Minutes of the 247th meeting of Expert Appraisal Committee held on 23rd–24th November, 2020 through Video Conferencing for the projects related to Infrastructure Development, all Ship breaking yards including ship breaking units 7(b); Industrial Estate/Parks/Complexes/Areas, Export Processing Zones, Special Economic Zones, Biotech Parks, Leather Complexes 7(c); Ports, harbours, break waters, dredging 7(e) and National Highways 7(f)

The 247th Meeting of Expert Appraisal Committee (EAC) of Infra-1 (IA-III) was held through Video Conferencing at the Ministry of Environment, Forest & Climate Change (MoEF &CC), Indira Paryavaran Bhavan, New Delhi on 23rd –24th November, 2020 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 246^{th} EAC meeting held on $20^{\text{th}} - 21^{\text{st}}$ October, 2020 with correction in the MOM of 243^{rd} EAC as following:

Proposal no 4.1: The forest area was mentioned as 195.9884 when the initial EIA report was submitted on the Parivsh portal, The PP, vide letter dated 24.11.2020, clarified that after verification by the forest department and completion of joint tree enumeration, the area was revised and it became 193.1777 Ha. Accordingly, in the Minutes of the Meeting of the 243rd EAC at proposal No. 4.1, Specific Condition No. xi the line "*The proponent shall obtain the Forest Clearance for diversion of 195.9884ha of forest land*" may be read as "*The proponent shall obtain the Forest Clearance for diversion of 193.1777 ha of forest land*"

3. AGENDA WISE CONSIDERATION OF PROPOSALS: Agenda wise details of proposals discussed and decided in the meeting are as following:

Agenda No. 3.1.

Development of Urban Extension Road-II (NH-344M) from Design chainage Km 0.000 to Km 38.111. Development of link road (new NH-344P) (Km 0.000 to Km 29.600) between Bawana Industrial Area Delhi (from Km 7.750 of UER II) till bypass of NH-352A at village Barwasni, Sonipat in Haryana as spur of Urban Extension Road-II (NH-344M) in the state of Delhi/Haryana. Development of link road (new NH-344N) (Km 0.000 to Km 7.500) between Dichaon Kalan till Bahadurgarh Bypass/NH-10 in the state of NCT of Delhi/Haryana. (Total Length of Project: 75.211 Km) by M/s National Highways

Authority of India (NHAI) - Environmental Clearance [Proposal No. IA/DL/MIS/104396/2019 and File No. 10-30/2019-IA.III]

The project proponent along with the EIA consultant M/s Amaltas Enviro Industrial Consultants LLP, Gurugram, Haryana, made a presentation through Video Conferencing and submitted the following information.

- The proposed highway project is for development of Urban Extension Road –II (UER-II) that will act as western ring road to Delhi. The proposed highway was declared as NH-344M vide Gazette notification S.O. 1466 (E) dated 03.04.2018. NH-344M will be designed as access-controlled highway having 6 lane main carriage way with provision of 3 lane service road on both sides, pedestrian facilities, cycle tracks etc. The length of NH-344M is 38.111 Km.The proposed project highway NH-344M will take off from NH-1 near Ch. Km 23+800 (28°48'40.08"N; 77°08'8.45"E) near village Bakoli and terminates near the junction of Sector-24 (28°33'35.73"N; 77°01'43.27"E) in Dwarka. In addition to this alignment, two four lane spurs are also proposed to be developed as part of UER-II i.e. Spur to Sonipat bypass (NH-352A) of length 29.6 Km and Spur to Bahadurgarh bypass (NH-10) of length 7.5 Km. Spur to Sonipat Bypass was declared as NH-344P and Spur to Bahadurgarh Bypass was declared as NH-344N vide Gazette notification S.O. 969(E) dated 22.02.2019.
- 2. The proposed Right of Way (RoW) for UER-2 (NH-344M) shall vary from 35 m to 200 m (35 m due to space constraint on DJB plant and 200m PROW at proposed 24 lane toll plaza & administrative building). For SPUR-I (NH-344P), the proposed ROW shall vary from 30 to 170 m (170 m PROW at proposed 16 lane toll plaza & administrative building). For SPUR-II (NH-344N), the proposed ROW shall vary from 35 m to 60 m.
- 4. The proposed project alignment NH-344Pis passing through District North of NCT Delhi & Sonipat in Haryana and NH-344M is is passing through District West, South-West of NCT Delhi & Jhajjar District in Haryana. The proposed alignment is passing through 1 pond, 9 irrigation canals and 6 drains. Elevated structures have been proposed on the pond and the bridges are proposed to cross the canals and drains. Two RoBs, 8 interchanges, 27 Flyovers, 1 major bridges, 23 minor bridges, 11 underpass box, 12 VUP, 12 LVUP, 2 VOP, 17 Subways, 32 Culvert are proposed along the project stretch for free passage to villagers and domesticated animals and to avoid any impact on local hydrology.
- 5 The Terms of Reference (ToR) for the proposed project was accorded in 217th EAC meeting dated 27th June 2019 vide F. No. 10-30/2019-IA.III dated 19th July 2019. The Amendment in granted ToR was approved for removing Specific Condition no. A (ii) dated: 03.12.2019 in 225th EAC Meeting held on 22nd Oct. 2019.
- 6. Public Hearings were conducted at two different Districts *i.e.*, Sonipat and Jhajjar of Haryana and four different Districts i.e., North District, North-West District, West District and South-West District of Delhi on 21st, 25th, 30th Sept. 2020 and 5th, 7th and 9th October 2020, respectively.

- 7. The proposed project falls under 7(f)-Highway 'Category-A' of Schedule to the EIA Notification, 2006. Total area of land acquisition for the proposed project is 527.27 Ha (Government Land 273.55 ha + Private Land 253.71 ha), out of which 253.71 ha of private land shall be acquired as per NH act 1956 and RFCTLARR, 2013. Total length of the project is 75.211 Km. Total investment/cost of the proposed project is ₹ 7,71,560/-Lakhs (7,715.60 Cr.).
- 8. The project site is characterized by plain terrain. The proposed project involves diversion of approx. 8.4298 ha Protected forest area (Forest Area may increase after declaration of deemed forest by Forest Department). Total 26,397 nos. of trees is proposed to be felled for entire length of 75.211 km consisting of NH-344M (3 packages), NH-344P (spur 1) & NH-344N (spur 2). The compensatory plantation will be carried out by DDA (1:10 as per local law, Delhi Preservation of Tree Act 1994) as a deposit work. NHAI proposed plantation of approx. 43,725 trees (including median) through Contractor as per Scope of Contract and IRC SP 21:2009 on available RoW. No wildlife Sanctuaries or National Park is located within 10 km radius of the proposed project alignment. The
- 9. Total water required is approx. 3010 KLD (21,97,509 KL) during construction stage, which will be sourced from Delhi Jal Board on payment basis. The necessary permission will be obtained by the contractor prior to construction as per law/agreement. No groundwater shall be extracted. Rainwater harvesting structures will be provided at the locations where the first aquifer of ground water table is more than 8-10m. The provision of rain water harvesting will be executed as per IR:-SP:50-2013 guidelines and MoRT&H guidelines
- 10. Minimum debris/waste material will be generated under this project. Only where the road passing through the existing alignment, earthwork generated due to excavation, shall be reused for filling purpose. Further C&D waste in NCT Delhi shall also be used in construction of embankment.
- 11. Socio-economic status: 482 nos. of structures (224 private, 27 religious, 24 government and 207 community properties), 224nos. of families (PAFs) and 794 nos. of persons (PAPs) are getting affected. Affected person and structures will be compensated as per relevant provisions of RFCLARR Act 2013 and NH Act 1956. The total cost is INR 1272.43 Cr.
- 11. All safety measures will be provided as per NHAI Safety Manual and IRC:SP 88 and Expressway Manual IRC: SP99. All required illustrative plans for safety at construction site keeping in view all situations highlighted in IRC:SP55 and NHAI Safety Manual will be prepared and strictly implemented.
- 12. Benefits of the project: The major settlements along the proposed corridor that will be benefitted from the proposed project include Sectors of Bawana, Rohini & Dwarka, Villages of Alipur, Shahpur Garhi, Bawana, Barwala, Madanpur Dabas, Mohammadpur Majri, Dichaon Enclave, Goyla etc. The alignment will also connect Gurgaon via Dwarka Expressway. Approx. 2500 people and 50 people will be

employed during construction operation phase, respectively.

- 13. Details of Court cases: No litigation is pending against NHAI; however, S.L.P.(C) No. 15202/2019: Raj Singh & others *Vs* Union of India & others is pending with DDA, wherein, Hon'ble Supreme Court has directed to maintain status quo vide order dated 12.07.2019. c. Thereafter, the full bench of the Hon'ble Supreme Court has passed a judgement dated 06.03.2020 (salient feature of the judgment). On the basis of this judgement, DDA will be filing an application before SC in the pending SLP for getting the status quo vacated at an early date.
- 14. Committee noted that certain species listed in the fauna inventory are wrong and appear to be copy-paste from other reports Committee examined in the past. For e.g. *Rana catesbeiana* doesn't have any distribution in India. Similarly *Typhlochactas mitchelli* is a species of scorpion that is endemic to the state of Oaxaca, Mexico. The species doesn't have distribution in India. It only reflects on very casual copy-paste approach of EIA consultants and action against such consultants must be in order.

The EAC, taking into account the submission made by the project proponent had a detailed deliberation during its 247^{th} meeting on $23^{\text{rd}}-24^{\text{th}}$ November, 2020 and recommended the proposal for grant of Environmental Clearance with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- (i) The proponent shall obtain the Forest Clearance for diversion of 8.4298 ha of protected forest land area, as required under the Forest (Conservation) Act, 1980. Project proponent shall submit an undertaking that work on non-forestry land may only be executed upto such point (to be selected by the user agency) on either side of forest land if it is explicitly certified by the user agency that in case approval under the Forest (Conservation) Act, 1980, for diversion of forest land is declined, it is technically feasible to execute the project along an alternate alignment without involving diversion of forest land. Details of all such stretches along with alternate alignment identified to bypass the forest (Conservation) Act, 1980 and the EIA Notification, 2006.Commencement of work in non-forest land will not confer any right on the user agency with regard to grant of approval under the Forest (Conservation) Act, 1980.
- (ii) In order to avoid the possibility of wildlife injury/death, proponent shall keep the finish road level sufficiently elevated from ground level with provision of railing on both sides to restrict animal crossing. Sufficient animal passes shall be provided by NHAI at regular interval as suggested in the Mitigation Plan and the Wildlife Conservation Plan developed by Chief Wildlife Warden as per recent guidelines of Wildlife Institute of India for linear infrastructure projects and as suggested by State Board for Wildlife and Standing Committee of National Board of Wildlife (as applicable).
- (iii) A revised biodiversity survey to be undertaken with the help of institute of repute or a team of experts of national repute and submitted to the Committee that is duly endorsed by Chief Wildlife Warden of the state.

- (iv) Cumulative Impact Assessment studies and proposed mitigation measures for all the packages shall be implemented in toto and be submitted to the concerned Regional Office of the MoEF&CC along with half yearly compliance report.
- (v) 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.
- (vi) 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. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission(s).
- (vii) The proponent shall obtain permission from the competent authorities for 26,397 tree to be felled along the proposed alignment. A comprehensive plan for afforestation using 1:10 times the trees felled by using native species shall be provided as per the IRC SP 21:2009 /MoRTH Code/Guidelines on Landscaping and Tree Plantation (2009). Effort should be made to plant native fruit trees and significant number of Ficus species on both sides of the alignment.
- (viii) Quarry areas shall be developed as water reservoirs with proper fencing and protection measures around quarry area. Rain water harvesting pit shall be at least 3 - 5 m above the highest ground water table.
- (ix) The RoW shall not exceed 100 m at any point of the proposed alignment, except for the junction improvement at the intersections of the other roads. Standardisation of ROW for plain land and forest land to be defined and to be remain constant for all the packages.
- (x) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory afforestation etc., either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be implemented and become part of EMP.

3.2

Construction of 2/4 lane with paved shoulder NH configuration from Ratanpur to Dharma (Length 60.7 km) and from Basudevpur in the state of Odisha and terminating at Digha (length 110 km) in the state of West Bengal under Bharatmala project (Total length 170.7 km) - Terms of Reference [Proposal No. IA/OR/NCP/182720/2020 and File No. 10-67/2020-IA.III]

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.

- 1. The proposed project is Construction of 2/4 lane with paved shoulder NH configuration from Ratanpur to Dhamra (Length 60.7 km) and from Basudevpur in the State of Odisha and terminating at Digha (Length 110 km) in the state of West Bengal under Bharathmala project. The proposed alignment is a New Construction project with a total area of 170.7 km. The land use in the project area is cultivated, built-up and barren lands, protected area, forest land and CRZ. The proposed road will have 9 nos. of major bridges, 78 nos. of minor bridges, 17 Vehicular under Passes, 74 Bus bays, 3 Truck lay byes, 3 Rest areas, 3 Toll Plazas and 310 culverts. No rehabilitation is required for the proposed project. Safety measures will be provided as per IRC guidelines, NHAI safety manual and MoRTH guidelines, circulars etc.,
- 2. Cost of the project: The total cost of the project is 2230.5 Crores. Project area is having plain terrain and does not require filling.
- 3. The proposed land acquisition for the proposed alignment is approx. 844.96 ha. The proposed RoW is 45 m. The alignment is crossing the rivers such as Brahmani, Baitarani, Matei Nadi, Budhabalanga river, Panchpara nadi, Dubi dubi Nala and Subarnarekha River, canals and man-made water bodies for Pisciculture.
- 4. Total water requirement for the construction work is 2777239 KL from surface water bodies. The construction water requirement will be met from surface water bodies. Ground water will be used for construction, where surface water is not available after obtaining prior permission from concerned authorities. There are Provision of Major bridges, Minor Bridges, Culverts to maintain the natural drainage pattern so that there should not be any diversion/obstruction of free flow of water as per detail geo-hydrological study.
- 4. The proposed project fall under 7(f) Highways and involves diversion of village forest land of about 7.69 ha. A total of 4,070 trees which are coming in the alignment need to be removed and about 20,000 trees will be planted on available ROW as per IRC:SP-21: 2009.
- 5. No permanent wastewater/sewage generation is envisaged from the present project. However, the temporary waste water generated will be treated by settling tank, Septic tank with soak pit in the camp site and also semi pucca drain in the camp site. The solid wastes mainly of earth materials/ construction wastes generated out of construction activities will be reused for rehabilitation of borrow area/quarry sites, camp sites and in temporary diversions and slopes. The municipal solid wastes generated in construction & workers camp (approximately 750 kg) will be disposed of to the nearest identified location of disposal/landfill sites of local authority with payments in environmentally acceptable manner. Salvage material/demolition wastes will be reused to the possible extent in embankments, shoulders, slopes, approach roads and temporary camp sites.
- 6. Benefits from the project: It is anticipated that it will create employment for 1200 during peak construction period (two years) and for 1500 during non-peak construction phase (two years) for the skilled and unskilled work force in the area. Project is intended to augment the Transport Infrastructure in the state of Odisha and boost the industrial and tourism sectors by providing faster inter-region connectivity. It will provide better mode

and frequency of transport, access to quality health care facilities, educational and other infrastructural facilities will increase economic activities especially supporting transport like gasoline station, automotive repair shops, lodging and restaurants.

- 7. Details of Court cases: No court cases are pending against the proposed project.
- 8. The proposal for the alignment from Basudevpur to Digha was earlier considered by EAC during it's 208th and 235th meeting held on 20th February 2019 and 26th May 2020, respectively. The Committee had the following comments during its 208th meeting:

"The proposed alignment (Alternate-1) is not suitable as it is passing through ecologically fragile area and large flood plains Hence, EAC recommended to choose Alternate- 2 alignment plan for further implementation of the project. Before finalization of alternate alignment plan, the verification should be done by a panel of experts from Central Road Research Institute, academic institutions with specialisation in Highway Engineering and Ecological expert".

Subsequently this project was further appraised during 235th EAC meeting where in it was opined that both alternates (1 & 2) are not suitable from environment points of view and hence not accepted the ToR amendment and recommended to return the proposal"

8. Accordingly, the PP has now presented the new alignment. The EAC, taking into account the submission made by the project proponent had a detailed deliberation during its 247th meeting on 23rd-24th November, 2020 and recommended the proposal for grant of Terms of Reference Terms of References (TORs) with the following specific ToRs, in addition to all standard ToRs applicable for such projects:

- i. The PP during the presentation mentioned that the patch between Dhamra to Basudevpur is existing highway under the jurisdiction of state Government. As per NH Notification S.O. 3807(E), Government entrusted NHAI to develop green field alignment from Ratanpur to Dhamra and Basudevpur to Digha. EAC Suggested NHAI may explore the direct connectivity from chainage 42+000 (Bhatapada Village, Latitude: 20°49'41.75"N & Longitude : 86°44'39.76"E) of the proposed alignment to chainage 0+000 (near village Basudebpur – Basudebpur-Digha alignment) instead of exploring any alignment from Dhamra to Basudevpur. A two lane paved shoulder can be provided from Bhatapada Village (Latitude: 20°49'41.75"N & Longitude : 86°44'39.76"E, Km 42+000 on Ratanpur – Dhamra Alignment) to Dhamra (Latitude: 20°49'14.39"N & Longitude: 86°55'4.30"E, Km 60+700 on Ratanpur – Dhamra Alignment) to achieve traffic circulation. The traffic will follow from Dhamra to Basudevpur on the existing highway.
- ii. 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 villages, urban areas, cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.
- iii. The proponent, with the help of an independent institution/expert of national repute, shall carry out a comprehensive socio-economic assessment 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.

- iv. Detailed Biodiversity assessment and conservation/mitigation plan be developed by a reputed institute or by a team of expert of national repute.
- 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 preopening 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. Provide compilation of wildlife related 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.
- viii. 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. Design should avoid cutting of large and very old trees.
- ix. 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 and native to the region.
- x. 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, as well as wildlife mitigation plan (endorsed by Chief Wildlife Warden) 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.
- xi. 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 wildlife management plan (endorsed by Chief Wildlife Warden) and submit it to the Ministry and the EAC.
- xii. The PP shall not use groundwater/surface water without obtaining approval from CGWA/SGWA as the case may be. The project proponent shall apply to the Central Ground Water Authority (CGWA)/State Ground Water Authority (SGWA)/Competent Authority, as the case may be, for obtaining No Objection Certificate (NOC), for withdrawal of ground water.
- 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 25th October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.

3.3 Agenda No. 3.3.

Changing Caustic Pipeline diameter from 6" to 8" at village Vanjore, T.R. Pattinam Commune Panchayat, Taluk Karaikal, UT of Puducherry by M/s Chemplast Sanmar Ltd. - Amendment in Environmental and CRZ Clearance. [Proposal No. IA/PY/MIS/181061/2020 and File No 10-57/2007-IA.III].

The EAC noted that the proposal is directly submitted to the MoEFCC for amendment in EC without obtaining recommendations from PCZMA. The EAC recommended to return the proposal in the present form and directed the PP to submit the recommendations of PCZMA to the Ministry. The PP is further directed to submit the monitoring compliance report issued by the Regional Office of MoEFCC.

Agenda No. 3.4.

Coal jetty and pipe conveyor system for the coal logistics required for Udangudi Super Critical Thermal Power Project Stage-I by M/s Tamil Nadu Generation and Distribution Corporation (TANGEDCO) - Terms of Reference [Proposal No. IA/TN/THE/178939/2020 and File No. 10-66/2020-IA.III]

The project proponent M/s Tamilnadu Generation and Distribution Corporation (TANGEDCO), Chennai has made a presentation through Video Conferencing and provided the following information.

- The proposed project fall under 1(d) Thermal Projects. In order to transport coal for the 1. Power project and to draw cooling water intake and discharge of coolant water to the sea, approval was obtained earlier for Environmental and CRZ Clearance for establishing the captive coal jetty and intake/outfall structures, vide MOEF/GOI's F.No.11-48/2009-IA.III, dated 6th June 2011. Environmental and CRZ Clearances for coal jetty and Pipe conveyor system for the coal logistics required for the Udangudi Super critical power project will expire on 05th June 2021. Since, the works are yet in progress, TANGEDCO requested MOEF/GOI seeking exemption/clarification on validity of EC extension for Coal Jetty, vide Letter No. SE/C/P&E/EE/EMC-1/F. Udangudi TPP Stage I/D.154/17, dated 20th August 2020 on the pretext that EC validity for the main plant got extended up to 13.10.2023. However, the Ministry vide letter No. 11-48/2009-IA III(Pt.1) dated 29th Sept. 2020 informed the project proponent that "extension of validity would be governed as per the provision of the EIA notification, 2006 in terms of further extension of validity of the said clearance" and requested him to get fresh ToR for processing the fresh EC and CRZ clearance for the aforementioned project.
- 2. The proposed Captive Coal jetty is an interlinked project of ongoing Udangudi Super Critical Thermal Power Project Stage I established in Udangudi village, Tiruchendur Taluk, Tuticorin District of Tamil Nadu. The nearest town is Tiruchendur at a distance of 12 km north-east of the project site. The nearest airport is Vagaikulam at a distance of 60 km north. The nearest sea port is Tuticorin at a distance of 45 km north. The land use is a barren and sandy land.
- 3. Cost of the project: Total Investment/Cost of the project is Rs.1,90,286 Lakhs.

- 4. ESZ or Protected Area: There is no protected area within 10 km radius of the project.
- Benefits of the project: The power project will help in augmenting the power requirement of the State of Tamil Nadu and will aid in the overall social and economic development of the region.
- 5. About 13,500 cum/hr of sea water shall be required, with closed cycle cooling system with natural-draft cooling tower (NDCT). Desalination Plant is proposed. Water for construction purpose will be sourced from local water resource & Desalinated water will be used during operation stage. Effluent Treatment Plant and Sewage Treatment Plant will be provided. The treated effluent/sewage will be utilised for green belt development. The brine from desalination plant will be mixed along with cooling tower blow down and will be discharged into the sea.
- 6. A 555 m long and 25m wide Jetty is proposed to berth 2 ships of Panamax capacity of 80,000 dead weight tonnage (DWT). The breakwater is located at about (-) 18 m contour. This does not require any capital dredging or maintenance dredging. Initial 180m length of break water is aligned East West direction, and then takes a turn in NE direction aligned parallel to the berth for a length of 555m and finally turned towards North direction for a length of 180m.Structures of Coal jetty and pipe conveyor are designed not to affect fishing activity.
- 7. The coal requirement for the project is 3.83 MTPA of imported coal with GCV of 5700 kcal/kg. TANGEDCO has entered signed an agreement with M/s. MMTC for supply of imported coal. Presently, TANGEDCO is establishing a 2 x 660 MW Units. TANGEDCO has obtained clearance for using 100% imported coal for the project. However, the project will be designed for the worst case scenario of 50% imported and 50% indigenous coal. Hence the Jetty and Pipe Conveyors have been designed for the ultimate coal handling capacity of 15.33 MTPA through Panamax ships of 80,000 to 120,000 Tons capacity.
- 8. There is no storage of coal in the proposed captive jetty area. Only coal handling and transfer is envisaged. During coal handling and transfer activities, there may be fugitive dust emission. Hence Dust Control System consisting of suitable pump, storage tank for water, sprinklers with high pressure swivelling type nozzles at discharge / feeding points of Pipe conveyors and at each transfer tower for efficient dust control. In addition to the above, suitable spray system shall also be provided at Shore Unloaders and coal stock yard.
- 9. R&R Plan: There is no habitation within proposed site and no R&R plan is involved.
- 10. Details of Court cases: No court case is pending against the proposed project.

The EAC, taking into account the submission made by the project proponent had a detailed deliberation during its 247^{th} meeting on 23^{rd} – 24^{th} November, 2020 and recommended the proposal for grant of Terms of Reference (TORs) with the following specific ToRs, in addition to all standard ToRs applicable for such projects:

i. Importance and benefits of the project.

- ii. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.
- iii. Recommendation of the TN CZMA be submitted.
- iv. Submit superimposing of latest CZMP as per CRZ (2011) on the CRZ map.
- v. Submit a complete set of documents required as per para 4.2 (i) of CRZ Notification, 2011.
- vi. Hydrodynamics study on impact of dredging on flow characteristics shall be carried out.
- vii. Carry out a Marine EIA including study of impact of dredging and dumping on marine ecology and draw up a management plan through any other institute specializing in marine ecology.
- viii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- ix. 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.
- x. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.
- xi. 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.
- xii. 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.
- xiii. Disaster Management Plan for the project shall be prepared and submitted.
- xiv. Details and status of court case pending against the project, if any.
- xv. Public Hearing is exempted as 40 % of the work is already completed. PP further mentioned that the progress may reach 75% of completion level till expiry of EC on 4thJune 2021.
- xvi. 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.
- As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th xvii. September, 2020, the project proponent, based on the commitments made during the hearing, shall include public 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.
- xviii. 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. 3.5

Single Point Mooring (SPM) and allied facilities off Veera in Gulf of Kutch for handling crude oil on BOT basis in the State of Gujarat by M/s Kandla Port Trust - Extension of validity of Environmental and CRZ Clearance [Proposal No. IA/GJ/MIS/178779/2020 and File No. 11-27/2010-IA.III]

The project proponent M/s Deendayal Port Trust, Gandhidham, Gujarat has made a presentation through Video Conferencing before the EAC and requested for extension of EC for the period of three years as per MoEF&CC Notification dated 14th September, 2016. Environmental and CRZ Clearance for the aforementioned project was granted vide letter 11-27/2010-IA-III dated 11/12/2013. Subsequently, as per Office memorandum issued by the MoEF & CC,GoI vide F. No. 22-27/2015-IA-III dated 12/4/2016, the Validity period of EC & CRZ Clearance issued by the MoEF,GoI dated 11/12/2013 stands automatically extended up to 10/12/2020 (7 years).

The PP has submitted the following reasons/justification for extension of the validity period of EC/CRZ clearance –

- 1. Initially, DPT invited RFQ during the year 2013 for the above mentioned project. Out of total 9 bidders, only one party had submitted their RFP (Bid). However, the said offer of M/s IMC was not accepted by the Board and discharged the Bid in its meeting held on 6/3/2014. Further, the Board also decided to restructure the Project by way of increasing the construction period from 2 to 3 years and by exploring the possibility of developing the COT within the Ports limits in order to make the project more attractive.
- 2. Accordingly, after restructuring, the RFQ was again invited on 19/08/14. However, due to the poor response from the bidders, the Board in its meeting held on 16/4/2015 had discharged the bid. After that, the proposal of M/s IOCL Setting up of Refinery and their need for captive SPM was also explored. However, the said proposal of M/s IOCL was not materialized. Subsequently, M/s HMPL approached DPT during the year 2017 for setting up of SPM and COT on captive use basis. However, the said proposal of M/s HMPL was also not materialized, as M/s HMPL not shown further interest in the project. Therefore, looking to the fact that, as the validity period of the EC & CRZ Clearance is going to be expired on 10/12/2020 and DPT is still in process of exploring possibility to identify captive user for development of the SPM and hence, validity extension is required.

The EAC, taking into account the submissions made by the project proponent had a detailed deliberation during its 247^{th} meeting on 23^{rd} – 24^{th} November, 2020 and recommended the proposal for extension of validity of the Environmental and CRZ Clearance granted by the Ministry *vide* letterNo.11-27/2010-IA-III dated 11/12/2013 for a period of three years, i.e. up to 10th December, 2023 with conditions as specified in the same Environmental Clearance letter

Agenda No. 3.6

Development of LNG Import Terminal Bhakodar Village near Pipavav at Taluka Rajula, District Amreli, Gujarat by M/s Swan Energy Limited - Extension of validity of

Environmental and CRZ Clearance [Proposal No. IA/GJ/MIS/179145/2020 and File No. 11-36/2010-IA.III]

The project proponent M/s SWAN LNG Pvt. Ltd., Ahmedabad, Gujarat has made a presentation through Video Conferencing.

The EAC, taking into account the submissions made by the project proponent for the aforementioned proposal had a detailed deliberation during its 247^{th} meeting on $23^{\text{rd}} - 24^{\text{th}}$ November, 2020 and noted that the that the PP has not provided the detailed compliance to the EC conditions and the replies submitted in the compliance report are very vague. The site was hit by cyclone twice; however, the PP has not conducted any study for the shoreline change as per the conditions provided in the Environmental Clearance letter. The Committee advised the PP to submit the detailed compliance report along with the report on shoreline change since the start of the project.

The Committee also noted that no green belt has been developed at the site since the grant of EC. The PP was advised to provide aerial photographs of the site to see the present status of green belt development and other compliance carried out by the PP.

In view of the above, the EAC has **recommended to defer the proposal for extension of validity** of the Environmental and CRZ Clearance granted by the Ministry vide letter No. 11-36/2010-IA.III dated 11th December, 2013. The proposal shall be reconsidered once the requisite documents/information is furnished by the PP.

Agenda No. 3.7

Development of Vizhinjam International Deepwater Multipurpose Seaport at Vizhinjam in Thiruvananthapuram district, Kerala by M/s Vizhinjam International Seaport Ltd. -Further consideration for extension of validity of Environmental and CRZ Clearance [Proposal No. IA/KL/MIS/178082/2020 and File No. 11-122/2011-IA.III]

The project proponent along with the EIA consultant M/s L&T Infrastructure Engineering Limited, Hyderabad made a presentation through Video Conferencing before the EAC and requested for extension of EC for the period of three years as per MoEF&CC Notification dated 14th September, 2016. Environmental and CRZ Clearance for the aforementioned project was granted vide letter No.11-122/2011-IA.III dated 03rd January, 2014 which is valid up to 02nd January, 2021.

2. The aforementioned proposal was earlier placed before the EAC during its 246th meeting on 20th-21st October, 2020. The Committee noted that the Hon'ble NGT is pursuing the progress of the project. The NGT vide its judgement dated 02/09/2016 had found the project to be of vital importance however it cautioned that the project should be executed consistent with environmental norms. Accordingly, for close monitoring of conditions of Environment Clearance and ensuring compliance of environmental norms, an Expert Committee was constituted.

Further, it was noted by the EAC that there are several deliberations took place by the Expert Committee of the (NGT) with respect to the progress made by the project and issued several directions.

In view of the forgoing the EAC had recommended to *defer* the proposal and requested the PP to submit the directions issued by the Expert Committee of the NGT and the compliance report submitted by PP.

3. The PP has now complied the above ADS raised during the 246th meeting on 20th-21st October, 2020 and submitted the

following reasons/justification for extension of the validity period of EC/CRZ clearance -

- i. Initial time consumed (about two years) for the global bid process in selecting a concessionaire for this government project under PPP model after the issuance of EC.
- ii. Delay in construction of breakwater due to difficulties reported by the concessionaire in sourcing rock
- iii. Work of dredging and reclamation, berth, container yard can only be completed with the advancement of breakwater.
- iv. Outbreak of COVID 19 pandemic and its impacts.

The EAC, taking into account the submission made by the project proponent had a detailed deliberation during its 247^{th} meeting on 23^{rd} – 24^{th} November, 2020 and recommended the proposal for extension of validity of the Environmental and CRZ Clearance granted by the Ministry vide letter No.11-122/2011-IA.III dated 03^{rd} January, 2014 for a period of three years, i.e. up to 02^{nd} January, 2024with conditions as specified in the same Environmental Clearance letter

Agenda No. 3.8

Development of ''Petrochemical Park' at Village Puthencruz, Taluk Kunnathunadu and Village Thiruvankulam, Taluk Kanayannur, District Ernakulam, Kerala by M/s Kerala Industrial Infrastructure Development Corporation - Environmental Clearance [Proposal No. IA/KL/NCP/74865/2018 and File No. 21-63/2018-IA.III]

The project proponent along with the EIA consultant M/s Voyants Solution Pvt Ltd. made a presentation through Video Conferencing and provided the following information.

- 1. The Petrochemical Park is proposed to be established in approximately 489.46 acres of land in FACT premises at Ambalamughal, Kochi. The project site area is located at a distance of 16 km from Kochi and 35 km from Cochin International Airport and with excellent connectivity through road, rail and air.No historical/cultural monuments will be affected as a result of the proposed development. Truck terminal warehouse will have 25 ECS while Petro Chemical and Pharma Plots will have separate parking scheme. Total area for the proposed project is 489.46 Acres, which belongs to the FACT.
- The project falls under7(c), Category A. ToR was given vide letter No. 21-63/2018-IA.III dated 20th Sept. 2018. Public Hearing was chaired by the District Collector, and was conducted at the Collectorate of Ernakulam on 01st July 2019.Total
- 3. Total cost of the project: Project Cost is Rs. 320.90 Cr.
- 4. Forest land: No forestland will be diverted for the proposed project.

- 5. ESZ/Protected area: Mangalavanam Bird Sanctuary is at 9.5 km in the west direction from the project site. No endemic and endangered species of flora and fauna has been reported within 10 kms of the project area. However, Ramsar sites, i.e., Vembanad (Vembanad Kayal or Vembanad Kol) is about 8.5 kms southwest and migrant birds are recorded to visit these Ramsar Sites.
- 3. Topography of the project area: The project area has hilly and plain topography. The general slope of the study area is from north-east to south-west and follows the general trend of drainage. Almost 88% of the area is covers under 0-15% of slope range. Chitrapuzha River is adjacent to the project boundary, while Ambalamedu Lake is also in vicinity of the project site. Near the river, green belt is proposed as per the norms. Ambalamedu Lake is artificial lake, which harvest the run-off from the project area.
- 4. Total water requirement will be 14.148 MLD, and total treated water availability will be 4.005 KLD, so total fresh water requirement is 10.143 MLD. About 40% of the water demand of the process industries shall be met by recycled water; the remaining 60% of the water demand will be met through Water supply tapping from KINFRA Export Promotion Industrial Park (KEPIP), which is approximately for a length of 5 kms. No groundwater shall be extracted. The storm water on site will be treated through CETP.
- 5. The quantity of wastewater will be generated around 4.45 MLD. The wastewater generated from other areas of the petrochemical park area will be collected & treated at the common ETP.
- 6. Total load of the project area is 33.36 MVA without considering BPCL Kochi Refineries (170 Acre) as it already has a substation of 220/33KV and other adjacent plots/amenities, outside of the project area. It is proposed to install DG sets to meet the total power requirements during power failure.. The DG sets will have emission of various pollutants. To achieve adequate natural dispersion, stack height will be provided to DG sets respectively in accordance with the guidelines of Central Pollution Control Board (CPCB).
- During Operation Phase in the proposed Petro-Chemical Park, waste produced will be divided into 4 major categories such as Municipal Solid waste from all sources (9.116 Ton / Day), Hazardous and Non-Hazardous Industrial Waste (87.068 Ton / Day) and Construction Waste.
- 8. There will be provision for setting up Central Utility and Facility adjacent to Truck terminal and warehousing area. In case steam is required, a concessionaire can be on board for provision of steam in the Petrochemical Park. Presently, it is assumed BPCL will provide surplus steam to the Petrochemical Park. The Master Plan is proposing Gas supply system considering 100% and 50% of the fuel requirements on natural gas.
- Benefit of the project: It will provide various business opportunities for entrepreneurs for setting up the different types of industries that will generate Direct and In-Direct employment. Total 9330 (3,733 on permanent basis and 5,597 temporary) peoples will be employed.
- 10. Details of Court cases: No Court case is pending against the proposed project.

The EAC, taking into account the submission made by the project proponent for the aforementioned proposal had a detailed deliberation during its 247^{th} meeting on $23^{rd} - 24^{th}$ November, 2020 and noted that the category of the project proposed to be housed with the project site is not appropriate. Further, it was noted by the EAC that the details of Public Hearing were also not found. In view of the above, the EAC has **recommended to defer the proposal** and requested the PP to submit the revised table of project category by re-orienting the red category project with orange category project proposed to be housed on the habitation side alongwith the submission of details of Public Hearing.

Agenda No. 3.9

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

The project proponent along with the EIA consultant M/s MECON Limited, Bengaluru, Karnataka made a presentation through Video Conferencing and submitted the following information.

- 1. The proposed project falls under project activity 7(c) Industrial estates. The project falls under Category A due to interstate boundary (with Maharashtra) falls in study area of 10 km radius. Further, the industrial estate may accommodate Category-A industries for which individual EC will be applied by respective enterprisers at later stage.
- 2. Cluster of different types of industries mainly grinding industries will be established in the proposed industrial area. The industries such as Pharmaceuticals, Foundries, Paints varnishes, pigments, Food and soft drinks, Fruit processing/Agro based industries, Distilleries, Cotton textile/Readymade garments, Granite polishing, Wood articles & Furniture, General engineering & Fabrication industry and Automobile Industry will be housed in the proposed project.
- 3. The proposed project will be implemented in an area of about 331 ha. The site lies to the north-west of Hukkeri taluk and south of Nipani town, at a crow-fly distance of about 23 km and 7 km respectively.
- 4. Topography of the project: Most of the terrain in the study area is undulating and drainage pattern is dendric type. The drainage pattern is observed towards northern and southern directions from centre part of the study area as the central part of the study area is located at highest elevation. The site is fairly plan and ground level varies from RL +750m to RL +800 m. The gradient of site slope is towards south. No perennial rivers are observed in the study area. The present trend of the terrain slope will be maintained and strengthened by providing a surface drainage network in the proposed 331 ha of land.
- 5. Forest Land: There is no diversion of forest land.
- 6. ESZ/Protected area: There are no protected areas within 10 km of project site.
- Cost of the project: The estimated capital cost is about Rs. 300 Crore based on DPR prepared by KIADB in the year 2019. Terms of Reference (ToR) was obtained vide letter no. 21-141/2017-IA.III, dated 22nd September 2017.

- 9. Public Hearing: Public Hearing was conducted on 14th July 2020 at Kanagala (2 km away from proposed project site).
- 11. During construction phase the total water requirement is estimated to be 2 KLD while developing the estate plot. Only approach roads and culverts are planned. During operation phase the total drinking water and process water requirement is drawn from common storage tank of 9.85 MLD capacities from Kanagala industrial area. The source of water is from Ghataprabha River (Hidkal dam) which is flowing about 40 km from project site. No groundwater will be extracted. Rain water harvesting techniques are proposed for Kanagala Industrial Area for collection and storage of rainwater which will contribute to recharge the ground water. Few small artificial water bodies have been proposed in the low lying area of the industrial. Also, the independent industrial units shall install rooftop rain water harvesting facility. All the buildings in the common area shall be provided with rooftop rainwater harvesting facilities. Surface storm water drains will have recharge facilities.
- 5. All the hazardous waste from industrial units will be transported to Common Hazardous Waste Management Facility (CHWMF) for safe disposal as per the statutory requirement and procedures. Initially, it is planned to send to TSDF, Ranjangaon, Maharashtra for treatment which is around 250 km from the proposed Kanagala Industrial Area. However, Government of Karnataka is planning to develop district wise CHWMF. The common ETP is not proposed as the industrial estate will have different type of industries. The individual industries will have ETP if necessary according to the requirement to meet the State Pollution Control Board norms. It is proposed to adopt no liquid discharge into the environment and the concept of ZLD (Zero Liquid Discharge) will be adopted. The industrial area shall not discharge any waste water from its premises. During monsoon season the treated unused/unusable water and run off shall be discharged. A common STP is planned to treat the domestic effluent. The individual industries will avail the treated STP water from construction stage onwards. This will reduce the freshwater consumption. An area of 10.82 acre of land has been allotted to install common STP's at Kanagala industrial area to treat domestic waste water during operation. It is proposed to employ MBR technology STP.
- 6. Topography of the area: The project site is mostly covered by fallow and barren land with scattered not a noteworthy spices of tress, bushes and shrubs Felling of trees will be restricted to proposed access roads and green belt development. In addition to this, fresh saplings will also be planted within the construction site under the plantation/green belt development program of the industrial area. The area likely to be covered under green belt is about 84.04 acres.
- 7. Solar energy will be used for streetlights around the industrial area. Adoption of improved technology to continuously reduce power consumption with increase in output, several other measures such as LED bulbs for illumination, star rated equipment is planned.
- 8. Benefits of the project: The proposed project will expedite industrial development of the area by attracting a considerable percentage of capital investment to the State and will provide job opportunities for the locals and persons from Belagavi district. Besides, persons belonging to nearby villages are likely to be engaged as day to day contract labourers for outsourced project activities related to civil, electrical, road repair etc. The initial man power requirement will be the tune of 500 and will reach up to 2500 progressively.

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

The EAC, taking into account the submission made by the project proponent for the aforementioned proposal had a detailed deliberation during its 247^{th} meeting on $23^{\text{rd}} - 24^{\text{th}}$ November, 2020 and **deferred** the proposal and requested the PP to submit the following information for further consideration:

- i. Revised list of industries to be housed in the proposed industrial area.
- ii. Distance of project site from the adjacent villages
- iii. Distance of project site from Ghatprabha WLS duly endorsed by the Chief Wildlife Warden of the state
- iv. Details of area to be allocated for each sector of industries
- v. Wild life study within 10 km distance with focus particularly for Indian Wolf and Indian Pangolin duly endorsed by the Chief Wildlife Warden of the state
- vi. Detailed plans for disposal of hazardous waste including if there is any inter-state movement of it.

Agenda No. 3.10

Development of Sarathi Kurubarahalli Industrial Area 149.33 Ha (369 Acres) at Sarathi and Kurubarahalli villages, Harihar Taluk, Davanagare District, Karnataka by M/s Karnataka Industrial Areas Development Board (KIADB) - Terms of Reference [Proposal No.: IA/KA/NCP/178738/2020 and File No. 21-88/2020-IA.III]

The project proponent along with the EIA consultant M/s MECON Limited, Bengaluru, Karnataka made a presentation through Video Conferencing and submitted the following information.

- The proposed project falls under 7(C) Category A. The proposed project is for development of Sarathi- Kurubarahalli Industrial Area at Sarathi & Kurubarahalli Villages, Harihar Taluk, Davanagare District, Karnataka State in an area of 149.33 Ha (369 Acres).Proposed Land has already been acquired by KIADB. The project site is connected with SH-25 (Shivamogga – Hoskote). The project site will be housed with different industries such as Fabricated Metal products, Automobile components, Manufacturing of tooth paste, tooth powder, cosmetics, Synthetic detergents and soaps manufacturing, Silk screen printing/ Textile printing, Flakes from rejected PET bottles, Reprocessing of waste plastics including PVC, Secondary Metallurgical processing industries, Electric lamps and CFL manufacturing by assembling only, Assembling of Electrical and Electronic items and Manufacturing of optical lense, etc.
- 2. Cost of the project: Total Investment/Cost of the project is Rs. 5,322/- Lakhs.
- 3. Topography of the area: The terrain of the area is flat. Duggavatti Halla is adjacent to the site towards North and Karala Halla is adjacent to the site towards the south. The water bodies will not be disturbed. Fifteen meter green belt is proposed along the periphery of the site. There are 40 palm trees at site, which will be uprooted and planted along the roads.

- 3. Total Water requirement during the construction phase is estimated to be 65 KLD (Source will be from private tankers). During the operation phase, total water requirement for the project is 3091 KLD. Fresh water requirement is 1041 KLD, which will be utilised for process and domestic requirement. Water requirement for greenbelt (416 KLD), utilities for industrial purpose (675 KLD) and process (500 KLD) will be met from recycling of treated wastewater. Water source will be from Tungabadra River. CGWA Clearance is not applicable for the project.
- 4. Effluent quantity 1820 KLD of which effluent from Process is estimated to be 1450 KLD and utilities 350 KLD. The effluent will be treated in CETP of 2000 KLD followed by RO, MEE and ATFD. Individual industries will be mandated to treat the effluent and send to CETP through conveying system. Sewage generated is estimated to be 243 KLD. This will be treated in CSTP of 250 KLD.
- ESZ/Protected ara: The protected areas such as Ranebennur Blackbuck Sanctuary Core Boundary is ~4.67 Km (W) from the project site and Ranebennur Blackbuck Sanctuary ESZ is ~3.6Km (W) from the project site. Application for NBWL will be submitted after obtaining ToR.
- 6. Beefits of the project: The project will provide both indirect employment and direct employment during construction and operation of the Industrial Area. There will be positive impact on social conditions in and around the site due to the proposed project. About 6100 people shall be employed.
- 7. Details of Court cases: No court case is pending against the proposed project.

The EAC, taking into account the submission made by the project proponent had a detailed deliberation during its 247th meeting on **23rd–24th November**, **2020** and **recommended** the proposal for grant of Terms of Reference (TORs) with the following specific ToRs, in addition to all standard ToRs applicable for such projects:

- i. Buffer of green belt shall be provided on the canal side which is flowing adjacent to the project boundary.
- ii. 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.
- iii. Detailed air quality study for each point source to be conducted alongwith the Micro metallurgical data.
- iv. Wherever possible, plantations around the periphery of the industrial area/SEZ/park, in the downwind direction and along the road sides shall be provided for containment of pollution and for formation of a screen between the industrial area and the outer civil area. The choice of plants should include shrubs of height 1 to 1.5 m and tree of 3 to 5 m height. The intermixing of trees and shrubs should be such that the foliage area density in vertical is almost uniform. The layout plan shall be submitted accordingly.
- v. The Protected Areas such as Ranebennur Blackbuck Sanctuary and Ranebennur Blackbuck Sanctuary notified under the Wild Life (Protection) Act, 1972 is about 4.67 Km (W) and 3.6Km (W), respectively from the boundary of the project boundary. A detailed study on

impact of the project on the Protected Areas be conducted through reputed institute or a team of experts of national repute.

- vi. 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.
- vii. Provide detailed water balance statement a scheme to achieve ZLD by each industrial unit as well as for utilization of treated sewage.
- viii. Since, natural drainage pattern is seen in/around the proposed project site, it is important to have a detailed hydro geological study on the catchment area of the drainage system within core zone and at least 5km perimeter of the project area.
 - ix. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the activities proposed by the project proponent, based on the commitment made in the public hearing shall be incorporated in the Environmental Management Plan along with the cost estimates 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 aforestation etc, envisaged by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report, shall be detailed out along with the cost estimates and become part of EMP. Focus should also be kept for local flora and fauna biodiversity.

Agenda No. 3.11

Setting up of Kolhar Industrial Area Phase-II at Village Kolhar, Taluk Bidar, District Taluk, Karnataka by M/s Karnataka Industrial Areas Development Board - Further consideration for Environmental Clearance. [Proposal No. IA/KA/NCP/65436/2014 and File No. 21-6/2014-IA.III]

The aforementioned proposal was earlier placed before the EAC during its 206th meeting on 24th -25th January, 2019. The Committee noted some ambiguity and suggested the PP to furnish the requisite information regarding the source and actual amount of water to be drawn from each source along with the requisite permissions from concerned authorities, development of ground water rejuvenation plan for the region from competent agency and to provide appropriate financial mechanism to implement the same, NOC need to be obtained from the concerned authorities as an Air Force Station is situated at the distance of 200 m., Detailed Wildlife Conservation Plan covering at least winter and monsoon season needs to be provided, Study on Traffic density, its impacts and mitigation measures, Detailed drainage plan to protect the nallahs flowing through project site and also to the Bellur Lake adjacent to the project site, Details of power requirement and source of power, details on Rain Water Harvesting & water conservation measures, and details of Parking facility, etc.

Further, the EAC had also recommended to conduct a site visit by a sub-committee of the EAC to ascertain the ground truth of the project viability before the proposal is considered further, since, in the proposed industrial area is at close proximity of Bellur Lake and air force station is within 200 m from proposed industrial area.

The PP vide letter no. No. KIADB/FCN: 27449/466/2020-21, dated 23rd October, 2020, has complied the above ADS raised during the 206th meeting of EAC on 24th -25th January, 2019.

At this instant, the aforementioned proposal was further placed before the EAC during its 247th meeting on 23rd –24th November, 2020.The project proponent along with the EIA consultant M/s Ramky Enviro Services Private Ltd, Hyderabad made a presentation through Video Conferencing and submitted the following information to the Committee:

- 1. The proposed project falls under 7(c) to the EIA Notification, 2006. KIADB has already established an industrial area of about 900 acres in the Phase-I. A few industrial units have been established in the Phase I and are operational. To attract more industries, Karnataka Industrial Area Development Board (KIADB) proposes to establish an Industrial Area, Phase II in the name of Kolhar Industrial Area to support medium and small scale projects to get easy access to a ready to use a base with supportive infrastructure facilities in the industrial area, developed and managed by KIADB. The industries related to Engineering, Pharmaceutical, Food Manufacturing and other less water intense industries are proposed to be housed with the project site. The Industrial Area is located in Kolhar village, Bidar taluk, Bidar district of Karnataka. The proposed Industrial Area will be established in an area of 242.8 Hectares (600 Acres) with an investment of Rs. 210 Crores for Land, Infrastructure Development, and Environmental Management. The land comprises of Private & Government Lands.
- Terms of Reference (ToR) was obtained vide letter no. 21-6/2014-IA.III, dated 19th June 2015 from MoEF&CC. Public hearing was conducted on 8th March 2017 in Kolhar village, Karnataka at Plot No. 298 P1, Kolhar Industrial Area.
- 3. Topography of the project area: The terrain of the proposed project site is a part of the Deccan Plateau and is made up mostly of solidified lava. The northern part of the district is characterized by expanses of level and treeless surface punctuated here and there by flat and undulating hillocks, black soils and basaltic rocks. The southern half of the district is a high plateau about 715 m above mean sea level and is well drained. The average elevation of the district is between 580 to 610 m above mean sea level. Alluvial deposit is normally found along the banks of the Manjra River and its main tributaries. The project area is located on a plateau, covered with black cotton soil, inclined mainly towards east direction and interspread with hills, highlands, plains and valleys, physiographically. The topographic elevation, in the study area of 5-kilometre radius, is approximately ranging from 660 to 630 meters above mean sea level and the orientation of the main slope is towards east direction. The topographic slope at the project site is towards southwest direction.
- 4. The Water bodies such as Kolhar tank and Bhima River is situated at 0.5 km, E and 5.8 km, WSW, respectively. Water about 1 MLD will be drawn from Karanja Dama at a distance of 13 Km by establishing proper infrastructure facility by CMC, Bidar. The NoC for Water permission has been obtained from CMC, Bidar vide its letter No. BMC/ENG/26/2019-20/108 dated 09th May 2019. No groundwater will be extracted in the proposed project. Existing bore wells will be used for ground water quality monitoring

purpose only.

- 5. The NOC has been obtained from Senior Air Traffic Control Officer, Bidar vide letter dated 16th March 2018 & letter dated 21st August 2019.
- 6. The proposed project is in Critically Polluted area. Ministry of Environment, Forest & Climate Change, Govt. of India, vide office Memorandum No. J-11013/5/2010-1A.II(I), dated 13th January 2010, has declared Kolhar Industrial Area in Bidar outskirts, in Karnataka as Severely polluted area.
- 7. Construction waste will be re-used as filling at the same site after completion of excavation work Excavated earth during the civil works including road construction, fencing, drainage, site levelling etc., shall be utilized within the project site. Topsoil shall be conserved and will be utilized in the areas earmarked for greenbelt development.

Approximately 45 to 50 kg/day of municipal solid waste will be generated from the construction camp and construction site. This will be collected and disposed off in a fenced pit at dugout the site for making compost. Waste management would be the responsibility of individual industries. Individual industry will provide system for municipal solid waste collection, storage and disposal. Each industry shall have to comply with the Municipal Solid Waste Management Rules, 2000 and amendments thereafter.

- 8. KIADB will ensure that the water intensive industries will provide zero liquid discharge facility for treating trade effluent and reused for secondary purposes. During, phase II all treated water will be reused with in the industrial area and Zero liquid discharge concept will be followed. Hence the impact on ground water and surface water will be minimal.
- 9. A common effluent treatment plant of 1.2MLD is proposed in the Industrial area Currently there are about 33 chemical and allied units in Kolar and Humnabad industrial areas which are keen on becoming members of the CETP. Presently the wastewater being generated by the units is about 600 cum/d. An additional 90 cum/d is also generated as domestic wastewater by these units. The CETP is proposed to be established for the ultimate capacity of 1200 cum/d for process wastewater, 180 cum/d for domestic wastewater from the industrial units and another 160 cum/day from the proposed town ship in the industrial area. The CETP shall be established in a modular manner in 2 equal modules of 600 cum/day for process wastewater and another 170 cum/d of domestic wastewater. No STP is proposed. Individual units will establish the required STP.
- 10. A green belt of required width will be provided all around the Project boundary limits. In addition avenue trees will be planted all along the roads. Local plant species are preferred for the development of green belt areas. Total of 33% green belt development will be taken along the boundary (15m wide), along the roads (2m wide) to minimize environmental pollution
- 11. Rainwater harvesting artificial structures and Ground water Recharge pits will be constructed for the proposed projects, which are based on the average annual rain fall received by Bidar district. The average range of rainfall received by Bidar district is 886 mm. Main emphases given in the planning of the storm water drainage system is on recharging the underground aquifer of the area while having the safe disposal of storm

water without flooding the campus. A network of storm water disposal drains will be planned which will finally dispose off into a percolation well for direct injection of collected storm water into the ground water.Water quality monitoring and assessment will be done periodically.

- 12. Traffic management plan for traffic calming measures and traffic control measures are proposed to maintain adequate level of service and safety of vehicles and pedestrians. KIADB will provide sufficient infrastructure (roads, parking, sign boards, etc) in the Industrial area for smooth movement of traffic to reduce traffic congestion. KIADB has provided 30m, 18m, 15m, and 12 m wide black top roads for meeting internal traffic movement. The roads and intersections will be developed as per IRC guidelines. To cater the common parking requirement at industrial area, an area of 12.36Ha (30.54 acres) which is around 5.09% of the total land is earmarked. Individual units will have their own parking areas within their premises for catering parking requirement of respective units.
- 13. Benefits of the project: About 300 to 500 people will be employed directly and another 4500 to 5000 number of people will be employed indirectly.
- 15. A site visit was conducted by a sub-committee of the EAC on 22nd June 2019 to ascertain the ground truth of the environmental viability of the project for grant of Environmental Clearance to the project for setting up of Kolhar Industrial Area Phase-II at Village Kolhar, Taluk Bidar, District Taluk, Karnataka by M/s Karnataka Industrial Areas Development Board. The copy of site visit report has been submitted by the PP.

The EAC, taking into account the submission made by the project proponent had a detailed deliberation during its 247^{th} meeting on 23^{rd} – 24^{th} November, 2020 and recommended the proposal for grant of Environmental Clearance with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- (i) All the recommendation provided by the EAC Sub-committee during the site visit report to be implemented in totality along with six Monthly Monitoring reports.
- (ii) 50 meters Buffer of green belt shall be provided on the lake side.
- (iii) Zero Liquid Discharge shall be implemented in the industrial area.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured/recorded to ensure the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six Monthly Monitoring reports.
- (v) 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.
- (vi) 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.

- (vii) 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.
- (viii) 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.
- (ix) Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016.
- (x) Rain water 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.
- (xi) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and 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 Aforestation 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.
- (xii) As advised by the Senior Air Traffic Control Officer of the Bidar Airforce Station vide its letter BDR/1753/1/ATS dated 16th March 2020, each industrial unit will need to take NOC from Bidar Airforce Station and as such be made aware officially by the project proponent.

Agenda No. 3.12

Construction of '8-lane of Bangalore-Chennai Expressway Phase-I' from Bangalore at km 0.000 and ends at km 71.000 near Village N.G.Hulkur, Taluk Bangarpet, District Kolar (Karnataka) (Length of 73.050 including Spur Alignment of 2.05km) by M/s National Highways Authority of India - Further consideration for Environmental Clearance [Proposal No.: IA/KA/MIS/73474/2018 and File No. 10-15/2018-IA.III]

The project proponent along with the EIA consultant M/s Ramky Enviro Services Private Ltd, Gachibowli, Hyderabad made a presentation through Video Conferencing and submitted the following information to the Committee:

1. The proposed project falls under 7 (f). The proposed project is a new Expressway connecting Bangalore to Chennai. The proposed Phase-I of Bangalore Chennai Expressway starts from east of Bangalore at Km 301.200 of NH-4 and ends at Km 71.000

near N.G. Hulkur Village, Bangarpet Taluka, Kolar District, Karnataka. It will cross 72 nos. of villages.For facilitating the construction, the 8-laning will be carried out in phased manner. In first phase construction of 4-lane dual carriageway configuration with 21m depressed median will be taken up. It will facilitate future expansion on median side. This intern requires no additional land on later date. Hence the proposal of 90m ROW has been undertaken. As per the traffic projection, the expressway will be requiring 6-lanes in the years 2030 and require 8-lanes configuration in the years 2041.

- 2. Cost of the project: Total investment/cost of the project is Rs. 267685 lakhs.
- 3. ToR was granted vide letter no. 10-15/2018-IA.III, dated 14th May 2018. Public hearing was conducted by the Karnataka State Pollution Control Board in Bengaluru Rural District and Kolar District as per EIA Notification 2006 and its amendments thereafter, on 8th February 2019 and 07th March 2019, respectively.
- 4 The total length of proposed Bangalore Chennai Expressway (Phase-I) is 73.050 Km (Main Alignment: 71.00 Km) including spur alignment of length 2.05 Km. The project section starts from east of Bangalore at proposed Km 301.200 of existing NH-4. The nearest railway station is Bangarpet which is located around 5 km away from the starting point of the project stretch. The nearest Airport is Bangalore airport which is located at a distance of 18 km from the project stretch.
- . Topograhy of the project area: The project road is in plain and rolling terrain. Landuse is dominated by agricultural land followed by barren and wasteland. The project alignment is passing through 1 no. of seasonal river and 14 irrigation tanks. The bridges are designed to cross all the tanks.
- 5 Total water requirement during construction phase is 15000 KLD. The main source of water for construction and other related activities will be a mixture of surface water source and ground water source. The water for the construction will be used after taking prior permission from Competent Authority and comply with all the requirements of State Ground Water Authority/ Irrigation Department. The Contractor will take all the measures in order to minimize wastage of water during the construction. The Contractor will take permission / NOC from the Competent Authority prior to extraction of ground water. Total 286 nos. of recharge pits will be provided.
- 6. Sewage sludge will be generated from temporary labour camps till construction period, construction sites. Provisional septic tanks with soak pits will be provided in labour camps. The waste generated from Camp site will be disposed to Municipal / Panchayat disposal site with payment.
- 7. Forest Clearance: No forest Land diversion is involved in the proposed projectA total of 20748 nos. of trees (In Bangalore Rural: 4699 trees and Kolar: 16049 trees) of varying girth are located within the corridor of impact and are likely to be felled due to the project. Avenue plantation shall be carried out as per IRC SP: 21:2009 on available ROW apart from statutory requirements.
- 8. Solar energy will be providing at Toll Plazas and Wayside amenities. In bridges and truck lay-bys, LED light will be provided. A total of 30% energy will save in the project.

- 9. Total land requirement for the project is 764.08 Ha. 1720 nos. persons will be affected. The estimation of compensation for affected persons and assets has been finalized by the CALA by following NHAI's R & R Policy, NPRR 2007 and LARR Act 2013. The total estimated amount is INR 2125.85 Crores, which has been already deposited by NHAI. 98% distribution of Compensation has been completed.
- 10. Benefits of the project: The proposed project will provide better connectivity between Bangalore to Chennai and will act as a link between major commercial, industrial and corporate centres of Karnataka, Andhra Pradesh and Tamil Nadu and rest of the South through connectivity. Project will ensure the smooth flow of traffic, which reduces the emissions and noise level. There will be increase in employment opportunity for the project area directly and indirectly. During the construction phase 450 nos. of workers and during the operation phase 100 nos. of workers will be engaged through contractor at different stages. No court case is pending against the proposed project.

The EAC, taking into account the submission made by the project proponent had a detailed deliberation during its 247^{th} meeting on 23^{rd} – 24^{th} November, 2020 and recommended the **proposal for grant of Environmental Clearance** with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- (i) 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. Sufficient animal passes shall be provided by NHAI at regular interval as suggested in the Mitigation Plan and the Wildlife Conservation Plan prepared by Chief Wildlife Warden as per recent guidelines of Wildlife Institute of India for linear infrastructure projects and as suggested by State Board for Wildlife and Standing Committee of National Board of Wildlife (as applicable).
- (ii) Prepare the traffic prediction report for complete project (including all packages of this project) considering the cumulative impact of the traffic on the environment and submit to the Ministry and concerned Regional Office within 3 months.
- (iii) The recommendations of Cumulative Impact Assessment studies and proposed mitigation measures for all the packages shall be implemented in toto and be submitted to the concerned Regional Office of the MoEF&CC along with half yearly compliance report.
- (iv) 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.
- (v) 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. State Pollution Control Board (SPCB) concerned shall not issue Consent to operate (CTO) till the project proponent obtains such permission(s).
- (vi) The proponent shall obtain permission from the competent authorities for tree felling along the proposed alignment.

- (vii) About 20748 nos. of trees are likely to be felled. A comprehensive plan for afforestation using compensatory plantation in the ratio of 1:10 will be done. Native tree species shall be provided as per the IRC Guidelines on Landscaping and Tree Plantation (2009). Effort should be made to plant native fruit trees and *Ficus* species on both sides of the alignment.
- (viii) Quarry areas shall be developed as water reservoirs with proper fencing around quarry area. Rain water harvesting pit shall be at least 3 5 m above the highest ground water table.
- (ix) The RoW shall not exceed 90 m at any point of the proposed alignment, except for the junction improvement at the intersections of the other roads. Standardisation of ROW for plain land and forest land to be defined and to be remain constant for all the packages.
- (x) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory afforestation etc., either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be implemented and become part of EMP.

Agenda No. 3.13

Development of Greenfield Non-major Port at Machilipatnam, Krishna district, Andhra Pradesh by M/s Andhra Pradesh Maritime Board - Terms of Reference [Proposal No. IA/AP/MIS/177730/2020 and File No. 10-62/2020-IA.III]

The project proponent along with the EIA consultant M/s Ramky Enviro Services Private Ltd, Hyderabad made a presentation through Video Conferencing and submitted the following information to the Committee:

 The proposed project fall under 7 (e) – Ports, Harbours. The proposed project is development of Greenfield non-major port at Machilipatnam in Krishna District of Andhra Pradesh State. The present proposal was considered in the earlier EAC meeting dated 20.10.2020. Vide Ministry letter no.10-5/2009 IA III, dated 25.11.2009 CRZ & Environmental Clearance was granted to M/s. Machilipatnam Port Ltd (MPL) for phase – I development. Validity of EC has been extended for another 5 years up to 24.11.2019. As existing EC is having modifications, the proponent submitted for Modification in ToR and obtained Modified TOR vide F. no: 10-5/2009-IA.III dt: 28.01.2016 and ToR extended vide order no: 10-5/2009-IA-III Dt: 07.12.2018, with validity up to 27.01.2020. Due to delays in financial closure and grounding of works, Andhra Pradesh Government *vide* GO MS no. 66 dt: 08.08.2019, cancelled the concession agreement with M/s MPL. Now, AP Government took policy decision to develop a Greenfield Port at Machilipatnam on EPC mode. Hence, new proposal is submitted for obtaining a New CRZ & Environmental Clearance for Greenfield Non-Major Port at Machilipatnam.

- 2. Proposed project capacity is 115.97 Million TPA and is attracting Category-A as per EIA Notification, 2006 (Threshold limit is > 5 million TPA of cargo handling capacity).
- 3. The total area proposed for the project is 2935 Acres for port operations (including 225 acres for road / rail connectivity). The proposed port location is close to Pedana Railway station. Machilipatnam is connected to Vijayawada by National Highway 65 (NH 65) and also connected to Narasapur by National Highway 216 A (NH 216 A). Total investment / cost of the project is Rs. 10422 Crores.
- 4. Topography of the project: The terrain of the project site is very shallow beach profile and the National Hydrographic Charts indicate a beach slope of 1:800 to 1:1000. The Machilipatnam bay, which measures approximately 6 km along north-south and 0.9 km along east-west, is bordered by Manginapudi village on the north and on the south the beach is backed by low lying land which is prone to flooding. The immediate backup area for the proposed port shows that towards the eastern boundary, the ground level varies from 0.8 m to 1.0 m, and towards the western boundary of the port location the ground levels are higher than 2.0 m, with respect to MSL. However in the creek, the ground levels are in the range of 0.5 m to (-) 2.0 m.
- 5. The area is comprised of tidal flats covered by thin grass vegetation; highly undulated area dominated by grass vegetation and the elevated land patches having high relief of about 3 to 4m covered by scrub vegetation. There are casuarina plants along HTL, whereas the northern boundary is surrounded by Manginapudi Creek, which is connected to some brackish water. The area beyond the HTL of the tidal flat comprises of vegetation with Casuarinas. The area between Tavisipudi and Gopuvanipalem comprises of tidal flats and elevated lands. The area between Gopuvanipalem and Kambilpeta is comprised of small creeks, mangroves growth, mud flats and abandoned aqua cultural ponds along the coast. In the southern side of the proposed port area, the area between tidal flat and open coast, most of the area is covered with mangrove patches only. It is also observed that in some pockets, abandoned aqua-cultural ponds and mud flats are existing between the mangrove patches. The proposed port and port facilities are beyond the existing mangroves. Mangrove buffer zone will be provided after HTL-LTL mapping by MoEF&CC authorized agency.
- 6. Total Water Requirement for all facilities (in Phase 1) for facilities of 6 berths 1.65 MLD. Total Daily water requirement for all facilities (in final Phase) for facilities of 18 berths will be about 1.65 MLD x 3 = 4.95 MLD, Say 5 MLD. The source of fresh water requirement will be met from ground water near the proposed port site or may be obtained from AP Rural Water Supply and Sanitation Department. Tarakaturu Storage reservoir is the closest water source.
- 7. Removal of few numbers of trees and shrubs within the project vicinity is required. No forest land /diversion of forest land is required. No protected forests, National parks, Sanctuaries and Tiger Reserves are located within 10km radius from the proposed project as per the Survey of India, Topo sheet. No Eco-sensitive zone notified by MoEF&CC is

located within the 10km radius from the proposed project site as per the Survey of India, Topo sheet. Project site is located in CRZ area.

- 8. STP of 70 KLD capacity based on advanced MBBR technology will be provided.
- 9. Landsat satellite data for the time-period of 1972–2015, showed that most erosion was observed along the Krishna-Godavari delta and highest accretion was confined to the estuary outlet of the Krishna-Godavari deltaic region. The reason for this accretion could be mostly due to sediment transport from the estuary rather than that of coastal accretion, whereas sand mining could be one of the parameters for extensive erosion patterns. An Approach / Entrance channel of length about 12.8 Km, width 200m and to a depth of 14.8m below CD is proposed. Turning basin of diameter 500m and depth of 16.1m below CD is proposed.

The touch pile breakwater is designed for the proposed port at Machilipatnam. In this case, a continuous southern breakwater of 2075m length and a northern breakwater of 250 m are proposed to establish a tranquil harbour basin. The proposed break water construction consists of installing of 1200 mm dia. piles with connectors. The estimated capital dredging quantity for the proposed project is 56.359Mm³. Dumping of dredge spoil for reclamation / shore nourishment and offshore dumping is proposed. Back up area will be raised by reclamation. No fishing activity is proposed within the project site.

10. Benefits of the project: The project would generate both direct and indirect type of employment opportunities during construction and operation phases. Project would require the manpower for implementation as well as operation period which is a direct employment. Temporary employment opportunity for 850 workers is envisaged under this project. Direct employment at Phase-I and final phase is proposed to be 800 nos. and 2000 nos., respectively.

Moreover, the proposed project would enhance the indirect economic activity in the industries like basic materials i.e., cement, steel, Logistics services, Transportation and many more. Also increase in volume of general trade, improvement in infrastructural facility with transport and communication network.

11. **Details of Court cases**: Consequent to cancellation of concession agreement by AP Government vide G.O. Ms. No. 66, I,I,I&C Dept. 08.08.2019, M/s. Machilipatnam Port Limited filed W.P. No. 12980 of 2019 in the Honourable High Court of Andhra Pradesh to quash A.P. Government decision in cancelling the concession agreement entered with M/s MPL. But the Honourable High Court have passed an interim order on 01.10.2019 as "pending further orders, tender process if any undertaken, may go on but the same shall not be finalized".

The EAC, taking into account the submission made by the project proponent for the aforementioned proposal had a detailed deliberation during its 247^{th} meeting on $23^{\text{rd}} - 24^{\text{th}}$ November, 2020 and **deferred** the proposal for the requirement of the following information for further consideration:

i. KML file for all major ports along the states coast line

- ii. KML file for the proposed port vis-à-vis KML file for bhavanapadu port.
- iii. KML file for the 3 alternate sites and Commercial viability of the port.
- iv. Details on Ministry of Port's approval for the project.

Annexure-A

Following members were present during the 247^{th} EAC(Infra-1) meeting held on 23^{rd} – 24^{th} November, 2020:

S. No.	Name	Designation
1.	Dr. Deepak Arun Apte, Chairman	Present
2.	Shri S. Jeyakrishnan, Member	Present
3.	Shri Manmohan Singh Negi, Member	Present
4.	Shri Sham Wagh, Member	Present
5.	Dr. Ashok Kumar Pachauri, Member	Present
6.	Dr. Manoranjan Hota, Member	Present
7.	Dr. V.K Jain, Member	Present
8.	Dr. Mukesh Khare, Member	Absent
9.	Dr. Ramana Murthy, Member	Present
10.	Shri Amardeep Raju, Scientist 'E' & Member Secretary	Present
11.	Dr. Rajesh P Rastogi, Scientist 'C', MoEF&CC	Present

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