the nearest village i.e. Hitani and Taundi for every 3 months.
vi	EMP provisions should be revised based on the above observations	Revised EMP presented.

3.4.4 The proposed project is for development of “Kanagala industrial area” in Hukkeri Taluk, Belagavi District, Karnataka. The Geo-coordinates of project site is Latitude 16° 20' 25" N and Longitude 74° 24' 33" E. Cluster of different types of industries mainly grinding industries will be established in the proposed industrial area. Project site has been acquired in 2016 by KIADB, Government of Karnataka for developing industries.

3.4.5 The proposed project falls under project activity 7(c) Industrial estates. The project falls under Category – A due to interstate boundary (with Maharashtra) falls in study area of 10 km radius. Further, the industrial estate may accommodate Category-A industries for which individual EC will be applied by respective enterprisers at later stage.

3.4.6 The proposed project will be implemented in an area of about 331 ha. The site lies to the north-west of Hukkeri taluk and south of Nipani town, at a crow-fly distance of about 23 km and 7 km, respectively.

3.4.7 The Terms of Reference (ToR) was issued by MoEF&CC *vide* letter No. 21-141/2017-IA.III, dated 22<sup>nd</sup> September 2017. The estimated capital cost is about Rs. 300 Crore based on DPR prepared by KIADB in the year 2019.

3.4.8 Public Hearing was conducted on 14<sup>th</sup> July 2020 at Kanagala (2 km away from proposed project site).

3.4.9 Most of the terrain in the study area is undulating and drainage pattern is dendric type. The drainage pattern is observed towards northern and southern directions from centre part of the study area as the central part of the study area is located at highest elevation. The site is fairly plan and ground level varies from RL +750m to RL +800 m. The gradient of site slope is towards south. No perennial rivers are observed in the study area. The present trend of the terrain slope will be maintained and strengthened by providing a surface drainage network in the proposed 331 ha of land.

3.4.10 Landuse/Landcover of project site in tabular form:

Sl.No	Land use/Land cover	Area (ha)	Area (%)
1	Fallow Land	138.83	42.48
2	Scrub Land	102.67	30.53
3	Open Forest	12.98	3.86
4	Built-up Area	1.2	0.36
5	Open/Barren Land	76.57	22.77
	<b>Total</b>	<b>331.25</b>	<b>100.00</b>

3.4.11 Landuse/Landcover around 10 km radius of project site (1 km in case of Highway projects):

Sl.No	Land use/Land cover	Area (ha)	Area (%)
1	Fallow Land	17190	54.7
2	Crop Land	8000	25.5
3	Scrub Land	1250	4.0
4	Open Forest	770	2.5
5	Dense Forest	430	1.4
6	Builtup Area - Rural	2050	6.5
7	Builtup Area - Urban	580	1.8
8	Waterbody	90	0.3
9	Open/ Barren Land	1050	3.3
	<b>Total</b>	<b>31410</b>	<b>100.00</b>

3.4.12 List of Industries likely to be proposed: The expected list of industries likely to be accommodated is given below-

Sl. No.	Industries	Air pollution potential	Water pollution potential
1	Pharmaceuticals	A2	W1
2	Foundries	A3	W4
3	Paints varnishes, pigments	A2	W2
4	Food and soft drinks	A4	W3
5	Fruit processing/Agro based industries	A4	W4
6	Distilleries	A2	W1
7	Cotton textile/Readymade garments	A4	W2
8	Granite polishing	-	-
9	Wood articles & Furniture	-	-
10	General engineering & Fabrication industry	-	-
11	Automobile Industry	-	-

3.4.13 Water bodies in the study area are occupying an area of 0.9 Sq.km which is only 0.3% of the total study area. The entire Hukkeri taluk falls in Krishna basin. The Ghataprabha River flows at about 30 km from project site. The drainage density varies from 0.80 to 3.4 km/sq.km. The drainage in the taluk is dendritic to sub dendritic in nature. The project site is located on higher elevation and diversion of run-off is not planned. The present trend of the terrain slope will be maintained and strengthened by providing a surface drainage network in the proposed 331 ha of land.

3.4.14 The total water requirement during construction phase is estimated to be 2 KLD while developing the estate plot. Only approach roads and culverts are planned. During operation phase the total drinking water and process water requirement is drawn from common storage tank of 9.85 MLD capacities from Kanagala industrial area. The source of water is from Ghataprabha River (Hirakud dam) which is flowing about 40 km from the project site. No groundwater extraction is envisaged.

3.4.15 There is no diversion of forest land. There are no protected areas within 10 km of project site.

3.4.16 Waste Management: About 21 TPD of solid waste will be generated. All the hazardous waste from industrial units will be transported to Common Hazardous Waste Management Facility (CHWMF) for safe disposal as per the statutory requirement and procedures. Initially, it is planned to send to TSDF, Ranjangaon, Maharashtra for treatment which is around 250 km from the proposed Kanagala Industrial Area. However, Government of Karnataka is planning to develop district wise CHWMF.

Sl. No.	Type of solid waste	Percentage of total quantity	Solid waste (TPD)
1	Recyclable	41%	8.61
2	Inert	52%	10.92
3	Bio-degradable	4%	0.84
4	Hazardous	3%	0.63
<b>Total</b>		100%	21.00

3.4.17 CETP details: The common ETP is not proposed as the industrial estate will have different type of industries. The individual industries will have ETP if necessary according to the requirement to meet the state pollution control norms. It is proposed to adopt no liquid discharge into the environment and the concept of ZLD (Zero Liquid Discharge) according to the merit of the industries proposed in the estates. The industrial area shall not discharge any waste water from its premises. During monsoon season the treated unused/unusable water and run off shall be discharged.

3.4.18 STP details: A common STP is planned to treat the domestic effluent. The individual industries will avail the treated STP water from construction stage onwards. This will reduce the freshwater consumption. An area of 10.82 acre of land has been allotted to install common STP's at Kanagala industrial area to treat domestic waste water during operation. It is proposed to employ MBR technology STP.

3.4.19 Tree cutting and Green belt development: The project site is mostly covered by fallow and barren land with scattered not a noteworthy species of trees, bushes and shrubs. During site clearing activities, the bushes will be cleared completely and felling of trees will be restricted to proposed access roads and green belt development. In addition to this, fresh saplings will also be planted within the construction site under the plantation/green belt development program of the industrial area. The area likely to be covered under green belt is about 84.04 acres.

3.4.20 Solar energy will be used for streetlights around the industrial area. Adoption of improved technology to continuously reduce power consumption with increase in output, several other measures such as LED bulbs for illumination, star rated equipment is planned.

3.4.21 Rain Water Harvesting: Rain water harvesting techniques are proposed in the project site for collection and storage of rainwater which will contribute to recharge the ground water. Few small artificial water bodies have been proposed in the low lying area of the industrial. Also, the independent industrial units shall install rooftop rain water harvesting facility. All the

buildings in the common area shall be provided with rooftop rainwater harvesting facilities. Surface storm water drains will have recharge facilities.

3.4.22 Land acquisition and R&R issues: No R&R issues involved in the proposed project.

3.4.23 Employment potential: It is expected that the proposed industrial area will generate direct employment opportunity to the tune of about 2500 progressively and immeasurable indirect employment from the various upstream downstream activities of various Micro Small Medium Enterprises (MSME's). The initial man power requirement will be the tune of 500 and will reach 2500 progressively.

3.4.24 Benefits of the project: The proposed project will expedite industrial development of the area by attracting a considerable percentage of capital investment to the State and will provide job opportunities for the locals and persons from Belagavi district. Besides, persons belonging to nearby villages are likely to be engaged as day to day contract labourers for outsourced project activities related to civil, electrical, road repair etc.

3.4.25 Court cases: The land owners for 32.16 Acres land have filed case before the Hon'ble High Court of Karnataka Dharwad Bench vide WP No109897/ 2015 and the same is pending in the court.

3.4.26 *During deliberation, EAC observed and noted the following:*

- i. *List of industries should be defined as per CPCB norms.*
- ii. *Revised coloured layout of the Industries category has to be submitted.*
- iii. *PP has to ensure that the ETP & STP plants are separate for Red category industries.*
- iv. *Chemical Industries/ Soap Industries has to be clarified.*
- v. *PP has to place a Micro Metrological Station in the Industrial Area.*

PP submitted the requisite information.

3.4.27 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 286<sup>th</sup> meeting during 18<sup>th</sup> – 19<sup>th</sup> January, 2022 and **recommended** the proposal for grant of Environment Clearance with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. All the mitigation measures to reduce pollution as mentioned in EIA/EMP report shall be implemented in toto.
- ii. The existing water bodies in the project area shall be conserved and used for effective water management. No ground water shall be used in any case.
- iii. Provision shall be made to recharge the ground water and construct rainwater harvesting structures for augmentation of ground water levels. Rain water harvesting for roof run-off and surface run- off, as plan submitted shall be implemented.
- iv. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The bore well for rainwater recharging shall be kept at least 4 mts above the highest ground water table.



- v. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured/recorded to ensure the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six Monthly Monitoring report.
- vi. The unused water should be surrendered to the water board.
- vii. The Industrial complex shall achieve Zero Liquid Discharge and to achieve the Zero Liquid Discharge, waste water generated from various industrial operations shall be properly collected, treated to the prescribed standards and then recycled or reused for the identified uses.
- viii. The member units shall provide storage tanks for collection of effluent and provide ETP/STP for further treatment as per the prescribed norms and, as per the commitment made by M/s Karnataka Industrial Area Development Board. Flow meters with recording facilities shall be provided to monitor the effluent quality and quantity discharged by member industries to the final disposal/re-use on a continuous basis.
- ix. Ambient noise levels shall be regularly monitored and conform to the prescribed standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during development/ construction phase.
- x. Continuous online monitoring system be installed by all the member industries and adequate measures shall be made to reduce ambient air, water and noise level during construction and post construction phase, so as to conform to the stipulated standards by CPCB/SPCB. A detailed plan with number of air quality monitoring stations specially near the village boundaries and parameters to be monitored with frequency of monitoring shall be submitted with the 6 monthly compliance report. Further compliance report as per the monitoring plan shall also be submitted. For identifying the location of monitoring stations, seasonal wind rose analysis shall be carried out with respective predominant wind direction taking the nearby villages as the reference locations.
- xi. Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016.
- xii. Grading within the project site shall be planned such that there shall be negligible impacts on the existing natural drainage system/pattern. An adequate drainage system shall be provided at the site with separate collection streams to segregate the storm run-off from roads, open areas, material storage areas, vehicle wash water and other wastewater streams. Suitable measures should be taken to prevent the washing away of construction materials into the drainage system.
- xiii. Green belt should be developed all around the settlements and water bodies. Minimum 33% of total project area shall be maintained as green belt.
- xiv. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30<sup>th</sup>September, 2020, the project proponent shall abide by all the commitments made by

them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporated in the Environmental Management Plan. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory Afforestation etc, either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be implemented.

### **Agenda No. 3.5**

**Development of Orvakal Industrial Park in an area of 4213.33 Acres (1705.07 Ha) at Pudicherla, Kannamadakala, Brahmanapalle, Palakolanu, Somayajulapalle, Komarolu Villages in Orvakal Mandal, Kumool District, Andhra Pradesh under Hyderabad Bangalore Industrial Corridor (HBIC) by M/s Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC)– Terms of Reference**

**[Proposal No.IA/AP/NCP/249718/2022 and File No 10/2/2022-IA.III]**

3.5.1. The project proponent along with the Master Plan Consultant M/s Egis India Consulting Engineers (P) Ltd along with EIA consultant M/s Ecomen Laboratories Pvt. Ltd has made a presentation through Video Conferencing and provided the requisite information.

3.5.2. The EAC, taking into account the submission made by the project proponent had a detailed deliberation and it was observed that there were more than 15 land parcels which are segregated within a range of 1 km to 15 km apart from each other. Further there are only 2 parcels of land which actually contain Category A or B industries as per the schedule of EIA Notification 2006; rest of the land parcels only have industries which are not listed in the EIA Notification, 2006.

3.5.3. In view of the above, EAC decided to **return the proposal** in its present form and suggested the PP to submit the revised proposal as per norms of EIA Notification 2006 and come back with revised/amended proposal.

### **Agenda No. 3.6**

**Development of UP Defence Industrial Corridor at Village Erach, Gendakabula, Jhabra, Kathari Naikera Labhera Tehsil Garautha District Jhansi, Uttar Pradesh by M/s Uttar Pradesh Expressways Industrial Development Authority (UPEIDA) –Terms of Reference**

**[Proposal No. IA/UP/NCP/248602/2021 and File No. 10/3/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.6.1. The aforementioned proposal was placed before the EAC in its 286<sup>th</sup> meeting during 18<sup>th</sup> – 19<sup>th</sup> January, 2022. The project proponent along with the EIA consultant M/s EQMS India Pvt. Ltd. has made a presentation through Video Conferencing and provided the following information-

3.6.2. The proposed project is for development of ‘UP Defense Industrial Corridor’ at Village Airach, Gendakabula, Jhabra, Kathari Naikera Labhera Tehsil Garautha District Jhansi Uttar Pradesh Industrial Development Department, Govt. of UP. The project site is accessible and is connected by NH-27 by major district road 31B at north side of the project boundary.

3.6.3. The proposed project falls under 7(c) – Industrial Park, Category-A (Industrial estates with an area greater than 500 ha. and housing at least one Category B industry), as per EIA notification 2006. Total investment/cost of the project is Rs474.91 Crore.

3.6.4. Geo-coordinates of project site:

Coordinates of North Side Extent:	25°46'23.39"N and 79° 4'31.95"E
Coordinates of East Side Extent:	25°45'24.14"N and 79° 6'31.16"E
Coordinates of South Side Extent:	25°43'57.12"N and 79° 6'4.44"E
Coordinates of West Side Extent:	25°44'34.51"N and 79° 4'29.94"E

3.6.5. The project site is spread over an area of 1086.1658 HA. The project site is in polygon shape.

3.6.6. Land use/ Land cover (approx. area) of the project site is as following:

Particular	Area (Sqm)	Area (acre)	Area (ha)	Area (%)
Plotted area	8485100	2096.71	848.51	78.12%
Open Area	1210000	299.00	121	11.14%
Common service and infrastructure	486560	120.23	48.656	4.48%
Common Road Area	680000	168.03	68.1	6.27%
<b>Total Plot Area (A)</b>	<b>10861660</b>	<b>2683.97</b>	<b>1086.2</b>	<b>100.00</b>

3.6.7. Land use/Landcover around 10 Km radius of Project Site (1 km in case of Highway projects): Shall be submitted during EIA Stage.

3.6.8. List of industries to be housed with: All the upcoming industries shall be engineering industries involving the production of defence related products like:

S. No.	Nature of Industry	Remarks
1	Land Systems	All these mentioned industries do not come under the purview of EIA notification 2006, however
2	All calibre weapons	
3	All calibre ammunitions	
4	Explosive based units	

5	Maintenance and overhaul of battle tanks, armoured vehicles special vehicles, helicopters and other equipment	apart from these industries secondary metallurgical industry involving furnace and having production capacity above 30000 TPA likely to come in the proposed industrial area under which the applicability of Industrial estate having at least one category B industry and area having more than 500 ha shall be covered under 7(c) category A
6	Unmanned Aerial Systems, Drones and Courier Drone Systems	
7	Special Vehicles	
8	Motors	
9	Engines	
10	Metallic Components	
11	Frames for Aeroplanes and Helicopters	
12	Robotics	
13	Electronics	
14	Common Facilities Centre	
15	Firing Ranges	
16	Testing Ranges	
17	Missiles and Components	
18	Satellite Components	
19	Electronic Warfare Systems	

3.6.9. Terrain and Topographical Features: Surrounding areas of the site comprise, villages, and agricultural land. There are various reserved forests and protected forest present within 10 km radius. Around 12.7420 Ha. area is under reserved forest which has been proposed to change into non forestry purpose. Betwa River is located at 0.93 km in west direction of the Site. No other river is within 10 km radius of the project site.

3.6.10. Water bodies: Betwa river is in the vicinity of the project site at 0.93 km, W direction. No impact on drainage is anticipated due to operation of industrial estate.

3.6.11. Water requirements: During Construction Phase approximately 77 KLD (Domestic- 67 KLD and Construction purpose- 10 KLD) of water will be required out of which fresh water for Domestic purpose will be met through ground water/tanker supply. During Operation Phase the approximate water requirement will be 35.46 MLD which will be met from Betwa River and recycled water. Fresh water requirement will be 28.89 MLD (Domestic- 3.73 MLD Industrial-25.16 MLD). Necessary permission shall be taken from Irrigation and Water Resources Department, Ministry of Jal Shakti Government of Uttar Pradesh. For ground extraction, NOC shall be obtained from Irrigation and Water Resources Department, Ministry of Jal Shakti Government of Uttar Pradesh.

3.6.12. Tree cutting: About 9037 nos. of tree is coming under reserved forest.

3.6.13. Diversion of forest land: About 12.7420 Ha land is in reserved forest. Application for the forest clearance is in final stage and Stage 1 clearance being expected during the appraisal of the EIA.

3.6.14. The project site does not fall within 10 km radius of national parks, sanctuaries and tiger reserves. Details of protected forest and reserved forest falling within 10 km is given

below:

Forest Ares	<ul style="list-style-type: none"><li>• Malhata Reserved Forest- 9.64 km, NE</li><li>• Thurat Reserved Forest – 9.04 km, NE</li><li>• Dhikauli Reserved Forest – 5.29 km NE</li><li>• Sala Reserved Forest – 8.01 km, NE</li><li>• Dhera Reserved Forest- 6.20 km N</li><li>• Ghateshwar Protected Forest- 5.25 km N</li><li>• Fatehpur Protected Forest- 4.05 km N</li><li>• Parecha Reserved Forest- 1 km N</li><li>• Panari Protected Forest – 2.18 km, W</li><li>• Bhujond Reserved Forest – 9.19 Km, W</li><li>• Katharri North Reserved Forest – 0.0 km, within project site</li><li>• Saran Reserved Forest – 3.84 km,</li></ul>
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3.6.15. Waste Management: CETP shall not be set up by UPEIDA itself. However, the provision of land for CETP shall be earmarked by UPEIDA. CETP shall be provided by Industrial Association of upcoming industries. STP: Wastewater from domestic activity (7.7 MLD) shall be connected to sewerage network and shall be treated in common sewage treatment plant. The entire treated water shall be reused for flushing and landscaping purpose.

3.6.16. Land acquisition and R&R issues: No resettlement and rehabilitation is required as land has been and shall be procured by project proponent.

3.6.17. Employment potential: During the peak construction phase approx.500 persons shall be employed. About 203642 peoples are expected to be involved during the operation of the project as per UPSIDA norms.

3.6.18. Benefits of the project: Uttar Pradesh Defence Industrial Corridor (UP DIC) is an aspirational project that intends to reduce foreign dependency of Indian Aerospace & Defence Sector. With self- reliance as the motto, 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. The two Defence Corridors set up in Tamil Nadu and Uttar Pradesh would be specifically targeted by providing additional support as well as by offering higher multipliers for offset discharge for investments flowing into the Defence Corridors. In the current FDI policy for Defence sector notified vide Press Note No. 5 (2016 Series), FDI was allowed under automatic route up to 49% and above 49% through government route wherever it is likely to result in access to modern technology or for other reasons to be recorded. Efforts have recently been made to liberalize FDI in Defence Sector for attracting global OEMs to shift manufacturing facilities and expand India's presence in international supply chains. Efforts would be made to attract FDI through Invest India and Defence Investor cell. 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.

3.6.19. Details of Court cases: No court case is pending against the proposed project.

3.6.20. *During deliberation, EAC observed and noted the following:*

- i. *PP has mentioned that 11.14% Green Belt will be developed by UPEIDA and balance 21.86% of green belt implementation details has to be submitted to meet out the MoEF & CC requirement of 33%.*
- ii. *Forest land/Reserve Forest land/Forest permission letter details has to be furnished.*
- iii. *The setting of industrial units near to the river has to be avoided.*
- iv. *The proposed land is near the river hence Drainage pattern/Flood flow and the distance between river and the land height / topography of the proposed land has to be studied. As the PP stated that the proposed industrial area is 15 meters high.*
- v. *PP has to ensure that Waste water will not be discharged in the river at any circumstances.*
- vi. *While planning, industries creating Air/Noise pollution has to be avoided near villages.*
- vii. *EAC committee suggested to explore the utilization of significant proportion of Solar Energy for all industrial units.*
- viii. *The PP has to clarify that is Open area lawn or Green Belt area? Since, lawns are not classified as green belt area.*

3.6.21. The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 286<sup>th</sup> meeting during 18<sup>th</sup> – 19<sup>th</sup> January, 2022 and **recommended** the proposal for grant of Terms of Reference (ToR) with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. 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.
- ii. Water balance chart be prepared and submitted along with EIA/EMP report.
- iii. Proponent shall ensure the conservation and development of nearby water bodies in the surrounding areas.
- iv. Detailed land use breakup of proposed Industrial area with green belt to be submitted.
- v. The project area has undulating terrain and it is important to have detailed hydrological study and its impact need to be carried out on the catchment and drainage system in core and buffer zones.
- vi. The PP shall not use groundwater without obtaining approval from CGWA/SGWA as the case may be. The project proponent shall obtain necessary permission from Competent Authority to use surface water from Almatti reservoir.
- vii. Proponent shall establish captive treatment, storage, and disposal facility (TSDF) to ensure the effective Solid Waste Management.
- viii. 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 No. 3.7

### **Development of Litibeda-Ranchi 4-lane access-controlled Greenfield Highway from Litibeda (Junction of SH-10 in Odisha) to Ranchi (Sithiy) in the State of Jharkhand under Bharatmala Pariyojana (Ch 0+000) to Ch 147+500) [total length - 147.500 km) by M/s National Highways Authority of India - Terms of Reference**

**[Proposal No IA/JH/NCP/186689/2020; File No. 10-69/2020-IA.III]**

3.7.1 The project proponent along with EIA Consultant M/s L&T Infrastructure Engineering Limited, Hyderabad has made a presentation through Video Conferencing and provided the following information.

3.7.2 The proposed project is for Development of Litibeda-Ranchi 4-Lane access-controlled Greenfield Highway from Litibeda (Junction of SH-10 (Odisha)) to Ranchi (Sithiy) in the State of Jharkhand under Bharatmala Pariyojana. The proposed alignment starts at Litibeda (Design Km 0+000) from Intersection of SH 10 and ends at Ch. 147+500 on Ranchi Ring Road. The proposed project includes 9 major bridges, 100 minor bridges, 136 culverts, 3 Interchanges, 51 VUP/LVUP/SVUP, 2 Vehicular Overpass, 2 Way side Amenities, 3 Toll Plaza, Truck Parking at four locations and 74.50 km length of embankment with average height of > 2.5 m.

3.7.3 The abovementioned proposal was earlier placed before the EAC during its 249<sup>th</sup> meeting on 14<sup>th</sup> December 2020 and 258<sup>th</sup> meeting on 17<sup>th</sup> -18<sup>th</sup> March, 2021. Taking into account the submission made by the project proponent and the status provided by the Member Secretary for the aforementioned proposal was recommended for granting the Terms of Reference during its 258<sup>th</sup> meeting on 17<sup>th</sup> -18<sup>th</sup> March, 2021 subject to the following specific condition-

- *Approval of road alignment for the purpose of TOR is subject to approval of alignment by State CWLW and PE division of MoEFCC. Any modification in alignment or any alternate alignment suggested by CWLW and approved by the PE division of MoEFCC will be considered final for the purpose of EIA study.*
- *Provision in the EMP shall be made as per the wildlife conservation plan approved by the CWLW and also as per the conditions stipulated by CWLW in approval of the alignment / modified alignment / alternate alignment. Patrolling team and watch tower for the movement of animals to avoid human animal conflict should be provided along with the financial allocation in the mitigation plan.*

3.7.4 At this instance, the aforementioned proposal was further placed before the EAC during 286<sup>th</sup> meeting during 18<sup>th</sup> – 19<sup>th</sup> January, 2022. The project proponent along with the DPR Consultants M/s URS in association with M/s AECOM India Pvt Ltd. & C. E. Testing Company Pvt. Ltd. made a presentation through Video Conferencing and provided the following information-

3.7.5 Based on the report of field officials, CWLW, Jharkhand vide his letter dated 18.08.2021 addressed to IG, Forest, has taken a view that “the project impact area happens to be already in the grip of high intensity of human elephant conflict incidents primarily owing to

acute fragmentation of elephant habitat and thus the proposed alignment is not advisable”.

3.7.6 Based on the comments received from CWLW, Jharkhand as above, Ministry vide letter dated 16.09.2021 addressed to the ACS, Department of Forest, Environment & Climate Change, Jharkhand communicated that “the PE Division has requested to consider their comments with regards to elephant conservation in the country before considering this proposal or taking any decision in this matter. However, no alternative alignment has been suggested by CWLW for the same.

3.7.7 Accordingly, comments were sought from RO, NHAI, Ranchi by PCCF, Jharkhand vide letter dated 12.11.2021.

3.7.8 Subsequently DFO visited site and identified total 32 locations for construction of elephant underpass for 118 km stretch fall in Jharkhand and 29 km fall in Odisha. Chainage wise details of the elephant underpass has been communicated to CWLW by NHAI RO, Ranchi vide letter dated 09.12.2021.

3.7.9 As regards finalization of Provision in the EMP as per the wildlife conservation plan approved by the CWLW, NHAI has received direction from CWLW vide letter dated 01 Dec 2021 that the services of Wildlife Institute of India (WII) may be utilized by the project proponent to systematically plan structural mitigation measures and other non-structural interventions necessary to mitigate the impact of the said highway on elephant habitat as well as human elephant conflict situations.

3.7.10 Accordingly, RO, NHAI Ranchi has already communicated the matter with WII vide letter dated 10 Jan 2022.

3.7.11 *During deliberation, EAC observed and noted the following:*

- i. The PCCF stated that the Project alignment impact is in the grip of high intensity of human elephant conflict incidents primarily due to acute fragmentation of elephant habitat.*
- ii. The PP can go for a better alignment having no Human-Elephant confliction.*

3.7.12 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 286<sup>th</sup> meeting during 18<sup>th</sup> – 19<sup>th</sup> January, 2022 and decided to withhold the proposal for grant of Terms of Reference (ToR) based on the above-mentioned observations of the Chief WildLife Warden with the specific conditions, as mentioned below-

- i. Considering very high ecological sensitivity of the location and likely impacts of the proposed alignment on elephant movement and further fragmentation of elephant corridor, the committee will make a site visit and decide accordingly.*



Following members were present during the 286<sup>th</sup> EAC(Infra-1) meeting held on 18<sup>th</sup> – 19<sup>th</sup> January, 2022

S. No.	Name	Designation	Remarks	
			18 <sup>th</sup> January, 2022	19 <sup>th</sup> January, 2022
1.	Dr. Deepak Arun Apte	Chairman	Present	Present
2.	Sh. S. Jeyakrishnan	Member	Present	Present
3.	Sh. Manmohan Singh Negi	Member	Present	Present
4.	Sh. Sham Wagh	Member	Present	Present
5.	Dr. Muke shKhare	Member	Present	Present
6.	Dr. Ashok Kumar Pachauri	Member	Present	Present
7.	Dr. V. K Jain	Member	Requested leave of absence	Requested leave of absence
8.	Dr. Manoranjan Hota	Member	Present	Present
9.	Sh. R Debroy	Member	Absent	Absent
10.	Dr. Rajesh Chandra	Member	Absent	Absent
11.	Dr. M. V Ramana Murthy	Member	Present	Present
12.	Smt. Bindu Manghat	Member	Absent	Absent
13.	Dr. Niraj Sharma	Member	present	Present
14.	Dr. Nirmalendu Kumar	SoI	Present	-
15.	Sh. Amardeep Raju	Scientist 'E' & MS, MoEF&CC	Present	Present
17.	Dr. Rajesh Prasad Rastogi	Scientist 'C', MoEF&CC	Present	Present
18.	Mr. P. Balakumar	Consultant	Present	Present

**A site visit report of EAC (Infra-1) sub-committee, Ministry of Environment, Forest & Climate Change, New Delhi-India for a proposed project “Development of Greenfield Non-Major Port at Ramayapatnam in Prakasam District of Andhra Pradesh State by M/s Government of Andhra Pradesh”.**

## 1.0 Background

1.1 The proposed project is for the development of Greenfield Port at Ramayapatnam in Prakasam District of Andhra Pradesh. It will be an all-weather port with state of art terminal facilities to meet the present and future needs of trade. The port has been planned in two phases viz. Phase I handling 24.91 MTPA and Phase II handling additional cargo of 113.63 MTPA. On completion of Phase II, it will handle the total cargo of 138.54 MTPA. The location of proposed Ramayapatnam port spreads centering around Latitude: 15°01’09” N and Longitude 80°03’09” E. Total land (ha): 1390.95 comprising of 324.85 ha in Phase I and another 1066.10 ha in Phase II. Total Project Cost: ₹ 10640.00 Cr comprising of 3736.00 Cr for Phase I and 6904.00 Cr for Phase II.

1.2 TOR for the proposal was granted on 19<sup>th</sup> February 2020 during the 48<sup>th</sup> EAC meeting held on 28<sup>th</sup> to 29<sup>th</sup> January, 2020. Amended TOR was granted on 19<sup>th</sup> February 2021 by the 253<sup>rd</sup> EAC meeting held on 18<sup>th</sup> to 19<sup>th</sup> January 2021.

1.3 The proposed rail and roadway corridor passes through small part of Reserve Forest land, where the approached is connected to existing highway. Forest clearance is taken up separately.

<i>Reserve Forest</i>	<i>Forest area (acres)</i>
<i>Ravuru</i>	<i>33.73</i>
<i>Chevuru</i>	<i>11.37</i>
<b><i>Total</i></b>	<b><i>45.10</i></b>

1.4 Based on CRZ Notification 2011, the following facilities fall under CRZ areas.

<b>CRZ</b>	<b>Facilities Proposed</b>
CRZ I A	No facilities
CRZ I B	Groynes, Beach Nourishment Greenbelt, Open Storage Yard and Container Yard
CRZ III A	Internal Roads, Covered Storage Sheds, Greenbelt, Truck Parking and Water Storage Reservoir for Phase-I
CRZ III B	Internal Roads, Covered Storage Sheds, Greenbelt, Truck Parking and Water Storage Reservoir for Phase-I

CRZ IV A	Berths, Groynes, Breakwaters, Substations, Open Storage Yard and Container Yard
CRZ IV B	Culvert/Bridge and Railway Bridge

1.5 The proposal for Environmental Clearance was considered during the 278<sup>th</sup> meeting of Expert Appraisal Committee held on 27<sup>th</sup> - 28<sup>th</sup> October, 2021. During deliberation, EAC observed that some of areas needs clarification such as Turtles Hatchery and impact of groynes/ beach nourishment on turtle nesting, if any. Also detailed plan of beach nourishment for coastal protection.

1.6 EAC further observed that Marine Biodiversity study need to include impacts of port development and operations on marine species particularly sea turtles, whale sharks and marine mammals such as ship traffic, underwater noise, oil pollution, shore erosion/accretion, ballast etc.

1.7 In view of the above observations, it was also decided that EAC sub-committee will make a site visit and evaluate cumulative impacts of several non-major ports proposed in the State along the coastal area including the proposed port at Ramayapatnam.

## **2.0 Constitution of Sub-Committee**

2.1 The matter was examined in the Ministry and accordingly, *vide* an Office Order dated 24<sup>th</sup> December, 2021, a sub-committee of EAC (Infra-I), Ministry of Environment, Forests & Climate Change, was constituted. The list of members is enclosed as Annexure-A.

## **3.0 Site Visit**

3.1 The sub-committee conducted site visit at Ramayapatnam, Andhra Pradesh during 27<sup>th</sup> December, 2021. The Committee is to evaluate cumulative impacts of several non-major ports proposed in the State along the coastal area including the proposed port at Ramayapatnam. However, looking into the rise in COVID-19 cases it was decided that the Sub-Committee shall only visit Ramayapatnam with respect to issues related to turtle nesting site including turtle hatchery. A detailed study by a sub-committee having additional members from diverse area of expertise, including officials of APMB, shall be conducted at later stage.

## **4.0 Discussion with Project Proponent**

4.1 Discussion was held with the officials of Andhra Pradesh Maritime Board and their consultants. A layout map of the site was presented to the Sub-Committee. The Phase-I and Phase – II of the proposed project was explained to the sub-committee.

## **5.0 Project Location and observations of the Sub-Committee**

5.1 The project site is located at southeast corner of Prakasam District in Gudluru Mandal, 2 km east of Tettu Village. It will be located approximately 13 km southeast of Ulavapadu. As per the Master plan, the port will be developed in the overall area of 3437.10 acres spanning over two phases of development, i.e., 802.70 acres during Phase I and 2634.40 acres in Phase II.

5.2 An outlet of Buckingham canal falls at south of Ramayapatnam village. The outlet falls close to the northern boundary (1.4 km north of second north breakwater) of the master plan of proposed port whereas the Elikeru river is located about 3.2 km north of the proposed master plan of the port. The width of the mouth of the Buckingham canal outlet close to project site is about 80 m. The width of the Elikeru river at the sea opening is about 250 m. Both the water bodies are connected to the Buckingham canal which runs parallelly along the coast.

5.3 Location I: Near Northern Breakwater:

i. Sub-committee visited 2.5 km North of proposed northern breakwater for Phase 1. The temporary approach road, which will become part of port area is sparsely vegetated with casuarina and other native species. A portion of site is occupied with sand dunes which run parallel to the coastline. It has been mentioned by PP that the sand dunes shall not be disturbed and shall remain as it is. The sand dunes shall become part of green belt plantation.

ii. There was no evidence of turtle habitats or turtle nesting observed by the subcommittee at the site.

5.4 Location II: Near Southern Breakwater:

i. The sub-committee further visited 1 km near to southern breakwater. A small shanty was seen at the site which is of the dimension of 5X2 meters, which is open on the sea-ward side. It was mentioned that the shanty was earlier used as a hatchery for the turtle eggs, however the same is abandoned since several years.

## **6.0 Earlier studies conducted with respect to Turtle Nesting along the coastline.**

6.1 As per the study carried out by National Centre for Sustainable Coastal Management (NCSCM), Ministry of Environment, Forest & Climate Change, in 2018-19, whose scope included the valuation study of Turtle Nesting Grounds all over the coasts of India, which covers economic valuation of turtle nesting ground covers turtles and it's nesting beaches. This study states that Andhra Pradesh had 12 nesting sites covering an area of 1374.69 Hectare area, mainly habituated by Olive Ridley Turtles. However, this study has not found Turtle Nesting sites in the district of Prakasam, where the project is located. The Assessment of Coastal and Marine Ecosystem Goods and Services – Final Report on Turtle Nesting Grounds, NCSCM, MoEF&CC report 2018-19 is enclosed as Annexure-1.

6.2 As per the National Marine Turtle Action Plan, GoI, MoEF&CC (2021-26), in the list of Important Marine Turtle Habitats in India, Andhra Pradesh has 3 sites viz., Godavari River Mouth has very high sporadic nesting of Olive ridleys, Kapasukuddi, Nagavali, Bamsadhara has high sporadic nesting of Olive ridleys and Beaches along Krishna River and Penneru River mouth (Nellore) has moderate sporadic nesting of Olive ridleys is noticed. It is noticed that as per the National Marine Turtle Action Plan there is no turtle habitat in and around the project site (Attached as Annexure-2).

6.3 Further the “Preliminary Report on the Survey of Sea Turtles along Andhra Pradesh coast carried out by Basudev Tripathy, Wildlife Institute of India along the Southern Andhra Pradesh coast refers only sporadic nesting (Attached as Annexure-3).

6.4 In another study conducted by Basudev Tripathy, WII et al., during January – March, 2001 in 10 sectors of Andhra Pradesh mentions no nesting of Olive ridley turtles noticed at the project site and its vicinity.

## **7.0 Conclusions and Recommendations**

7.1 In the course of site visit, the sub-committee observed and recommended the following:

- i. The temporary approach road, which will become part of port area is sparsely vegetated with casuarina and other native species. The sand dunes shall not be disturbed and shall become part of green belt plantation. Sand dune Management plan should be evolved and implemented.
- ii. An outlet of Buckingham canal falls at south of Ramayapatnam village. The outlet falls close to the northern boundary (1.4 km north of second north breakwater) of the master plan of proposed port. The port activity shall not disturb the opening of the Buckingham canal or inlets to the sea.
- iii. There was no evidence of turtle habitats or turtle nesting observed by the subcommittee at the site. However, the report from authorised institute or NCSCM should be submitted.

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## **Annexure-I**

A sub-committee of the following members participated in the visit of Ramayapatnam Port, Andhra Pradesh.

<b>S. No.</b>	<b>Name</b>	<b>Designation</b>
06.	Dr. M. V Ramana Murthy	EAC (Infra-I) member
07.	Amardeep Raju	MS (Infra-I), MoEF&CC
08.	Dr. Suresh Babu	Sci 'C', IRO Vijayawada, MoEF & CC

Following representatives and consultants from PP side were present during the visit

<b>S. No.</b>	<b>Name</b>	<b>Designation</b>
01.	Shri Muralidharan	CEO, Andhra Pradesh Maritime Board
02.	Shri Srinivasulu	DFO on Deputation to Andhra Pradesh Maritime Board
03.	I V Reddy	Andhra Pradesh Maritime board takes care of Land acquisitions
04.	Dr Chandra Mohan	Indomer (Environmental consultant)
05.	Sanjay Gupta	AECOM, Engineering consultant and PMC

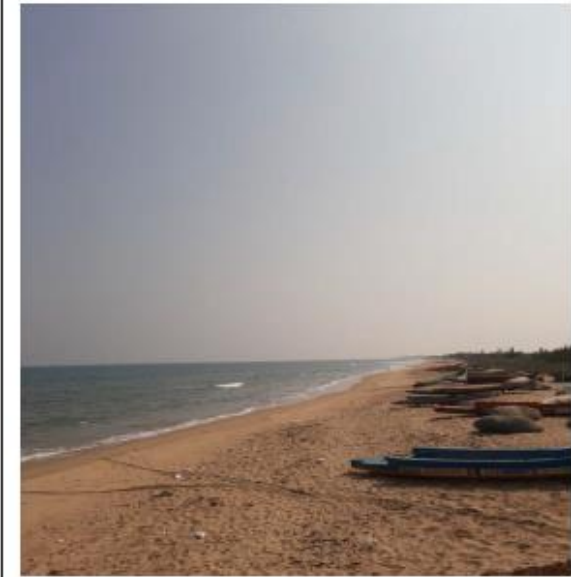
**Site Visit Photographs**



**Sand Dunes**



**Towards Northern Breakwater**



**Towards Southern Breakwater**



**Shanty Used for Turtle Nesting**

**Site Visit Photographs**