

**Minutes of the 308<sup>th</sup> meeting of Expert Appraisal Committee held on 15<sup>th</sup> -16<sup>th</sup> September, 2022 Video Conference 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 Complexes7(c); Ports, harbors, breakwaters, dredging7(e) and National Highways 7(f).**

The 308<sup>th</sup> Meeting of Expert Appraisal Committee (EAC) of Infra-1 (IA-III) was held through Video Conference during **15<sup>th</sup> – 16<sup>th</sup> September, 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 306<sup>th</sup> EAC Meeting held on **22<sup>nd</sup> – 23<sup>rd</sup> August, 2022**.

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

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

#### **Agenda No. 3.1**

**Subject: Development of Vizhinjam International Deepwater Multipurpose Seaport at Vizhinjam in Thiruvananthapuram District, Kerala by M/s Vizhinjam International Seaport Ltd.–Amendment in Environmental and CRZ Clearance Proposal No. IA/KL/NCP/285459/2022 and File No. 11-122/2011-IA.III.**

“The EAC noted that the Project Proponent/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 the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

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

3.1.2. The proposed project is for amendment in the Environmental and CRZ clearance for ‘Underground tunnel’ in project of Vizhinjam International Deepwater Multipurpose Seaport at Vizhinjam in Thiruvananthapuram District, Kerala by M/s Vizhinjam International Seaport Ltd.

3.1.3. Environmental and CRZ Clearance was granted vide letter no.11-122/2011-IA.III dated 03<sup>rd</sup> January, 2014 for development of Vizhinjam International Deepwater Multipurpose Seaport at Vizhinjam in Thiruvananthapuram District, Kerala by M/s Vizhinjam International Seaport Ltd.

3.1.4. The proposed project falls under 7(e) - Ports, Harbours, Category-A, as per EIA notification 2006. Total investment/cost of the project is Rs 1,06,012.3 Lakhs.

3.1.5. The Proponent vide online application dated 17<sup>th</sup> August, 2022 has submitted for seeking the Amendment in Environmental and CRZ Clearance dated 03<sup>rd</sup> January, 2014 for an underground tunnel.

3.1.6. The PP has given the following reason for amendment: Earlier, the Environmental and CRZ Clearance dated 03<sup>rd</sup> January, 2014 was granted for Development of Vizhinjam International Deepwater Multipurpose Seaport at Vizhinjam in Thiruvananthapuram District, Kerala by M/s Vizhinjam International Seaport Ltd along with the development included rail connectivity for the port through an elevated structure now, the rail connectivity is now planned to be underground tunnel.

3.1.7. Underground tunnel passing through villages of Balaramapuram, Pallichal, Athiyannur and Vizhinjam in Neyyattinkara Tehsil, of Thiruvananthapuram District, in Kerala. Proposed development is primarily a tunnel project, a length of 9.43 kms of the ~10.70 kms will be underground; land above the tunnel will continue to be used in its current form. The remaining length of ~1.20 kms will see a change in the land use where the stretch will be converted to a rail line. Current land use along the corridor above the proposed tunnel has mostly buildings upto G+1 or maximum G+2 heights only as well as coconut trees and homestead gardens.

3.1.8. Contour map prepared with respect to study area indicates terrain topography in an around the project area varies widely with contour values raging from 20m to 100m. The uneven distribution of contour indicates undulating topography existing in the study area.

3.1.9. The topography is highly undulating both in the sedimentary and crystalline out crops indicating the presence of large-scale tectonic deformation took place in the geologic past.

3.1.10. Based on the deliberations in the meeting and information provided by the proponent in support of the project, the EAC **return the proposal in present form** as the current proposal is for change in the scope of the existing proposal and cannot considered as amendment in environmental clearance proposal. EAC further suggested PP to submit following information/clarification as and when PP re-submit the application in appropriate format:

- i. Risk Assessment study shall be conducted for flooding and other aspects.
- ii. CRZ area has to be categorized for underground tunnel and approved by SCZMA.
- iii. Vibration impact of tunnel construction and operation on aquafer, aquatic life system as well as humans and residential and commercial infrastructure should be studied.
- iv. The site is located in an area where the rainfall intensity varies from time to time. Therefore, a detailed study w.r.t worst case scenario for the highest intensity of rainfall, flash flood, cloud bursts etc need to be conducted and submitted in the EIA report.
- v. The entry of the proposed tunnel is only about 130 mts from hightide line. The area has also appeared to be used by local fisherman community. PP need to undertake detailed study of risk of tunnel inundation during high tidal surge, cyclones. PP also need to study impact of tunnel construction in CRZ areas on the access and use of it by fisherman community.
- vi. A comprehensive hydrological and hydrogeological investigations shall be conducted by a reputed institute for the site and should be incorporated in the EIA report. Collapse of soil or rock due to submarine ground water while making tunnel should be studied and mitigation measures to be ascertained.
- vii. A comprehensive assessment of impact of seismicity on tunnel stability needs to be studied by a reputed institute and should be incorporated in the EIA report.
- viii. Details regarding ventilation system envisaged for the tunnels need to be presented in the EIA report.

- ix. Detailed muck and dredge material disposal plan including specific earmarked locations be identified.
- x. Evacuation plans in case of fire, floods, earthquake etc be carefully studied with models and explanations be presented as a part of the EIA report.
- xi. Details of Court cases if any should be mentioned.

### **Agenda No. 3.2**

**Subject: Development of Kalpasar Project (building a 60 km dyke) across Gulf of Khambhat by M/s Narmada, Water Resources, Water Supply and Kalpasar Department, Government of Gujarat – Further consideration for Terms of Reference Proposal No. IA/GJ/NCP/280454/2022 and File No. 10/33/2022-IA.III.**

“The EAC noted that the Project Proponent/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 the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

3.2.1. The project proponent along with the DPR consultant Ministry of National Centre for Coastal Research (NCCR) and EIA Consultant National Environmental Engineering Research Institute (NEERI) has made a presentation through Video Conferencing and provided the following information:-

3.2.2. The proposal is for Development of Kalpasar Project Construction of Dyke with a length of about 60.13 km out of which about 26.7 km length will be in the Gulf and 33.43 km length is extended on both flanks up to the nearest road across the Gulf of Khambhat Dyke. by M/s Narmada, Water Resources, Water Supply and Kalpasar Department, Government of Gujarat.

3.2.3. The Kalpasar Project or the Gulf of Khambhat Development Project envisages building a 60 km dyke across the Gulf of Khambhat for establishing a huge fresh water coastal reservoir for irrigation, drinking and industrial purposes essentially to meet the water demands of the drought prone Saurashtra region of Gujarat.

3.2.4. The proposed dyke will form a fresh water reservoir of 7800 million cubic meters and would receives water from four major river systems namely i.e., Sabarmati, Mahi and Dhadhar and Narmada. A 16-lane roadway and a 4-lane permanent way for rail transport are proposed to be built over the dyke which will significantly reduce the travel distance from 240 km around the Gulf to 60.13 km across the Gulf. With the construction of the Project dyke, the tidal water inflow into the peripheral land areas around Gulf will be considerably reduced thereby opening up an opportunity for recovery of tide affected land area.

3.2.5. The Dyke length of 26.7 km will be in the Gulf (sea portion) and 13.6 km will be towards east in Bharuch district and would cover an area of 152 ha (67 % of Government land and 33% of private land) and 19.83 km will be towards west in Bhavnagar district and would cover an area of 398 ha of land (90% of Government land of 10% private land). The area under the proposed flood regulator would be 1345 ha (100% owned by the Government).

3.2.6. Geo-coordinates of project site: Intersection of L-3 on Bhavnagar-Pipali Highway longitude: 72° 3' 58.978"E latitude: 21° 48' 23.527"N and Intersection of L-3 on intertidal Dahej side paniyadra, End Point 72° 38' 51.180"E and 21° 48' 25.704"N.

3.2.7. The proposed project falls under 7(e), Category-A, Ports, Harbors, breakwater, dredging as per EIA notification 2006. Total Project Cost is Rs. 1,00,000 crores.

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

S.No	LULC Class	(ha)	%
1	Barren	123	2.9
2	Builtup	2	0.0
3	Water (Gulf)	2278	54.6
4	Mangroves	289	6.9
5	Mud Flat	44	1.1
6	Others	311	7.5
7	Saltpan	988	23.7
8	Vegetation	39	0.9
9	Water	95	2.3
-	Total Area	4170	100

3.2.9. Terrain and Topographical Features: The project area upto +10m has a systematic slope with low gradients tapering towards the Gulf.

3.2.10. Water bodies: Fresh water reservoir of 1,600 sq.km with a capacity of 7800 million cubic meters will be created due to Kalpasar project. Additional volume of water will be released by means of a flood regulators, to minimising impact on drainage pattern.

3.2.11. Water requirements: 5 MLD water will be required which will be sourced from freshwater reservoir.

3.2.12. Tree cutting: Mangroves falling within the dyke corridor. Exact no. of trees and girth details will be studied in detail during EIA study.

3.2.13. Waste Management: It is estimated that during construction phase around 10000kg/day and operation phase around is 150kg/day waste will be generated; this will be collected at site and disposed of through Municipal Corporation. Hazardous wastes generated at the port shall be disposed-off through authorized vendors duly adhering under guidelines of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and its amendment.

STP Details: Around 10.8 KLD of sewage will be generated from the employment. STP will be developed in the working areas. Treated wastewater will be utilized in green areas within the building areas. Sludge from Sewage Treatment Plant will be utilized in green area application.

3.2.14. Diversion of forest land: The proposed project site is not involved any forest land.

3.2.15. There is no National Park, Wild Life Sanctuary, Tiger/Elephant Reserves, Biosphere Reserves within 10 Km radius of the study area.

3.2.16. The project falls in CRZ area, CRZ map will be prepared by one of the authorized agencies and details will be furnished in EIA report.

3.2.17. Changes envisaged due to the project: About 250 Mm<sup>3</sup> of soil will be dredged which will be used for preparation of dyke and embankments for channels and land reclamation of the Bhal area in Saurashtra region (1955-68) and envisaged construction of a 25 mile long earthen bund and 10,000 feet long weir to prevent tidal flooding by sea water, preserve rain water and improve soil-water regime for crop production. However, the project proposal, with respect to its present form and features, has evolved through interplay of ideas and concepts which have been concretized through many studies conducted by Government of Gujarat (GoG).

3.2.18. Land acquisition and R&R issues involved: Dyke length of 26.7 km will be in the Gulf (sea portion) and 13.6 km will be towards east i.e., Bharuch district covers an area of 152 ha (government land of 67 % and private land of 33 %) and 19.83 km will be towards west i.e., Bhavnagar district which cover an area of 398 ha of land (government land of 90 % and private land of 10 %). Area under development flood regulator is 1345 ha (government land of 100 %). There is no resettlement of habitations is envisaged due project development.

3.2.19. Employment potential: About 20,000 people will be deployed during construction phase and around 300 people will be deployed during operation phase.

3.2.20. Benefits of the project: The proposed project develops the freshwater availability. The proposed road connects the Bhavnagar-Pipali Highway at Kardej on Bhavnagar side and Gujarat State Highway - 6 at Paniyadra on Dahej side, this will reduce distance from 240 km to 60.13 km, Improvement in Soil Productivity and change in cropping pattern, Improvement in groundwater regime and Employment generation.

3.2.21. Details of court cases: No court cases are pending against the proposed project.

3.2.22. The EAC based on the information submitted and clarifications provided by the project proponent and detailed discussions held on all the issues during 308<sup>th</sup> meeting during 15<sup>th</sup> - 16<sup>th</sup> September, 2022, **deferred** the project for grant of Terms of Reference (ToR) with following observations:

- i. A layout map of the project boundaries superimposing CRZ boundaries, rivers and creeks, other ecologically sensitive areas (turtle nesting, migratory bird areas etc) etc may be prepared and submitted.
- ii. Location of major outfall of industrial effluents, industrial set ups, villages, major infrastructures etc may be submitted.
- iii. A site visit by the sub-committee shall be conducted once the above information is submitted.

### **Agenda No. 3.3**

**Subject: Construction of balance work of Dighi Port, Taluka Murud and Taluka Shrivardhan, District Raigad, Maharashtra by M/s Dighi Port Limited – Terms of Reference Proposal No. IA/MH/NCP/290766/2022 and File No. 10-8/2005-IA.III.**

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

3.3.1. The project proponent along with the EIA Consultant M/s. Aditya Environmental Services Pvt. Ltd made a presentation through Video Conferencing and provided the following information:-

3.3.2. The proposed project is for construction of 1 berth of 325-meter quay length on the north side, construction of 1400-meter breakwater on the south side and reclamation of approx. 27 Ha area behind the berth on north side along with wastewater treatment plants, electrical sub-station, utility corridor, levelling of land to make port back-up area, storm water drainage network, firefighting system, internal road connectivity etc.

3.3.3. The proposed project falls under 7(e), Category-A, Ports, Harbors, breakwater, dredging as per EIA notification 2006. Total Project Cost is Rs. 1,570 crores.

3.3.4. M/s Dighi Port Limited (DPL) obtained Environment and CRZ clearance vide letter no.10-8/2005 dated 30<sup>th</sup> September, 2005 from Ministry of Environment Forest & Climate Change (MoEF&CC) for development of Dighi port. Further, Corrigendum in environmental clearance was issued on 26<sup>th</sup> December 2005 clarified regarding Phase I involving development of 4 new multipurpose berth and strengthening & upgrading of existing (one number) berth Subsequently EC Corrigendum was issued on 25<sup>th</sup> June 2012 to treat the EC issued on 30<sup>th</sup> September 2005 as EC and CRZ clearance and also DPL was permitted to handle LPG as per the corrigendum letter. Further corrigendum to EC & CRZ clearance was issued on 7<sup>th</sup> December 2021 mentioning the berth dimensions.

3.3.5. M/s DPL has permission to develop 5 numbers of berths i.e. 2 number of berths including strengthening of existing berth on south side (Dighi Side) and 3 new berths on the north side (Agardanda Side) of Rajpuri creek along with breakwater, reclamation of port back-up area, and other associated facilities to cater to all kinds of dry cargo, project cargo, container cargo, liquid cargo, and LPG etc. The erstwhile developer of Dighi port commenced construction after obtaining EC in 2005. Out of the five approved berths two berths on the south side are operational; two berths on north side are constructed and are in commissioning phase. One berth is yet to be constructed in addition to breakwater, reclamation and other associated facilities.

3.3.6. Dighi Port could not complete construction of 5 numbers of berths i.e. 2 number of berths including strengthening of existing berth on south side (Dighi Side) and 3 new berths on the north side (Agardanda Side) of Rajpuri creek along with breakwater, reclamation of port back-up area as part of the earlier Environmental Clearance granted vide letter no.10-8/2005 dated 30<sup>th</sup> September, 2005, M/s DPL has applied the present proposal for Construction of balance work (1 berth of 325-meter quay length on the north side, construction of 1400-meter breakwater on the south side and reclamation of approx. 27 Ha area behind the berth on north side in addition to breakwater, reclamation and other associated facilities) of Dighi Port, Taluka Murud and Taluka Shrivardhan, District Raigad, Maharashtra by M/s Dighi Port Limited.

3.3.7. Landuse/Landcover of project site:

S.No.	Landuse/Landcover	Area (ha)	%
1	Waterbody	18023	57.58
2	Moderate Dense Vegetation	5940	18.98
3	Open Land	1921	6.14
4	Open vegetation	1619	5.17

5	Scrub land	1395	4.46
6	Fallow Land	1123	3.59
7	Plantation	716	2.29
8	Non-Forested Wetland	401	1.28
9	Reservoir/Dams	79	0.25
10	Rural Area	55	0.17
11	Industrial Area	23	0.07
12	Mining Area	4	0.01
	<b>Total</b>	<b>31299</b>	<b>100</b>

3.3.8. Terrain and topographical features: The location of the proposed project is majorly highly contoured and hilly. Overall terrain shows undulations and predominant hilly throughout the study area. At some places contours are closely spaced, and steep slopes are seen in many areas. Several small hills are spread across the study area. Highest point within study area is 345 m above mean sea level whereas lowest point is at 0 m above mean sea level.

3.3.9. Water requirements: The Existing port is having the approval to draw 2 MLD water from Kudaki dam the same water will be used for construction and out of which 1.4 MLD will be used for port activities and balance 0.6 MLD is to be supplied to 3 nearby villages. The water scheme is under development the same may be submitted along with the EIA/EMP report.

3.3.10. Tree Cutting: The project does not involve tree cutting.

3.3.11. The project site is located at 6.2 Km from Phansad Wildlife Sanctuary. Notified ESZ of Phansad Wildlife Sanctuary is located at a distance of 6.0 Km from the proposed development area.

3.3.12. The project falls in CRZ area, CRZ map will be prepared by one of the authorized agencies and details will be furnished in EIA report.

3.3.13. Waste Management: STP details: STP of 50 KLD capacity and ETP of 180 KLD capacity will be developed on modular basis in phases as per requirement. Treated sewage will be used for irrigating greenbelt and treated wastewater from ETP will be discharged into sea after attaining discharge standards.

3.3.14. Changes that envisaged in Port:

Shore line change	Project fall under low erosion zone.
Capital dredging	Total capital dredging is 1.41million m3
Disposal Point	Dredging quantities will be used for backup reclamation and ground improvement will be done to suit the backup area strength requirement.

3.3.15. Reclamation: Total balance 27 Ha area is proposed for reclamation on north side behind the 3rd berth proposed on north side.

3.3.16. Average cargo handling:

Coal – Import	2750 TPH per cranes & 2 - 3 cranes / berth
Coal – Export	5000 TPH per cranes & 1 crane / berth
Container	32 moves/hr/crane & 1 move = 1.3 TEU
General & Break bulk Cargo	1000 TPH per crane & 2 cranes / berth
Fertilizer and FRM	1000 TPH per crane & 2 cranes / berth
Liquid Cargo	350 TPH – 1800 TPH (based on type of cargo)

3.3.17. Dust preventive measures: Fugitive dust may emit from material transport by truck. Construction material shall be transported through covered trucks. Dust will be suppressed by water sprinkling. The detailed dust preventive measures along with the plan will submit along with the EIA/EMP report.

3.3.18. Land acquisition and R&R issues involved: No land acquisition is proposed as part of the proposal; hence R & R is not envisaged.

3.3.19. Employment Potential: During construction phase minimum 200 persons will get employment and during operational phase directly 50 persons and indirectly 250 persons will get employment.

3.3.20. Benefits of the project: This project will help meet need of strengthening India's seaport infrastructure required for combating growing challenges in global economy and integration of Indian trade in terms of productivity, efficiency, state-of-art technology and surpass global developments in the Shipping sector. On the other hand, it will also boost local economy by way of direct and indirect employment, creating additional business opportunities, increases chances of global outreach for specialised skillset of locals, indigenous food, culture, art and other merchandise. The project will also contribute to nation's revenue, offer better transport infrastructure, medical, health, education and communication facilities in the region leading to overall improve socio-economic conditions and higher standard of living in surrounding region.

3.3.21. No court cases are pending with respect to this project.

3.3.22. During the presentation EAC observed and noted the following:

- i. There is a turtle nesting site at the distance of 3.3 Km distance from the project location.
- ii. The project site is located at 6.2 Km from Phansad Wildlife Sanctuary. Notified ESZ of Phansad Wildlife Sanctuary is located at a distance of 6.0 Km from the proposed development area.
- iii. In view of the above, PP shall submit the sea turtle and marine flora and fauna conservation plan with the help from Life Science department of University of Mumbai having expertise on biodiversity along with the EIA/EMP report.
- iv. The PH is exempted for the project as the PP has completed more than 80% of the work w.r.t. earlier EC.

3.3.23. The EAC based on the information submitted and clarifications provided by the project



proponent and detailed discussions held on all the issues during 308<sup>th</sup> meeting during 15<sup>th</sup> - 16<sup>th</sup> September, 2022, **recommended** the project for grant of Terms of Reference (ToR) with stipulated specific conditions along with other Standard ToR Conditions.

- i. The categorization CRZ areas for the proposed facilities should be detailed. The ecologically fragile area including CRZ 1A area etc. shall be demarcated and superimposed on the layout plan and submitted.
- ii. Location of Intake, Outfall and pipeline for Desalination plant should be provided and marine ecology study should be conducted for these locations.
- iii. Impact studies of brine on marine ecology should be provided
- iv. Details of storage facilities and handling systems for raw material and product should be detailed and possibility of mechanized and closed system to be employed.
- v. Risk analysis and its management plan for handling different types of liquid cargos (if any) shall be conducted and submitted.
- vi. Detailed modelling studies to understand whether the selected site can withstand severe cyclones and develop design in accordance to due safety measures.
- vii. Ship navigation studies for vessels to be conducted using navigation simulator.
- viii. Erosion and accretion study at the mouth of the creek which is adjacent to the proposed site be carried out along with coastal morphology model combining creek and coastal area of 6 km on either side of port and submitted
- ix. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scales as per latest approved CZMP.
- x. Recommendation of the Maharashtra CZMA shall be obtained and submitted.
- xi. Submit a complete set of documents required as per para 4.2 (i) of CRZ Notification, 2011.
- xii. Hydrodynamics study on impact of dredging on flow characteristics and suspended load covering creek and adjoining areas shall be carried out.
- xiii. A detailed study on the impact and mitigation of proposed activity on marine ecology and marine biodiversity with specific focus on the mangroves, rocky shores, sea grass and mud flats should be conducted along with mitigation plan by Life Science department of University of Mumbai having expertise on biodiversity.
- xiv. A specific study should be undertaken by WII on the impact the proposed project may have on Velas region which is one of the most important sea turtle nesting areas of Maharashtra and mitigation plan.
- xv. A management plan for the area under which mangroves are or likely to be removed and compensatory mangrove plantation plan be submitted by Life Science department of University of Mumbai having expertise on mangroves and duly endorsed by Mangrove Cell of Government of Maharashtra.
- xvi. A detailed study should be undertaken by a nationally reputed institution to understand the impact of the proposed development on Murud-Janjira fort (by means of erosion/accretion, change in tidal currents etc) which is one of the most important sea forts of Maharashtra and is historical heritage of the state.

- xvii. NOC from the Heritage Committee to be provided along with EIA-EMP.
- xviii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- xix. A certificate from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- xx. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.
- xxi. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- xxii. An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA.
- xxiii. Disaster and Oil Spill Management Plan for the project shall be prepared and submitted.
- xxiv. Details and status of court case pending against the project, if any.
- xxv. A tabular chart with index for point-wise compliance of above ToRs. The specific ToRs as recommended above are in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.
- xxvi. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, specific studies as stated in xiv and xv shall include all the activities required to be taken to fulfill these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
- xxvii. In pursuance of Ministry's OM No. stated above, the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.
- xxviii. The actual distance from the turtle nesting site and other wild life sanctuaries to the existing and proposed project site shall be submit.
- xxix. Details on the existing archeological sensitive areas need to be examined and incorporated in the report.

### Agenda No. 3.4

**Subject: Development of Master Plan for expansion of Dighi Port, Taluka Murud and Taluka Shrivardhan, District Raigad, Maharashtra by M/s Dighi Port Limited – Terms of Reference Proposal No. IA/MH/NCP/291282/2022 and File No. 10/23/2022-IA.III.**

3.4.1. The project proponent along with the EIA Consultant M/s. Aditya Environmental Services Pvt. Ltd made a presentation through Video Conferencing and provided the following information:-

3.4.2. The proposed project is for Development of Master Plan for expansion of Dighi Port, Taluka Murud and Taluka Shrivardhan, District Raigad, Maharashtra by M/s Dighi Port Limited.

3.4.3. Details of the existing and proposed expansion of the port.

Sr. No.	Component	As per Existing EC Approval*	Proposed expansion	Cumulative after expansion <sup>+</sup>
a)	Total quay length of multipurpose berth	5 multipurpose berths having total quay length of 1625 meter. 2 berths on south side (Dighi side) and 3 berths on north side (Agardanda side)	North side (Agardanda side): 1950meter multipurpose berth + South side (Dighi side): 4250meter multipurpose berth	7825 meter {North side (Agardanda side): 2925-meter multipurpose berth + South side (Dighi side): 4900meter multipurpose }
b)	Single Point Mooring (SPM)	-	2 SPM's	2 SPM's
c)	Cargo handling	23.65 Million metric ton per Annum (MMTPA)	116.35 MMTPA	140 MMTPA
d)	Breakwater length	1400 meter on South side	3200 meter on north side and reclamation bund of 7100 meter behind the berths	4600 meter (1400 on south side and 3200 on north side)
e)	Total reclamation	141 Ha	304 Ha (North side: 160 Ha. + South side: 144 Ha.)	445 Ha
f)	Total land acquisition	139.5 Ha	Not proposed	139.5
g)	Total area of the project	280.5 Ha	304 Ha	584.5 Ha
h)	Total capital dredging	-	114 Million m <sup>3</sup>	114 Million m <sup>3</sup>
i)	Total water requirement	1.4 Million litres per day (MLD)	50 MLD	51.4 MLD
j)	Power requirement	240 MWh/day	700 MWh/day	900 MWh/day

k)	Type of cargo	All kinds of dry cargo (coal, bauxite, Fertilizer and Fertilizer raw material, molasses, cement, clinkers, Iron, Steel, sugar, project cargo, break bulk, container cargo, POL, LPG, all types of chemicals and other miscellaneous cargo	Handling and storage of multipurpose cargo including coal, iron ore, bulk, break bulk, general cargo, project cargo, dry cargo, container, RO-RO, ship building, ship repair, fertilizers and raw materials, automobiles and other non-hazardous cargo. Liquid/ gas/ cryogenics up to -160°C to liquid cargo including class A, B, C, petroleum product, excluded petroleum products, non-classified chemicals and petroleum products, other hazardous, toxic and non-hazardous chemicals, crude etc.
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3.4.4. M/s Dighi Port Limited (DPL) obtained Environment and CRZ clearance vide letter no.10-8/2005 dated 30<sup>th</sup> September, 2005 from Ministry of Environment Forest & Climate Change (MoEF&CC) for development of Dighi port. Further, Corrigendum in environmental clearance was issued on 26<sup>th</sup> December 2005 clarifying regarding Phase I involving development of 4 new multipurpose berth and strengthening & upgrading of existing (one number) berth Subsequently EC Corrigendum was issued on 25<sup>th</sup> June 2012 to treat the EC issued on 30<sup>th</sup> September 2005 as EC and CRZ clearance and also DPL was permitted to handle LPG as per the corrigendum letter. Further corrigendum to EC & CRZ clearance was issued on 7<sup>th</sup> December 2021 mentioning the berth dimensions.

3.4.5. The proposed project falls under 7(e), Category-A, Ports, Harbors, breakwater, dredging as per EIA notification 2006. Total Project Cost is Rs. 42,490 crores.

3.4.6. Land use of the project site for both north and south side:

S. No.	Land use/ Landcover	Area (ha)	Percentage (%)
1	Multipurpose cargo Backup Area, Godowns, Liquid and Gas, port backup industries	242	41.4
2	Gate Complex & Parking Area	15	2.6
3	Greenbelt and other Areas	69	11.8
4	Internal Rail and Road Approaches and Corridors	107	18.3
5	Pipeline & Conveyor corridors and utilities	26	4.4
6	Buildings & Workshops	18	3.1
7	Other port Backup Area	52.50	9.0
8	Land leased to other developers (Veritas, POSCO and AICL)	55	9.4
	<b>Total</b>	<b>584.50</b>	<b>100</b>

3.4.7. Terrain and topographical features: The location of the proposed project is majorly highly contoured and hilly. Overall terrain shows undulations and predominant hilly throughout the study area. At some places contours are closely spaced, and steep slopes are seen in many areas. Several small hills are spread across the study area. Highest point within study area is 345 m above mean sea level whereas lowest point is at 0 m above mean sea level.

3.4.8. Drainage in the study area is mainly through Rajpuri Creek. Due to undulating terrain, number of small stream/ nallah and other rivers flow downhill and joins the creek. Entire stretch of Rajpuri Creek in study area is saline. Three reservoirs/ dams near Kudki, Amboli, Tisale are sources of drinking water. Impact on drainage will be studied and presented in EIA report.

3.4.9. Water requirements: the Existing port is having the approval to draw 2 MLD water from Kudaki dam the same water will be used for construction and out of which 1.4 MLD will be used for port activities and balance 0.6 MLD is to be supplied to 3 nearby villages. Total water requirement after expansion is 51.4 MLD (50 MLD new + 1.4 MLD existing approved). During operation phase, water requirement will be 50 MLD and will be sourced by installing 150 MLD desalination plants in phases on modular basis. Required NOCs at respective stage will be obtained. No ground water extraction is proposed. The water scheme is under development the same may be submitted along with the EIA/EMP report.

3.4.10. Tree Cutting: Development of back-up land (about 140 Ha.) for various port operations will involve tree cutting. Species, number, girth etc. will be studied and reported in EIA report.

3.4.11. The project site is located at 4.35 Km from Phansad Wildlife Sanctuary. Notified ESZ of Phansad Wildlife Sanctuary is located at a distance of 4.27 Km from the proposed development area.

3.4.12. The project falls in CRZ area, CRZ map will be prepared by one of the authorized agencies and details will be furnished in EIA report.

3.4.13. Waste Management: STP details: STP of 2 MLD capacity and ETP of 5 MLD capacity will be developed on modular basis in phases as per requirement. Treated sewage will be used for irrigating greenbelt and treated wastewater from ETP will be discharged into sea after attaining discharge standards.

3.4.14. Changes that envisaged in Port: The area where the site is located is identified as 'Accretion Area'. Prediction of Shoreline change due to proposed development will be studied and included in EIA report.

3.4.15. Dredging: Total dredging of 114 million m<sup>3</sup> for maneuvering channel, basin and jetty pocket, Berth pockets will occurred. Dredged depth will vary from (-) 14.50 m CD to (-) 18.50 m CD. Total breakwater length is 3200m at North side and total reclamation bund is 7100m length is proposed as part of present proposal and Total 304 Ha area is proposed for reclamation, out of this reclamation on north side is 160 Ha and south side is 144 Ha. Dredged material will be used for simultaneous backup reclamation and ground improvement.

3.4.16. Dust preventive measures: Fugitive dust may emit from material transport by truck. Construction material shall be transported through covered trucks. Dust will be suppressed by water sprinkling. The detailed dust preventive measures along with the plan will submit along with the EIA/EMP report.

3.4.17. Land acquisition and R&R issues involved: No land acquisition is proposed as part of the proposal; hence R & R is not envisaged.

3.4.18. Employment Potential: During construction phase minimum 500 persons will get employment and during operational phase directly 500 persons and indirectly 2000 persons will get employment.

3.4.19. Benefits of the project: This project will help meet need of strengthening India's seaport infrastructure required for combating growing challenges in global economy and integration of Indian trade in terms of productivity, efficiency, state-of-art technology and surpass global developments in the Shipping sector. On the other hand, it will also boost local economy by way of direct and indirect employment, creating additional business opportunities, increases chances of global outreach for specialised skillset of locals, indigenous food, culture, art and other merchandise. The project will also contribute to nation's revenue, offer better transport infrastructure, medical, health, education and communication facilities in the region leading to overall improve socio-economic conditions and higher standard of living in surrounding region.

3.4.20. No court cases are pending with respect to this project.

3.4.21. During the presentation EAC observed and noted the following:

- i. There is a turtle nesting site at the distance of 3.3 Km distance from the project location.
- ii. The project site is located at 6.2 Km from Phansad Wildlife Sanctuary. Notified ESZ of Phansad Wildlife Sanctuary is located at a distance of 6.0 Km from the proposed development area.

3.4.22. The EAC based on the information submitted and clarifications provided by the project proponent and detailed discussions held on all the issues during 308<sup>th</sup> meeting during 15<sup>th</sup> - 16<sup>th</sup> September, 2022, **recommended** the project for grant of Terms of Reference (ToR) with stipulated specific conditions along with other Standard ToR Conditions.

- i. The ecologically fragile area including CRZ 1A area etc. shall be demarcated and superimposed on the layout plan and submitted.
- ii. Location of Intake, Outfall and pipeline for Desalination plant should be provided.
- iii. The categorization CRZ areas for the proposed facilities should be detailed.
- iv. Details of storage facilities and handling systems for raw material and product should be detailed.
- v. Risk analysis and its management plan for handling different types of liquid cargos (if any) shall be conducted and submitted.
- vi. Detailed modelling studies to understand whether the selected site can withstand severe cyclones and develop design in accordance to due safety measures.
- vii. Comprehensive erosion and accretion study at the mouth of the creek which is adjacent to the proposed site be carried out through nationally reputed institute like NIOT or NIO and submitted. The study should also include historical data on the erosion and accretion in the region and how the proposed development will affect the same.
- viii. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scales.

- ix. Recommendation of the Maharashtra CZMA shall be obtained and submitted.
- x. Submit superimposing of latest CZMP as per CRZ Notification (2011) on the CRZ map.
- xi. Submit a complete set of documents required as per para 4.2 (i) of CRZ Notification, 2011.
- xii. Hydrodynamics study on impact of dredging on flow characteristics shall be carried out.
- xiii. A cumulative and comprehensive study on the impact and mitigation of proposed activity including capital dredging on marine ecology and marine biodiversity with specific focus on the mangroves, rocky shores, sea grass, mud flats and cetaceans should be conducted along with mitigation plan by Life Sciences department of University of Mumbai having expertise in biodiversity. Necessary funds be made available for the same.
- xiv. A cumulative and specific study should be undertaken by WII on the impact the proposed project including capital dredging and sediment/silt plume may have on Velas region which is one of the most important sea turtle nesting areas of Maharashtra and mitigation plan. Necessary funds be made available for the same.
- xv. A cumulative management plan for the area under which mangroves are or likely to be removed and compensatory mangrove plantation plan be submitted by Life Sciences department of University of Mumbai having expertise in mangroves and duly endorsed by Mangrove Cell of Government of Maharashtra. Necessary funds be made available for the same.
- xvi. A cumulative and detailed study should be undertaken by a national reputed institute to understand the impact of the proposed development on Murud-Janjira fort (by means of erosion/accretion, change in tidal currents etc) which is one of the most important sea forts of Maharashtra and is historical heritage of the state. Necessary funds be made available for the same.
- xvii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- xviii. A certificate from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- xix. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.
- xx. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- xxi. An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA.
- xxii. Disaster Management Plan for the project shall be prepared and submitted.
- xxiii. Details and status of court case pending against the project, if any.

- xxiv. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- xxv. A tabular chart with index for point-wise compliance of above ToRs. The specific ToRs as recommended above are in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.
- xxvi. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, specific studies as stated in xiv and xv shall include all the activities required to be taken to fulfill these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
- xxvii. In pursuance of Ministry's OM No. stated above, the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.
- xxviii. The actual distance from the turtle nesting site and other wild life sanctuaries to the existing and proposed project site shall be submit.
- xxix. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present.

### Agenda No. 3.5

**Subject: Development of Haohalli-5 th Phase Industrial Area (area 369 Ha) at Kanchagaranahalli & Kanchagaranhalli Kaval Village, Bidadi Hobli and Mudenahalli & Yerehalli Village, Harohalli Hobli, Ramanagara District, Karanataka by M/s Karnataka Industrial Area Development Board – Terms of Reference Proposal No.IA/KA/NCP/291296/2022 and File No.10/39/2022-IA.III.**

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

3.5.1. The project proponent made a presentation through Video Conferencing and provided the following information:-

3.5.2. The proposed project is for development of 'Development of Haohalli – 5 th Phase Industrial Area (area 369 Ha) at Kanchagaranahalli & Kanchagaranhalli Kaval Village, Bidadi Hobli and Mudenahalli & Yerehalli Village, Harohalli Hobli, Ramanagara District, Karanataka by M/s



Karnataka Industrial Area Development Board’.

3.5.3. The proposed project falls under project activity 7(c) Industrial estates. as the project location is at a distance of Bannerghatta National Park ESZ is ~5.92km (E) and KIADB is proposing to establish Red Category industries with in the industrial area. Total investment/cost of the project is about Rs. 145,399 Lakhs (1453.99 Crores).

3.5.4. The proposed project is Horahalli Industrial Area -5<sup>th</sup> Phase in an area of 369.19 Ha (912.31 Acres) at 4 villages namely Kanchagaranahalli, Kanchagaranahalli. Kaval, Yarehalli and Mudelahalli Villages, Kanakapura Taluk, Ramanagera District, Karnataka State.

3.5.5. The Land Use/Land cover details of Project Site.

S.No	Description	Hec	%
1	Crop land	15307	35.60
2	Plantation	13467	31.32
3	Scrub land	3643	8.47
4	Deciduous	2884	6.71
5	Urban	1741	4.05
6	Waterbodies	1552	3.61
7	Rural	1410	3.28
8	Mining	1125	2.62
9	Barren Rocky	975	2.27
10	River / Stream / Canals	340	0.79
11	Forest Plantation	314	0.73
12	Fallow	134	0.31
13	Scrub Forest	95	0.22
14	Gullied/Ravinous Land	8	0.02
<b>Total</b>		<b>42995</b>	<b>100.00</b>

3.5.6. List of industries to be housed with the proposed project site, only for project covered under 7(c) category of EIA Notification, 2006:

S. No	Focus Sector	Anticipated Types of Industries	Activities	Categorization of industry as per EIA notification	Categorization as per CPCB	Pollution Potential
1	Engineering	Fabricated Metal products	Manufacturing of pressure vessels	Not Applicable	Orange	W13, A1D
2		Automobiles	Manufacture of motor vehicles (Two wheelers, Cars etc)	Not Applicable	Red	A1C; W11; HW3 & HW4

3		Automobile components	Manufacture of parts and accessories for motor vehicles such as Engine, Gear box parts, Drive axle, steering and suspension, breaks, Seats, Tyres, rubber products etc	Not Applicable	Orange, green, white	W11, A1C,E,F, G
4		Fibre glass manufacturing	Manufacturing of fibre glass and processing	Not applicable	Red	A2F1, HW1, HW4
5		Batteries Manufacturing	Lead acid batteries manufacturing	Nil	Red	A1G, HW1, HW4, W12
6	Food and beverages	Instant tea/coffee, Coffee processing, Non- alcoholic beverages, processing industries, dairy and dairy	-	Not Applicable	Orange	W13, A1D
7		Manufacturing of vegetable oils	-	Nil	Orange	W12, Group A1G
8	Other Industries	Coated electrode manufacturing	-	Nil	Orange	W12, Group A1E
9		Tile manufacturing	-	Nil	Orange	Group A2F2,

3.5.7. Water requirement: During construction Phase, water requirement is estimated to be 175 KLD. During Operation Phase Total water requirement for the project is 4869.15 KLD. Fresh water requirement is 2000KLD. Water requirement for greenbelt (1674.15 KLD) and utilities for industrial purpose (109 KLD). Water requirement will be met from recycling of treated sewage and treated effluent.

3.5.8. No forest land diversion is involved in the proposed project area.

3.5.9. The proposed project site located at the distance of 5.92 km east side from Bannerghatta National Park ESZ. As per Bannerghatta Notification No 931 dated 11 March 2020, the Eco-Sensitive zone is to be an extent of 1 km from the boundary of Bannerghatta National Park.

3.5.10. Land acquisition and R&R issues involved: The entire land has been acquired by KIADB for development of Industrial Area. Hence, R&R is not applicable for this project.

3.5.11. Employment potential: The proposed project during construction phase, around 200 people will be employed and for operational phase around 22,707 people will be employed.

3.5.12. Benefits of the project: Socio-economic benefit to the locals as it would provide both indirect employment and direct employment during construction and operation of the Industrial Area. The proposed activity will not require human displacement or will involve habitat loss. The project will also contribute to increase in revenue in the form of various taxes, which will be paid to Government time to time.

3.5.13. Details of Court cases: No court case is pending.

3.5.14. The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 308<sup>th</sup> meeting during 15<sup>th</sup>- 16<sup>th</sup> September 2022 and **recommended** the proposal for grant of Term of Reference with specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

- i. Detailed biodiversity studies be undertaken by a reputed institute or university of academic institute.
- ii. All water bodies within the site should be marked and plan to protect it be submitted in EIA-EMP.
- iii. Old and large and heritage trees if any should be identified and geo-tagged and details are provided in the EIA-EMP.
- iv. Red category Industries should be avoided as far as possible
- v. Details about achieving Zero Liquid Discharge be detailed out in the EIA-EMP.
- vi. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil the 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.
- vii. The drainage pattern of the existing landuse shall be plotted and submitted along with the conservation plan for the drainage passing through the area.
- viii. Proper water drainage system should be intended to set aside the impervious roads, lined drains, routing surface drainage to settlement tanks/pits etc.
- ix. No textile manufacturing industry should be established in the proposed industrial area.
- x. Water treatment plant of effluent, recycle/ reuse and disposal should be well planned.
- xi. In the project area adjacent to villages boundaries width of the green belt should be minimum 50 meters
- xii. The project area should not encircle the villages completely. To ensure this the land of the project area falling within geo coordinate points number 20, 21, 22 ,23 and 24 (as mentioned in slide no 7 of the presentation) shall be excluded from project area. If felt necessary PP may consider adding any other area in lieu of this exclusion. A revised outlay with revised area be submitted
- xiii. The planning of Industrial Estate should be based on the criteria mentioned in this Ministry's Technical EIA Guidance Manual for Industrial Estate (2009) as well as CPCB's Zoning Atlas Guidelines for siting industries.

- xiv. No ground water shall be used in any case. Proponent is required to obtain permission from competent authority to use water from river or other surface water sources. Consent to Operate shall not be issued without obtaining permission competent authority for use of surface water.
- xv. Provide detailed water balance statement a scheme to achieve ZLD by each industrial unit as well as for utilization of treated sewage.
- xvi. Since, natural drainage pattern is seen in/around the proposed project site, it is important to have a detailed hydrogeological study on the catchment area of the drainage system within core zone of the project area.
- xvii. Detailed biodiversity study of the project area by a nationally reputed institute or a university.
- xviii. 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
- xix. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfill these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
- xx. In pursuance of Ministry's OM No stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.

### Agenda No. 3.6

**Subject: Development of 4 lane Ring Road for Jabalpur City starting from Manegoaon, Design Ch. 19+100 and ends near village Barea, Design Ch. 108+542 in Jabalpur district in the state of Madhya Pradesh (Total Length 89.442 km) by M/s National Highways Authority of India – Terms of Reference Proposal No. IA/MP/NCP/290185/2022 and File No. 10/38/2022-IA.III.**

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

3.6.1. The project proponent along with the EIA Consultant M/s. Aplinka Solutions & Technologies Private Limited and DPR Consultant M/s L.N.Malviya Infra Projects Private Limited made a presentation through Video Conferencing and provided the following information: -

3.6.2. The proposed project is a Greenfield alignment access control is for Development of 4 lane Ring Road for Jabalpur city starting from village Manegaon (23° 5'18.13" N 79°54'36.40" E), Design Ch. 19+100 and ends near Barela village (23° 5'9.83" N, 80° 4'36.58" E), Design Ch.108+542 in Jabalpur district in the state of Madhya Pradesh”. The total length of the project alignment is approx. 89.442 km and proposed Right of Way is 60 m.

3.6.3. The proposed project falls under schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total investment/cost of the project is about Rs. 3016.40.

3.6.4. Land use/Land breakup of the proposed project site.

S.No.	Land use / Land cover	Area (ha)	Percentage %	Remarks if any
1.	Private land	448.587	78.40	Agriculture Land
2.	Government land	93.081	16.26	Agriculture/Barren/other Land
3.	Forest land	30.5736	5.34	Reserved and Protected Forest land
4	Total	572.242	100	-

3.6.5. Forest Land: The proposed project will require diversion of 30.5736 ha. of forest land out of which 23.3418 ha. is reserve forest land and remaining 7.2318 ha is protected forest land. The forest proposal shall be prepared after consultation with concerned forest officer and necessary forest clearance shall be obtained.

3.6.6. ESZ/National Park/Sanctuary: The proposed alignment does not pass through any ESZ, National Parks, Wildlife Sanctuary, Tiger Reserve, Protected area or any other notified eco-sensitive areas within in 10 Km radius of the project locations.

3.6.7. Terrain and topographical features: Terrain of project road is mostly plain and with minor undulating in nature.

3.6.8. Water bodies: There are 01 nos. of pond, 13 nos of Canals, 09 nos. of Nallahs and 04 no rivers along the alignment. There shall be no major impact on the drainage system as 251 nos. of structures such as culverts, minor bridges, major bridges etc. will be constructed.

3.6.9. Water requirements: The total water requirement during construction period is about 8000KLD Approx. Which will be extracted from suitable surface sources (river/canals) or ground water after obtaining necessary permissions from the competent authority.

3.6.10. Tree cutting: The proposed alignment requires cutting of approximately 5000 nos. of trees in proposed RoW. Minimum no of trees is to be felled for construction of four/six lane road. Detailed tree inventories will be provided in EIA after joint enumeration with the appropriate authority. Avenue plantation shall be carried out as per IRC SP: 21:2009 on available ROW apart from statutory requirements.

3.6.11. Land acquisition and R&R issues: About 572.242 ha land and about 110nos of structures likely to be acquired as per NH Act 1956; compensation will be given as per RFCT LARR Act, 2013.

3.6.12. Employment details: The total manpower requirement for the project is 1200. During the construction of the project around 1000 persons would be employed through contractor temporarily for a period of 2.5 years. During operation phase about 200 persons will be employed on permanent basis. Generally, locals are employed by the contractor.

3.6.13. Benefits of the project: The proposed access controlled project with new alignment has been envisaged through an area which shall have the advantage of simultaneous development as well as result in a shorter distance to travel. The junctions with existing road will be planned in the form of interchanges and flyover to ensure uninterrupted flow of traffic. The sufficient numbers of underpasses are being planned for all metaled roads being intersected.

3.6.14. The proposed road would act as the prime artery for the economic flow to this region. It will enhance economic development, provide employment opportunities to locals, strengthen tourist development, ensure road safety, and provide better transportation facilities and other facilities such as way side amenities. Vehicle operating cost will also be reduced due to improved road quality. The compensatory plantation and road side plantation shall further improve the air quality of the region.

3.6.15. Details of court cases: No court cases are pending against the proposed project.

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

- i. Between the chainage of 36+600 and 37+000 Narmada River is passing and the adjacent to the river reserve forest is existing around the river bank, thus NHAI shall explore to plan elevated corridors between chainage of 36+600 and 37+000 to reduce breaking of patches of ravines and gullies.*
- ii. The proposed alignment is passing through Narmada River and will bisect Narmada River near and river bed areas. Lots of Pillars will be laid to cross the Island which will spoil the natural endowments and aquatic ecosystem of the Island as well as will have serious impact on its ecology and forest.*

3.2.23. The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 308<sup>th</sup> meeting during 15<sup>th</sup>- 16<sup>th</sup> September 2022 and **recommended** the proposal for grant of Term of reference with specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

- i. The proposed alignment is passing through Narmada River and will bisect Narmada River near and river bed areas. Pillars will be laid to cross the Island. NHAI shall explore to plan elevated corridors between chainage of 36+600 and 37+000 to reduce breaking of patches of ravines and gullies.
- ii. Alignment passing near Bhedaghat region be shifted minimum 1 km away from the same. Accordingly final alignment be provided
- iii. The proponent, with the help of an independent institute/expert of national repute, shall carry out a detailed traffic 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.
- iv. The proponent, with the help of an independent institution/expert of national repute, 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.
- v. 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.

- vi. Cumulative impact assessment study to be carried out along the entire stretch including the other packages in the same stretch.
- vii. Rainwater harvesting structures to be constructed at the either side of the road with special precaution of oil filters and de-silting chambers.
- viii. Provide compilation of road kill data on 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.
- ix. 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.
- 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. 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.
- xii. In pursuance of Ministry's OM No stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.
- xiii. 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.

### **Agenda No. 3.7**

**Subject: Development of 4/6 lane (Greenfield) access control Expressway from Bengaluru-Kadappa-Vijayawada (BKV) Section: Package-I Starts at KoduruVillage on NH-44 (Design Ch. 0.000) and Ends near Kothapalle Village (Design Ch. 160.000) in the State of Andhra Pradesh (Total Length - 160.000 km) by M/s National Highways Authority of India –Amendment in Terms of Reference Proposal No. IA/AP/NCP/288446/2022 and File No. 10/7/2022-IA.III.**

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

3.7.1. The project proponent along with the EIA Consultant M/s. Aarvee Associates Architects Engineers and Consultants private limited made a presentation through Video Conferencing and provided the following information:-

3.7.2. The proposed project falls under schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total investment/cost of the project is about Rs. 6001.6Crores.

3.7.3. The project proponent had applied online vide proposal No IA/AP/NCP/288446/2022 dated

12<sup>th</sup> December, 2022 seeking the amendment in ToR vide letter File No. 10/7/2022-1AM dated 25<sup>th</sup> May, 2022 granted for Development of 4/6 lane (Greenfield) access control Expressway from Bengaluru-Kadappa-Vijayawada (BKV) Section: Package-I Starts at Koduru Village on NH-44 (Design Ch. 0.000) and Ends near Kothapalle Village (Design Ch. 160.000) in the State of Andhra Pradesh (Total Length - 160.000 km) by M/s National Highways Authority of India.

3.7.4. Ministry granted the TOR vide letter File No. 10/7/2022-1AM dated 25<sup>th</sup> May, 2022 was granted for the Development of 4/6 lane (Greenfield) access control Expressway from Bengaluru-Kadappa-Vijayawada (BKV) Section: Package-I Starts at Koduru Village on NH-44 (Design Ch. 0.000) and Ends near Kothapalle Village (Design Ch. 160.000) in the State of Andhra Pradesh (Total Length - 160.000 km) by M/s National Highways Authority of India”.

3.7.5. Now PP applied for amendment in ToR w.r.t. following:

S.no	Existing Description as per approved ToR	Proposed Amendment	Remarks
1	Nomenclature of the project: 4/6 lane Access Control Expressway	Nomenclature of the project: 6 lane Access Control Expressway	To accompany the latest “Policy for Development of Highways under Bharatmala Pariyojana” issued on 30.10.2019
2	RoW: 90m in non-forest area and 60m in forest areas	RoW: 70m in non-forest area and 60m in forest areas	

3.7.6. Reason for Amendment: To accompany the latest “Policy for Development of Highways under Bharatmala Pariyojana” issued on 30.10.2019. the description of the project has changed to ‘Development of 6-lane access controlled economic corridor (Greenfield Alignment) of Bengaluru-Kadappa-Vijayawada (BKV) Section: Package I Starts from Koduru Village on NH-44 (Design Ch. 0.000) and Ends near Kothapalle Village (Design Ch. 160.000) under Bharatmala Priyojana Phase-II (Lot 10) in the state of Andhra Pradesh (Total Length - 160.000 km) by M/s National Highways Authority of India.

3.7.7. The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 308<sup>th</sup> meeting during 15<sup>th</sup>- 16<sup>th</sup> September 2022 and **recommended** the proposal for grant of Amendment in Term of reference without change of any terms and conditions mentioned in the earlier ToR dated 25<sup>th</sup> May, 2022.

- i. All terms and conditions mentioned in the ToR vide letter File No. 10/7/2022-1AM dated 25<sup>th</sup> May, 2022 shall remain the same. with one additional condition as follows.
- ii. Trees with heronry (breeding ground for herons), pelicanary or community nesting and roosting of birds like Painted Storks, Ibis, Egrets, Pelican, etc will not be allowed to fell. In case of presence of such trees, alignment will be required to be changed to save such trees.

### Agenda No. 3.8

**Subject: Development of 4 lane/6 lane (Greenfield) access Control expressway from Bengaluru Kadapa-Vijayawada (BKV) Section Package-2: Start near Kothapalle Village (Design Ch.160.000) and Ends near Uppalapadu Village (Design Ch.226.000) in the State of Andhra**



**Pradesh (Total Length - 66.000 km) by M/s National Highways Authority of India –Amendment in Terms of Reference Proposal No.IA/AP/NCP/288514/2022 and File No. 10/8/2022-IA.III.**

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

3.8.1. The project proponent along with the EIA Consultant M/s. Aarvee Associates Architects Engineers and Consultants private limited made a presentation through Video Conferencing and provided the following information:-

3.8.2. The proposed project falls under schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total investment/cost of the project is about Rs. 3901.92Crores.

3.8.3. The project proponent had applied online vide proposal no IA/AP/NCP/288514/2022 dated 14<sup>th</sup> December, 2022 seeking the amendment in ToR vide letter File No.10/8/2022-IA.III dated 30<sup>th</sup> May,2022 granted for Development of 4 lane/6 lane (Greenfield) access Control expressway from Bengaluru Kadapa-Vijayawada (BKV) Section Package-2: Start near Kothapalle Village (Design Ch.160.000) and Ends near Uppalapadu Village (Design Ch.226.000) in the State of Andhra Pradesh (Total Length - 66.000 km) by M/s National Highways Authority of India.

3.8.4. Ministry granted the ToR vide letter F.No. 10/8/2022-IA.III dated 30<sup>th</sup> May,2022 granted for Development of 4 lane/6 lane (Greenfield) access Control expressway from Bengaluru Kadapa-Vijayawada (BKV) Section Package-2: Start near Kothapalle Village (Design Ch.160.000) and Ends near Uppalapadu Village (Design Ch.226.000) in the State of Andhra Pradesh (Total Length - 66.000 km) by M/s National Highways Authority of India.

3.8.5. Now PP applied for amendment in ToR w.r.t. following:

S.no	Existing Description as per approved ToR	Proposed Amendment	Remarks
1	Nomenclature of the project: 4/6 lane Access Control Expressway	Nomenclature of the project: 6 lane Access Control Expressway	To accompany the latest “Policy for Development of Highways under Bharatmala Pariyojana” issued on 30.10.2019
2	RoW: 90m in non-forest area and 60m in forest areas	RoW: 70m in non-forest area and 60m in forest areas	

3.8.6. Reason for Amendment: To accompany the latest “Policy for Development of Highways under Bharatmala Pariyojana” issued on 30.10.2019. the description of the project has changed to ‘Development of 6-lane access controlled economic corridor (Greenfield Alignment) of Bengaluru-Kadappa-Vijayawada (BKV) Section: Package II Starts near Kothapalle Village (Design Ch. 160.000) and Ends near Uppalapadu Village (Design Ch. 226.000) under Bharatmala Pariyojana Phase-II (Lot 10) in the state of Andhra Pradesh (Total Length - 66.000 km) by M/s National Highways Authority of India.

3.8.7. The EAC, taking into account the submission made by the project proponent, had a detailed

deliberation in its 308<sup>th</sup> meeting during 15<sup>th</sup>- 16<sup>th</sup> September 2022 and **recommended** the proposal for grant of Amendment in Term of reference without change of any terms and conditions mentioned in the earlier ToR dated 25<sup>th</sup> May, 2022.

- i. All terms and conditions mentioned in the ToR vide letter File No. 10/8/2022-IA.III dated 30<sup>th</sup> May, 2022 shall remain the same with one additional condition as follows.
- ii. Trees with heronry (breeding ground for herons), pelicanary or community nesting and roosting of birds like Painted Storks, Ibis, Egrets, Pelican, etc will not be allowed to fell. In case of presence of such trees, alignment will be required to be changed to save such trees.

### **Agenda No. 3.9**

**Subject: Development of 4/6 lane (Greenfield) access control Expressway from Bengaluru - Kadappa - Vijayawada (BKV) Section Package III: Starts near Uppalapadu village (Design Ch. 226.000) and ends near Muppavaram village on NH-16 (Design Ch. 342.500) in the state of Andhra Pradesh (Total Length - 116.50km) by M/s National Highways Authority of India – Amendment in Terms of Reference Proposal No. IA/AP/NCP/288520/2022 and File No. 10/9/2022-IA.III.**

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

3.9.1. The project proponent along with the EIA Consultant M/s. Aarvee Associates Architects Engineers and Consultants private limited made a presentation through Video Conferencing and provided the following information:-

3.9.2. The proposed project falls under schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total investment/cost of the project is about Rs. 3901.92Crores.

3.9.3. The project proponent had applied online vide proposal No IA/AP/NCP/288520/2022 dated 17<sup>th</sup> August, 2022 seeking the amendment in ToR vide letter File No. 10/9/2022-III dated 30<sup>th</sup> May, 2022 granted for Development of 4/6 lane (Greenfield) access control Expressway from Bengaluru-Kadappa-Vijayawada (BKV) Section Package III: Starts near Uppalapadu village (Design Ch. 226.000) and ends near Muppavaram village on NH-16 (Design Ch. 342.500) in the state of Andhra Pradesh (Total Length - 116.50 km) by M/s National Highways Authority of India.

3.9.4. Ministry granted the ToR vide letter File No. 10/9/2022-III dated 30<sup>th</sup> May, 2022 granted for Development of 4/6 lane (Greenfield) access control Expressway from Bengaluru-Kadappa-Vijayawada (BKV) Section Package III: Starts near Uppalapadu village (Design Ch. 226.000) and ends near Muppavaram village on NH-16 (Design Ch. 342.500) in the state of Andhra Pradesh (Total Length - 116.50 km) by M/s National Highways Authority of India.

3.9.5. Now PP applied for amendment in ToR w.r.t. following:

S.no	Existing Description as per approved ToR	Proposed Amendment	Remarks
1	Nomenclature of the project: 4/6 lane Access Control Expressway	Nomenclature of the project: 6 lane Access Control Expressway	To accompany the latest “Policy for Development of Highways under Bharatmala Pariyojana” issued on 30.10.2019
2	RoW: 90m in non-forest area and 60m in forest areas	RoW: 70m in non-forest area and 60m in forest areas	

3.9.6. Reason for Amendment: To accompany the latest “Policy for Development of Highways under Bharatmala Pariyojana” issued on 30.10.2019. the description of the project has changed to ‘Development of 6-lane access controlled economic corridor (Greenfield Alignment) of Bengaluru-Kadappa-Vijayawada (BKV) Section: Package III Starts near Uppalapadu Village (Design Ch. 226.000) and Ends near Muppavaram Village on NH-16 (Design Ch. 342.500) under Bharatmala Pariyojana Phase-II (Lot 10) in the state of Andhra Pradesh (Total Length - 116.500 km) by M/s National Highways Authority of India.

3.9.7. The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 308<sup>th</sup> meeting during 15<sup>th</sup>- 16<sup>th</sup> September 2022 and **recommended** the proposal for grant of Amendment in Term of reference without change of any terms and conditions mentioned in the earlier ToR dated 25<sup>th</sup> May, 2022.

- i. All terms and conditions mentioned in the ToR vide letter File No. 10/9/2022-III dated 30<sup>th</sup> May, 2022 shall remain the same. with one additional condition as follows.
- ii. Trees with heronry (breeding ground for herons), pelicanary or community nesting and roosting of birds like Painted Storks, Ibis, Egrets, Pelican, etc will not be allowed to fell. In case of presence of such trees, alignment will be required to be changed to save such trees.

### Agenda No. 3.10

**Subject-Development of Dighi Port based Industrial Area at Taluka Mangaon and Roha District Raigad, Maharashtra in the area of 5024.06 ha by M/s Maharashtra Industrial Development Corporation (MIDC)–Environmental Clearance Proposal No. IA/MH/NCP/164072/2020 and File No. 21-41/2020-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 the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

3.10.1. The project proponent along with the EIA consultant M/s Aditya Environmental Services Pvt. Ltd., Mumbai made a presentation through Video Conferencing and submitted the following information.

3.10.2. The proposed proposal is a new project for the development of the Dighi Port based Industrial

Area (DPIA) in Mangaon and Roha taluka of Raigad district in Maharashtra. The total land involved in the project is 5024.06ha. The proposed development will be carried out by Maharashtra Industrial Development Corporation (MIDC). The proposed development includes plotting and zoning Pharmaceuticals (non-API), Engineering and Food zone as well as Residential zone within the proposed MIDC area including area development and land infrastructure like roads, water lines, SWDs, power lines, CSTP, MSW management facility, utility areas etc.

3.10.3. The proposed project falls under 7(c)-Industrial estate/parks/complexes/areas, Export processing Zones EPZs, Special Economic Zones SEZ, Biotech Parks, Leather Complexes. Category-A, as per EIA notification 2006. Total investment/cost of the project is Rs.7360.46Cr.

3.10.4. The Terms of Reference (ToR) of the proposal was considered in 237<sup>th</sup> EAC Meeting held on 29<sup>th</sup>-30<sup>th</sup> July, 2020 and the ToR was granted by EAC vide letter no. F. No. 21-41/2020-IA.III, dated 24<sup>th</sup> August, 2020.

3.10.5. Geo-Coordination of the project site:

Direction	Latitude	Longitude
North	18° 24' 32.37"N	73° 17' 42.31"E
South	18° 16' 24.09"N	73° 16' 36.34"E
East	18° 20' 37.27"N	73° 19' 35.45"E
West	18° 21' 54.33"N	73° 13' 55.07"E

3.10.6. Landuse/Landcover of project site.

S.no	Existing Landuse/Land cover	Area in sq.km	Distribution (%)
1	Mixed Vegetation	649.77	11.92
2	Scrub Land	2514.25	46.14
3	Open Land	2173.85	39.89
4	Plantation	0.66	0.01
5	Fallow Land	50.65	0.93
6	Rural Area	18.60	0.34
7	Quarry	2.03	0.04
8	Reservoirs/Dams/Lakes	39.29	0.72
9	Total	5024.06	100.00

3.10.7. List of industries to be housed with the proposed project site, only for projects covered under 7(c) category of EIA Notification, 2006: The proposed industrial area development has a plot area of 5040.04 Ha. Proposed industrial estate will have heterogenous industries in three different zones viz.

S.no	Type of industrial Zone/Land use	Area (Ha)
1	Engineering Zone	1173.08

2	Food Processing Zone	275.60
3	Pharmaceutical Zone	1069.26
4	Commercial	152.46
5	Residential Zone	521.58
6	Amenities	136.35
7	Utilities	109.33
8	Area under Roads	494.78
9	Green Buffer	1091.45
<b>Total</b>		<b>5024.06</b>

3.10.8. Terrain and topographical features: The land is primarily rural in character partly under agriculture and fallow land use. There is very low built up area. The contours of the area vary from 25m to 134 m.

3.10.9. Details of water bodies, impact on drainage: The Kal Mandgaon River flows through the site and is non-perennial. The Kundalika River is outside the DPIA and is located to the North of the site. This river flows east to west and has ample amount of fresh water all through the year which is tail race from Bhira Dam. No waterbodies will be disturbed in project area. Buffer zone (green belt) of 100 m is kept on either side of Kal River as per MIDC DCR. 10 m buffer zone is kept for all seasonal streams/nalas.

3.10.10. Water requirements, sources (during construction and operation phases) and NOC: Construction Phase: Source: Water for domestic requirement of labourers will be sourced from tanker water supply. Construction water will also be sourced from tankers. Requirement: 30 cmd for domestic requirement of labourers and 92 cmd for construction purposes. Operation Phase: Source: Water will be sourced from proposed jackwell on Kundalika river near Kamat village for industrial use and residential use. Requirement: 85 MLD for DPIA – Agreement signed with Irrigation Department for 102 MLD through river Kundalika. Jackwell on Kundalika river near Kamat village and Water Treatment Plant near Pahur village will be established. 102 MLD Water reservation is available in the Kundalika River for this project.

3.10.11. Groundwater extraction/usage and NOC/Clearance from CGWA/State Ground Water Department: Not envisaged since ground water extraction in MIDC areas is not permitted.

Tree cutting: Approx. 830 trees falling within common infrastructure areas and ROW of proposed roads. Which will be cut or transplanted with due permissions from regulatory authority.

3.10.12. Diversion of forest land: Not Applicable. No diversion of forest land is envisaged. Patches of Reserve Forests are seen adjoining to the proposed layout of Dighi Port based Industrial Area. Green belt of 50 m is proposed around the Reserve forest patches in order 70 to ensure the integrity of forest area and to maintain the natural form of forest.

3.10.13. Tamhini Wildlife Sanctuary is located at 4.7 km to the west of the proposed site.

3.10.14. The units proposed to be established have low water polluting potential like Pharma formulation, Food processing and Engineering. Effluent from proposed units will be treated in Effluent Treatment Plant within individual plots and provision for reuse of treated water will be made

by individual unit. All the units will be established on Zero Liquid Discharge (ZLD) and no treated effluent will be allowed to be disposed outside plot area.

STP: Provide details of treatment and usage of treated sewage with STP's capacity. Common STP will be provided for residential area to treat the sewage generated. Conventional Activated sludge process or Sequential Batch Reactor (SBR) will be provided with tertiary treatment facilities to enable treatment to less than 5 mg/L BOD and enable recycling for flushing and gardening.

3.10.15. Public Hearing was conducted on 08<sup>th</sup> October 2021 in Nizampur - On site, Mangaon Tehsil, Raigad district, Maharashtra as given below:

S. No.	Date	Name of District	Location	Chaired by	Issues raised during public hearing
1.	08 <sup>th</sup> October 2021	Raigad	Venue as Gawli Samaj Bhavan, Near Bank of Maharashtra, Mian road Nizampur, Tal. Mangaon, Dist. Raigad.	Addl. District Magistrate Raigad	

3.10.16. R&R Details: The total industrial area of the project is comprised over an area of 5024.06ha which is Govt land. The proposal does not involve any rehabilitation and resettlement.

3.10.17. Employment potential: Construction Phase: 300 to 350 nos. for development of infrastructure like Roads, CFC Centre, WTP, CSTP, MSW landfill and other Civil works mostly to be engaged by Contractor who will be engaged for developing the infrastructure over 5year period. Around 50 nos. of MIDC personnel will supervise the development. Operation Phase: Around 300 nos. of MIDC personnel will be responsible for Operation and Maintenance and Establishment activities. The industries to be set up will result in employment of about 50,000 personnel.

3.10.18. Benefits of the project: the proposed project will create employment of over 50,000 Directly & Indirectly due to business, leading to Stimulation of economic growth outside MMR and PMR area. Stimulating Local Economy due to direct & indirect impact of industries and related business. Large investment around proposed project by other parties due to DPIA development stimulating all out development in Konkan region. DPIA will serve as a trade and industrial hub that will augment India's western gateway to global trade, commerce and industry. **Social Benefits:** Providing alternate employment opportunity to population in Konkan Region. Socio-economic opportunities will increase for business and employment population in Konkan Region apart from that skill development and technical expertise enhancement possibilities due to influx of industries and skilled manpower.

**Environmental Benefits:**

3.10.19. Details of Court Cases: No court cases are pending against the proposed project.

3.10.20. The EAC based on the information submitted and clarifications provided by the project proponent and detailed discussions held on all the issues during its 308<sup>th</sup> meeting on 15<sup>th</sup>-16<sup>th</sup> September, 2022, **recommended** the project for Environmental Clearance with stipulated specific conditions along with other Standard EC Conditions.

- (i) As proposed, Zero Liquid Discharge shall be implemented in the industrial area and to achieve the Zero Liquid Discharge, wastewater generated from various industrial operations shall be properly collected, treated to the prescribed standards and then recycled or reused for the identified uses.
- (ii) As proposed, no ground water shall be extracted during construction and operation phase of the Industrial Estate.
- (iii) 250 meters Buffer zone shall keep the distance from the Households and 50m green belt shall be provided on the buffer zone.
- (iv) As provided for in the EMP, a Green belt along the boundary as well as along the water bodies etc will be developed using Miyawaki technique. However, only native trees to be used for the same. Significant number of ficus and Western Ghat endemic and threatened sp trees should be used for green belt development. The work should be done preferably by not-for-profit institutions and community-based organizations working in this region having expertise in this subject.
- (v) As proposed in the revised EMP costs, good quality healthcare facility should be established within the proposed project and improving facilities of existing government healthcare centers in the region.
- (vi) As provided for in the EMP, Biodiversity impact monitoring of the site for 10 years to be undertaken by Ratnagiri sub-campus of University of Mumbai through various collages in Raigad and Ratnagiri districts. Efforts to be made to engage post graduate students from the region that will help them also to build skills. 10 Crore provision as presented in EMP for capital cost and 10 Crore monitoring cost over 10 years is made available. A proposal in this regard should be sought from the Ratnagiri sub-campus of University of Mumbai. Entire capital cost and annual fund for first five years to be made available to Ratnagiri sub-campus of University of Mumbai within 3 months from grant of EC.
- (vii) As provided for in the EMP, a capital grant of 4 Crore is provided to the Life Sciences department of University of Mumbai having expertise in biodiversity for initiating biodiversity conservation in the region through various collages in Raigad and Ratnagiri districts. Focus of the work should be on the conservation of flora and fauna of coastal plateaus, endemic flora of the Western Ghats and other important biodiversity of the region. Besides an annual grant of 40 lakh is also provided to undertake various activities related to biodiversity conservation of the region. A proposal in this regard should be sought from the Center and entire capital cost and annual fund for first five years to be made available within 3 months from grant of EC. The entire project is to be implemented through participation of faculty, graduate and post graduate students of affiliated collages.
- (viii) As provided for in the EMP, a specific provision of 5 Crore is provided for upgradation of infrastructure of atleast 50 government schools exclusively for underprivileged schools from the region of Raigad and Ratnagiri districts.
- (ix) As provided for in the EMP, a skill development institute will be established with a capital cost of 10 Crore and annual operation cost of 1 Crore. If additional funds are required, PP will

make available the same. The center should be ready and functional within 18 months from grant of EC.

- (x) The quantity of freshwater 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 reports.
- (xi) All the recommendation of the EMP shall be complied with in letter and spirit and be submitted to the Regional Office, MoEF&CC along with six Monthly Monitoring reports.
- (xii) The member units shall provide storage tanks for storage of effluent for monitoring the characteristics of effluent before taking into the CETP for further treatment.
- (xiii) Proper meters with recording facilities shall be provided to monitor the effluent quality and quantity sent from member industries to CETP and from CETP to re-use on a continuous basis.
- (xiv) Ambient noise levels shall 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. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/SPCB.
- (xv) 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 27<sup>th</sup> August, 2003 and 25<sup>th</sup> January, 2016.
- (xvi) Rainwater harvesting for roof run-off and surface run- off, as plan submitted shall be implemented. 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.
- (xvii) 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 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. 3.11**

**Subject-Development of 4/6 lane Greenfield alignment from Akkalkot - KN/TS border section in the State of Maharashtra under Bharatmala Pariyojana (Lot 5/Package-2) (length 203.00 km) by M/s National Highways Authority of India–Environmental Clearance Proposal No. IA/KA/NCP/187221/2020 and File No. 10-70/2020-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 the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

3.11.1. The project proponent along with the EIA consultant M/s Aarvee associates Architects Engineers & Consultants Pvt. Ltd. made a presentation through Video Conferencing and submitted the following information.

3.11.2. The proposed project is for the Development of 4/6 lane Greenfield alignment from Akkalkot -KN/TS border section in the state of Maharashtra under Bharathmala Pariyojana. The proposed project road is a part of Economic Corridor, which starts from Akkalkot Bypass near Rampur village on NH-150 E in the state of Maharashtra and ends at KN/TS Border near Singnodi village in the State of Karnataka. The RoW for the proposed highway is 60 meters. The Geo-coordinates of the proposed projects are in Latitude 17°30'31.02"N, 76°13'38.21"E (near Rampur) and Longitude 16°12'11.12"N, 77°30'1.12"E (near Singoli).

3.11.3. The proposed project falls under 7(f) - Highway, Category-A, as per EIA notification 2006. Total investment/cost of the project is Rs.5489.99Cr.

3.11.4. The proposed alignment is passes through 98% plain and 2% rolling terrain with elevation varies from about 360 m to 620 m above MSL.

3.11.5. The Terms of Reference (ToR) of the proposal was considered in 251<sup>st</sup> Meeting on 28th December, 2020 and the ToR was granted by EAC vide letter no. F. No. 10-70/2020-IA.III, dated 15<sup>th</sup> January, 2021.

3.11.6. Landuse/Landcover of the proposed project site is comprises of agricultural land, barren water bodies and quarries e.t.c. The proposed alignment passes mostly through uninhabited area avoiding village establishments. The agriculture practiced mostly to grow Paddy, Sugarcane, Groundnut, Pulses, Millets, Banana, Cashew, Jack fruit, Mango etc. A few residential/commercial structures (permanent/semi-permanent) are noticed in the along the project corridor at intermittent.

3.11.7. The proposed project road crosses River Bori at Km 1.800, River Amarja at Km 45.675, River Bhima at Km 70.537 and River Krishna 161.460. The proposed road is also crossing canals. There should not be any diversion/obstruction of free flow of water as per detail geo-hydrological study. To prevent accumulation of water on the roadside, Nine (09) major bridges and Sixty five (65) minor bridges are proposed, No major and minor bridges will be dismantled and reconstructed. In the case of culverts, 290 box culverts (new) are proposed.

3.11.8. The total water requirement is 32,47,485 KL during construction and will be extracted from local surface water resources i.e. from local surface/ground water (which is easily available) after getting necessary permission from concerned authority by the appointed contractor. Extraction of Ground water is not proposed.

3.11.9. Rainwater Harvesting: 812 nos of Rainwater harvesting structures will be provided either side of the road, at an 500 meter interval, having dia. of 1.5 m with a depth of 3.8 m. A budget provision of 162.4 lakhs is made for the same in EMP. The provision of rainwater harvesting will be executed as per IR: -SP:50-2013 guidelines.

3.11.10. Public Hearing was conducted in Gulbarga, Raichur, Yadgir districts in Karnataka and Solapur, Maharashtra as following:

S.no	Date	location	Chaired by
1	24 <sup>th</sup> March,2022	Panchayat Ground, Afzalpur Road, Tq: Afzalpur, District: Kalaburagi, Karnataka State	Deputy Commissioner
2	25 <sup>th</sup> March, 2022	Gram Panchayat, Kadlur Village, Raichur Taluk, Raichur District, Karnataka	Additional Deputy Commissioner
3	22 <sup>nd</sup> March, 2022	Murarji Desai Residential School, Bendebomballi Village. Tq: Wadagera, District: Yadgir, Karnataka State.	Additional Deputy Commissioner
4	28 <sup>th</sup> July, 2022	Niyojan Bhavan, Sat Rasta, Solapur District, Maharashtra	Additional District Magistrate
Issues raised during PH		land acquisition and compensation. It will be dealt as per Land Acquisition Acts	

3.11.11. Land Acquisition/ R&R Issues: The proposed land acquisition for the proposed alignment is approx. 1980 Ha. Out of which private land is 1950ha and 30ha is Govt. land. LA and R&R Budget was prepared based on Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR) and National Highways Act 1956.

3.11.12. Waste Management: The proposed project is construction of green field highway, where water is mostly utilized for construction purpose. Generated waste water at construction site office and labors camps will be routed to soak pits. Assuming a total of 500 construction workers and 20 technical staff for the project and project duration of 24 months. Approximately 237 kg per day of municipal solid waste and sludge will be generated due to the project. The estimated quantity of muck/surplus earth and C & D waste generated from the project is 8,75,446cum. The whole muck and C & D waste are disposed in identified barren lands within 10 km of the project stretch. An estimated amount of Rs. 1022.08lakhs provision is made in the EMP for the safe disposal of the muck and C & D waste.

3.11.13. Land acquisition and R&R issues: The land acquisition for the proposed highway is 1631 ha out of which 35.0 ha is Govt land. The land acquisition shall be done as per NH Act, 1956 and LARR Act, 2013. The R&R issues shall be resolved as per LARR Act, 2013.

3.11.14. The proposed project does not involve diversion of any forest land. The project neither pass through any National park/ Wildlife Sanctuary/ Conservation reserve etc., nor falls within 10 km boundary of any Protected Area under Wildlife Protection Act 1972. The proposed project does not involve CRZ areas.

3.11.15. A total of 600 Nos. trees which are coming in the alignment need to be removed and about 1,99,600 nos. of trees will be planted on available ROW as per IRC:SP-21: 2009 code. When there is removal of native species, the same will be planted during the compensatory plantation program. The detail of development of green belt will be prepared after approval of alignment. No rehabilitation is required for the proposed project.

3.11.16. Benefits of the project: This proposed corridor is also intended to augment the Transport

Infrastructure in the states of Maharashtra and Karnataka and boost the industrial, freight movement and tourism sectors by providing faster inter-region connectivity. The project road will cause several benefits to local people both during construction and operation stage. Besides providing better mode and frequency of transport, access to quality health care facilities, educational and other infrastructural facilities will increase.

3.11.17. Details of the Court cases: No court cases are pending against the proposed project.

3.11.18. The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 308<sup>th</sup> meeting on 15<sup>th</sup> – 16<sup>th</sup> September, 2022, **recommended** the project for grant of Environmental Clearance with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

- i. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concern Authority. Old, large and heritage value trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Where the trees need to be cut/transplanted with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut/ non survival of any transplanted tree) shall be done and maintained. Plantations to be ensured species (cut) to species (planted).
- ii. Trees with heronry (breeding ground for herons), pelicanary or community nesting and roosting of birds like Painted Storks, Ibis, Egrets, Pelican, etc will not be allowed to fell. In case of presence of such trees, alignment will be required to be changed to save such trees.
- iii. Green belt development (tree plantation) in lieu of the trees being felled in non forest land should be carried out by the State forest department as deposit work and not by the private contractor. Green belt must be developed using exclusively native species. No exotic species to be used for the same. No Ground water shall be extracted and used. Approval/permission of concerned authority shall be obtained before drawing surface water from canal or any other sources.
- iv. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
- v. The proponent shall obtain permission from the competent authorities for tree felling along the proposed alignment.
- vi. Rain water harvesting pit shall be at least 3 - 5 m above the highest ground water table.
- vii. No Ground water shall be extracted and used. Approval/permission of concerned authority shall be obtained before drawing surface water from canal or any other sources.
- viii. In borrow pits, the depth of the pit shall be regulated such that the sides of the excavation will have a slope not steeper than 1:2, from the edge of the final section of bank. Soil erosion checking measures shall be carried out. Details for Borrow area operation and rehabilitation given in EIA report shall be followed.
- ix. Quarry areas shall be barricaded during mining operations. The abandoned quarry shall be developed as water reservoirs with proper fencing around quarry area. Details for Quarry area operation and rehabilitation given the EIA report shall be followed.
- x. In all the construction sites within 150 m of the nearest habitation, noisy construction work such as crushing, concrete mixing will be stopped during the night time between 10.00 pm to

6.00 am. No noisy construction activities will be permitted around educational institutions/health centres (silence zones) up to a distance of 100 m from the sensitive receptors. All plants and equipment used in construction shall strictly conform to the CPCB/SPCB noise standards.

- xi. Traffic Control Devices/Road Safety Devices/ Roadside Furniture including various types of cautionary, informatory, regulatory as mandatory signboards, road markers, studs, etc. shall be provided at appropriate locations all along the project stretch in accordance with the specifications laid down in Manual of Specifications and Standards for Expressways (IRC: SP:99-2013) and IRC:8, IRC:25, IRC:26, IRC:35, IRC:67, IRC:79, IRC:103 and Section 800 of MORTH Specifications.
- xii. All the major, minor bridges and culverts should not affect the drainage systems. Flood plains of the rivers/ drainage systems are not to be disturbed.
- xiii. Afforestation using compensatory plantation in the ratio of 1:10 shall be carried out by the State forest department as deposit work and not by the private contractor. Native tree species shall be provided as per the IRC Guidelines on Landscaping and Tree Plantation (IRC:SP:21-2009). Effort should be made to plant native trees and large number of Ficus species on both sides of the alignment. Special attention shall be given for protecting giant trees, and locally important trees (having cultural importance).
- xiv. Project alignment should be managed in such a way to save the Heritage/old trees supposed to be affected by the proposed alignment.
- xv. 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 become part of EMP and shall be implemented.
- xvi. Proponent shall keep the finish road level sufficiently elevated from ground level with provision of railing on both sides to restrict animal crossing in order to avoid the possibility of wildlife injury/death. Animal underpasses, watch tower, water holes and other mitigation measures proposed shall be constructed in supervision of forest department.
- xvii. While constructing the over bridges as proposed over major water bodies efforts should be made to avoid construction of pillars in beds of water bodies.

#### **Any other business**

It was brought to the notice of EAC about tragic incidence of felling of tree by contractor of NHAI with several hundred nests, eggs and chicks from a heronry in Kerala. EAC taking a serious note of the matter and to avoid such incidents in future, direct NHAI to develop SOP that require trees with heronry (breeding ground for herons, egrets), pelicanary or community nesting of birds like Painted Storks, Ibis, Egrets, Pelican, etc will not be allowed to fell. In case of

presence of such trees, alignment will be required to be changed to save such trees. Ministry is requested to communicate the same to MoRTH and NHAI. This should also be a standard condition in all future projects.

**Annexure-A**

**Following members were present during the 308<sup>th</sup> EAC (Infra-1) meeting held on 15<sup>th</sup>- 16<sup>th</sup> September, 2022.**

S. No.	Name	Designation	Remarks	
			15 <sup>th</sup> September, 2022	16 <sup>th</sup> September, 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. Mukesh Khare	Member	Present	Present
6.	Dr. Ashok Kumar Pachauri	Member	Absent	Absent
7.	Dr. V. K Jain	Member	Present	Present
8.	Dr. Manoranjan Hota	Member	Present	Present
9.	Representative of CPCB	Member	Absent	Absent
10.	Representative of CGWA	Member	Absent	Absent
11.	Dr. M. V Ramana Murthy	Member	Present	Present
12.	Dr. Nirmalendu Kumar	Member	Absent	Absent
13.	Dr. Niraj Sharma	Member	Present	Present
14.	Sh. Amardeep Raju	Scientist 'E' & MS - EAC (Infra-1)	Present	Present
15.	Dr. Ramesh A	RO, MoEF&CC	Present	Present

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