Minutes of the 241th meeting of Expert Appraisal Committee held on 25th August, 2020 through Video Conferencing for Projects related to Infrastructure Development, Industrial Estate/Parks/Complexes/Areas, Export Processing Zones, Special Economic Zones, Biotech Parks, Leather Complexes and National Highways

Following members were present in the meeting:

(i) Dr. Deepak Arun Apte - Chairman
(ii) Shri S. Jeyakrishnan – Member
(iii) Shri Manmohan Singh Negi – Member
(iv) Shri Sham Wagh – Member
(v) Prof. Mukesh Khare – Member
(vi) Prof. Ashok Kumar Pachauri – Member
(vii) Dr. Manoranjan. Hota - Member
(viii) Dr. V.K Jain - Member
(ix) Dr. Anuradha Shukla - Member
(x) Shri R Debroy – Member
(xi) Dr. Rajesh Chandra - Member
(xii) Dr. M. V. Ramana Murthy – Member
(xiii) Shri Amardeep Raju - Member Secretary
(xiv) Dr. R.P Rastogi – Deputy Director

1. OPENING REMARKS OF THE CHAIRMAN

The Chairman welcomed all the members. The Chairman reiterated his concern on the quality of the EIA undertaken by the accredited consultants which leads to delay in decision making. The Chairman and the Members have expressed their complements to Mr. Raghu Kumar Kodali, Member Secretary (who got transferred to other Division) for his hard work, inputs and advising the Committee for smooth functioning and appraisal of the proposals. The Chairman and the Members also welcomed the new Member Secretary Mr. Amardeep Raju.

2. CONFIRMATION OF THE MINUTES OF THE LAST MEETING:

The Committee confirmed the Minutes of 239th EAC meeting with a suggestion that if any typographical error is noticed in due course of time, it will be corrected suitably.

3. Consideration of Proposals:

S.No.	Proposals
3.1	**Development of Project Multi cargo port with supporting utilities and infrastructure facilities at Hazira, Surat, Gujarat by M/s Adani Hazira Port Private Limited – Environmental and CRZ Clearance** **[Proposal No.: IA/GJ/MIS/428/2010] [File No.: 11-150/2010-IA.III]**
3.1.1	The project proponent along with the EIA consultant M/s. Cholamandalam MS Risk Services Limited, made a presentation through Video Conferencing and provided the following information:

(i) **Brief description of the Proposal:** M/s Adani Hazira Port Private Limited (AHPPL) had proposed the development of a Multi Cargo Port in Hazira, Surat District with supporting utilities and infrastructure facilities for its master plan spanning over an area of 873.27 ha which included forest land of 376.64 ha. The proposal was issued ToR on 07.04.2011 and the required EIA studies and Public Hearing (14.08.2012) was undertaken, project was recommended by Gujarat Coastal Zone Management Authority (GCZMA) vide letter No. ENV-10-2012-31-E dated 11th May 2012 and was appraised to the EAC for obtaining Environment and CRZ clearance. As the diversion of forest land was under process at the time of EC the same was excluded from the EC granted to AHPPL vide letter no. F.No.11-150/2010-IA-III dated 3rd May 2013. Hence the total area available for port development was 496.63 Ha. AHPPL commenced first five-year port development in the area available. In the first phase of development AHPPL has constructed 6 berths out of the proposed 12 berths, a total of 21.63 MMTPA of cargo was handled in the last financial year 2019-2020 out of the approved 84.1 MMTPA. Now out of 376.64 Ha applied forest land, the Stage-I forest clearance has been granted over an area of 301.0199 Ha vide order dated 17th October 2016(210.1594 Ha.) and 19th October 2016 (90.8605 Ha.) as mentioned below.

- In principle approval for diversion of 210.1594 ha of reserved forest land vide letter dated 17th October, 2016 bearing F.No. 8-36/2015-FC.
- In principle approval for diversion of 90.8605 ha of reserved forest land vide letter dated 19th October, 2016 bearing F.No. 8-35/2015-FC.

The current proposal only pertains to the inclusion of the 301.0199 ha of forest land without any change in other approved configuration and profile of cargo for which the EC was granted in 2013. The table below details on the approved and proposed developments after expansion.

Table 1 Summary of the Approved and Proposed Expansions.

S. No	Description	Unit	Approved development	Proposed development	Development after Expansion	Proposal
1	Berths	Nos.	12	-	12	EC was obtained for development of 12 berths. Currently, 6 berths have been developed. The remaining will be developed subsequently.
2	Cargo Traffic	MMT	84.1	-	84.1	No additional cargo traffic envisaged apart from the amount permitted as per EC.

	3	Port Area	Ha	496.63	301.0199 (376.64 ha of forest land that was initially proposed for diversion by AHPPL, upon consideration and evaluation by the forest department, was later agreed for 301.0199 ha)	797.6499	301.0119 Ha of forest land has been approved for diversion as per Stage – I Forest clearance obtained vide letter No. F.No. 8-36/2015-FC. and F.No. 8-35/2015-FC. This land will be used for port back up and utilities.
	4	Land to be reclaimed	Ha	225.30 Ha at the North Side of Port limit and 84 Ha at South side of port limit.	-	225.30 Ha at the North Side of Port limit and 84 Ha at South side of port limit.	No additional reclamation is envisaged beyond the permitted EC level.
	5	Dredging Limit	MM^3	Capital – 37 Maintenance- 11	-	Capital – 37 Maintenance- 11	No additional dredging beyond the permitted EC levels are envisaged.
	6	Water	MLD	6	-	6	No additional water requirement is envisaged.
	7	Power	MW	10	-	10	66 KV grid power supply is drawn from state electricity board supply.
	8	Effluent Treatment Plant	MLD	2.5	-	2.5	An ETP of 50 KLD is currently operating against the permitted level of 2.5 MLD.
	9	Sewage Treatment Plant	MLD	2.0	-	2.0	STP of 75 KLD is operating which is well below the permitted level of 2.0 MLD.

(ii) **Nature of project (New/Expansion/Amendment/Extension etc.):** The proposed project is an Expansion Project.

(iii) **Address of project site (Plot No./Village/ Tehsil/ District/State): Plot No**: Hazira Village Survey No. 179 ,434, 318, 306/A/1; Suvali Village Survey No. 177, 178 **Taluk**: Choryasi, **District**: Surat, **State**:

Gujarat.

(iv) **Geo-coordinates of project site:**

Bounded Latitudes (N): From 21.085317 To 21.128267

Bounded Longitudes (E): From 72.638097 To 72.642222

(v) **Area (ha)/Length (km) of the proposed project:** The proposed project is a forest land diversion of area 301.0199 ha comprising of two land parcels of areas 210.1594 ha and 90.8605 ha.

(vi) **Connectivity to the site:** The site is connected to the National Highway 53 by a four-lane road.

(vii) **Investment/Cost of the project:** The total cost of the project is INR 1800 Crore.

(viii) **Item of Schedule to the EIA Notification, 2006:** The proposed project is categorized under 7(e) Ports & Harbours of Schedule of EIA Notification, 2006.

(ix) **Landuse/Landcover of project site in tabular form:**

S. No.	Landuse/ Landcover	Area (ha)	Percentage	Remarks
1	Forest Land	301.0199	100	The proposed project is inclusion of forest land into the EC Issued on 3rd May 2013

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

S. No	Landuse/ Landcover	Area (ha)	Percentage	Remarks
1	Built-up Land	6296	30.55	-
2	Crop Land	1357	6.58	-
3	Scrub Forest	190	0.92	-
4	Land with scrub	1169	5.67	-
5	Mangroves	1234	5.99	-
6	Mud Flat	4297	20.85	-
7	Sandy Beach	406	1.97	-
8	Aquaculture	749	3.63	-
9	Tidal Flat	2633	12.78	-
10	Water Body	2280	11.06	-
	Total	**20611**	**100**	-

(xi) **Terrain and topographical features:** The proposed project site is a forest land.

(xii) **Details of water bodies, impact on drainage, if any:** There are no water bodies within the project site. The nearest water body to the project site is a village pond (Hazira Pond) which is at a distance of 1.5 km East (aerial distance).

	(xiii)	**Water requirements, sources (during construction and operation phases) and NOC:** The water requirement during the construction phase would be sourced from open market by Trucks. Whereas, for the port operation AHPPL has an approval for developing 6 MLD desalination plant, as per the EC obtained on 3rd May 2013, which is to be developed. AHPPL has a consent to receive treated water of 2000 KLD from KRIBHCO through pipeline vide Consent Order No. AWH 87176 dated 17.07.2017). The water requirement beyond 2000 KLD is supplied through tankers, which is currently on an average 40 KLD.
	(xiv)	**Groundwater extraction/usage and NOC/Clearance from CGWA/State Ground Water Department:** The Adani Hazira Port currently does not abstract ground water to meet its water requirement. And, no groundwater abstraction is proposed as part of the current proposal of forest land diversion.
	(xv)	**Whether the project is in Critically Polluted area (Yes or No. If yes, provide brief details):** No, the project is not located in Critically Polluted Area identified by Central Pollution Control Board.
	(xvi)	**ToR details:** File No.: 10-80/2018-IA-III, Proposal No.: IA/GJ/MIS/82779/2018, Date of ToR Application Submission: 17th October 2018, Date of EAC Meeting (Infra-2): 36th Meeting held on 26-28 November 2018, Date of ToR Issue: 13th December 2019.
	(xvii)	**Public Hearing Details and Summary of issues raised and response/commitments by Proponent:** Public Hearing was exempted. The public hearing was conducted on 14.08.2012 for the master plan for Development of Multi Cargo Port at Hazira including forest land but as forest clearance was under process, the EC was granted excluding the forest lands. Therefore, the EAC has exempted Public Hearing for the proposed project as per para 7(ii) of the EIA Notification, 2006.
	(xviii)	**If the project involves expansion copy of certified compliance report issued by concerned regional office:** Submitted Ministry's Regional Office (Western Zone) certified compliance report (File No: 6-11/2013(ENV)/1038).
	(xix)	**Whether the project involves diversion of forest land and status of application:** The project involves diversion of 301.0199 ha of Forest Land for the development of port backup area of Adani Hazira Port. The forest land of 301.0199 ha comprises of two land parcels – 210.1594 ha and 90.8605 ha. The Stage-I Forest Clearance has been obtained whose details are as follows. • F.No. 8-36/2015-FC dated 17th October, 2016 - In principle approval for diversion of **210.1594 ha** of reserved forest. • F.No. 8-35/2015-FC dated 19th October, 2016 - In principle approval for diversion of **90.8605 ha** of reserved forest. • The Stage-I Forest Clearance for both parcels have been submitted.
	(xx)	**Whether the project is located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc.:** There are no Protected Areas such as Wildlife Sanctuaries, National Parks and Tiger Reserve within 10km from the project site.

	(xxi)	**Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC:** The project site is not located within any Eco-Sensitive Zone or Eco-Sensitive Area notified by MoEF&CC.
	(xxii)	**Waste Management:** The Adani Hazira Port handles and disposes various waste generated within its premises in the following ways: • Construction Waste – Disposed through authorized vendors • Municipal Solid Waste – The wastes are segregated as biodegradable and non-biodegradable wastes within the port premises • Non-Biodegradable Waste – The non-biodegradable wastes are disposed through authorized vendors • Biodegradable Waste – The biodegradable wastes are converted into manure by organic waste converter which is used for the development and nourishment of greenbelt within the port. • Hazardous Waste – The hazardous wastes are disposed through Gujarat Pollution Control Board (GPCB) authorized vendors for the region.
	(xxiii)	**STP details:** No Sewage Treatment Plant (STP) is proposed as part of the proposal. However, the port has an approval to develop STP of 2.0 MLD, but currently an STP of capacity 75 KLD is operated to treat the sewage generated.
	(xxiv)	**Details of tree cutting and Green belt development:** As part of the diversion of 301.0199 ha of forest land about 82340 no. of trees will be cut, 96% of which accounting to *Prosopis juliflora*. About 13.114 ha of greenbelt comprising 19,671 no. of plants will be planted at a cost of INR 0.21 Crore.
	(xxv)	**Energy conservation measures with estimated saving:** Of the total power requirement of the port, 5% is sourced from renewable energy sources such as solar and wind energy. Besides, the port has installed CFL bulbs, wherever possible, as an energy saving measure, which has contributed to lower energy consumption.
	(xxvi)	**Details of Rain Water Harvesting:** Hazira being an area influenced by salinity ingress, harvesting of rain water or ground water recharge measures are not possible.
	(xxvii)	**Whether the project is in CRZ area: If yes, provide details of components in CRZ area, layout on CRZ map of 1:4000 scale prepared by an authorised agency and appraisal by State Coastal Zone Management Authority (SCZMA) and copy of their recommendations:** The CRZ mapping for the proposed forest land diversion was undertaken by the Institute of Remote Sensing, Anna University, Chennai. Based on the CRZ maps, it was found that the proposed project spreads across three CRZ areas, namely CRZ-I(B),

CRZ-II, and CRZ-III. The spread of the proposed forest land across the CRZ are as found below:

CRZ Area	Area (Ha)
CRZ-IB	67.80
CRZ-II	84.96
NDZ	0.63
CRZ-III	9.38
Total Forest Area within CRZ	*162.77*
Total Forest Area Outside CRZ	*138.25*
Total Forest Area	**301.02**

The proposal was appraised by the Gujarat Coastal Zone Management Authority (GCZMA) in its 47th meeting held on 3rd February 2020, where the committee recommended that the AHPPL shall comply to all the condition of earlier recommendations issued in letter no. ENV-10-2012-31-E dated 11th May 2012. The GCZMA recommendations has been submitted.

(xxviii) **Brief description of Socio-economic condition of local people:** The proposed project site is located in the district of Surat. Surat is a district in the state of Gujarat, with Surat city as the administrative headquarters of this district. Cumulative population in the study area is 60,343 with 41,636 males and 18,707 females. The Sex Ratio was found at 449 females per thousand males in the study area, with that of District's and state's ratio of 787 and 919 respectively. The major source of economic activity in the study area is employment and business opportunities associated with the industries in the region. About 4% of the workers are Cultivators, 3% were agriculture labors,1% workers belong to household industry and 92% belongs to other workers group. 90% of the total populations are literates, which is more than the national literacy rate of 74.04% and state's literacy rate of 75.84%. Based on the field observations, majority of the children in the study area are educated only up to 8th standard.

(xxix) **Land acquisition and R&R issues involved:** The proposed project only involves diversion of forest land. No acquisition of land is envisaged. Therefore R&R is not applicable.

(xxx) **Employment potential, No. of people to be employed:** A total of 1200 people will be employed for the current project, inclusive of temporary and permanent employees. The detailed breakup of employee numbers during both construction and operation phases are given below.:

Phase	Employment Type	No. of Persons
Construction	Permanent	50
	Temporary	400
Operation	Permanent	150
	Temporary	600
Total		**1200**

(xxxi) **Benefits of the project:**

Improvement in Physical Infrastructure

	• Development of facilities and infrastructure will lead to economic growth in the region. • Proposed development will lead to Industrializations in the form of port associated industries ***Improvement in Social Infrastructure*** • Livelihood Development Programs through CSR Activities. • Drinking water facility for neighboring villages. ***Employment Potential*** • Proposed Development will lead to creation of both direct and indirect job opportunities. (xxxii) **Brief summary of specialised Studies carried out for the project as per the ToR:** The proposed project pertains to obtaining the Environmental and CRZ Clearance for the forest land that was excluded in the Environmental and CRZ Clearance granted on 3rd May 2013 (F.No.11-150/2010-IA-III) for the development of multi-cargo port with supporting utilities and infrastructure facilities at Hazira, Surat, Gujarat. The forest land was excluded as the Stage-I Forest Clearance was in process. Realizing that, the project was granted Standard ToR with few specific ToR that pertains to CRZ mapping of the proposed project site, compliance to previous EC, and also traffic impact assessment. Based on the CRZ mapping it was identified that the project area falls in CRZ-I(B), CRZ-II, and CRZ-III areas. The port has been complying to all the stipulated conditions as part of the EC and a RO certified compliance report has been submitted as part of this document. From the traffic impact study, it was found that the present road infrastructure is adequate to support the traffic that is envisaged to increase once the port achieves its full operational capacity of 84.1 MTPA. However, as part of the EIA, Air Quality Modelling and Noise Modelling were done and it was estimated that the peak increase in particulate matters, SOx, and NOx are below the prescribed CPCB standards with PM_{10} – 88.23 µg/m^3, $PM_{2.5}$ – 38.18 µg/m^3, SO_2 – 15.77 µg/m^3 , and NO_2 – 21.43 µg/m^3. From the noise modelling, it was observed that the ambient noise level would not exceed beyond the limits beyond the port boundary. And, based on the ecological survey, the forest land for diversion is covered with a mono-culture *Prosopis juliflora* which enunciates the fact that the forest doesn't host any diversity. (xxxiii) **Details of Court cases:** There are no court cases against the proposed project.
3.1.2	The EAC, taken into account the submission by the project proponent ***that the current proposal only pertains to the inclusion of the 301.0199 ha of forest land without any change in other approved configuration and profile of the cargo for which the EC was granted in 2013*** had a detailed deliberation during its 241st meeting on 25-26 August, 2020. After a detailed deliberation, the EAC **recommended** the proposal for grant of **Environmental and CRZ Clearance with the inclusion of forest land amounting to** 301.0199 Ha with the specific conditions, as mentioned below in this para, in addition to all standard conditions

	applicable for such projects: (i) Since the proposal is for the inclusion of 301.0199 ha of forest land in the existing project, the existing EC, (F.No.11-150/2010-IA-III dated 3rd May 2013), be amended to include the 301.0199 ha of forest land without any change in any conditions and other approved configuration and cargo profile of the project: (ii) The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes as applicable to the project. (iii) The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC. (iv) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area. (v) All the recommendations and conditions specified by the Gujarat Coastal Zone Management Authority (GCZMA) vide letter No. ENV-10-2012-31-E dated 11th May 2012 and ENV-10-2020-172-Tcell dated 6th July, 2020 shall be complied with. (vi) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase (vii) No storage of petroleum products (viii) Dredging shall not be carried out during the fish breeding season. Dredging, etc. shall be carried out in confined manner to reduce the impacts on marine environment. As committed, Silt curtains shall be used to minimize spreading of silt plume during dredging using online monitoring system. Turbidity should be monitored during the dredging. No removal of silt curtain unless baseline values are achieved. (ix) Wherever possible, dredged material shall be used for bank nourishment. With the enhanced quantities, the impact of dumping on the estuarine environment should be monitored and necessary measures shall be taken on priority basis if any adverse impact is observed. (x) An independent monitoring be carried out by any Government Agency/Institute to evaluate the impact during dredging. Impact of dredged material on estuarine environment along with shore line changes should be monitored by the PP and necessary mitigation measures be taken in case any adverse impact is observed. The details shall be submitted along with the six-monthly monitoring report. (xi) Marine ecological monitoring and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given

	in the EIA-EMP Report shall be complied with in letter and spirit. (xii) A copy of the Marine and riparian biodiversity management plan duly validated by the State Biodiversity Board shall be obtained and implement in letter and spirit. (xiii) Sewage generated will be treated in STP of 75 KLD capacity. The treated water will be used for flushing, gardening and dust suppression within the port premises. (xiv) A continuous monitoring programme covering all the seasons on various aspects of the estuarine environs need to be undertaken by a competent organization available in the State or by entrusting to the National Institutes/renowned Universities/accredited Consultant with rich experiences in marine science aspects. The monitoring should cover various physico-chemical parameters along with PHC coupled with biological indices such as microbes, plankton, benthos and fishes on a periodic basis during construction and operation phase of the project. Any deviations in the parameters shall be given adequate care with suitable measures to conserve the marine environment and its resources. (xv) Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance report to the regional office of MoEF&CC. (xvi) The actions shall be in accordance with proposed landscape planning concepts to minimise major landscape changes. The change in land use pattern shall be limited to the proposed port limits and be carried out in such a way as to ensure proper drainage by providing surface drainage systems including storm water network. (xvii) Suitable preventive measures be taken to trap spillage of fuel / engine oil and lubricants from the construction site. Measures should be taken to contain, control and recover the accidental spills of fuel during cargo handling. (xviii) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report. (xix) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013. (xx) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 1st May, 2018, project proponent has proposed that an amount of Rs. 8.5 Crores (computed of slab basis for the project expansion cost of Rs. 1800 Crores) shall be earmarked under Corporate Environment Responsibility (CER) Plan with special focus on providing healthcare facilities to the government hospitals in light of COVID 19 pandemic. A small portion of the fund can also be used for the activities such as Health, Water supply, Sanitation, Road development, Solar lights in nearby areas and Education etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the

	project proponent.
3.2	**Creation of water front facilities (Oil Jetties 8,9,10 & 11) and development of land (1432 acres) for associated facilities for storage at Old Kandla, Gandhidham, Kutch, Gujarat by M/s Kandla Port Trust – Environmental & CRZ Clearance** **[Proposal No. IA/GJ/MIS/61679/2017] [File No. 10-1/2017-IA.III]**
3.2.1	The project proponent along with the EIA consultant M/s SV Enviro Labs & Consultants, Visakhapatnam, made a presentation through Video Conferencing and provided the following information: (i) **Brief description of the Proposal:** • Creation of water front facilities (Oil jetties 8,9,10 & 11) and development of land for associated facilities. • Capacity of Each jetty – 3.5 MMTPA for handling all types of liquid cargo. • Area proposed for development: 554 acres (Mangrove area including 70 m buffer etc., have been excluded from the total area of 1432 acres.). • Dredging quantity will be capital dredging: 16,56.058 m^3 and maintenance dredging 1,07,500 m^3/annum. The dredged material will be disposed at designated dumping ground (Latitude 22^o51'00" & Longitude 70^o10'00"). • Total plot for storage 11 Nos., Tentative Tankage Capacity : 2.28 Million KL. • Pipelines on each jetty 9 Nos. (chemicals, Edible Oil, Firefighting, water supply, air, etc). (ii) **Nature of project (New/Expansion/Amendment/Extension etc.):** New. (iii) **Whether the proposal was considered in earlier meetings of EAC:** Considered for ToR during 13-15 February, 2017 and 27-29 June, 2017. (iv) **Address of project site (Plot No./Village/ Tehsil/ District/State):** Deendayal Port Trust, Old Kandla, Gandhidham – Kutch, Gujarat. (v) **Geo-coordinates of project site:** Latitude: 23.051704 To 23.069488 Longitude: 70.181017 To 70.219725 (vi) **Area (ha)/Length (km) of the proposed project:** 554 acres. (vii) **Connectivity to the site:** Kandla is connected to the National Highway grid system through NH 8A coming from Mumbai via Ahmedbad and Morbi and terminates at the Port. All main gates of cargo jetty complex as well as oil jetty complex are directly connected to N.H 8A by four wide roads. Broad Gauge (BG) tracks directly connect the Port at New Kandla with the principal cities of Bombay, Ahmadavad, Surat, Baroda, etc and also Delhi, Punjab and Haryana through the route Ahmadabad-Ratlam-Kota-Mathura to Delhi. (viii) **Investment/Cost of the project:** Rs. 1505.74 Crores.

(ix) **Item of Schedule to the EIA Notification, 2006:** 7 (e) – Ports & Harbours.

(x) **Landuse/Landcover of project site in tabular form:**

S.No.	Land use/Land cover	Area (ha)	%
1	Plot 1 (Crude Oil, Motor spirit storage)	10.65	4.750435
2	Plot 2 (Lubricating oil, Kerosene	10.65	4.750435
3	Plot 3 (Aviation fuel, High speed diesel, Furnace oil storage)	10.65	4.750435
4	Plot 4 (Butane, Propane storage)	10.65	4.750435
5	Plot 5 (Naphta storage)	9.26	4.130425
6	Plot 6 (Low Sulphur heavy stock	10.84	4.835184
7	Plot 7 (Edible Oil storage)	9.74	4.344529
8	Plot 8 (Edible Oil storage)	9.94	4.433739
9	Plot 9 (Admin block, Substation, Security cabin, firestation, parking)	17.05	7.605156
10	Plot 10 (Edible Oil storage)	9.94	4.433739
11	Plot 11 (Edible Oil storage)	10.65	4.750435
12	Railway sidings	20.25	9.032517
13	Roads	15.02	6.699674
14	Open area (Sea grass plantation, Desalination plantation, Parking)	68.9	30.73286
	Total	**224.19**	**100**

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

S.No.	Land use/Land cover	%
1	Water Bodies	12
2	Settlement	8
3	Rail network	6
4	Road network	6
5	Open land	6
6	Agricultural land	4
7	Mangrove swamp	12
8	Mud	15
9	Open scrub	7
10	Saltpan	12
11	Fallow land	12
	Total	100.0

(xii) **Terrain and topographical features:** The terrain is flat with elevation from sea level to up to 3m MSL. Topography at the site location is generally flat with average ground level of about 6.5m CD. Topsoil appears marshy.

(xiii) **Details of water bodies, impact on drainage, if any:** Gulf of Kutch at 11.65km and Sang River at 371.5m. There is no stream or nala is passing through the project site. The area (10 km area) around the

		project site is drained by Sakar River, Sang River and Churva River. All the rivers in study area are draining towards sea. The entire area is drainage north to south towards sea coast.
	(xiv)	**Water requirements, sources (during construction and operation phases) and NOC:** Approx. 20 m^3/day will be required for domestic consumption; the important source of water is the 14.5million m^3 capacity reservoir of Tapar Dam, besides a number of deep tube wells.
	(xv)	**Groundwater extraction/usage and NOC/Clearance from CGWA/State Ground Water Department:** Not applicable.
	(xvi)	**Whether the project is in Critically Polluted area (Yes or No. If yes, provide brief details):** Not applicable.
	(xvii)	**ToR details:** ToR issued by the MoEF&CC,GoI vide F.No: 10-1/2017-IA-III Dt: 04.08.2017.
	(xviii)	**Public Hearing Details and Summary of issues raised and response/commitments by Proponent:** The Public Hearing was exempted by the EAC as per para 7 (II) of the EIA notification, 2006, as it was held earlier in November, 2014 for the same area.
	(xix)	**If the project involves expansion copy of certified compliance report issued by concerned regional office:** The proposed project is not expansion. Other activities within the DPT had obtained EC's individually. For the same certified compliances are obtained.
	(xx)	**Whether the project involves diversion of forest land and status of application:** Not applicable. The project is proposed in the district of Kutch and is located on the West bank of Kandla creek, which runs into the Gulf of Kutch at a distance of 90 nautical miles from the Arabian sea. No forest land is involved in the proposed project and hence, forest clearance is not applicable.
	(xxi)	**Whether the project is located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc.:** None within 10km radius.
	(xxii)	**Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC:** None within 10km radius.
	(xxiii)	**Waste Management:** There would be approximately 100 persons employed in the oil jetties 8 -11 (maximum number of permanent and contract workers at any given time). Expected waste generation quantity from proposed project is approximately 75kg/day (@0.75kg/capita/day) of non-hazardous domestic waste (food waste, general solid waste and plastic waste) that will need collection and disposal. With the implementation of standard waste handling practices in line with MARPOL requirements, potential impacts resulting from the generation of non-hazardous waste is expected to be of low significance.
	(xxiv)	**STP details:** Waste water will be treated in the existing STP of DPT.
	(xxv)	**Details of tree cutting and Green belt development.:** No tree cutting is involved in this project. Due care shall be taken to reduce impact on mangroves of the area. Mangrove plantation is being done by DPT in phased manner. Land clearance will only remove herbs and shrubs of

		common species.
	(xxvi)	**Energy conservation measures with estimated saving.:** Employing renewable energy sources such as day lighting & passive solar panels, Using energy efficient electrical appliances, regular maintenance of all powered equipment to ensure appropriate fuel consumption rates.
	(xxvii)	**Details of Rain Water Harvesting.:** A provision for storm water collection has been made for harvesting the rainwater and using it for irrigation or fire fighting purpose. The main storm water drains are proposed as trapezoidal drains of 0.95m base width and 1.3m depth to cater for 10ARI rainfall. The storm water storage proposed will also act as a buffer to cater for the risk for flooding due high intensity rainfall coincident with the high tide.
	(xxviii)	**Whether the project is in CRZ area: If yes, provide details of components in CRZ area, layout on CRZ map of 1:4000 scale prepared by an authorised agency and appraisal by State Coastal Zone Management Authority (SCZMA) and copy of their recommendations.:** The proposed project site falls in CRZ area. Layout on CRZ map of 1:4000 scale prepared by authorized agency and recommendations from SCZMA is submitted.
	(xxix)	**Whether the project involves foreshore facilities. If yes, provide details of shoreline study, dredging details, disposal of dredge material, reclamation, cargo handling with dust control measures and oil Spill Contingent Management Plan.:** The project involves foreshore facilities. Shoreline study conducted by Institute for Ocean Management, Anna University and Ministry of Environment & forests, govt. of India is included in EIA report. Dredging requirement: 16, 56,058 m^3 (Berth basin + Patches in approach channel) and Maintenance Dredging of 1, 07,500 m^3 per annum. The dredged material will be disposed at designated dumping ground (Latitude 22°51'00" & Longitude 70°10'00"). Cargo Handling: Storage of permissible Liquid cargo as permitted. 3.5 MMTPA each (3.5 X 4 =14 MMTPA total Capacity) for handling all types of Liquid Cargo. No handling of dusty cargo is proposed. Oil spill contingency plan is submitted.
	(xxx)	**Whether the project involves Marine disposal: If yes, the provide copy of NOC from Pollution Control Board in case of marine disposal, details of modelling study – details of outfall diffusers, number of dilutions expected, distance at which the outlet will reach ambient parameters, location of intake/outfall, quantity, and detail of monitoring at outfall.:** No marine disposal.
	(xxxi)	**Brief description of Socio-economic condition of local people:** The impacts identified include the following: • Local economic impact. • Overall community development through CSR interventions. The impact significance is expected to be low considering the fact the project will be at onshore and offshore with limited impact on socio-economic environment. However, the project will have positive impacts on socio-economic environment by increasing availability of power, creation of employment opportunities and procuring material locally. Mitigation Measures:

	• To the extent possible, efforts will be made to hire labours from the local population which would enhance the employment potential of the locality and other infrastructural works. Therefore, there would be some positive socio-economic impacts. • Traffic management plan will be developed to manage road transportation; and • Access to site will be strictly controlled using appropriate security provisions. (xxxii) **Land acquisition and R&R issues involved:** No R & R issues. (xxxiii) **Employment potential, No. of people to be employed:** 100nos (Indirect employment generation). (xxxiv) **Benefits of the project:** Government Revenues, Economic benefits, employment & other benefits, community services, social benefits. (xxxv) **Brief summary of specialised Studies carried out for the project as per the ToR:** HTL-LTL Mapping for CRZ, Biodiversity assessment & environmental Management Plan, CWPRS – Mathematical model studies for Hydrodynamics and siltation along Kandla Creek due to the proposed oil jetties, Gujarat. (xxxvi) **Details of Court cases:** No court cases pending against the project.
3.2.2	The EAC, after examining the documents submitted by the project proponent and during 241st meeting held on 25-26 August, 2020, observed following: (i) proponent has not addressed the comments on improving the air quality prediction part where some deficiencies existed like criteria for selecting the monitoring location, detailed analysis of meteorological data, onsite micro meteorological data collection for representative inputs for modelling etc. The proponent is required to submit a detailed comprehensive air quality status including collecting representative meteorological data in situ etc. (i) Model used for dispersion of air pollutants with all input data used. (ii) The location of monitoring station - criteria of selecting the monitoring stations. (iii) Wind data analysis - the source of wind data, wind rose diagram, and predominant wind direction. (iv) In the EIA report, the proponent has mentioned use of ALOHA air dispersion model (Page 20 onwards). Explanation is required for use of this model. The source of heavy gases - what type of heavy gases they are considering? What are the sources in the site of heavy gases? (v) Submission of CRZ map (1:4000 scale) indicating HTL, LTL with the project site superimposed on The above map prepared by any of authorised agencies of MOEF&CC. (vi) Detail Presentation on Certified compliance report of earlier EC conditions (vii) The location of jetties along with existing facilities should be clearly indicated in the map

(viii) The quantity of dredging and disposal location should be indicated in the map along with disposal strategies.

(ix) Mechanical handling facilities at each jetty along with cargo handled should be detailed. The project site is surrounded by the mangroves, as is evident from the fact the PP has reduced the project area to 554ha from original 1432 ha by excluding mangrove and buffer area from the project area. Therefore, mangrove conservation cum management plan should be prepared in consultation with State FD and implemented at project cost.

Accordingly, the EAC **deferred** the proposal for want of above mentioned information.

3.3 Incorporation of service jetties and allied facilities at Rozi Pier Port, Jamnagar, Gujarat by M/s Gujarat Maritime Board, Gandhinagar – Environmental and CRZ Clearance

[Proposal No.: IA/GJ/MIS/164848/2017] [File No. 10-44/2017-IA.III]

3.3.1 The project proponent along with the EIA consultant M/s SV Enviro Labs & Consultants Enviro House, made a presentation through Video Conferencingand provided the following information:

(i) **Brief description of the Proposal:** Total project area – 9.2 ha. To the existing 400m piled jetty and 100m wharf will be expanded by having additional 300m wharf by reclamation and CC Block wall. Construction of Boat Jetty of 105m length and 7m (which includes 50m marine police jetty, 30m forest jetty, 25m GMB jetty) and backup area of 56.3 m^2 with 78m of retaining wall and approach bund of 230m length and 7m wide. Development of 1000m x 30m backup area.

(ii) **Nature of project (New/Expansion/Amendment/Extension etc.):** New.

(iii) **Whether the proposal was considered in earlier meetings of EAC:** Yes, TOR meeting held during 21-24 Aug 2017.

(iv) **Whether proposal is part of interlinked project:** No.

(v) **Address of project site (Plot No./Village/ Tehsil/ District/State):** Village: Jamnagar, Tehsil: Jamnagar, District: Jamnagar, State: Gujarat.

(vi) **Geo-coordinates of project site:**

Latitude 22°33'52.59"N to 70° 2'24.47"E

Longitude 22°34'10.93"N to 70° 2'45.33"E

(vii) **Area (ha)/Length (km) of the proposed project:**9.2 ha.

(viii) **Connectivity to the site:**

Nearest city	Jamnagar
District headquarters	Jamnagar
Nearest railway station	Jamnagar Railway Station - 8.0Km
Nearest Airport	Jamnagar Airport - 11.45 km

(ix) **Investment/Cost of the project:** Rs.71.15 Crores.

(x) **Item of Schedule to the EIA Notification, 2006:**7 (e) Ports, Harbours.

(xi) **Landuse/Landcover of project site in tabular form:**

S. No.	Landaus/Land cover	Area (ha)	Remarks, if any
1	Total Wharf Area	400 m (Length)	Existing
		400 m (Length)	Proposed
2	Storage Area	0.4	Existing
3	Total Platform	9.01	Existing
4	Reclamation area	9.2	Proposed
5	GMB Jetty, Forest Jetty & Marine Police Jetty	105 m (Length)	Proposed
6	CC Wall	30m × 1000m (Length)	Proposed

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

LULC Statistics			
Sl No	**LULC_Class**	**Area (Ha)**	**Area (%)**
1	Waterbodies	1736.52	6%
2	Settlement	1424.28	5%
3	Sea	10200.92	32%
4	RoadNetwork	1598.84	5%
5	Open Scrub	1483.68	5%
6	Agricultural Fallow Land	1290.34	4%
7	Mangrove Swamp	6012.68	19%
8	Mud	2616.22	8%
9	Dry Land	2213.11	7%
10	Saltpan	2112.68	7%
11	Fallow Land	812.68	3%
		31501.94	**100.00**

(xiii) **Terrain and topographical features:** Topographical maps of Survey of India (SOI) were obtained for land use study as well to develop contour and drainages pattern of area. The soil in the project site and in the study area is mostly clayey, medium black. Dominantly the soil is very deep, well drained and fine to medium textured. In Study area, soil having high water and moisture retention capacity due to clay contain, clay belong to montmorilonite mineralogy.

(xiv) **Details of water bodies, impact on drainage, if any:**

S. No.	Area	Distance (Km)
1	Bedi bangar Creek	0.1
2	Hadda Creek	0,8
3	Shanka Creek	8.6

4	Lakhota lake	13.7

During construction phase, there would be generation of some sewage due to personnel involved in the construction work. With the implementation of mitigation measures, the potential for contamination of surface and ground water resources resulting from sewage disposal is expected to be insignificant. The major impacts on marine water quality are envisaged due to the civil works activities like driving of piles, construction of berth, approach way, movement of construction equipments etc. will have a high potential to disperse the fine grained sediments in the water, thus increasing the particular load which in turn can adversely influence the photosynthetic activity further affecting the marine life. However, this rise in turbidity will be only during the construction phase. The runoff from the site containing construction materials, debris and construction waste and excavated earthen materials may have adverse impacts on the water environment especially on nearby marine water resources. Proper mitigation measures shall be implemented to avoid such runoff as well as spillage of construction materials so that the materials in runoff cannot enter into the water bodies. Rise in turbidity will be only during the construction phase and the incidence of turbidity will be minimal due to prevention of any runoff from site. However, due to small scale of construction involved, and the short duration of activities, the impact is considered of low significance.

(xv) **Water requirements, sources (during construction and operation phases) and NOC:** It is estimated that approx. 243.5 KLD will be required once all facilities are functional. During operation phase, the sewage generated of quantity 19.0 KLD will be treated in a sewage treatment plant and treated water will be used for landscaping. The Gujarat Water Supply and Sewerage Board (GWSSB) is responsible for providing of water during construction and operation phase. Hence there would not be any impact on local water sources and its competitive users.

(xvi) **Groundwater extraction/usage and NOC/Clearance from CGWA/State Ground Water Department:** Not applicable, No, ground water extraction for the proposed project, Gujarat Water Supply and Sewerage Board will be provide water.

(xvii) **Whether the project is in Critically Polluted area (Yes or No. If yes, provide brief details):** Not applicable.

(xviii) **ToR details:** ToR issued on 07.09.2017 vide No. 10-44/2017-IA-III.

(xix) **Public Hearing Details and Summary of issues raised and response/commitments by Proponent:**

a. Date of advertisement:24.01.2019

b. Venue: Rozi Pier Port, Jam Nagar,

c. Jamnagar Taluka, Jamnagar District

d. Date of Public Hearing: 27th Febraury 2019

e. Number of people attended: 109

f. Number of people given their voice: 3

		The main issued involved in the public hearings are related to pollution in general and damage of marine life. The proponent has responded that all mitigation measures as per Environmental and CRZ Clearance shall be implemented in toto.
	(xx)	**Whether the project involves diversion of forest land and status of application:** Not applicable.
	(xxi)	**Whether the project is located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc.:** Yes, the proposed site falls within 10 km Marine National Park and sanctuary, Jamnagar. Application submitted to NBWL clearance vide FP/GJ/Others/4185/2019.
	(xxii)	**Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC:** No, the proposed development is within existing Rozi Port.
	(xxiii)	**Waste Management:** The solid waste is 75 kg/day generated during the development of the proposed project will consist of paper, cotton rags, plastic, tins etc. Along with Municipal Solid waste, hazardous waste i.e. waste oil from DG sets and ETP sludge will be generated during the operation of the project. The solid waste and hazardous waste generated from seaward side from the construction barges, construction site, dredgers etc. will be collected twice in a week at shore on jetty using an authorized garbage vehicle and through a SPCB approved collection vehicle respectively. The type of waste, source and quantity will be noted prior to disposal and then the vehicle will be sent to weigh bridge for weighing before it is disposed of at an authorized waste disposal site. Used oil generated from diesel generators/ engines will be disposed to SPCB authorized waste oil recyclers. Hazardous waste handling and management procedures shall be followed.
	(xxiv)	**CETP details:** The wastewater generated by washing of jetties, cleaning and packing shed, etc. of quantity 119 KLD will be treated in Effluent treatment plant and recycled. The treated water of quantity 107 KLD will be reused within the premises for washing, cleaning etc. thus water saving of the project will be 116.5 KLD.
	(xxv)	**STP details:** Sewage generated (19.0 KLD) will be treated in 20 KLD Capacity and reused within premises for landscaping.
	(xxvi)	**Details of tree cutting and Green belt development:** There is no tree cutting involved in this project. Rozi Pier Port has endeavored in maintaining eco-balance by way of tree plantation in and around port area. Extensive plantation is carried out every year. The survival rate of plants is very low due to saline soil and adverse weather conditions. Ongoing efforts are taken to increase the area under plantation. Additionally, green belt development is undertaken at, roadside and near residential and office buildings at Jamnagar and surrounding villages. As per CPCB guidelines, green belt will be developed on 33% of the total project area.
	(xxvii)	**Energy conservation measures with estimated saving.:** As part of energy conservation measures the Rozi port facility will be installed with LED bulbs and Solar powered lights (150 nos.), with an estimated savings of 5% from overall energy consumption.

	(xxviii)	**Details of Rain Water Harvesting.:** Presently, GMB is having 35 no's of RWH pits.
	(xxix)	**Whether the project is in CRZ area: If yes, provide details of components in CRZ area, layout on CRZ map of 1:4000 scale prepared by an authorised agency and appraisal by State Coastal Zone Management Authority (SCZMA) and copy of their recommendations.:** The proposed project falls in the CRZ area. Institute of Remote Sensing, Anna University has been carried out the CRZ mapping and GCZMA also recommended this project.
	(xxx)	**Whether the project involves foreshore facilities. If yes, provide details of shoreline study, dredging details, disposal of dredge material, reclamation, cargo handling with dust control measures and oil Spill Contingent Management Plan.:** There is no capital dredging involve in this project and shoreline changes studies done by CWPRS which is included in the EIA report. Reclamation, dust control measures and Oil spill contingency plan included in the EIA report.
	(xxxi)	**Brief description of Socio-economic condition of local people:**The livelihood is very much dependent on natural and economic endowments and institutional arrangements. Agriculture holds significant position in the economy of Jamnagar District. The district shows a dominance of cash crops (oil seed and lint) over the food crops (cereal and pulse). The reason is that, the preference for the high value crop (cotton, groundnut) got introduced through the extension services of public and private players. Fisheries and marine resources constitute another important source of livelihood in the coastal talukas. The sea coast is the main source of fisheries in Jamnagar. The fishing population is found in Jamnagar, Khambhalia, Okhamandal, Jodia and Kalyanpur talukas only. During 2006- 07, 2181 mechanized and 407 non – mechanized boats were active for fishing. They landed approximately 67,146 Metric Tons of marine fish production in 2011-12. Jamnagar district caters over 70% of the country's requirement for brass parts supply. Salt industry is well developed with around 17 salt work unit operational in the district. 34,000 people get employment in Micro, Small and Medium enterprises (MSME).
	(xxxii)	**Land acquisition and R&R issues involved:** Not applicable as the proposed project is within existing Rozi Port.
	(xxxiii)	**Employment potential, No. of people to be employed:**450 (both regular and temporary employment).
	(xxxiv)	**Benefits of the project:** The creation of service jetties will positively influence and infrastructure development which will imply additional investment opportunities in the Jamnagar region. This would result in generation of revenue for the government in terms of taxes from the proposed project and resultant industrial development from in this region. The proposed project creates direct opportunities for both skilled and unskilled jobs during the construction and operations phase. The project will require procurement and vendor networks for products and services, transport etc and hence there should be additional revenue generation for local vendors and suppliers in Jamnagar.
	(xxxv)	**Brief summary of specialised Studies carried out for the project**

	as per the ToR: The marine studies conducted by Andhra University and the study of the impact on the rivers, estuary and the sea and include the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. (xxxvi) **Details of Court cases:** No court case.
3.3.2	The EAC, after examining the documents submitted by the project proponent and during 241st meeting held on 25-26 August, 2020, observed following: (i) PP has submitted an undertaking that under previous EC letter no 10-28/2007-IA.III obtained on 13.01.2009 was expired in 2014, during that period and also till date not initiated any project activities at RoZi Rozi port. (ii) The predominant wind direction is NE – SW as per the wind rose diagram. Subsequently; it is not feasible to collect air samples from NE (Downwind) due its water body. However, the habitation is mostly towards SSW, S & SE direction. In this connection the monitoring locations given in upwind direction is 4 locations and remains 3 in cross wind. (iii) Location of weather station is within the port site at 22°33'53"N, 70° 2'23"E
3.3.3	The EAC, after examining the documents submitted by the project proponent and detailed deliberations during its 241st meeting on 25-26 August, 2020, **recommended** the proposal for grant of **Environmental and CRZ Clearance**, with the specific conditions, as mentioned below in this para, in addition to all standard conditions applicable for such projects: (i) The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes as applicable to the project. (ii) The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC. (iii) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area. (iv) All the recommendations and conditions specified by the Gujarat Coastal Zone Management Authority (GCZMA) vide letter No. ENV-10-2020-104-Tcell dated 9th June, 2020 shall be complied with. (v) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase.

	(vi) Dredging shall not be carried out during the fish breeding season. Dredging, etc. shall be carried out in confined manner to reduce the impacts on marine environment. As committed, Silt curtains shall be used to minimize spreading of silt plume during dredging operation. Turbidity should be monitored during the dredging using online monitoring system. No removal of silt curtain unless baseline values are achieved. (vii) Wherever possible, dredged material shall be used for bank nourishment.. With the enhanced quantities, the impact of dumping on the estuarine environment should be monitored and necessary measures shall be taken on priority basis if any adverse impact is observed. (viii) An independent monitoring be carried out by any Government Agency/Institute to evaluate the impact during dredging. Impact of dredged material on estuarine environment along with shore line changes should be monitored by the PP and necessary mitigation measures be taken in case any adverse impact is observed. The details shall be submitted along with the six-monthly monitoring report (ix) Marine ecological monitoring and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given in the EIA-EMP Report shall be complied with in letter and spirit. (x) A copy of the Marine and riparian biodiversity management plan duly validated by the State Biodiversity Board shall be obtained and implement in letter and spirit. (xi) Sewage generated will be treated in STP of 20 KLD capacity. The treated water will be used for flushing, gardening and dust suppression within the port premises. (xii) Mangroves conservation and management plan to be prepared in consultation with State Forest department and approved plan shall be implemented (xiii) A continuous monitoring programme covering all the seasons on various aspects of the estuarine, coastal and marine environs including intertidal and sub-tidal marine flora and fauna with focus on sea turtles, corals and sea grass (if any) need to be undertaken by reputed universities available in the State or by entrusting to the National Institutes/renowned Universities/accredited Consultant with rich experiences in marine science aspects. The monitoring should cover various physico-chemical parameters along with PHC coupled with biological indices such as microbes, plankton, benthos and fishes on a periodic basis during construction and operation phase of the project. Any deviations in the parameters shall be given adequate care with suitable measures to conserve the marine environment and its resources. Adequate funds be allocated for the same. (xiv) Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance report to the regional office of MoEF&CC. (xv) The actions shall be in accordance with proposed landscape planning concepts to minimise major landscape changes. The change in land use pattern shall be limited to the proposed port limits and be carried out in such a way as to ensure proper drainage by providing surface drainage systems

	including storm water network. (xvi) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report. (xvii) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013. (xviii) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 1st May, 2018, project proponent has proposed that an amount of Rs. 1.42 Crores (computed @2% for the project cost of Rs. 71.15 Crores) shall be earmarked under Corporate Environment Responsibility (CER) Plan with special focus on providing healthcare facilities to the government hospitals in light of COVID 19 pandemic. A small portion of the fund can also be used for the activities such as Health, Water supply, Sanitation, Road development, Solar lights in nearby areas and Education etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.
3.4	**Development of Coast Guard Jetty and allied facilities within existing Okha Port, Okha, Devbhumi Dwarka, Gujarat by M/s Gujarat Maritime Board (GMB)– Environmental and CRZ Clearance.** **[Proposal No. IA/GJ/MIS/65908/2017] [File No. 10-45/2017-IA.III]**
3.4.1	The project proponent along with the EIA consultant M/s Cholamandalam MS Risk Services Ltd., made a presentation through Video Conferencing and provided the following information: (i) **Brief description of the Proposal:** Gujarat Maritime Board (GMB), as a Statutory Organization of Government of Gujarat (GoG) has planned to facilitate a dedicated berthing facility and other supporting amenities for Indian Coast Guard (ICG) within the existing Okha port. Due to the increasing cargo demand in the region, GMB has also planned to increase the current cargo handling capacity of the Okha port by extending the existing lighter wharf, mechanization of port and increase the current cargo handling capacity from 6 to 10 MTPA. The Okha Port only handles dry bulk cargo and no liquid cargo is being handled at the port. The proposed project also includes reclamation of existing port facilities for providing supporting amenities and beautification aspects for the proposed ICG Jetty and existing passenger Jetty. The proposed developments in Okha port premises are: • Construction of ICG jetty of size 200x20m, approach trestle to ICG jetty of size 120x50m • Extension of Govind Ghat (lighter wharf) by 40 x 15.45m • Dismantling of existing wall of 26m long and 3m height, • Reclamation of 1.26 ha and beautification of reclaimed area near

existing passenger jetty

- Reclamation of 0.9 ha and beautification of reclaimed area near proposed ICG Jetty
- Earthwork and construction of civil structures in the back up area
- Capital dredging of 3,41,250m^3 for berthing facility upto -8m CD and Maintenance dredging will be carried out as and when required to the tune of 34125m^3
- Increase in cargo handling capacity of Okha Port from 6MTPA to 10MTPA.

Construction of Indian Coast Guard (ICG) hall, passenger waiting hall and open parking area will be undertaken in the proposed reclamation area to a tune of 1188 sq.m. within the Okha port boundary. The Okha port will be mechanized to increase the efficiency of port's cargo handling operations and enhanced environmental management practices. Port mechanization includes instalment of closed conveyor system, DFDS system, hopper and automated water sprinkler system, etc. As part of the proposed EMP a STP of 100 KLD capacity is recommended to be developed to treat the domestic waste water generated from the existing and proposed port facilities and the treated waste water will be utilized for greenbelt development, dust suppression, etc. The dredge spoil from capital dredging will also be utilized for reclamation of the proposed Govind Ghat (lighter wharf) area in addition to reclamation of 2.16ha back-up area of proposed ICG jetty and existing passenger jetty. Excess materials if any will be disposed-off into the offshore location identified based on the dredge spoil disposal study at depth beyond 20m w.r.t msl. The sediment from maintenance dredging will be disposed-off in the same location and based on the dredge disposal study none of the sediments reach the shore indicating no impact to shoreline.

(ii) **Nature of project (New/Expansion/Amendment/Extension etc.):** Expansion.

(iii) **Whether the proposal was considered in earlier meetings of EAC: no.**

(iv) **Address of project site (Plot No./Village/ Tehsil/ District/State):** Survey No- 569, Okha Village, Okhamandal Tehsil, Devbhumi Dwarka District, Gujarat.

(v) **Geo-coordinates of project site:** Bounded Latitudes (North): FROM 22.464544 To 22.474731, Bounded Longitudes (East): FROM 69.075531 To 69.083197.

(vi) **Area (ha)/Length (km) of the proposed project:** 6.0128 Ha.

(vii) **Connectivity to the site:** Okhamandal tehsil has good road and rail connectivity with broad gauge rail system that reaches upto Okha town. State Highway (SH–6A) is the major state road connectivity for the Okha port, National Highway (NH–8E) is about 28 km from the port.

(viii) **Investment/Cost of the project:** The overall cost of the project is

107.76 Crores.

(ix) **Item of Schedule to the EIA Notification, 2006:** 7(e), Ports, Harbours.

(x) **Landuse/Landcover of project site in tabular form:**

S.No	Landuse/Landcover	Area (ha)	Percentage (%)
1	Waterfront development & Backup area (port limit)	28.15	27.40
2	Passenger Jetty and associated Facilities	3.84	3.74
3	Port Colony	18.56	18.06
4	Marshaling Yard	13.16	12.81
5	Undeveloped area	39.04	38
	Total	**102.75**	100

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

S. No	Landuse / land Cover		Area (ha)	%
	Level I	Level II		
1	Built-up land	Built-Up Land	1159	17.8
2	Agricultural Land	Crop Land	1186	18.21
		Fallow Land	925	14.2
3	Waste land	Land with Scrub	366	5.62
		Land with Scrub - Sandy area	208	3.19
		Land without Scrub	337	5.17
		Coastal Wetland	317	4.87
		Salt affected Land	164	2.52
		Salt Pan	956	14.68
		Island	8	0.12
		Mangroves	145	2.23
4	Forest Land	Scrub Forest	572	8.78
5	Water bodies	Water body	170	2.61
Total			**6513**	**100**

(xii) **Terrain and topographical features:** Physiographically the district can be divided into the following units: Hilly areas and Coastal & alluvial Plains. Jamnagar, Jodiya, Khambaliya and Kalyanpur talukas are characterized by plain topography, whereas Jam Jodphur, Lalpur and Bhanwad talukas are characterised by hilly terrains. Cliffs are found in the Dwarka taluka with height upto 30m. Barda, Alech, Gop etc are famous hill ranges in the district. Mount Venu is the highest summit of Barda hills that attains a height of 617.1 meters. Okha Rann is a low-lying marshy area. Low coastal dunes and sand banks run along the north and west coasts. Jamnagar, Jodiya and Kalyanpur are plain areas. The Study area exhibits plain terrain. The minimum and maximum elevation of the study area (10 km radius) is 0 and 26m above MSL (Mean Sea Level) respectively. The Project site is located about 6 to 8m above MSL. Major topographical features within the

study area are crop and fallow land, scrub land, salt affected land, water bodies – Gulf of Kutch, ponds, reserve forest, built-up lands, etc.

(xiii) **Details of water bodies, impact on drainage, if any:** Gulf of Kutch at 0 Km, Arambhada backwater at 1.65km towards SW, Ponds in Surajkaradi at 6.64km towards SW, Ponds in Hamsura at 9.15km towards S. No impacts on the drainage is expected due to proposed project as the project components will be developed within the existing port facility.

(xiv) **Water requirements, sources (during construction and operation phases) and NOC:** The existing port facility has a water supply of 450 cubic meters per day from the Gadechi Water Works which is under the control of Gujarat Water Supply and Sewerage Board (GWSSB). The existing source quantity of 450 cubic meters per day is sufficient for the proposed project activity also; hence no additional water will be required during both construction and operation phase of the project.

(xv) **Groundwater extraction/usage and NOC/Clearance from CGWA/State Ground Water Department:** No groundwater will be extracted/utilized for the proposed project, the port has an existing water supply of 450 cubic meters per day from the Gadechi Water Works which is under the control of Gujarat Water Supply and Sewerage Board (GWSSB). The same will be utilized for the proposed project also, with no additional water requirement.

(xvi) **Whether the project is in Critically Polluted area (Yes or No. If yes, provide brief details):** No, the project is not located in Critically Polluted area.

(xvii) **ToR details:** GMB made a detailed presentation on the components of the proposed project in Okha Port during the 21st meeting of EAC (Infra-2) held between 21st August, 2017 to 24th August, 2017 and the project was granted ToR accordingly with both Standard and Specific conditions via letter dated 11th September, 2017.

(xviii) **Public Hearing Details:**

- Public notice issued on daily newspapers on 30th September 2018 namely, 'Western Times' (English Daily) and 'Sandesh'(Gujarati Daily)
- Date:2nd November 2018
- Venue: Project Site office of Gujarat Maritime Board, Okha Port, Okha, Okhamandal Taluka, District Devbhumi Dwarka, Gujarat
- 140 persons from local areas have attended the public hearing

Summary of issues raised and response/commitments by Proponent are as under:

S.No	Category of Issue raised by Public	Response/Commitment by Proponent	Remarks, if any
1	Safety concern and request for extension of Lighter wharf towards south	Project proponent informed that, considering the safety aspects, technical study will be carried out by GMB for the same. Based on the	Considering safety of workers and work environment it was proposed to

	also	detailed engineering and ecological sensitivity study a boundary wall on the southern end of the Govid Ghat is proposed to be constructed for the safety of the workers**.**	build a boundary wall on the southern end of the Lighter Wharf
2	Welcomed the project due to its potential for generation of employmen	Project proponent express thanks for welcoming the projects and stated that the current project through development, will generate employment.	Project was welcomed due to its potential for generation of employment

(xix) **If the project involves expansion copy of certified compliance report issued by concerned regional office:** Okha port was commissioned on 25th October 1925, which is prior to implementation of Environmental Protection Act (EPA) 1986 and Environmental Impact Assessment Notification (EIA) 2006. Hence the port facility does not have prior EC as on date. However, the port facility has obtained CC&A (Consolidated Consent Authorization) from GPCB and timely renewal of the same is being done, currently valid upto 20th September 2020. The consolidated CC&A with compliance is submitted.

(xx) **Whether the project involves diversion of forest land and status of application:** Not Applicable, as the proposed project does not involve the diversion of Forest land and will be developed within the existing Okha port facility.

(xxi) **Whether the project is located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc.:** Yes, the proposed project is located within 10km radius of Gulf of Kutch Marine National park and Marine Sanctuary. No project activities are proposed in the protected areas and the distance from the project boundary to protected area is 1.28km. No impact or disturbance to the protected area due to proposed project is envisaged.

(xxii) **Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC:** No, the project is located as a distance of 1.28km from the ESZ area.

(xxiii) **Waste Management:** A detailed waste management plan has been submitted for both construction and operational phase of the proposed project with consideration to the existing Okha port facility.

(xxiv) **STP details:** As part of the proposed Environmental Management Plan (EMP) a STP of 100KLD capacity is recommended to be installed to treat the sewage and waste water generated from the existing and proposed port facilities (75KLD). The treated waste water will be reused within the port for greenbelt development, sanitation facilities and dust suppression.

(xxv) **Details of tree cutting and Green belt development.:** No trees will be cut for the proposed project as the entire proposed project activities will be developed within the existing Okha Port facility. A 3-Tier

greenbelt is proposed to be developed utilizing only native species and in consultation with the forest department. Greenbelt will be developed in a total of 2.8 ha area with 5600 plantations and the fund for greenbelt development is 10 lakhs.

(xxvi) **Energy conservation measures with estimated saving.:** As part of energy conservation measures the Okha port facility will be installed with LED bulbs and Solar powered lights (300 nos.), with an estimated savings of 5% from overall energy consumption.

(xxvii) **Details of Rain Water Harvesting.:** Since the proposed project site lies across coastal plain, the possibility of implementing rainwater harvesting system within the port area is difficult due to seawater ingress/salinity intrusion in the region. Hence, detailed technical feasibility study on the hydro-geological pattern of the region shall be undertaken to explore possibility of implementing rainwater harvesting within the port premises or utilization of rain water for allied facilities within the port.

(xxviii) **Whether the project is in CRZ area: If yes, provide details of components in CRZ area, layout on CRZ map of 1:4000 scale prepared by an authorised agency and appraisal by State Coastal Zone Management Authority (SCZMA) and copy of their recommendations.:** CRZ Area details of Okha Port including existing and proposed project components based on the study by National Centre for Sustainable Coastal Management (NCSCM) which is an authorized agency for CRZ map preparation, is presented in below table:

S.No	Project Activity	Project Activity Area (Sq. Km)	Project Activity falls within CRZ Classification
1	Existing Approach Channel	0.725397	CRZ -IVA
2	Existing Okha Port Area	0.286058	CRZ III with NDZ, CRZ -IVA
3	Existing Storage area	0.177143	Out of CRZ
4	Proposed Extension of Govind Ghat	0.000616	CRZ-IB, CRZ - IVA
5	Proposed Dredging Area	0.129682	CRZ -IVA
6	Proposed ICG Jetty	0.005694	CRZ -IVA
7	Proposed reclamation of ICG Jetty	0.009112	CRZ-IB
8	Proposed reclamation of Passenger Jetty	0.011114	CRZ-IB

The layout superimposed on CRZ map of 1:4000 scale is submitted. The proposed project was appraised by the Gujarat Coastal Zone Management Authority (GCZMA) in their 47th meeting held on 03.02.2020. GCZMA issued recommendations for the proposed project on 20.05.2020 ref: No.ENV-10-2019-152-T cell.

(xxix) **Whether the project involves foreshore facilities. If yes, provide details of shoreline study, dredging details, disposal of dredge material, reclamation, cargo handling with dust control measures and oil Spill Contingent Management Plan.:** The Okha Port is located in stable coast as the shoreline status map prepared by

		NCSCM and Institute of Ocean Management (IOM), Anna University. The proposed project involves Capital dredging to a tune of 3,41,250 m^3 for berthing facility upto -8m CD, the dredge spoil will be utilized for reclamation of proposed backup area of proposed Indian Coast Guard (ICG) jetty, existing passenger jetty and in the Govind Ghat (lighter wharf) extension area. Excesses materials if any from the capital dredging will be disposed-off into the identified offshore location 22°30'33.40"N latitude and 68°54'24.52"E longitude at depth greater than -20m from msl. Maintenance dredging is proposed to a tune of 34,125 m^3 will be undertaken as on when required, the frequency of maintenance dredging is very low (every 5 years only based on requirement) and the dredge spoil will be disposed-off in the above mentioned offshore location. Based on the dredge spoil disposal study none of the disposed sediments reach the shore causing no impact to the shoreline. The detailed dredge spoil disposal study is submitted. Dust control measures for cargo handling includes mechanization of port and utilization of closed conveyor system, hopper loading with hatch and automated water sprinkler system including cargo storage yard, Dry Fog Dust Suppression (DFDS) system, truck mounted water sprinkler and fog system, wind barriers in storage yard, covering of dusty cargo with tarpaulin sheets, truck mounted vacuum for road dust removal, wetting of roads with water trucks, proposed paved roads, dedicated wheel washing facility and development of 3-tier greenbelt. In addition to the above mentioned dust control measures a detailed management plan has been prepared during both construction and operation phase of the project and presented in the EIA Report. A detailed oil spill contingency plan for Tier-1 spill has been carried out by CSIR-National Institute of Oceanography (NIO), Goa for Okha Port and the same will be utilized for proposed project also.
	(xxx)	**Brief description of Socio-economic condition of local people:** Based on Administrative Atlas published by Directorate of Census Operations, there are only about 5 Administrative divisions which include 3 revenue villages, one Municipality (Okha) and one Census Town (Mithapur) within the 10km study area. The study area is mostly dominated by the people doing fishing activities followed by trade and business. Predominant religion in the region is Hinduism followed by Islam. The Cumulative population in the study area is 75,897 with 39,166 males and 36,731 females, which is about 3.51% of the District's population. The children population below 6 years old was found to be 9,856 which were at 12.98% of the total population. The population density of the study area was about 793 per sq.km. which is exponentially high when compared to the district's Population density of 152 per sq.km. The Sex Ratio was found at 938 females per thousand males, with that of District's ratio of 939. The Vulnerable populations such as Scheduled Caste and Scheduled Tribes population were 14.4% and 0.4% respectively. The major portion of the population dependent on fishing as their main source of economic activity followed by labour works, tourism, transportation, trade and business. According to Census 2011, the major commodities handled in the study area are Raw Bauxite, Soda Ash, Salt, Cement, etc and agriculture products produced are Pearl millet, Sorghum, Groundnut, Vegetables, etc. According to Fisher folk census 2010, there are two fishing villages in the study area i.e. Okha and Arambhada with the total fishermen population 1492. Based on the primary survey about

70% of the workers employed in the fish catch are migrant workers. The migrant workers are mostly from the neighboring districts of the Gujarat State and from states like Bihar, Uttar Pradesh, Kerala, Andhra Pradesh, Tamil Nadu, etc. Within the study area agriculture is not carried out majorly as most of the study area villages are either coastal village / urban settlement. Based on the data collected from Socio-Economic Caste Census-2011, published by Ministry of Rural Development, it was reported that in Okhamandal, 61.77% of the households monthly income with highest earning household member was less than Rs.5000 and 21.14% of households with income range of Rs.5000 to Rs.10000. According to Census 2011, the percentage of working population in the study area was 29.8% and as against the state's level percentage was 40.97%. 90.39% of the working populations are main workers employed for more than 6 months in the year. Only about 2.96% of the total working population in the study area was engaged in agricultural activity. The percentage of Household and Other workers group were 1% and 96.03% respectively.

(xxxi) **Land acquisition and R&R issues involved:** The project does not involve any land acquisition and R&R as the proposed project activities will be developed within the existing port facility.

(xxxii) **Employment potential, No. of people to be employed:** The proposed project will generate direct and indirect employment in the region for about 150 people during construction phase and about 80 people during operation phase.

Employment during Construction Phase	**Nos.**	**Employment during Operation Phase**	**Nos.**
Permanent employment during construction	**30**	Permanent employment during operation	**15**
Temporary employment during construction	**120**	Temporary employment during operation	**65**
Total Manpower – 230 Nos.			

(xxxiii) **Benefits of the project: Environmental** - Development of greenbelt using only native species will enhance the ecological diversity in the area and other CSR/CER programs such as facilitation of drinking water and sanitation facilities will help the local community and reduce the pollution/stress in environment. **Social** - Dedicated berthing facility for Indian Coast Guard Vessels will be of defense and strategic importance, since Okha Port is located near to international boundaries. Reclaimed land near proposed ICG Jetty will be providing backup area for the Coast guards thereby enhances the regional security. Proposed Expansion and infrastructure in passenger jetty area will lead to social interactions and investments leads to a better social standard of people in the area. **Financial** - Proposed expansion of Okha Port will result in generation of employment both as direct and indirect forms also leading to social upliftment of people in the region. Increased cargo handling will contribute to Nation's Economy. The reclaimed area that will be utilized for beautifications purpose near passenger jetty will cause many social interactions and money inflow due the proposed activities like construction of passenger waiting hall,

recreational area etc. The additional amenities proposed will facilitate in easy commute of the tourists visiting the Beyt Dwarka temple, who board from this passenger jetty resulting in improved tourism and livelihood status.

(xxxiv) **Brief summary of specialised Studies carried out for the project as per the ToR:**

SNo	ToR Point	Remarks
1	A detailed analysis of the physicochemical and biotic components in the highly turbid water round the project site (as exhibited in the Google Map shown during the presentation), compare it with the physicochemical and biotic components in the adjacent clearer (blue) water both in terms of baseline and impact assessment and draw up a management plan	Water samples were collected from the turbid and clear water areas to analyze and compare their physicochemical and biotic components based on which impact assessment and management plan have been prepared to address the possible impacts of proposed project on the marine environment. Comparison of off-shore water with the near shore water revealed that the TVC (Total Viable Count), number of colony forming units in surface water are higher in near shore locations when compared to off-shore locations; and in bottom waters off-shore locations had higher units compared to near shore. The concentration of certain heavy metals were found to be comparatively higher in near shore than offshore locations.
2	Study the impact of dredging on the shore line	According to the shoreline change map published by NCSCM and IOM, the study area is in stable coast and the previously executed maintenance dredging (frequency of 5 years done only as and when required) has induced no impact on the shoreline. The quantity of dredging is very less causing no significant change in the hydrodynamics of the region. Based on the sediment disposal modelling study none of the sediments reach the shoreline hence, no impact on the shoreline is envisaged due to dredging.
3	A detailed impact analysis of rock dredging	No blasting is proposed. Migration of species is envisaged due to noise generation form dredging operations. Temporary change in marine water quality is envisaged. Cutter suction dredger will used for dredging operations to minimize the impacts.
4.	Dispersion modelling for the dumping of the dredge materials shall be carried out. The study report shall be incorporated	The dredge spoil from the proposed capital dredging will be entirely utilized for reclamation of backup area for existing passenger jetty, proposed ICG jetty and lighter wharf extension area within the port area based on sediment characteristics and excess materials if any will be disposed in the identified

				offshore location. Only the entire maintenance dredging (done as and when required) spoil will be disposed of into the sea at 22°30'33.40"N latitude and 68°54'24.52"E longitude with depth greater that 20m from msl. Based on the dredge disposal study, none of the disposed sediments reach the shore envisaging no impact on the shoreline.
		5	The Marine biodiversity impact assessment report and management plan through the National Institute of Oceanography (NIO) or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity. The report shall study the impact on project activities on the intertidal, biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds, etc as also the productivity. The data collection and impact assessment shall be as per standards survey methods.	Gujarat Institute of Desert Ecology(GUIDE) has conducted an intensive study on biodiversity impact assessment in the study area to access the possible impacts that may be caused due to the proposed project activities on various biological species like, corals, molluscs, sea grasses and fish communities, etc. The biodiversity impact assessment report and management plan has been prepared and incorporated in the EIA report. Upon implementation of proposed mitigation measures and management plan minimal impact on the environment is envisaged. Species have the tendency to regain to baseline condition upon completion of project activities.
		6.	Examine and submit the water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, quality, likely impacts on them due to the project.	There are no water bodies within or near the project area except Gulf of Kutch but the water bodies within the study area were considered for analysis for their physic-chemical and biological parameters and presented in the baseline study.
		7.	Examine road / rail connectivity to the project site and impact on the existing traffic network due to the proposed project / activities. A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.	Okhamandal tehsil has good road and rail connectivity with broad gauge rail system that reaches upto Okha town. State Highway (SH–6A) is the major state road connectivity for the port, and other road network through which the port transports its cargo. A detailed traffic assessment study has been carried out and the study results indicate that the existing road is adequate to handle the existing and proposed traffic and no additional roads will be required
		8	Submit the details of fishing activity and likely impacts on the fishing	The study area is one of the major fish landing center in the region, detailed analysis of potential impact on fishing

			activity due to the project. Specific study on effects of construction activity & pile driving on marine life	activities due to the proposed project activities have been conducted. The benthic communities in the dredging and disposal area have the tendency to rejuvenate back to the baseline conditions, species will migrate to adjacent undisturbed area during construction activities and will regain their baseline conditions upon completion of project activities.
		9	Details of oil spill contingency plan	A detailed oil spill contingency plan for Tier-1 spill has been carried out by CSIR-National Institute of Oceanography (NIO), Goa for Okha Port and the same will be utilized for proposed project also.
		10	Details of bathymetry study	Detailed Bathymetry study for the study area has been carried out by GMB
		11	Details of ship tranquility study	Will be undertaken during the detailed engineering phase of the project.
		12	Examine baseline environment quality along with projected incremental load due to the proposed project / activities.	The baseline environmental quality is assessed for the 10 km radius study area for various environmental parameters such as air, noise, water, soil, land, marine environment, ecology and socio-economic environment. The impacts on the surrounding environment due to the proposed activities have been identified through modelling studies and the results are presented in the EIA Report.
	(xxxv) **Details of Court cases:** No court cases are pending against the Okha Port facility and hence, Not Applicable.			
3.4.2	The EAC, after examining the documents submitted by the project proponent and detailed deliberations during its 241st meeting on 25-26 August, 2020, **recommended** the proposal for grant of **Environmental and CRZ Clearance**, with the specific conditions, as mentioned below in this para, in addition to all standard conditions applicable for such projects: (i) The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes as applicable to the project. (ii) The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC. (iii) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area. (iv) All the recommendations and conditions specified by the Gujarat Coastal Zone Management Authority (GCZMA) vide letter No. ENV-10-2019-152-Tcell			

	dated 20th May, 2020 shall be complied with. (v) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase. (vi) Dredging shall not be carried out during the fish breeding season. Dredging, etc. shall be carried out in confined manner to reduce the impacts on marine environment. As committed, Silt curtains shall be used to minimize spreading of silt plume during dredging operation. Turbidity should be monitored during the dredging using online monitoring system. No removal of silt curtain unless baseline values are achieved. (vii) Wherever possible, dredged material shall be used for bank nourishment. With the enhanced quantities, the impact of dumping on the estuarine environment should be monitored and necessary measures shall be taken on priority basis if any adverse impact is observed. (viii) An independent monitoring be carried out by any Government Agency/Institute to evaluate the impact during dredging. Impact of dredged material on estuarine environment along with shore line changes should be monitored by the PP and necessary mitigation measures be taken in case any adverse impact is observed. The details shall be submitted along with the six-monthly monitoring report (ix) Marine ecological studies and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given in the EIA-EMP Report shall be complied with in letter and spirit. (x) A copy of the Marine and riparian biodiversity management plan duly validated by the State Biodiversity Board shall be obtained and implement in letter and spirit. (xi) Sewage generated will be treated in STP of 100 KLD capacity. The treated water will be used for flushing, gardening and dust suppression within the port premises. (xii) A continuous monitoring programme covering all the seasons on various aspects of the estuarine and inter-tidal areas of Okha environs need to be undertaken by a competent universities available in the State or by entrusting to the National Institutes/renowned Universities/accredited Consultant with rich experiences in marine science aspects. The monitoring should cover various physico-chemical parameters along with PHC coupled with biological indices such as microbes, plankton, benthos and fishes on a periodic basis during construction and operation phase of the project. Any deviations in the parameters shall be given adequate care with suitable measures to conserve the marine environment and its resources. Adequate funds be allocated for the same. (xiii) Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance report to the regional office of MoEF&CC. (xiv) The actions shall be in accordance with proposed landscape planning concepts to minimise major landscape changes. The change in land use pattern shall be limited to the proposed port limits and be carried out in such a

	way as to ensure proper drainage by providing surface drainage systems including storm water network. (xv) Suitable preventive measures be taken to trap spillage of fuel / engine oil and lubricants from the construction site. Measures should be taken to contain, control and recover the accidental spills of fuel during cargo handling. (xvi) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report. (xvii) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013. (xviii) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 1st May, 2018, project proponent has proposed that an amount of Rs. 2.12 Crores (computed on slab basis for the project cost of Rs. 107.76 Crores) shall be earmarked under Corporate Environment Responsibility (CER) Plan with special focus on providing healthcare facilities to the government hospitals in light of COVID 19 pandemic. A small portion of the fund can also be used for the activities such as Health, Water supply, Sanitation, Road development, Solar lights in nearby areas and Education etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.
3.5	**Expansion of Existing Jetty for Additional Cargo Handling and Isolated Storage Facilities including the Conveying Pipelines at Existing GSFC Sikka, Jamnagar, Gujarat by M/s Gujarat State Fertilizers & Chemicals Limited – Environmental and CRZ Clearance.** **[Proposal No. IA/GJ/MIS/647/2012] [File No. 11-90/2012-IA.III]**
3.5.1	The project proponent along with the EIA consultant M/s Eco Chem Sales & Services, made a presentation through Video Conferencing and provided the following information: (i) **Brief description of the Proposal:** The proposal is expansion of existing, construction of additional jetty for additional liquid and solid bulk cargo handling and isolated storage facilities including the conveying pipelines. After expansion Cargo handling of liquid bulk will be from 1.315 MMTPA to 3.5MMTPA and solid bulk to 3.225 MMTPA. The Jetty expansion, dredging and New Approach trestle will be outside ESZ, MNP, MS and MF. Laying of Pipelines will be within Denotified Forest land available to GSFC. (ii) **Nature of project (New/Expansion/Amendment/Extension etc.):** This expansion project at jetty area covers extension of existing liquid cargo handling Jetty, Addition of New solid cargo handling Jetty in line with existing jetty, New approach trestle, Laying of liquid cargo pipelines on existing pipeline rack, Laying of pipe conveyor belts on new structure of existing land for dry bulk, Night navigation and unloading facility for dry bulk and Sulphuric Acid storage tanks at Sikka Shore Terminal(SST), Warehouse and storage sheds for solid cargo at Chemical Storage Terminal (CST), Laying of pipelines from storage

terminals (SST&CST) to manufacturing unit (Motikhavdi) & Motikhavdi to CST& Wet grinding facilities of Rock Phosphate at CST.

(iii) **Whether the proposal was considered in earlier meetings of EAC:** No.

(iv) **Address of project site (Plot No./Village/ Tehsil/ District/State):** Survey No. 57,427 & 429 (Older Plot No. 167/2, & 167/1) Sikka Port, Sikka Jamnagar Gujarat.

(v) **Geo-coordinates of project site:**

Code	Activity	Sub-Code	Latitude	Longitude
1	Proposed New Approach Trestle	A	22°27'31.48"N	69°47'50.70"E
		B	22°27'31.11"N	69°47'50.79"E
		C	22°27'25.45"N	69°47'53.85"E
		D	22°27'25.62"N	69°47'54.55"E
2	Existing Jetty	E	22°27'25.59"N	69°47'52.03"E
		F	22°27'25.50"N	69°47'51.48"E
		G	22°27'23.90"N	69°47'51.84"E
		H	22°27'24.06"N	69°47'52.43"E
3	Extension of Existing Jetty	I	22°27'25.98"N	69°47'52.01"E
		J	22°27'25.78"N	69°47'51.10"E
		K	22°27'23.57"N	69°47'51.65"E
		L	22°27'23.76"N	69°47'52.60"E
4	Existing Dolphins	M	22°27'28.51"N	69°47'51.52"E
		N	22°27'27.10"N	69°47'51.89"E
		O	22°27'22.66"N	69°47'53.06"E
		P	22°27'21.18"N	69°47'52.97"E
5	Proposed Four New Dolphins in existing jetty	Q	22°27'27.71"N	69°47'51.89"E
		R	22°27'29.08"N	69°47'51.22"E
		S	22°27'21.77"N	69°47'53.12"E
		T	22°27'20.32"N	69°47'53.24"E
6	Proposed New Jetty	U	22°27'30.95"N	69°47'50.83"E
		V	22°27'30.73"N	69°47'49.82"E
		W	22°27'39.30"N	69°47'47.64"E
		X	22°27'39.53"N	69°47'48.69"E
7	Dredging in front of existing Jetty	Y	22°27'24.53"N	69°47'50.49"E
8	Dredging in front of new Jetty	Z	22°27'34.87"N	69°47'47.99"E
9	Turning Circle	TA	22°27'53.07"N	69°47'43.53"E
		TB	22°27'49.46"N	69°47'38.40"E
		TC	22°27'42.82"N	69°47'37.94"E
		TD	22°27'39.30"N	69°47'47.64"E
		TE	22°27'39.53"N	69°47'48.69"E
		TF	22°27'46.98"N	69°47'52.73"E
10	Dredging in Navigation channel	NA	22°28'56.37"N	69°47'21.73"E
		NB	22°28'56.37"N	69°47'27.44"E
		NC	22°27'53.07"N	69°47'43.53"E
		ND	22°27'49.46"N	69°47'38.40"E
11	Existing & Proposed Pipeline for Liquid Material	PA	22°27'24.83"N	69°47'52.37"E
		PB	22°27'29.99"N	69°48'15.34"E
		PC	22°26'48.32"N	69°49'58.45"E

12	Proposed Pipe Line for Solid Material	PD	22°27'25.89"N	69°47'55.57"E
		PE	22°27'30.20"	69°48'15.35"E
		PF	22°26'48.70"N	69°49'58.50"E

Chemical Storage Terminal (CST) & Sikka Shore Terminal (SST):

Code	Activity	Latitude	Longitude
13	Sulphuric Acid Tanks at Sikka Shore Terminal (SST)	22°26'35.92"N	69°50'2.8 "E
14		22°26'29.08"N	69°50'5.64"E
15	Methanol, Benzene, EDC and Cyclohexanone storage tanks at Chemicals Storage Terminal (CST)	22°26'38.23"N	69°50'17.44"E
16	Wet Grinding Unit at Chemicals Storage Terminal (CST)	22°26'36.06"N	69°50'29.37"E
17		22°26'35.38"N	69°50'14.95"E
18	Warehouse of Rock Phosphate and Fertilizers at Chemical Storage Terminal (CST)	22°26'33.72"N	69°50'16.13"E

(vi) **Area (ha)/Length (km) of the proposed project:** Area for CST & SST: 56.0100 ha.in the existing land Distance from Jetty to CST & SST: 4.5 kms.

Jetty Details:

S.No	Particulars	Existing Structure	Extension/ Additional Structure	Remarks
A	**Bulk Liquid Cargo Handling Jetty**			
1	Platform	48.8 m × 18.5 m	70 m × 27.25 m	Existing platform will be extended
B	**Bulk Solid Cargo Handling Jetty**			New facility
1	Platform	--	270 m × 30 m	
2	Concrete Approach	--	8 m x 200 m	
C	**Navigation Channel**	Width: 120 m Depth: -11.5 m Turning Circle diameter: 400 m Turning Circle depth: -10 m	Width: 168 m Depth: -14.5 m Length:2000 m Turning Circle diameter: 440 m Turning Circle depth: -14.8 m	

(vii) **Connectivity to the site:**

- **Road:** SH-92 at 1.27 km towards S and SH-6: 8.2 km towards S connecting to National Highway.
- **Railway Station**: Sikka Railway Station: 3 kms towards S and Jamnagar Railway Station: 25 kms towards E.
- **Airport:** Jamnagar Airport: 25 kms towards E.

(viii) **Investment/Cost of the project:** Rs.775 Crore.

(ix) **Item of Schedule to the EIA Notification, 2006:** As per TOR, the proposed project is covered under 7 (e) "Ports, harbor, break waters, dredging", 6(a) "Oil and Gas Transportation Pipeline", 6 (b) "Isolated Storage and Handling of Hazardous Chemicals", Category A. Now as per S.O 1960 E, dated 13th June, 2019, Item 6 (b) "Isolated Storage and Handling of Hazardous Chemicals", Category A is omitted from the EIA Notification.

(x) **Landuse/Landcover of project site in tabular form:**

S. No	Landuse/Landcover	Area (Ha.)	Percentage (%) of total Land
1	SST Area (Internal roads connecting to terminal)	13.0975	23.38%
2	CST Area (Internal roads connecting to terminal & STP)	17.5825	31.39%
3	Green Belt at CST & SST	18.5000	33.03%
4	Open Land at CST & SST	6.8300	12.19%
Total Land at SST & CST		**56.0100**	**100.00%**

(xi) **Landuse/Landcover around 10 km radius of project site (1 km in case of Highway projects):** The area surrounding the project site is largely a Range Land like Open Scrub, Reed Grass, Mangroves and Scrub Land are covering around 7.09%, 14.16%, 8.30% and 7.21% respectively of the total study area. Water body like Pond, Shallow Sea, Sea Water and Salt Pan are covering around1.04%, 4.88%, 22.69% and 5.33% respectively. Waste Land like Barren Land and Mud are covering around6.86 % and 10.25% respectively of the total study area. Agriculture Land like Fallow Land and Crop Land are covering around 4.58% and 3.15% respectively of the total study area. Settlement is covering around 3.91 % and Reserve Forest is covering around 0.96 % of the total study area.

(xii) **Terrain and topographical features:** The site terrain is mainly flat alluvial black coastal soil. The nature of soil is alkaline. The topography of the area is flat and plain and presence of marshy land.

(xiii) **Details of water bodies, impact on drainage, if any:**

- **Nearest Ponds**: Motikhavdi Pond- 8.5 kms towards S & Vadinar Pond- 10.4 kms towards SW
- **Nearest River**: Sasoi river 9.33 kms towards SW & Fuljari River- 9.02 kms towards SE

No impact on surface drainage as there is no waste water generation or discharge from the proposed project.

(xiv) **Water requirements, sources (during construction and operation phases) and NOC:** The total water requirement is 2694 KLD which will be sourced from Jamnagar Municipal corporation and/or Gujarat Water Infrastructure Ltd. Assurance letter from GWIL has been obtained vide

		letter No. GWIL/JAM/2018/254 dated 20.03.2018.
	(xv)	**Groundwater extraction/usage and NOC/Clearance from CGWA/State Ground Water Department:** Not Applicable as there is no groundwater extraction.
	(xvi)	**Whether the project is in Critically Polluted area:** No.
	(xvii)	**ToR details:** ToR was granted by MOEFCC (IA.III Section) dated 14th June 2018 vide F.No. 10-22/2018-IA-III.
	(xviii)	**Public Hearing Details and Summary of issues raised and response/commitments by Proponent:** Not Applicable as the site is located in Notified Industrial area of GIDC Sikka.
	(xix)	**If the project involves expansion copy of certified compliance report issued by concerned regional office:** Yes, it involves expansion. Certified compliance report is obtained from MOEFCC, RO Bhopal vide File No. 5-53/2014 (Env)/628, dated 16.11.2018 and copy is included in EIA report.
	(xx)	**Whether the project involves diversion of forest land and status of application:** No. Project activities will be within the Denotified Forest land available to GSFC.
	(xxi)	**Whether the project is located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc.:** • Yes the project is located within 10 Km radius of Marine Forest, Marine Sanctuary and Marine National Park. • GSFC has already obtained NOC from Wildlife and Forest as the project site falls under MNP, MS and MF and proposed activities will be carried out within denotified forest land available with GSFC.
	(xxii)	**Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC:** • Yes, the project passes from ESZ and NOC for the same has been obtained from Forest and Wildlife department and proposed activities will be carried out within denotified forest land and permissible to use wildlife area available with GSFC. • GSFC has obtained NOC from Wild Life department for carrying out proposed project activities. All activities will be carried out within de-notified land. No new land will be acquired for proposed expansion.
	(xxiii)	**Waste Management:** • **Used Oil:** Collection, Storage, transportation and disposal by selling to registered recyclers • **Discarded bags/ Containers**: Collection, Storage, transportation and disposal by selling to registered recyclers • **Oil Contaminated Cotton Waste**: Collection, Storage, transportation and disposal at CHWIF of SEPPL • **Oil Containing Cargo Residue**: Collection, Storage, transportation and disposal at CHWIF of SEPPL.

(xxiv) **STP details:** A 50 KLD of STP is proposed to treat the 42.4 KLD sewage water.

(xxv) **Details of tree cutting and Green belt development.:** No trees cutting will be done. 33.03% Greenbelt will be developed in 185000 m2 area.

(xxvi) **Energy conservation measures with estimated saving.:** Following energy conservation measures will be undertaken:

- Employing renewable energy sources such as day lighting and passive solar heating;
- Using energy efficient electrical appliances;
- Installing lighting control devices where appropriate and linking to photoelectric dimming;
- Switching off truck engines while they are waiting to access the site and while these are waiting to be loaded and unloaded;
- Throttling down and switching off idle equipment;
- Regular maintenance of all powered equipment to ensure appropriate fuel consumption rates.

(xxvii) **Details of Rain Water Harvesting.:** Rain water harvesting is not feasible at the project site as the soil is saline, however RWH will be done by periodically di-silting of ponds in nearby villages.

(xxviii) **Whether the project is in CRZ area: If yes, provide details of components in CRZ area, layout on CRZ map of 1:4000 scale prepared by an authorised agency and appraisal by State Coastal Zone Management Authority (SCZMA) and copy of their recommendations.**

- Yes the project site in located in CRZ-IVB (Creek), CRZ-II, CRZ-IB and CRZ-IA.
- The Superimposition of Project site is done on CRZ map prepared by authorized agency Anna University and included in EIA report.
- *CRZ is recommended by SCZMA vide* letter No. ENV-10-2018-128-T-Cell dated June 18, 2020 and included in EIA report.

(xxix) **Whether the project involves foreshore facilities. If yes, provide details of shoreline study, dredging details, disposal of dredge material, reclamation, cargo handling with dust control measures and oil Spill Contingent Management Plan.:** Yes following are the foreshore activities:

- Extension of Existing liquid cargo handling berth
- Addition of New solid cargo handling berth in line with existing jetty
- Breasting and Mooring points (Dolphins)
- New approach trestle
- Laying of liquid bulk pipelines on existing pipeline rack
- Laying of pipe conveyor belts on new structure of existing land for dry bulk
- Night navigation

- Unloading arm
- Unloading facility for dry bulk

Shoreline Study: Sikka coast is stable and there are no accretion or erosion impacts on the shoreline as per the Status of Shoreline change map prepared by Institute of Ocean Management Anna University.

Dredging Details:

DREDGING AREA	EXISTING DEPTH AVAILABLE	PROPOSED DEPTH REQUIRED	REMARKS	Area in Ha.
Liquid Cargo Handling Berth	11.5 m	14.5 m	--	1.32 Ha
Solid Cargo Handling Jetty	10 m	14.8 m	Existing Turning circle region will be used for proposed jetty	1.32 Ha
Proposed Turning Circle & Navigational Channel	Navigation Channel: 11.5 m Turning Circle depth: -10 m	Navigation Channel: 14.5 m Turning Circle depth: 14.8 m	Existing Navigation channel region will be used partly for proposed turning circle and navigation channel	34.6 Ha (0.06 Ha.+34Ha.)

Disposal of Dredged Material: Disposal of dredged material will be done in designated dredged disposal area of 1 km x 1 km into deep sea located 25 kms away from the Jetty and 12 km away from the nearest shoreline.

Dust Control Measures: As dust control measures Solid Cargo Handling will be done through close pipe conveyor belts.

Oil Spill/Chemical Contingent Management Plan: The proposed project does not envisage handling of bulk oil cargo. The liquid Cargo will handle chemicals like Benzene, Methanol, Cyclohexanone and EDC and Solid Cargo will handle Rock Phosphate and Fertilizers. The Chemical spill could occur due to various reasons at Jetty, approach channel etc. The spills beyond these areas are not covered in this plan. The proposed project does not include handling of crude oil hence oil spill is envisaged only from fuels in engine rooms mixed with water on ship board. Spill control procedures will be followed.

Leak during Cargo Transfer Operations: During cargo transfer operation chemical spill can occur either on the shore side or the ship side due to leakage from flange joints, rupture of hose, etc. Most of these leaks will be minor in nature due to the various safety interlocks/ other features provided in the design. Further during cargo transfer operation supervision by operating personnel is also carried out.

Management Plan:

- The loading arms will be provided with Powered Emergency Release Coupler (PERC) to avoid possibility of leak/Spill.

- The loading arms will be equipped with Emergency Shut Down Systems (ESDS) to stop all the cargo operations, in case of any emergency or rough weather.
- Joints at loading arms, hoses will be periodically checked for leakage
- All Hydrocarbon drains will be provided with Plug
- Trained and competent manpower deployed round the clock.
- Pipe conveyor belt, which is a closed system will be provided to avoid to falling of materials into sea.
- Continuous surveillance of conveying system will be carried out through CCTV during transfer of materials from jetty to storage area.
- Belt Tear Detector will also be provided which immediately detects conveyor belt tear accident and stop conveyor belt.

Spill during Berthing / Collision: During berthing operation damage to the ship can occur due to contact with tugs, jetty or other ship due to improper handling or machinery failure, leading to leakage of cargo. The quantity of spill will depend on the nature of / extent of damage.

- The controls imposed on ship movements within the terminal area are designed to ensure that any risk of collision is eliminated. For example, inward / outward bound ships will have sole occupancy of the approach channel to the jetty berths.

(xxx) **Whether the project involves Marine disposal: If yes, the provide copy of NOC from Pollution Control Board in case of marine disposal, details of modelling study – details of outfall diffusers, number of dilutions expected, distance at which the outlet will reach ambient parameters, location of intake/outfall, quantity, and detail of monitoring at outfall.:** Yes, the dredged material will be disposed at existing designated dredged disposal area which is approved by Gujarat Maritime Board. Modelling studies were carried out for sediment dispersion due to dredge disposal.

(xxxi) **Brief description of Socio-economic condition of local people:** People in the study area engaged as cultivators, agriculture, labourer in livestock, forestry, fishing, mining and quarrying, manufacturing, processing and repairs in industries.

(xxxii) **Land acquisition and R&R issues involved:** There is no new land acquisition and R&R is not applicable.

(xxxiii) **Employment potential, No. of people to be employed:** Approx 500 people will get direct employment during the construction phase and Approx. 100 people will get direct and indirect employment during the operational phase.

(xxxiv) **Benefits of the project:**

- Essential commodity fertilizer will be reaching to consumer through ***Make in India*** concept.
- Jetty in the state is the beneficial outlook that will provide smooth traffic handling and more trade opportunities to the region, state and country at large.
- Nearby villages will be benefitted from the proposed CER

	activities for upliftment the conditions of the people in study area like Installation of RO Plant for Drinking Water system & di-silting of ponds, Solar Light, Installation of Toilet Blocks, Medical Camps, Veterinary camp, Ambulance operation & fuel, Identifying & Providing Iron deficiency tables to Anaemic girls, Repairing structurally deformed Schools & Classes & Development of school playgrounds, Renovation of Anganwadis, Providing books, scholarships, uniforms, sports equipments and stationeries to School. • Surrounding villages will also be benefitted under Ongoing CSR activities. • Employment will be generated for local people directly and indirectly. (xxxv) **Brief summary of specialised Studies carried out for the project as per the ToR:** Bathymetry, Ship tranquillity and Sediment Dispersion studies. (xxxvi) **Details of Court cases:** No court cases.
3.5.2	The EAC, after examining the documents submitted by the project proponent and detailed deliberations during its 241st meeting on 25-26 August, 2020, **recommended** the proposal for grant of **Environmental and CRZ Clearance**, with the specific conditions, as mentioned below in this para, in addition to all standard conditions applicable for such projects: (i) The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes as applicable to the project. (ii) The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC. (iii) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area. (iv) All the recommendations and conditions specified by the Gujarat Coastal Zone Management Authority (GCZMA) vide letter No. ENV-10-2018-152-128- T cell dated 18th June, 2020 shall be complied with. (v) The project proponent shall comply with the air pollution mitigation measures as submitted. (vi) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase. (vii) All mechanical handling systems, manifolds should be as per safety standards. Since, the products are of highly hazards in nature, SCADA or similar online monitoring to detect leaks pipelines, unloaders should be

	established for timely action in case of accidental leaks. (viii) Dredging shall not be carried out during the fish breeding season. Dredging, etc. shall be carried out in confined manner to reduce the impacts on marine environment. As committed, Silt curtains shall be used to minimize spreading of silt plume during dredging operation. Turbidity should be monitored during the dredging using online monitoring system. No removal of silt curtain unless baseline values are achieved. (ix) Wherever possible, dredged material shall be used for bank nourishment.. With the enhanced quantities, the impact of dumping on the estuarine environment should be monitored and necessary measures shall be taken on priority basis if any adverse impact is observed. (x) An independent monitoring be carried out by any Government Agency/Institute to evaluate the impact during dredging. Impact of dredged material on estuarine environment along with shore line changes should be monitored by the PP and necessary mitigation measures be taken in case any adverse impact is observed. The details shall be submitted along with the six-monthly monitoring report (xi) Marine ecological monitoring and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given in the EIA-EMP Report shall be complied with in letter and spirit. (xii)A copy of the Marine and riparian biodiversity management plan duly validated by the State Biodiversity Board shall be obtained and implement in letter and spirit. (xiii) Sewage generated will be treated in STP of 50 KLD capacity. The treated water will be used for flushing, gardening and dust suppression within the port premises. (xiv) A continuous monitoring programme covering all the seasons on various aspects of the marine and coastal environs need to be undertaken by a competent universities available in the State or by entrusting to the National Institutes/renowned Universities/accredited Consultant with rich experiences in marine science aspects. The monitoring should cover various physico-chemical parameters along with PHC coupled with biological indices such as microbes, plankton, benthos and fishes on a periodic basis during construction and operation phase of the project. Any deviations in the parameters shall be given adequate care with suitable measures to conserve the marine environment and its resources. (xv) A specific study on monitoring impacts on the coral reefs in the 3 km vicinity of the projects must be undertaken by a reputed university from the state. Adequate funds be allocated for the same. Suitable mitigation measures may be developed in case any impacts are noticed in consultation with Chief Wildlife Warden of the state. (xvi) Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance report to the regional office of MoEF&CC. (xvii) The material recovered from the cutting activity shall be used for filling low-lying areas within the project boundaries. The actions shall be in accordance with proposed landscape planning concepts to minimise major

	landscape changes. The change in land use pattern shall be limited to the proposed port limits and be carried out in such a way as to ensure proper drainage by providing surface drainage systems including storm water network. (xviii) Suitable preventive measures be taken to trap spillage of fuel / engine oil and lubricants from the construction site. Measures should be taken to contain, control and recover the accidental spills of fuel during cargo handling. (xix) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report. (xx) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013. (xxi) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 1st May, 2018, project proponent has proposed that an amount of Rs. 8.75 Crores (computed on slab basis for the project cost of Rs. 775 Crores) shall be earmarked under Corporate Environment Responsibility (CER) Plan with special focus on providing healthcare facilities to the government hospitals in light of COVID 19 pandemic. A small portion of the fund can also be used for the activities such as Health, Water supply, Sanitation, Road development, Solar lights in nearby areas and Education etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.
4.1	**Development of Vadodara Mumbai Expressway (Phase-II) from km 26.320 to km 104.700 (km 390.864 of NH-8) of main Expressway in the State of Maharashtra by M/s National Highways Authority of India – Environmental and CRZ Clearance** **[Proposal No. IA/MH/MIS/156726/2020] [File No. 10-80/2016-IA.III]**
4.1.1	The project proponent along with the EIA consultant M/s Intercontinental Consultants and Technocrats Pvt. Ltd, made a presentation through Video Conferencing and provided the following information: (i) **Brief description of the Proposal:** NH-48 (old NH-8) is the only National Highway which connects Delhi to Mumbai. Present traffic on NH-48 exceeds the capacity of 6 lane highway and leads to huge congestion; increase in pollution, vehicle operating cost & travel time. Further widening of NH-48 is not viable. To cater the present & predicted traffic and rapid economic development taking place in the States of Gujarat and Maharashtra, construction of Vadodara Mumbai Expressway (VME) along with SPUR is envisaged. The proposed VME has been divided into three phases for implementation. The proposed project is the development of 8 lane access-controlled green-field Vadodara Mumbai Expressway (Phase-II) starts at proposed chainage 26+320 (revised to 26+582) and ends at proposed chainage 104+700 [km 390+864 of new NH-48 (old NH-8)] in the state

of Maharashtra. Total length of VME (Phase-II) is 78.118 km and right of way is 100 m in general. At interchanges, highway amenities, truck parking additional land shall be required as per actual design. 8 major bridges, 29 minor bridges, 133 culverts, 2 interchanges, 4 fly-overs, 8 vehicular underpasses, 3 vehicular overpasses, 22 light vehicular underpasses, 50 cattle underpasses, toll plaza at 2 locations, truck parking and way side amenities are also proposed along the expressway.

(ii) **Address of project site (Plot No./Village/ Tehsil/ District/State):** The expressway starts at proposed chainage 26+582 (at Koshimb village of Vasai Taluka) and ends at proposed chainage 104+700 [km 390+864 of new NH-48 (old NH-8)] at Ibhadpada village of Talasari Taluka in the state of Maharashtra. Total length of expressway (Phase-II) is **78.118 km**. The proposed alignment is passing through 51 villages in 4 talukas (Vasai, Palghar, Dahanu and Talasari) of Palghar district in the state of Maharashtra.

(iii) **Geo-coordinates of project site:**

Description	**Coordinates**
Starting Point of proposed expressway (Ch. 26+582)	19°29'19.5"N, 72°52'58.8"E
End Point of proposed expressway (Ch. 104+700)	20° 9'2.4"N, 72°54'55.7"E

(iv) **Connectivity to the site:** It's a linear project and the proposed alignment is passing through 51 villages in 4 talukas (Vasai, Palghar, Dahanu and Talasari) of Palghar district in the state of Maharashtra. The start point of the expressway is about 1.8 km away from NH-48 (old NH-8). Mira Bhayandar is the major nearest railway station and distance is 22 km. However, many small railway stations fall in the area along project corridor. Chhatrapati Shivaji Airport, Mumbai is the nearest airport and distance is 67 km.

(v) **Investment/Cost of the project:** Total Project Cost is Rs, 7,101 Cr.

(vi) **Item of Schedule to the EIA Notification, 2006:** 7 (f) Highways.

(vii) **Why appraisal/ approval is required at the Central level:** The proposed project is a green field expressway. As per the EIA Notification, 2006 and its subsequent amendments, it is a category **"A"** project and Environmental and CRZ Clearance is requiredfrom the EAC of MoEF&CC. The proposed expressway crosses Vaitarna River with CRZ categories CRZ I, II, III and IV. Hence, CRZ Clearance is required from Maharashtra Coastal Zone Management Authority (MCZMA) and MoEF&CC.

(viii) **Landuse/Landcover of project site in tabular form:**

S. No.	Land-use / Land-cover	Area (ha)	%	Remarks
1	Agriculture Land	678.87	73.13	-
2	Open Scrub	124.49	13.41	-
3	Barren Land	60.17	6.48	-

4	Reserved Forest	25.16	2.71	-
5	Surface Water Bodies	19.63	2.12	-
6	Settlement	12.67	1.37	-
7	Mangrove Forest	3.31	0.36	-
8	Open Mixed Forest	2.22	0.24	-
9	Mudflats	1.4	0.15	-
10	Marshy Land	0.36	0.04	-

(ix) **Landuse/Landcover around 10 km radius of project site:**

S. No.	Land-use / Land-cover	Area (ha)	%	Remarks
1	Agriculture Land	1461.1861	48.27	-
2	Reserved Forest	950.1328	31.39	-
3	Settlement (Urban and Rural)	176.5207	5.83	-
4	Surface Water Bodies	110.7939	3.66	-
5	Marshy Land	85.2852	2.82	-
6	Open Scrub	77.8445	2.57	-
7	Open Mixed Jungle	55.2606	1.83	-
8	Industrial Area	33.4404	1.1	-
9	Mangrove Forest	25.835	0.85	-
10	Salt Pan	21.5732	0.71	-
11	Barren Land	19.2519	0.64	-
12	Mudflats	10.2007	0.34	-
	Total	**3027.325**	**100**	

(x) **Right of Way (RoW) in case of Highway projects only:** The proposed right of way is 100 m / 120 m in general. At interchanges, highway amenities, truck parking additional land shall be required as per actual design Terrain and topographical features.

(xi) **Terrain and topographical features:** The proposed alignment is located in the coastal plain of the Palghar district and passes through mainly plain terrain except for a few stretches where it passes through rolling terrain with elevation varies from about 3 m to 113 m above MSL (river bed elevation -15m).

(xii) **Details of water bodies, impact on drainage, if any:** ***Details of water bodies:*** The alignment of the proposed greenfield expressway crosses many river, canal and nala en-route, which have been presented in Table-1.

List of River, Canal and Nala Crossings en-route

Sl. No.	Proposed Chainage	Name of River/ Canal	Village
1	31+300	Vaitarna Crossing-1	Wadhiv Saravali

2	35+725	Vaitarna Crossing-2	Sonave
3	42+858	Canal	Navje
4	43+725	Canal	Sakhare
5	45+040	Vaitarna Crossing-3	Khamloli
6	60+712	Canal	Lalonde
7	62+421	Canal	Kirat
8	65+134	Canal	Ravte
9	68+420	Surya River	Dhabon
10	72+190	Suseri Nalla	Dhabon
11	76+037	Canal	Chandwad
12	89+604	Jogani River	Chinchale
13	93+650	Canal	Vankas
14	94+491	Canal	Vankas
15	96+208	Vadvali / Tumb River	Vankas

Drainage & Hydrological Flow:

- To minimize the impact drainage & hydrological flow, 8 major bridges, 29 minor bridges, 133 culverts are proposed to be constructed along the expressway. It has been ensured that free flow of water is maintained wherever the expressway alignment crosses river / local streams / nallah etc.
- It has been ensured that all the 1st and 2nd order streams crossing the proposed expressway alignment provided with necessary culverts, mirror bridges and major bridges **with capacity of 20% excess discharge**.
- 4 ponds are coming within proposed RoW at Chainage 27+750, 32+200, 32+400 and 41+200. Pond at chainage 27+750 has been saved by providing major bridge. Ponds at chainage 32+200 and 41+200 have been saved by providing minor bridges. Further, pond at chainage 32+400 is located within the proposed RoW but outside the work zone. Toe wall has been proposed at the location to save the pond. Hence, there will be no impact on ponds.
- Shoulder and toe drains shall be provided along the expressway to facilitate its better maintenance and increase in the life of the carriageway. This will also help in avoiding soil erosion and land degradation due to water stagnation on the either side of the expressway.
- All bridges have been designed for a return period of 100 years and culverts have been designed for a return period of 50 years.
- Construction works of culverts and bridge (cross drainage structures) are taken up during the lean flow periods in summer to minimize the impacts on drainage.

- Suitable drainage at construction camp will be provided to eliminate the chances of formation of stagnant water pools that leads to soil erosion & breeding of mosquitoes.

(xiii) **Water requirements, sources (during construction and operation phases) and NOC:**

Breakup of Fresh Water Requirement during Construction

S. N	Purpose	Unit	Quantity
1	For road construction:		
	a) Construction related to earthwork	KL	45,00,000.00
	b) Construction related to Fly Ash		
	c) Construction of GSB		
	d) Construction of WMM		
	e) Bridges, culverts, retaining walls & other structures		
2	Dust suppression	KL	5,00,000.00
3	For drinking & other domestic purpose	KL	10,00,000.00
	Total		**60,00,000.00**

Operation Phase: During the operations phase the water would be required primarily for domestic use at the toll plaza and landscaping.

(xiv) **Whether the project is in Critically Polluted area:** No.

(xv) ToR details:

- Form-1 was uploaded through online portal of MoEFCC on 26th October 2016 (Proposal No. IA/MH/MIS/59976/2016).
- Terms of Reference (ToR) was issued vide MoEFCC letter no. dated 9th December 2016 (File No.10-80/2016-IA-III).
- MoEFCC, vide letter dated 1st January 2020, extends the validity of the ToR upto 8th December 2020.
- No information was sought by the EAC at the time of issue of ToR.

(xvi) **Public Hearing:**

Date & Time of Public Hearing	11th February, 2020 at 12.30 hrs
Venue of Public Hearing	Gram Panchayat Office, Dahisar Turfe Manor village, Taluka and District Palghar
Panel Members for conducting public hearing	
1. Shri Dilip Gutte, Addl. District Magistrate, Palghar - Chairman, 2. Shri D. B. Patil, Regional Officer, MPCB, Thane - - Member 3. Shri Amar Durgule, Sub Regional Officer, Tarapur-II - Convener	

Summary of issues raised and response / commitments by Proponent

S. N.	Category of issues raised by Public	Response / commitments by Proponent
1.	Need of the project	NH-48 (old NH-8) is the only National Highway which connects Delhi to Mumbai. Present traffic on NH-48 exceeds the capacity of 6 lane highway and leads to huge congestion; increase in pollution, VOC & travel time. Further widening of NH-48 is not viable. To cater the traffic and economic development taking place in the States of Gujarat and Maharashtra, construction of Vadodara Mumbai Expressway (VME) is envisaged.
2.	Increase in noise pollution	Noise modeling at sensitive receptors shows that the noise level is within standard in most of the locations. Noise barrier has been proposed wherein the noise level is above the standard
3.	Water availability	As per CGWA classification, all the Talukas of the proposed expressway fall under safe category.
4.	Climate change	Maharashtra State Adaptation Action Plan on Climate Change projected to increase in temperature and rainfall all over the state in future with regional variations. Marginal increase in temperature along the project corridor, if any, shall be mitigated by the either side vegetative barrier during operation phase
5.	Air quality	Air quality is monitored during the summer season, values are within the NAAQS. Precautionary measures have been suggested to minimise the impact on air quality.
6.	Obstruction of rain water and impact on agriculture	NHAI design adequate number of cross drainage structure for free flow of water courses after detailed Geo-hydrological study.
7.	Land Acquisition	The Land Acquisition for VME (Phase-II) project is being done with the help of State Government in accordance with the provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 under the National Highways Act, 1956. The compensation will be paid to legitimate land losers / affected people.
8.	Waste disposal in way side amenity	Proper arrangements for recycling /reuse of plastic waste, arrangements for disposal of food waste and sewage treatment plan shall be provided as per prevalent rules and regulations.
9.	Cutting of trees	Adequate mitigation measures like greenbelt development, compensatory afforestation, sapling distribution etc. has

		been suggested

(xvii) **Whether the project involves diversion of forest land:** The proposed project involves diversion of **193.1777 ha** forest land (Reserved Forest - 25.1597ha, Mangrove Forest – 3.9500 ha, Protected Forest – 136.5576 ha and Private Forest 27.5104 ha). Proposal for diversion of forest land has been uploaded on October 15, 2018 (FC Proposal No. FP/MH/ROAD/36560/2018). DCF, Dahanu Forest Division forwarded the proposal to CCF, Thane vide letter dated July 02, 2020 and it is under examination with the State Government.

(xviii) **Whether the project is located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc.:**

- The proposed expressway does not pass through any Wildlife Sanctuary, National Park etc.
- **Tungareshwar Wildlife Sanctuary:** It is located at a distance of ≅ 1.28 km from the boundary of the Sanctuary and at a distance of ≅ 0.456 km from the notified Eco-Sensitive Zone boundary [Gazettee Notification S.O. 3250(E) dated 11th September 2019] of Tungareshwar Wildlife Sanctuary i.e. outside the Eco-Sensitive Zone.
- **Dadra and Nagar Haveli (DNH) Wildlife Sanctuary:** The Wildlife Sanctuary is located on North – East side of end chainage of proposed expressway at a distance of **4.57 km**. The extent of Eco-Sensitive Zone of the sanctuary is 100m on all side. The alignment of proposed expressway does not pass through the DNH Wildlife sanctuary and it's ESZ.

(xix) **Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC:**

- The proposed expressway does not pass through ESZ.
- **Dahanu Taluka Ecologically Sensitive Area:** Approx. 27.745 km stretch of the proposed expressway is traversing through Dahanu Taluka Ecologically Sensitive Area (proposed km 68+455 to Km 96+200). Application has been submitted to the Dahanu Taluka Environment Protection Authority (DTEPA) vide letter dated 28.05.2020.
- DTEPA vide letter dated 20.07.2020 informed that the Authority is not in a position to grant any NOC/ Clearance / Approval to the proposal at this stage.

(xx) **Waste Management: Provide details of waste water quantity, treatment capacity, recycling/reuse of treated water and disposal, Solid Waste Management, and Hazardous Waste Management.: Waste water quantity: Solid Waste Management**: **Hazardous Waste Management**: **Wastewater Treatment in Construction Camp:** Daily water requirement for drinking & domestic purposes in

		the 3 construction camps are 46,296 liters (15,432 liters in each construction camp) and generation of wastewater is 37,037 liters (12,346 liters in each construction camp). Packaged Wastewater Treatment Planthas been recommended for the construction camp. **Solid Waste Management:** Refuse Containers will be provided at site for the management of domestic waste generated by the construction laborers and these containers shall be emptied at least once daily and will be disposed of as per SWM Rules, 2016 in consultation with the local authority. **Construction waste:** The part of the cut material shall be used in fill and further possibility of using the cut material in other road works shall be examined based on its suitability during the construction phase. The balance cut material, if any, shall be disposed of according to the Construction and Demolition Waste Management Rules, 2016. **Hazardous Waste Management:** The hazardous waste generated during construction period will be disposed of as per applicable rule. (xxi) **Details of tree cutting and Green belt development.: Trees in forest land:** Out of 51 affected villages; there is forest in 30 villages. Joint tree enumeration with the Forest Department has been completed in all villages. There are **27,269 trees** within the proposed RoW in the forest land. It may be noted that, all trees within the proposed RoW may not be impacted. Average width of work zone varies between 70 to 75 m. Therefore; trees beyond the work zone may be saved. **Trees in non-forest land:** As per field study and joint measurement survey of 49 villages, out of 51 affected villages, approximately **61,080 trees** are falling within the proposed ROW. **Total Trees within proposed RoW:** 88,349. Permission will be taken from the Forest Department for felling trees within proposed ROW. It may be noted that during construction of the expressway, few trees shall be saved which are located beyond the toe line / utility corridor. **Green Belt Development**: Avenue plantation shall be carried out as per IRC SP 21:2009. Based on the space available for avenue plantation, following plantation arrangement has been proposed: • Three rows plantation on both side has been proposed in **68.5 km** stretch (1250 trees/km) • Three rows plantation on one side has been proposed in **5.095 km** stretch (625 trees/km) • One / two rows plantation on both sides has been proposed in remaining stretch • Two rows of hedge / small ornamental trees with plant to plant spacing of 3.0 m have been proposed to be planted in the median. **90,899 no. of trees and 49,408 no. of hedges** proposed to be planted under greenbelt development plan and a capital cost provision of about **Rs. 23.12 Crore** has been kept for greenbelt development. (xxii) **Energy conservation measures with estimated saving.:** Not Applicable.

(xxiii) **Parking requirement with provision made.:** Not Applicable.

(xxiv) **Details of Rain Water Harvesting.:** As per the CGWA classification, all the Talukas, through which the proposed expressway is passing, fall under safe category. Mean water level is in the range of 2 to 5 mbgl in the Palghar, Dahanu and Talasari area. Therefore, rainwater harvesting structure has not been proposed along the expressway. However, as per MoRTH requirement rainwater harvesting structure has been proposed at toll plaza and wayside amenities.

(xxv) **Whether the project is in CRZ area:** The proposed expressway crosses Vaitarna River with CRZ categories CRZ I, II, III and IV. CRZ map of 1:4000 scale and report has been prepared by the National Centre for Earth Science Studies (**NCESS**), Thiruvananthapuram based on CRZ Notification 2011 and Coastal Zone Management Plan (CZMP) of Thane and Palghar district (approved by MoEFCC on 28.02.2019).

Village wise Length of VME (Phase-II) alignment in CRZ Crossing areas

Proposed Ch. Km		Length (Km)	Village	River
From	To			
28+277	28+519	0.242	Doliv	Vaitarna River
29+991	30+374	0.383		
30+540	30+852	0.312		
30+852	32+056	1.204	Wadhiv & Navghar	
35+207	36+597	1.390	Penand & Sonave	
44+828	45+264	0.436	Sakhare, Khamloli & Dahisar	
Total		**3.967**		

Source: CRZ Map & Report prepared by NCESS, February 2020.

Village wise Break-up CRZ Categories in VME Phase-II Crossing Points (in Sq. m.)

Location	CRZ IA		CRZ IB	CRZ II	CRZ III	CRZ IVA	CRZ IVB
	Mangrove	Mangrove Buffer					
Doliv Village	1,551.90	-	16,126.50	11,661.90	-	-	15,469.00
Wadhiv / Vaithi Village	10,322.60	9,635.60	5,743.90	-	806.80	-	21,735.40
Navghar Village	14,014.80	6,297.30	8,710.40	-	6,548.60	-	7,547.10
Penand Village	1,589.50	5,410.90	7,237.04	-	40,029.20	-	8,505.20

Sonave Village	4,455.90	5,407.20	13,247.40	-	58,492.40	-	8,085.60
Sakhare Village	-	-	1,195.10	-	6,764.30	-	1,469.10
Khamboli Village	-	-	3,372.50	-	12,213.94	-	10,397.60
Dahisar Village	32.10	-	7,947.80	-	3,491.80	-	6,292.90
Total (in Sq. m.)	**31,966.80**	**26751.00**	**63,580.64**	**11,661.90**	**128,347.04**	**-**	**79,501.9**
Total (in ha)	**3.20**	**2.68**	**6.36**	**1.17**	**12.83**	**0.00**	**7.95**
Grand Total = 341809.3 Sq. m / 34.2 Ha							

Source: CRZ Map & Report prepared by NCESS, February 2020.

Recommendation of MCZMA:

- PP should ensure that proposed activities in CRZ areas are as per provisions of CRA Notification, 2011 (amended time to time).
- PP to ensure compensatory mangrove afforestation shall be undertaken by the PP through Mangrove Cell, Mumbai.
- Prior permission from hon. High Court Bombay should be obtained as the project involves cutting of mangroves.
- PP to obtain Forest Clearance under Forest (Conservation) Act, 1980.
- PP to ensure the tidal flow of coastal water body should not be affected due to proposed activities.
- PP to ensure that minimum mangrove vegetation is affected due to proposed activities.
- PP to ensure the debris (C&D Waste) should not be disposed in CRZ area and should follow C&D Waste Rules, 2016.
- PP to ensure that no ground water shall be tapped to meet with water requirement during construction & / or operation phase from CRZ area.
- PP to ensure there shall no discharge of any untreated sewage / untreated effluent in CRZ area.
- Best engineering practices & construction should be followed for fire safety measures and for conservation of coastal environment.
- PP to ensure that the muck disposal should not be in CRZ area and should be as per standard guidelines & procedures.
- PP to implement the Environment Management Plan effectively during the implementation and operation phase of the project and PP to ensure that Separate budget shall be allotted for the same
- PP to ensure that the Noise level during Construction & operation phase should not exceed the permissible limit.
- PP to ensure that livelihood activities of the fishermen communities should not be hampered due to project activities.

	• All other required permissions should be obtained before the commencement of the project. (xxvi) **Brief description of Socio-economic condition of local people and R&R issues involved, if any:** The tentative area of private / government land to be acquired is around 705.9257 ha and total number of affected households is 3,110 in terms of land acquisition & structures. Total number of structures to be affected is 895. The compensation amount for the acquisition of land and structures will be determined by the CALA (Competent Authority for Land Acquisition) in accordance with the provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 under the National Highways Act, 1956. (xxvii) **Employment potential, No. of people to be employed:** Approx. 650 workers both skilled and unskilled during construction phase of 2 years and approx. 150 during operation phase. (xxviii) **Benefits of the project:** The expressway will link Ahmedabad Vadodara Expressway to Mumbai Pune Expressway thus providing Expressway Connectivity from Ahmedabad to Pune for a length of about 650 km. The Expressway will reduce travel time from Vadodara to Mumbai to under 4 hours from the present 6 to 7 hours on NH-8 and will reduce vehicle operation cost. The expressway will support the local businesses and economy along the project corridor. It will also facilitate small-scale industries by streamlining transport of raw and finished material. (xxix) **Details of Court cases, if any:** Following petitions are under hearing on Hon'ble High Court Bombay, which are filed by the project affected persons regarding land acquisition activities: • WP 13561/ 2018 • WP 13544/ 2018
4.1.2	It was committed by the project proponent that letter of recommendations by the Maharashtra Coastal Zone Management Authority for this project will be submitted before finalisation of the Minutes. However, proponent could not submit the recommendation letter. In view of this, The EAC, after detailed deliberation during 239th meeting on 29th July, 2020, deferred the proposal for want of recommendation letter by Maharashtra Coastal Zone Management in respect of this project.
4.1.3	The EAC, after examining the documents submitted by proponent and noted that the proponent does not have the approval of the State Coastal Zone Management Authority and therefore 2020, **deferred** the proposal for further consideration.
4.2	**Industrial Park Guttapadu, Orvakal Mandal, Kurnool District, Andhra Pradesh State by M/s. Andhra Pradesh Industrial Infrastructure Corporation (APIIC) Ltd. – Environmental Clearance.** **[Proposal No. IA/AP/NCP/99167/2019] [File No. 21/74/2018-IA.III]**
4.2.1	The project proponent along with the EIA consultant M/s Ramky Enviro Services

Pvt. Ltd., made a presentation through Video Conferencing and provided the following information:

(i) **Brief description of the Proposal:** M/s. Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) is proposing to develop an Industrial Park at Guttapadu Village, Orvakal Mandal, Kurnool District, Andhra Pradesh, with a vision of providing "Hassle free production environment" for industries like secondary steel based, Light Engineering, Non-metallic mineral, Aerospace & defense hardware, E-waste recyclers, Gems & Jewellery, Logistic hub, Renewable energy, textile & apparel industries.

(ii) **Nature of project (New/Expansion/Amendment/Extension etc.):** The proposal is for the development of New industrial park, with inclusions of different types of industries according to the market demand assessment that can put forward for the development of country and development of the infrastructure facilities located near the site surroundings, and hence employment opportunities for the locals.

(iii) **Whether the proposal was considered in earlier meetings of EAC:** Yes, the project is considered in 237th EAC meeting held on 29th June, 2020. EAC deferred the proposal for additional information. The additional information is attached as Attachment - 1.

(iv) **Whether proposal is part of interlinked project:** Not Applicable.

(v) **Address of project site (Plot No./Village/ Tehsil/ District/State):** The proposed project is located at Guttapadu Village, Orvakal Mandal, Kurnool District, Andhra Pradesh.

(vi) **Geo-coordinates of project site:**

S. No.	Longitude	Latitude
1	15°40'42.36" N	78°08'12.61" E
2	15°40'24.38" N	78°09'48.34" E
3	15°38'49.79" N	78°08'34.08" E
4	15°37'01.05" N	78°08'53.75" E
5	15°38'37.00" N	78°06'02.31" E
6	15°39'39.83" N	78°07'14.04" E

(vii) **Area (ha)/Length (km) of the proposed project:** The total area of the proposed project is 4194.32 Acres (1697.38 Ha).

(viii) **Connectivity to the site:** The site is well connected by road and railway. The nearest National Highway to the project site is NH-18 (Kurnool to Chittoor), is located at around 1.2 km (E) from the project site and the nearest railway station to the project site is Kurnool railway station which is at a distance of approx. 20 km (NNW).

(ix) **Investment/Cost of the project:** The total cost of the project is Rs. 495 crores.

(x) **Item of Schedule to the EIA Notification, 2006:** Activity 7 (c) - Industrial estates/parks/complexes/areas, Export Processing Zones (EPZs), Special Economic Zones (SEZs), biotech parks, leather complexes. The proposed development of Industrial Park is coming under -Category – A".

(xi) **Why appraisal/ approval is required at the Central level:** Industrial Park with area greater than 500 ha and housing at least one Category 'B' industry.

(xii) **Applicability of General/Specific Conditions as per EIA Notification, 2006:** Not Applicable.

(xiii) **Whether project involves any violation under notification S.O 804(E) dated 14.03.2017:** Not Applicable.

(xiv) **Landuse/Landcover of project site in tabular form:** The land use of the project site is given the below table.

Level 1		**Level 2**		**Percentage (%)**
Class	**Area (Ha.)**	**Class**	**Area (Ha.)**	
Agricultural land	243.41	Crop land	195.15	14.34
		Fallow land	48.26	
Water bodies	28.85	Drain	28.85	1.70
Waste land	1425.12	Barren rocky	1425.12	83.96
Total			**1697.38**	**100**

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

Level 1		**Level 2**		**Percentage (%)**
Class	**Area (Ha.)**	**Class**	**Area (Ha.)**	
Built up	1860	Rural	1143	3.37
		Industrial	505	
		Mining	212	
Agriculture	33145	Crop land	28316	60.06
		Fallow land	4829	
Water bodies	243	Reservoir/pond/lakes	99	0.44
		River/drain	70	
		Canal	74	
Forest	4722	Scrub forest	4722	8.56
Waste land	15087	Barren rocky	12862	27.34
		Scrub land	2225	
Other	128	Airport	128	0.23
Total	**55185**		**55185**	**100**

(xvi) **List to industries to be housed with the proposed project site, only for projects covered under 7(c) category of EIA Notification, 2006:** List of industries to be housed are secondary steel based, light engineering, non-metallic mineral, aerospace & defense hardware, E-waste recyclers, gems & jewelry, logistic hub, renewable energy, textile & apparel industries.

(xvii) **Right of Way (RoW), only for projects covered under 7(f) category of EIA Notification, 2006:** Not Applicable.

(xviii) **Whether report of Cumulative Impact Assessment is submitted (only for last package of Highway projects):** Not Applicable.

(xix) **Terrain and topographical features:** The proposed site is situated in undulating terrain. The topographic contours in the proposed project site are ranging from 332 to 405 m amsl (above mean sea level).

(xx) **Details of water bodies, impact on drainage, if any:** Seasonal natural streams are passing through the site which will not be diverted. Sufficient green belt and buffer zone will be provided all along the natural streams.

(xxi) **Water requirements, sources (during construction and operation phases) and NOC:** Total water required is about 19 MLD for the proposed project. The water for the project would be drawn from Srisailam foreshore at HNSS lift station – zero at Muchumarri village. The NOC for water requirement is given as **Attachment - 2.** Alternate source during construction phase will be sourced from bore-wells for which necessary permissions would be obtained.

(xxii) **Groundwater extraction/usage and NOC/Clearance from CGWA/State Ground Water Department:** Necessary approval would be obtained from Ground Water and Water Audit Department to draw water during construction phase.

(xxiii) **Whether the project is in Critically Polluted area (Yes or No. If yes, provide brief details):** Not Applicable.

(xxiv) **ToR details:** ToR issued vide File No. IA/AP/NCP/99167/2019, dated 16th May 2019. The details of the EAC meetings before issue of ToR are as follows. EAC meetings of 197th, 199th and 204th held on 17.09.2018, 15.10.2018 and 17.12.2018 respectively. The EAC has raised procedural issues in granting TOR to the Industrial Park as already M/s Jai Raj Ispat Limited has obtained EC for part of the area. So the proposal was withdrawn and then applied the new proposal by revising the project area (i.e the land allotted to M/s jai Raj Ispat limited is excluded from the boundary of the Industrial Park). The project was considered in 214th EAC meeting held on 26th April, 2019, then EAC recommended for grant of Terms of Reference (ToR).

(xxv) **Public Hearing Details and Summary of issues raised and response/commitments by Proponent:** Regional officer, APPCB, Kurnool, in consultation with the Collector and District Magistrate, Kurnool, fixed the date, time and venue of public consultation as per details given below: Date: 31st October, 2019, Location: At Proposed project site near Guttapadu village, Orvakal Mandal, Kurnool District, Andhra Pradesh. Regional officer, APPCB, Kurnool published public hearing notice in leading national (The Hindu) and local (Sakshi) newspapers on 30.09.2019, by giving 30 days prior notice, informing the date and venue of public consultation and inviting objections/suggestions from the bona-fide residents and general public who may be affected from the proposed project.

Some of the major issues raised during Public Hearing:

S. No	Category of Issue raised by Public	Response/Commitment by Proponent	Remarks, if any

		1	Employment related	Priority in employment will be given to land losers as per their eligibility and also 75% employment will be given to the local people in industries as per the AP government law.	-
		2	Compensation for land	The project authorities highlighted that compensation for patta lands will be given as per law, at present as per New Land Acquisition Act-2013, the compensation amount will be double and not less than that.	-
		3	Grazing land for livestock	Suitable land will be allotted outside the project boundary by the Revenue department for cattle grazing.	-
		4	Expected pollution from industries	All necessary pollution controlling measures will be taken up by APIIC. Only less-polluting industries (Other than 17 categories of highly polluting industries identified by CPCB) like hardware, engineering, aerospace, gems & jewelers, etc. will be established. A budget of around Rs. 160 Crores is allocated towards Environmental Management Plan (EMP).	-
		5	Objection for chemical industries	No chemical industries will be established within this project	-

(xxvi) **If the project involves expansion copy of certified compliance report issued by concerned regional office:** Not Applicable.

(xxvii) **Whether the project involves diversion of forest land and status of application:** Not Applicable.

(xxviii) **Whether the project is located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc.:** Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc. are not located within 10 km radius from the proposed site.

(xxix) **Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC:** Not Applicable.

(xxx) **Waste Management:** It is estimated that the effluent generation from

		industrial activities is about 7 MLD and sewage from domestic uses is about 1.1 MLD. The effluent generated from industrial activities will be treated in Common Effluent Treatment Plant (CETP) and domestic sewage will be treated in Common Sewage Treatment Plant (CSTP). Since the project adopts the concept of "Zero Liquid Discharge", the treated water will be reused within the industrial park. The hazardous waste generated from the industrial processes would be sent to authorized TSDF facility. The municipal waste generated would be sent to municipal bins. (xxxi) **CETP details:** The effluent generated from industrial activities is about 7 MLD, which will be treated in CETP and the treated water reused for green belt, Industrial activities etc. The CETP will be developed in phased manner of appropriate capacities as per the demand. In order to meet the CETP inlet standards, individual industries should pre-treat the effluent before sending to CETP. At Initial stages (partial occupational stage of industries), the effluent/sewage conveyance will be met through tankers, however, during the full occupation of plots/ operational stage of industries the effluent conveyance will be met through pipe network. (xxxii) **STP details:** The sewage generated from domestic uses is about 1.1 MLD, which will be treated in CSTP and will be reused for green belt, flushing, dust suppression, etc. The CSTP will be developed in phased manner of appropriate capacities as per the demand. (xxxiii) **Details of tree cutting and Green belt development:** Around 230 Number of trees were observed in the project site, due to certain activities of the proposed project (industrial sheds, roads, water pipelines, drainage network, etc.) will require preliminary leveling of the site prior to implementation of the respective activities. With regard to vegetation, maximum care will be taken not to disturb the naturally grown trees during construction activities. However, if the situation demands tree felling, they will be compensated in the ratio of 1:3 during greenbelt development. The greenbelt will be developed about 560 Ha (i.e 33% from project area). (xxxiv) **Energy conservation measures with estimated saving.:** Solar energy is proposed as an alternative energy source. Solar street lighting is proposed in the industrial park. Further, the individual industries in the industrial park would be advised to install solar water heaters for water that is used for pre-heating during industrial process. Solar panels with battery backup (2 days) will be installed on every 45 m, 30 m, 24 m and 18 m wide roads with interval of 15 m on both sides. Rs. 5 Crores are allocated for Solar street lights in EMP budget. This will help in saving the electric energy and needs of the industries in a sustainable manner. (xxxv) **Parking requirement with provision made:** Sufficient parking will be provided with in the common areas and individual industrial members will be provided with in their plots for their parking purposes. (xxxvi) **Details of Rain Water Harvesting.:** Rainwater harvesting pits and collection tanks are proposed at respective buildings and storm water drains would be provided all along the road network of the industrial park. Overflow from the harvesting pit and storm water of road/open space will be collected through road side storm water drains. Storm

		water drains will be acting as recharge trench, apart from RWH pits at plots, so that maximum amount of rainwater infiltrate into the ground. The width and depth of the drain proposed varies from place to place depending upon the size of plots, slope of the area. The stored water from collection pond will be used for various purposes like firefighting, greenbelt, etc. (xxxvii) **Whether the project is in CRZ area: If yes, provide details of components in CRZ area, layout on CRZ map of 1:4000 scale prepared by an authorised agency and appraisal by State Coastal Zone Management Authority (SCZMA) and copy of their recommendations.:** Not Applicable. (xxxviii) **Whether the project involves foreshore facilities. If yes, provide details of shoreline study, dredging details, disposal of dredge material, reclamation, cargo handling with dust control measures and oil Spill Contingent Management Plan.:** Not Applicable. (xxxix) **Whether the project involves Marine disposal: If yes, the provide copy of NOC from Pollution Control Board in case of marine disposal, details of modelling study – details of outfall diffusers, number of dilutions expected, distance at which the outlet will reach ambient parameters, location of intake/outfall, quantity, and detail of monitoring at outfall.:** Not Applicable. (xl) **Brief description of Socio-economic condition of local people, Land acquisition and R&R issues involved:** Majority of population is dependent on agriculture either as settled cultivators or agriculture labor than involvement in household entrepreneurship, petty business activities; engagement in service sector through government/private employment. The socio-economic data observed that 80.6% of working population is engaged in agriculture thereby illustrating an agrarian mode of production. The project would create more employment opportunities in the project area where work participation rate observed to be as low as 53.3% and dependency ratio has been burgeoning at 1:1% in the recent years. The proposed project would increase demand for services includes hotels, restaurants, public transport which leads to overall economic up-liftment of the area. The proposed project does not lead to home oustees or acquiring houses, habitation areas, village sites for the development. Therefore, R&R or negotiated Settlement Policy may not be applied as there is no acquisition of village sites/ habitation lands. The project authorities highlighted that compensation for patta lands will be given as per law, at present as per New Land Acquisition Act-2013, the compensation amount will be double and not less than that. (xli) **Employment potential, No. of people to be employed:** Around 2500 and 25500 jobs will be generated during construction and operational phase respectively, due to the proposed project. (xlii) **Benefits of the project:** The development of industrial park shall bring about changes in the pattern of demand from food to non-food items. Due to Corporate Environmental Responsibility activities, the socio economic condition of the people will be improved. The proposed industrial park shall have a positive impact on consumption behavior by way of raising average consumption and income through effective Environmental Management System. The proposed

	industrial park will help in the development of social infrastructure like education facilities like post offices, communication facilities, medical facilities, recreation facilities, plantation, community facilities, etc. (xliii) **Brief summary of specialised Studies carried out for the project as per the ToR:** Not Applicable. (xliv) **Details of Court cases:** The w.r.t petitions vide WP. No. 659 of 2019 & WP No. 663 of 2019 are not filed against the project but for the payments of Exgratia to DKT lands against the LAO. APIIC is not the party. The Honorable High Court has given interim orders to pay the compensation. (xlv) **List of Undertakings, if any:** Undertaking by APIIC, that M/s Jai Raj Ispat Limited (JRIL) will not be a part of the proposed industrial park and shall not be allowed to use the facilities and infrastructure.
4.2.2	The EAC, after examining the documents submitted by the project proponent and detailed deliberations during its 241st meeting on 25-26 August, 2020, **recommended** the proposal for grant of **Environmental Clearance**, with the specific conditions, as mentioned below in this para, in addition to all standard conditions applicable for such projects: (i) The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes as applicable to the project. (ii) The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC. (iii) No groundwater shall be used at any stage of project. (iv) Approved wildlife conservation plan to be implemented in toto. (v) Additional 15 m wide Green belt (Totally 30 m) shall be developed along the boundary near to habitations side (Guttapadu, Konthalapadu and uppalapadu) as committed by project proponent (vi) No waste water shall be discharged to the rivers/streams or waterbodies. The proponent shall utilize the treated effluent and sewage for achieving zero discharge and scheme for the same shall be approved by CPCB and SPCB. (vii) As committed by proponent, dense tree plantation of native species shall be developed in collaboration with the State Forest Department to control air pollution during operation phase of the project. Detailed plan in this regard shall be submitted to Ministry's regional office within 3 months of grant of environmental and CRZ clearance to this project. (viii) Permission from Irrigation Department for obtaining surface water to be obtained. Consent to Operate shall not be issued without obtaining

	permission competent authority for use of surface water. (ix) Detailed plan of expenditure with implementation schedule to address issues raised during Public Hearing shall be prepared and submitted to the Regional Office of this Ministry within three months. The proponent shall adhere the strict compliance of above plan to utilize funds as per schedule. (x) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 1st May, 2018, project proponent has proposed that an amount of Rs. 7.9 Crores (computed on slab basis for the project cost of Rs. 495 Crores) shall be earmarked under Corporate Environment Responsibility (CER) Plan with special focus on providing healthcare facilities to the government hospitals in light of COVID 19 pandemic. A small portion of the fund can also be used for the activities such as Health, Water supply, Sanitation, Road development, Solar lights in nearby areas and Education etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.
4.3	**Development of Manallur Industrial Park in Gummidipoondi Taluk of District Thiruvallur, Tamil Nadu by M/s State Industries Promotion Corporation of Tamil Nadu (SIPCOT) Limited – Environmental Clearance.** **[Proposal No. IA/TN/NCP/27117/2015] [File No. 21-59/2015-IA.III]**
4.3.1	The project proponent along with the EIA consultant M/s M/S Hubert Enviro Care Systems (P) Ltd., Chennai, made a presentation through Video Conferencing and provided the following information: (i) **Brief description of the Proposal:** Development of "Industrial Park at Manallur and Soorapoondi villages of Gummidipoondi Taluk, Thiruvallur District, Tamil Nadu State" over an extent of 279.99.5 Ha (691.587 Acres) at Manallur and Soorapoondi villages,Gummidipoondi Taluk, Thiruvallur District. (ii) **Nature of project (New/Expansion/Amendment/Extension etc.):** New Project. (iii) **Whether the proposal was considered in earlier meetings of EAC: If yes, provide date of EAC meeting and reasons for deferment, if any:** The project was taken in 230th EAC meeting for Projects related to Infrastructure Development, Industrial estate/parks/complexes/areas, Export Processing Zones, Special Economic Zones, Biotech Parks, Leather Complexes and National Highways projects held on 28 - 29 January, 2020. The EAC has raised queries and based on the queries, the EAC suggested revising the EIA report and submitting. (iv) **Whether proposal is part of interlinked project: If yes, provide details in brief:** No. (v) **Address of project site (Plot No./Village/ Tehsil/ District/State):** The site is located at survey Nos. - 203/1, 204/2, 207/2, 208, 209/1, 209/3, 210/1, 210/3, 211, 212/1, 212/3, 213, 214, 215, 216/1, 216/3, 217/1, 217/3, 218/1, 218/3, 219/1, 220/1, 223/4, 224, 225/1, 226/1, 227/1,

227/3, 228, 229, 230, 231, 232, 233/1, 234/1, 234/3, 235/3, 236, 237/1, 237/3, 238, 239, 240, 241, 242, 243, 244, 245, 248, 249, 250, 252, 253, 270/1, 270/8, 274/1, 274/29 of Manallur village and 1, 2, 3, 4, 5, 6/2, 9/1, 9/3, 9/5, 9/6, 9/11, 10/4, 10/9, 12/2, 12/3, 12/4, 12/5, 12/6, 12/7, 12/8, 12/9, 12/10, 12/11, 12/12, 12/13, 12/14, 12/15, 12/16, 12/17, 13/1, 13/2, 13/3, 13/4, 13/5, 13/6, 13/7, 13/8, 13/9,15, 16/1, 37/1, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49 of Soorapoondi village in Gummidipoondi Taluk, Thiruvallur District.

(vi) **Geo-coordinates of project site:** Latitude: 13°26'54.55"N, Longitude: 80°01'34.32"E – Centre Coordinates:

S NO	Longitude	Latitude	S NO	Longitude	Latitude
1	80.03484487	13.44295446	44	80.01921917	13.45195635
2	80.03237886	13.44329885	45	80.01941982	13.4523138
3	80.02910585	13.44327855	46	80.01941138	13.45281136
4	80.02910585	13.44327855	47	80.01941138	13.45281136
5	80.02402971	13.44157385	48	80.01941138	13.45281136
6	80.02341383	13.44272266	49	80.01991566	13.45277407
7	80.02140539	13.4441361	50	80.02027597	13.45355018
8	80.02147378	13.44616919	51	80.02058316	13.45448571
9	80.02168158	13.44629222	52	80.02189885	13.45481675
10	80.02168158	13.44629222	53	80.02257302	13.45496228
11	80.02252597	13.44668609	54	80.02257302	13.45496228
12	80.02255038	13.44771571	55	80.0247887	13.45485394
13	80.02141126	13.44744129	56	80.02549808	13.45499067
14	80.02141126	13.44744129	57	80.02549808	13.45499067
15	80.02094416	13.44735449	58	80.02549808	13.45499067
16	80.02094416	13.44735449	59	80.0257841	13.45587048
17	80.02094416	13.44735449	60	80.0257841	13.45587048
18	80.02094416	13.44735449	61	80.02632693	13.45651547
19	80.01979551	13.44684988	62	80.02715427	13.45663822
20	80.01946945	13.44673486	63	80.02715427	13.45663822
21	80.01790609	13.44535211	64	80.02791969	13.4566772
22	80.0174744	13.44550483	65	80.02761296	13.45698916
23	80.0174744	13.44550483	66	80.02792197	13.45733191
24	80.0174744	13.44550483	67	80.0288019	13.4574967
25	80.01677956	13.44544171	68	80.03036322	13.45791809
26	80.01688416	13.44632523	69	80.03140122	13.45789176
27	80.01670126	13.44682204	70	80.03140122	13.45789176
28	80.01670126	13.44682204	71	80.03140122	13.45789176
29	80.01670126	13.44682204	72	80.03161935	13.45715067
30	80.01694603	13.4473211	73	80.03208951	13.45640324
31	80.0170481	13.44776448	74	80.03208951	13.45640324

		32	80.01716606	13.44931141	75	80.03285078	13.45557243
		33	80.01716606	13.44931141	76	80.03282232	13.45393307
		34	80.0170311	13.45027528	77	80.03281025	13.45282207
		35	80.0170311	13.45027528	78	80.03945403	13.45282398
		36	80.0170311	13.45027528	79	80.03945403	13.45282398
		37	80.0170311	13.45027528	80	80.03945403	13.45282398
		38	80.01766557	13.45091145	81	80.0370262	13.45223171
		39	80.01766557	13.45091145	82	80.03640356	13.4519104
		40	80.01856526	13.45118135	83	80.03667177	13.45188584
		41	80.01856526	13.45118135	84	80.03602023	13.45111993
		42	80.01891424	13.45165294	85	80.03561202	13.45084431
		43	80.01921917	13.45195635	86	80.03499373	13.45033888
		S.NO	**Longitude**	**Latitude**	**S.NO**	**Longitude**	**Latitude**
		87	80.03406717	13.45033132	127	80.0204084	13.44068915
		88	80.03406717	13.45033132	128	80.01517832	13.44214189
		89	80.03406717	13.45033132	129	80.01461699	13.44247314
		90	80.03401518	13.45066254	130	80.01406987	13.44374715
		91	80.03401518	13.45066254	131	80.01418997	13.44485989
		92	80.03405682	13.45104461	132	80.01417061	13.44596133
		93	80.03405682	13.45104461			
		94	80.03360123	13.45139149			
		95	80.03360123	13.45139149			
		96	80.03360123	13.45139149			
		97	80.03279828	13.45141172			
		98	80.03279828	13.45141172			
		99	80.03262675	13.45089106			
		100	80.03262675	13.45089106			
		101	80.03262675	13.45089106			
		102	80.03183526	13.45069776			
		103	80.03188171	13.45109141			
		104	80.0311052	13.45096596			
		105	80.0311052	13.45096596			
		106	80.0311052	13.45096596			
		107	80.03108216	13.44987315			
		108	80.03132103	13.44881547			
		109	80.03296945	13.44836849			
		110	80.03296945	13.44836849			
		111	80.03845035	13.4468656			
		112	80.03816286	13.44528223			
		113	80.03726767	13.44511581			
		114	80.03726767	13.44511581			

115	80.03726767	13.44511581
116	80.03739894	13.44436246
117	80.03739894	13.44436246
118	80.03752038	13.44378779
119	80.03646811	13.44308124
120	80.01972381	13.44368577
121	80.01978762	13.44312674
122	80.01978762	13.44312674
123	80.01978762	13.44312674
124	80.02040833	13.44216747
125	80.02040833	13.44216747
126	80.0204084	13.44068915

(vii) **Area (ha)/Length (km) of the proposed project:** 279.99.5 Ha (691.587 Acres).

(viii) **Connectivity to the site:** Madharappakkam- Gummidipoondi Road is adjacent to site Chennai –Kolkata Highway (NH-5) at a distance of ~8.04 km towards E.

(ix) **Investment/Cost of the project:** 250 Crores.

(x) **Item of Schedule to the EIA Notification, 2006:** Schedule 7 (c), Category A.

(xi) **Why appraisal/ approval is required at the Central level:** 10% of plotted area i e 19.41 (Ha) is proposed for schedule 5(f) industries - Synthetic Acrylic polymer Resins, water proofing compounds and Synthetic Adhesives. (If at least one industry in the proposed industrial estate falls under the Category A, entire Industrial Park shall be treated as Category A, irrespective of the area. Hence approval is needed at central level).

(xii) **Applicability of General/Specific Conditions as per EIA Notification, 2006:** General Condition: Interstate Boundary TN – AP is situated at ~3.13 Km (towards NNW) from the project boundary and Pulicat lake bird Sanctuary ~5.77 Km (towards NE). Specific Condition: Not applicable.

(xiii) **Whether project involves any violation under notification S.O 804(E) dated 14.03.2017:** Not applicable.

(xiv) **Landuse/Landcover of project site in tabular form:**

S.No	Land use/Land cover	Area (Ha)	Area (%)	Remarks
1	Plotted area (including 25% green belt in	193.01	68.93	1. 19. 41 Ha (47.95 Acres) for 5 (f) - Non pharma - Synthetic Acrylic

			plotted area)			polymers and resins, water proofing compounds and synthetic adhesives etc 2. 92.11 Ha (227.51 Acres) for Non EC Category -- E vehicle and its components manufacturing 3. 81.49 Ha (201.27 Acres) for Non EC category - Automobiles and accessories industries, Engineering and fabrication, Plastics industries etc.
		2	Common amenities	5.603	2.0	
		3	Commercial activities	5.603	2.0	
		4	Solid Waste Management	9.741	3.48	
		5	Roads, Storm water drain	15.733	5.63	
		6	OSR (To be developed as green belt)	28.00	10	
		7	Green belt area (road side, periphery)	22.305	7.96	
		8	**Total plot area**	**279.995**	**100**	

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

S.No	Land use/ Land cover	Ha	%	Remarks
1	Cropland	22444	54.42	Nil
2	Plantation	3445	8.35	

3	Fallow land	3104	7.53	
4	Forest Plantation	2348	5.69	
5	Scrub land	2063	5.00	
6	Forest, Deciduous	1811	4.39	
7	Rural	1718	4.17	
8	Reservoirs/ Lakes/ Ponds	1654	4.01	
9	Urban	1429	3.47	
10	Coastal Wetland	910	2.21	
11	Scrub Forest	226	0.55	
12	River/ Stream/ Canals	46	0.11	
13	Sandy area	42	0.10	
	Total	**41240**	**100**	

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

S.No.	Industry sector	Type of Industry	Schedule as per EIA Notification and its amendments	Category as per EIA notification 2006 and its amendments	Area details
1	EC Category Chemical – Non Pharma	Synthetic acrylic polymers and resins	5(f)	A	10 % of plotted area – 47.95 Acres (19.41 Ha)
2		Synthetic resins and water proofing compounds	5(f)	A	
3	Non EC category- E Vehicle and its components manufacturing industries	Electronic and electrical parts manufacturing industries	Nil	Nil	47.72% of plotted area - 227.51 Acres (92.11 Ha)
4		Electronic and electrical parts assembling industries	Nil	Nil	
5	Non EC category- Chemical	Tyre, tube and rubber Components	Nil	Nil	42.28 % of plotted area -201.27 Acres (81.49 Ha)
6		Synthetic detergents and soaps (excluding formulation) having waste water generation < 100KLD	Nil	Nil	

7		Paints and varnishes (mixing & blending)	Nil	Nil	
8		Printing ink manufacturing	Nil	Nil	
9		Spray painting, paint baking, paint shipping	Nil	Nil	
10	Non EC category- Automobile & accessories Manufacturing	Automobile manufacturing	Nil	Nil	
11		Automobile parts manufacturing	Nil	Nil	
12	Non EC category- Engineering & Fabrication	Foundry units <5 MT/Hr	Nil	Nil	
13		Steel and steel products using furnaces	Nil	Nil	
14		Fabrication Industries – dry process	Nil	Nil	
15	Non EC category- Glass and Ceramics	Fibre glass production and processing	Nil	Nil	
16		Manufacturing of glass (except Lead glass)	Nil	Nil	
17		Glass ceramics, earthen potter and tile manufacturing	Nil	Nil	
18	Non EC category- Plastics Manufacturing	Reprocessing of waste plastics	Nil	Nil	
19		Polythene and plastic processed products manufacturing (virgin products)	Nil	Nil	

(xvii) **Terrain and topographical features:** The site is a plain terrain. Elevation of site is 28m AMSL. The site is mostly barren land with some trees. There are no water bodies within the site.

(xviii) **Details of water bodies, impact on drainage, if any:** There are no water bodies within the site. But there are two water bodies adjacent to the site. One towards the south and other on the East. There will not be any impact on the nearby water bodies or the drainage. Storm water drains will be provided along the road and rainwater harvesting pits are proposed for the project.

(xix) **Water requirements, sources (during construction and operation phases) and NOC: Construction phase:** Water requirement is estimated to be 63 KLD. Source will be private tankers. **Operation phase:** Total water requirement – 8627 KLD, Fresh water – 900 KLD (CMWSSB), TTRO water- 4339 KLD, (CMWSSB) Recycled water – 3388 KLD, Source: Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB).

(xx) **Groundwater extraction/usage and NOC/Clearance from CGWA/State Ground Water Department:** Not applicable. Water requirement will be met from CMWSSB and recycling of treated wastewater.

(xxi) **ToR details: Provide Date of ToR issued and details of earlier appraisals and information sought by the EAC along with the response given, if any:** ToR issued: on 22nd July 2015, ToR extension issued: 13th November, 2018.

(a) Public Hearing Details:

(b) Date(s) and Location(s): Date: 03/07/ 2019 and Location: K.VC.Mahal, Sathyavedu Road, Madharapakkam, Gummidipoondi Taluk, Thiruvallur District. Project appraised in: 230th EAC meeting 28-29 January, 2020.

(xxii) **Summary of issues raised and response/commitments by Proponent:**

S. No	Category of issue raised	Response / Commitment by proponent	Remarks if any
1	Employment opportunity	Skill development centre will be established for providing training related to E-Vehicle/ auto components repairing,etc to local people at cost of Rs.25 lakhs	SIPCOT will earmark Rs.3.75 crores for undertaking the following CER Activities in Manallur, Soorapoondi, Ramachandrapuram, Madharapakkam, Sathyavedu, Irukulam villages: • Construction of toilets • Providing water supply and sewerage system • Conducting Health camps • Desliting of two nearby lakes • PC with a printer and scanner to the Government schools. • Drinking water dispensers for the Government schools. • Class room
2	Proposed development will lead to Health issues in nearby areas	Health camps will be conducted once in six months by SIPCOT at Manallur and Soorapoondi villages to ensure the health condition of local people. The cost for the same will be around Rs.15 Lakhs.	
3	Adequate toilet facilities are not available	10 no. of common toilets will be constructed. 5 Nos at Manallur Village and 5 Nos at Soorapoondi village. Total cost recurred towards construction, operation and maintenance of 10 common toilets will be Rs. 25 Lakhs.	
4	Water availability is a problem in the areas	75 KLD of water will be provided for Manallur villages by SIPCOT along with 75 KLD water storage tank also Sewerage system will be provided. Cost towards the same will be around Rs.50 Lakhs	
5	Desilting has not	Desilting will be undertaken	

	been done in two lakes near project site	in the nearby 2 lakes. The Cost for same will be around Rs.15 lakhs	furniture for the Government schools. • Sports equipments for the Government schools. • Solar lighting facilities for the Government schools. • Providing Medical equipments for primary health centre. • Providing trolleys to Local Panchayat for transport of Municipal Solid Waste • Solid Waste Disposal Bins • Construction of Rainwater Harvesting Pits • Avenue Plantation • Solar lighting facilities • Scientific Support/Awareness to farmers • Skill development for youth
6	No approach to burial ground	As per the Thiruvallur Collector Letter dated 10.06.2019, the burial ground is excluded from the proposed Industrial Park area and SIPCOT will provide and maintain access road for the burial ground	

(xxiii) **Whether the project involves diversion of forest land: If yes, provide the extent of the forest land involved and status of the forest clearance.;** Not applicable.

(xxiv) **Whether the project is located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc.: If yes, provide details of the PA, distance from project site and status of clearance from National Board for wild life.:** Pulicat Bird Sanctuary is 5.77km (NE) from site. NBWL NoC has been applied.

(xxv) **Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC: If yes, provide the status of recommendation of the Monitoring Committee of ESZ/ESA.:** Not applicable.

(xxvi) **Waste Management: Provide details of waste water quantity, treatment capacity, recycling/reuse of treated water and disposal, Solid Waste Management, and Hazardous Waste Management.: Sewage generation-** 210 KLD. Individual industries will be mandated to provide STP for recycling of treated sewage for green belt development. **Effluent generation** -3472 KLD. Individual industries will be mandated to provide ETP to achieve Zero Liquid Discharge concept. Treated effluent will be recycled by industries for process and utilities. The rejects from RO will be treated by individual industries in ATFD and salt will be disposed as hazardous waste. ATFD condensate will be recycled for utilities/ process.

Municipal Solid Waste Generation and Management:

Sl. No.	Waste type	Construction phase (kg/day)	Operation phase (kg/day)	Management measure (for operational phase)
1	Organic waste	13.5	1350	**MSW in Industrial Plots:** SIPCOT will mandate all the industries to manage the Municipal Solid generated by them within their premises as per norms. Municipal Solid wastes will be segregated by individual industries as organic and inorganic wastes. Organic wastes will be composted by individual industries in Organic Waste Convertor or Bio methanation plant and used for green belt development. Inorganic wastes will be sold to TNPCB authorized recyclers by the industries. **MSW in area apart from Industrial Plots:** SIPCOT has earmarked 24.060 Acres of land for establishment of Solid Waste Management facility Organic wastes will be composted by vermi composting and compost will be used as manure for green belt development. Inorganic waste will be sold to TNPCB authorized recyclers
2	Inorganic waste	9	900	
3	**Total**	**22.5**	**2250**	

Norms: waste generation @0.45 Kg/capita/day.

Population for construction phase – 50 nos. operation phase – 5000 nos. As a provision to have in house and independent Solid Waste Management facility 24.060 Acres (3.48%of Industrial Park area) has been earmarked for Solid Waste Management Facility. In future, based on need, SIPCOT will float tender and provide land to private players for the establishment of Municipal Solid Waste Management facility on BOOT basis. **Hazardous waste generation and Management**: Individual industries, will have their own storage area for storing Hazardous waste, within their premises and the hazardous wastes will be sent to TNWML for recycling /disposal as per the Hazardous and other Wastes (Management and transboundary movement) amended rules 2016.

(xxvii) **CETP: Provide details including type and quantity of effluent, effluent conveyance system from the member units to CETP with CETP's Capacity.:** Not applicable. Individual industries will be mandated to provide ETP. Effluent quantity – 3472 KLD.

(xxviii) **STP: Provide details of treatment and usage of treated sewage with STP's capacity.:** Not applicable. Individual industries will be mandated to provide STP and treated sewage will be recycled for green belt development and flushing by individual industries.

(xxix) **Details of tree cutting and Green belt development.:** Total number of trees within the site = 2153 (1649 trees +459 mango saplings). The trees available at site are Mango, Coconut, Guava, Sappota, Eucalyptus, amla, Neem, Cashew, Banyan, Papaya, Palm, Teak and Naga. The trees along the periphery of the site and in OSR area will be preserved as such.If not possible the trees will be uprooted and planted along the green belt area allotted at site. In case of necessity to cut the trees by individual industries in their plots, the industry will plant additional 3 trees for cutting one tree as compensation in their greenbelt area. Greenbelt area is 243.437 Acres (35.20% of total area of Industrial Park).

Green belt area breakup within the Industrial Park:

S.No	Green belt details	Area (Acres)
1	OSR area	69.160
2	25% Green belt along the plotted area	119.18
3	3 m green belt along the road side	15.94
4	Green belt along the periphery of the site	39.157
Total greenbelt area		**243.437**

(xxx) **Energy conservation measures with estimated saving.:** Solar lighting is proposed for 70% of lighting along the roads. The estimated solar power generation would be around 40KW. Apart from this, individual industries will be insisted to provide roof top solar panels to reduce power consumption.

	(xxxi)	**Parking requirement with provision made.:** 100 Sq.m area will be allotted for parking in the common amenities. Upon establishment of the Industrial Park, individual industries will have their own parking area within the industrial plots.
	(xxxii)	**Details of Rain Water Harvesting.;** Rainwater harvesting pits are proposed in common amenities, green belt area and roads for recharging the ground water table. Around 166 no of pits are proposed with 250mm dia and 1000mm depth. Apart from these individual industries will be mandated to provide rain water harvesting pits in their plots.
	(xxxiii)	**Brief description of Socio-economic condition of local people:** Though agriculture is the main occupation of Thiruvallur district, being close to Chennai and fast industrialization has resulted in shift in the occupation pattern. Out of the total workers only 4.78% of workers are cultivators and 17.59% of workers are Agricultural labourers. The district has good number of public health systems accessible and affordable apart from the private health facilities. The project site is free from habitation. The entire extent of land (279.995 ha) is Government poramboke land and is already handed over to SIPCOT by Government of Tamil Nadu for development of Industrial Park. Hence, there is no Rehabilitation and Resettlement for this project.
	(xxxiv)	**Land acquisition and R&R issues involved:** The entire land of 279.995 Ha has been allotted to SIPCOT. Details are given below. While obtaining ToR for the Industrial Park, the land area was considered as 303.75 Ha (300.765 Ha of poramboke land and 2.985 Ha of patta land) based on the administrative sanction issued by Government of Tamil Nadu for development of Industrial Park at Manallur vide G.O (Ms) No.119 dated 07.06.2013. G.O (Ms) No.119 dated 07.06.2013. While applying for EC, the poramboke land extent was reduced to 283.08 ha vide Government of Tamil Nadu land alienation GO (Ms) No. 285 dated 03/08/2018. Accordingly, in EC application the land extent was considered at 286.065 Ha (283.08 Ha of poramboke land vide per GO (Ms) No. 285 dated 03/08/2018 and 2.985 Ha of patta land vide GO.(Ms) no. 119 dated 07.06.2013). GO (Ms) No. 285 dated 03/08/2018. The project area is now further reduced from 286.065 ha to 279.99.5 ha due to the following reasons: • 3.085 Ha of poramboke land has been excluded by Thiruvallur District Collector vide letter no. 14888/2018 dated 10.06.2019. • 2.985 Ha of patta land is also excluded from land acquisition and the total area of the Industrial Park is reduced to 279.99.5 Ha. • Land Delivery Receipt in proof of taking over possession of 279.99.5 Ha of land from Zonal Deputy Tahsildar.

	Thiruvallur District Collector letter no. 14888/2018 dated 10.06.2019. Land Delivery Receipt: As per the Land delivery receipt, the entire land has been handed over to SIPCOT. There is no R&R involved for this project. (xxxv) **Employment potential, No. of people to be employed:** Construction phase: 50 Nos. Operation phase: 5000 Nos. (xxxvi) **Benefits of the project:** • There will be an opportunity for job at different cadres and work force. • This project will have positive impact on the socio economic status of the surrounding human environment and increased inflow to the Tamil Nadu Government. • Proposed Industrial Park will help in revenue generation for the State as well as to the Country. (xxxvii) **Brief summary of specialised Studies carried out for the project as per the ToR:** Not applicable. (xxxviii) **Details of Court cases:** Not applicable.
4.3.2	The EAC, during 239th meeting held on 29-30 July, 2020, observed that revalidated EIA/EMP report by present EIA Consultant, i.e., M/S Hubert Enviro Care Systems (P) Ltd., Chennai, has not been uploaded on PARIVESH. Further, the revalidated report, which had been circulated to members, was not submitted along with ADS reply to this Ministry. Accordingly, the EAC deferred the proposal for want of following information: (i) Submission of NOC from earlier consultant, i.e., M/s CEHS Annamalai University for utilizing their EIA/EMP report by M/s Hubert Enviro Care Systems (P) Ltd Chennai. (ii) Submission of NOC from earlier consultant, i.e., ITCOT Consultancy and Services Limited for utilizing the baseline data by M/s Huber Enviro Care Systems (P) Ltd Chennai. (iii) Submission of detail process of revalidation of baseline data and EIA/EMP report by M/s Huber Enviro Care Systems (P) Ltd Chennai. (iv) Submission of revised and validated EIA/EMP report on PARIVESH along with duly signed declaration of experts involved in this process, from M/s Huber Enviro Care Systems (P) Ltd Chennai, for this project. (v) Proponent is required to make detailed presentation before EAC covering all the above points and also earlier ADS raised for this proposal.
4.3.3	The EAC, after examining the documents submitted by the project proponent and detailed deliberations during its 241st meeting on 25-26 August, 2020, **recommended** the proposal for grant of **Environmental Clearance**, with the specific conditions, as mentioned below in this para, in addition to all standard conditions applicable for such projects: (i) The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not

	tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes as applicable to the project. (ii) The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC. (iii) No groundwater shall be used at any stage of project. (iv) No waste water shall be discharged to the rivers/streams or waterbodies. The proponent shall utilize the treated effluent and sewage for achieving zero discharge and scheme for the same shall be approved by CPCB and SPCB. (v) As committed by proponent, dense tree plantation of native species shall be developed in collaboration with the State Forest Department to control air pollution during operation phase of the project. Detailed plan in this regard shall be submitted to Ministry's regional office within 3 months of grant of environmental and CRZ clearance to this project. (vi) Permission from Irrigation Department for obtaining surface water to be obtained. Consent to Operate shall not be issued without obtaining permission competent authority for use of surface water. (vii) Detailed plan of expenditure with implementation schedule to address issues raised during Public Hearing shall be prepared and submitted to the Regional Office of this Ministry within three months. The proponent shall adhere the strict compliance of above plan to utilize funds as per schedule. (viii) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 1st May, 2018, project proponent has proposed that an amount of Rs. 4.25 Crores (computed on slab basis for the project cost of Rs. 250 Crores) shall be earmarked under Corporate Environment Responsibility (CER) Plan with special focus on providing healthcare facilities to the government hospitals in light of COVID 19 pandemic. A small portion of the fund can also be used for the activities such as Health, Water supply, Sanitation, Road development, Solar lights in nearby areas and Education etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.
4.4	**Development of 4/8 lane Access Controlled Anantapur-Amravati (Chilakaluripet) green field alignment NH-544F starting from its junction NH-44 ner Maruru (Raptadu), Anantapur district at km 0.000 connecting Itukalapalli, Husenapuram (Tadipatri), Nagireddipalli and terminating at NH-40 near Nallagala, Kurnool district at km 126.000 in the state of Andhra Pradesh (length 126.000 km) - Package-I by M/s National Highways Authority of India – Terms of Reference**

	[Proposal No. IA/AP/NCP/167754/2020][File No. 10-48/2020-IA.III]
4.4.1	The project proponent along with the EIA consultant M/s Aarvee Associates, Hyderabad, made a presentation through Video Conferencingand provided the following information: (i) **Brief description of the Proposal:** Development of 4/8 lane Access control Anantapur-Amaravati (Chilakaluripet) green field alignment NH-544F starting from its junction with NH-44 near Maruru (Raptadu), Anantapur district at km.0.000 connecting Itukalapalli, Husenapuram (Tadipatri), Nagireddipalli and terminating at NH 40 near Nallagatla, Kurnool district at km. 126.000 in the state of Andhra Pradesh (total length: 126.000 km). Package-I. (ii) **Nature of project (New/Expansion/Amendment/Extension etc.):** Present project is Construction of the proposed four lane access controlled Expressway connecting New Capital City Amaravati to Ananthapuramu in the State of Andhra Pradesh (Section I from Km 0.000 to Km 126.000).The land use in the project area is cultivated and barren lands. (iii) **Address of project site (Plot No./ Village/ Tehsil/ District/State):** In Andhra Pradesh state as per above Chainage. (iv) **Geo-coordinates of project site:** The environmental impact assessment is conducted in accordance with the requirement of the Ministry of Environment & Forests (MoEFCC) norms and guidelines. Environment Impact Assessment Decision Supporting System (EIADSS) for used to identifying the appropriate alignment of the project. (v) **Connectivity to the site:** The study districts are having a good transport system in the State of Andhra Pradesh. These are connected to all the major cities across the country through various major and local highways, railways and air. There is a couple of major highways. State Highways and MDRs, Panchayat roads etc. Common modes of road transport with in the cities /towns are city buses, cars andauto-rickshaws. (vi) **Investment/Cost of the project:** The total cost of the project is 4,051.715 crores. (vii) **Landuse/Landcover of project site in tabular form:** Cultivated and barren fields. (viii) **Terrain and topographical features:** Project area is having plain terrain. Average Mean Sea Level of the project region in Anantapur is + 335 m and project region in Kurnool is + 273 m. Project does not require filling. (ix) **Details of water bodies, impact on drainage:** No diversion of water bodies envisaged for the proposed project. (x) **Water requirements, sources (during construction and operation phases) and NOC:** Total requirement of water for the construction work is 60,43,108 KL. 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. (xi) **Whether the project is in Critically Polluted area:** No. (xii) **Tree cutting, types, numbers, girth size etc.:** A total of 7,515 trees which are coming in the alignment needs to be removed and 22,545 trees will be planted under compensatory plantation. (xiii) **Whether the project involves diversion of forest land:** Yes, Extent of 48.5 Ha. (xiv) **Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC:** No. (xv) **STP:** Sewage generating temporarily from labour camps will be discharged into septic tanks with soak pit facility. The solid wastes mainly of earth materials 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 will be disposed off to the nearest identified location of disposal/landfill sites of local authority with payments in environmentally acceptable manner. For sewerage disposal, septic tanks with soak pits will be provided at campsites. Salvage material/demolition wastes will be reused to the possible extent in embankments, shoulders, slopes, approach roads and temporary camp sites. Unused waste will be dumped in earmarked dump yard as per applicable guidelines. (xvi) **Employment potential, No. of people to be employed:** It is anticipated that it will create employment for 7200 during peak construction period (two years) and for 3600 during non-peak construction phase (two years) for the skilled and unskilled work force in the area. (xvii) **Benefits of the project:** Project is intended to augment the Transport Infrastructure in the state of Andhra Pradesh and boost the industrial and tourism sectors by providing faster inter-region connectivity. The travel time from the Capital city to other main cities like Bengaluru, Tirupati, etc., will reduce. The project road will cause several benefits to local people both during construction and operation stage. Besides providing better mode and frequency of transport, access to quality health care facilities, educational and other infrastructural facilities will increase economic activities especially supporting transport like gasoline station, automotive repair shops, lodging and restaurants. Increase agro-industrial activities are also expected to take an advantage of improved access to urban centres, where there are higher demands and better prices for agricultural products. Further, tourism activities in the area and state will be enhanced which in many terms will boost the local economy and build better investment climate for industries creating more employment opportunities to localpeople. (xviii) **Details of Court cases:** No court cases are present for the present proposed project.

4.4.2	The EAC, after examining the documents submitted by the project proponent and detailed deliberations during 241st meeting held on 25-26 August, 2020, **recommended** the project for grant of **Terms of Reference (ToR)**, and for preparation of EIA/EMP report with public consultations subject to compliance of all conditions as notified in the standard ToR applicable for such projects and specific conditions, as mentioned below: (i) The proponent, with the help of an independent institution/expert of national repute, shall carry out the impact of proposed alignment on avifauna, associated biodiversity and wetland ecology including ecological productivity of the important lakes/waterbodies situated within 10 km distance of proposed alignment) and prepare a detailed Conservation Plan along with adequate mitigation measures. The plan shall be duly prepared in consultation with respective Forest/Wildlife Departments of the Governments of Tamil Nadu and Puducherry. (ii) The proponent, with the help of an independent institution/expert of national repute, shall carry out a comprehensive socio-economic assessment and also Impact on Biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels. (iii) The proponent, with the help of an independent institute/expert of national repute, shall carry out a detailed traffic study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included. (iv) Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety. (v) Cumulative impact assessment study to be carried out along the entire stretch including the other packages in the same stretch. (vi) Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers. (vii) Provide compilation of road kill data on existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan. (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.

	(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. (x) The activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be as per ministry's O.M No 22-65/2017-IA.II (M) dated 1st May, 2018 and the action plan on the activities proposed under CER shall be submitted at the time of appraisal of the project included in the EIA/EMP Report. (xi) The PP shall not use groundwater/surface water without obtaining approval from CGWA/SGWA as the case may be. The project proponent shall apply to the Central Ground Water Authority (CGWA)/State Ground Water Authority (SGWA)/Competent Authority, as the case may be, for obtaining No Objection Certificate (NOC), for withdrawal of ground water. (xii) 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.
4.5	**Development of 4/8 lane Access Controlled Anantapur-Amaravati (Chilakaluripet) green field alignment NH-544F starting from its junction with NH-40 near Nallagatla, Kurnool district at km.126.000 connecting Rudravaram, Tripurapuram, Giddalur, Yadavalli, Aurangabad and terminating at near junction with NH-565 near Ganugapenta, Prakasam district at km. 236.000 including 6 Nos. of 6-lane tunnel in the state of Andhra Pradesh (total length: 110.000 km), package-II by M/s National Highways Authority of India – Terms of Reference** **[Proposal No. IA/AP/NCP/168174/2020] [File No. 10-49/2020-IA.III]**
4.5.1	The project proponent along with the EIA consultant M/s Aarvee Associates, Hyderabad, made a presentation through Video Conferencingand provided the following information: (i) **Brief description of the Proposal:** Development of 4/8 lane Access control Anantapur-Amaravati (Chilakaluripet) green field alignment NH-544F starting from its junction with NH--40 near Nallagatla, Kurnool district at km.126.000 connecting Rudravaram, Tripurapuram, Giddalur, Yadavalli, Aurangabad and terminating at near junction with NH 565 near Ganugapenta, Prakasam district at km. 236.000 including 6Nos. of 6-lane tunnel in the state of Andhra Pradesh (total length: 110.000 km), package-II (ii) **Address of project site (Plot No./ Village/ Tehsil/ District/State):**In Andhra Pradesh state as per aboveChainage. (iii) **Geo-coordinates of project site:** The environmental impact assessment is conducted in accordance with the requirement of the Ministry of Environment & Forests (MoEF&CC) norms and guidelines. Environment Impact Assessment Decision Supporting System (EIADSS) for used to identifying the appropriate alignment of the project. (iv) **Area (ha)/Length (km) of the proposed project:** Present project is Construction of the proposed four/six lane access controlled

		Expressway connecting New Capital City Amaravati to Ananthapuram in the State of Andhra Pradesh. The present section starts at Km 126.000 and ends at Km 236.000. The land use in the project area is cultivated, Forest and barren lands. (v) **Connectivity to the site:** The study districts are having a good transport system in the State of Andhra Pradesh. These are connected to all the major cities across the country through various major and local highways, railways and air. There is a couple of major highways. State Highways and MDRs, Panchayat roads etc. Common modes of road transport within the cities /towns are city buses, cars and auto-rickshaws. (vi) **Investment/Cost of the project:** The total cost of the project is 6,562.35crores. (vii) **Landuse/Landcover around 10 km radius of project site (1 km in case of Highway projects):** Cultivate, Forest and barren fields. (viii) **Terrain and topographical features:** Project area is having plain terrain. Average Mean Sea Level of the project region in project region in Kurnool is + 273 m, Project region in prakasam +11 m. Project does not require filling. (ix) **Details of water bodies, impact on drainage:** No diversion of water bodies envisaged for the proposed project. (x) **Water requirements, sources (during construction and operation phases) and NOC:** Total requirement of water for the construction work is 45,86,218 KL. 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. (xi) **Groundwater extraction/usage and NOC/Clearance from CGWA/State Ground Water Department:** (xii) **Whether the project is in Critically Polluted area:** No. (xiii) **Tree cutting, types, numbers, girth size etc.:** A total of 65,988 trees which are coming in the alignment needs to be removed and 1,97,964 trees will be planted under compensatory plantation. (xiv) **Whether the project involves diversion of forest land:** Yes, Extent of 230.90 Ha. (xv) **Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC:** Eco Sensitive zone of Gundla Brahmeswaram Wildlife Sanctuary. The nearest point between Alignment and Core GBM Sanctuary is 6.300 km). The alignment also passes through Limiting boundary proposed by NTCA (not a notified area). (xvi) **STP:** No permanent waste water/ sewage generation is envisaged from the present project. However, the temporary waste water generated will be treated as per the guidelines. Sewage generating temporarily from labour camps will be discharged into septic tanks

	with soak pit facility. The solid wastes mainly of earth materials 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 will be disposed off to the nearest identified location of disposal/landfill sites of local authority with payments in environmentally acceptable manner. For sewerage disposal, septic tanks with soak pits will be provided at campsites. Salvage material/demolition wastes will be reused to the possible extent in embankments, shoulders, slopes, approach roads and temporary camp sites. Unused waste will be dumped in earmarked dump yard as per applicable guidelines. (xvii) **Employment potential, No. of people to be employed:** It is anticipated that it will create employment for 11,500 during peak construction period (two years) and for 5,750 during non-peak construction phase (two years) for the skilled and unskilled work force in the area. (xviii) **Benefits of the project:** Project is intended to augment the Transport Infrastructure in the state of Andhra Pradesh and boost the industrial and tourism sectors by providing faster inter-region connectivity. The travel time from the Capital city to other main cities like Bengaluru, Tirupati, etc., will reduce. The project road will cause several benefits to local people both during construction and operation stage. Besides providing better mode and frequency of transport, access to quality health care facilities, educational and other infrastructural facilities will increase economic activities especially supporting transport like gasoline station, automotive repair shops, lodging and restaurants. Increase agro-industrial activities are also expected to take an advantage of improved access to urban centres, where there are higher demands and better prices for agricultural products. Further, tourism activities in the area and state will be enhanced which in many terms will boost the local economy and build better investment climate for industries creating more employment opportunities to local people. (xix) **Details of Court cases:** No court cases are present for the present proposed project.
4.5.2	The EAC, after examining the documents submitted by the project proponent and detailed deliberations during 241stmeeting held on 25-26 August, 2020, **recommended** the project for grant of **Terms of Reference (ToR)**, and for preparation of EIA/EMP report with public consultations subject to compliance of all conditions as notified in the standard ToR applicable for such projects and specific conditions, as mentioned below: (i) The proponent, with the help of an independent institution/expert of national repute, shall carry out the impact of proposed alignment on avifauna, associated biodiversity and wetland ecology including ecological productivity of the important lakes/waterbodies situated within 10 km distance of proposed alignment) and prepare a detailed Conservation Plan along with adequate mitigation measures. The plan shall be duly prepared in consultation with respective Forest/Wildlife Departments of the

		Governments of Tamil Nadu and Puducherry.
	(ii)	The proponent, with the help of an independent institution/expert of national repute, shall carry out a comprehensive socio-economic assessment and also Impact on Biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.
	(iii)	The proponent, with the help of an independent institute/expert of national repute, shall carry out a detailed traffic study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.
	(iv)	Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety.
	(v)	Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers.
	(vi)	Provide compilation of road kill data on existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan.
	(vii)	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.
	(viii)	Cumulative Impact assessment study to be carried out along the entire stretch including the other packages in the same stretch.
	(ix)	Explore the possibility of Tunnel in entire forest area and path of Tiger corridor and wildlife sanctuary (v1 to V5) and also explore the possibility of alternative road.
	(x)	Detailed hydrological and subsidence studies to be carried out in tunnel area.
	(xi)	Wildlife clearance to be obtained
	(xii)	NOC from NTCA also to be obtained
	(xiii)	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.
	(xiv)	The activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be as per ministry's O.M No 22-65/2017-IA.II

	(M) dated 1st May, 2018 and the action plan on the activities proposed under CER shall be submitted at the time of appraisal of the project included in the EIA/EMP Report. (xv) 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. (xvi) 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.
4.6	**Development of 4/8 lane Access Controlled Anantapur-Amaravati (Chilakaluripet) green field alignment NH-544F starting near the junction with NH-565 near Ganugapenta, Prakasam district at Km.236.000 connecting Vaddipadu, Sangapuram, Alavalapadu, Vemavaram, Nuzendla, Murikipudi and terminating at its junction with Chilakaluripeta Bypass of NH-16 near Boppudi, Guntur District at Km. 335.182 in the State of Andhra Pradesh (Total Length: 99.182 km), package-III by M/s National Highways Authority of India – Terms of Reference** **Proposal No. IA/AP/NCP/168040/2020 and File No. 10-50/2020-IA.III**
4.6.1	The project proponent along with the EIA consultant M/s Aarvee Associates, Hyderabad, made a presentation through Video Conferencingand provided the following information: (i) **Brief description of the Proposal:** Development of 4/8 lane Access control Anantapur-Amaravati (Chilakaluripet) green field alignment NH-544F starting near the junction with NH-565 near Ganugapenta, Prakasam district at Km.236.000 connecting Vaddipadu, Sangapuram, Alavalapadu, Vemavaram, Nuzendla, murikipudi and terminating at its junction with Chilakaluripeta Bypass of NH-16 near Boppudi, Guntur District at Km. 335.182 in the State of Andhra Pradesh (Total Length: 99.182 km), package-III. (ii) **Nature of project (New/Expansion/Amendment/Extension etc.):** Present project is Construction of the proposed four/six lane access controlled Expressway connecting New Capital City Amaravati to Ananthapuramu in the State of Andhra Pradesh. The land use in the project area is cultivated and barren lands. The project components Connectivity to the site and other details are enclosed in 'Brief summary of the project' as Annexure – II. (iii) **Address of project site (Plot No./ Village/ Tehsil/ District/State):**In Andhra Pradesh state as per above Chainage. (iv) **Area (ha)/Length (km) of the proposed project:** Present project is Construction of the proposed four/six lane access controlled Expressway connecting New Capital City Amaravati to Ananthapuramu in the State of Andhra Pradesh. The land use in the project area is cultivated and barren lands. (v) **Connectivity to the site:** The study districts are having a good transport system in the State of Andhra Pradesh. These are

		connected to all the major cities across the country through various major and local highways, railways and air. There is a couple of major highways. State Highways and MDRs, Panchayat roads etc. Common modes of road transport with in the cities /towns are city buses, cars and auto-rickshaws.
	(vi)	**Investment/Cost of the project:** The total cost of the project is 2918.14 crores.
	(vii)	**Landuse/Landcover around 10 km radius of project site (1 km in case of Highway projects):** Cultivate and barren fields.
	(viii)	**Terrain and topographical features:** Project area is having plain terrain. Average Mean Sea Level of the Project region in prakasam +11 m, project region in Guntur +31m. Project does not require filling.
	(ix)	**Details of water bodies, impact on drainage:** No diversion of water bodies envisaged for the proposed project.
	(x)	**Water requirements, sources (during construction and operation phases) and NOC:** Total requirement of water for the construction work is 45,86,218KL. 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.
	(xi)	**Whether the project is in Critically Polluted area:** No.
	(xii)	**Tree cutting, types, numbers, girth size etc.:** A total of 5,898 trees which are coming in the alignment needs to be removed and 17,694 trees will be planted under compensatory plantation.
	(xiii)	**Whether the project involves diversion of forest land:** Yes, Extent of 38 Ha.
	(xiv)	**Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC:** No.
	(xv)	**STP:** Sewage generating temporarily from labour camps will be discharged into septic tanks with soak pit facility. The solid wastes mainly of earth materials 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 will be disposed off to the nearest identified location of disposal/landfill sites of local authority with payments in environmentally acceptable manner. For sewerage disposal, septic tanks with soak pits will be provided at campsites. Salvage material/demolition wastes will be reused to the possible extent in embankments, shoulders, slopes, approach roads and temporary camp sites. Unused waste will be dumped in earmarked dump yard as per applicable guidelines.
	(xvi)	**Employment potential, No. of people to be employed:**It is anticipated that it will create employment for 6000 during peak construction period (two years) and for 2700 during non-peak construction phase (two years) for the skilled and unskilled work force

	in the area. (xvii) **Benefits of the project:** Project is intended to augment the Transport Infrastructure in the state of Andhra Pradesh and boost the industrial and tourism sectors by providing faster inter-region connectivity. The travel time from the Capital city to other main cities like Bengaluru, Tirupati, etc., will reduce. The project road will cause several benefits to local people both during construction and operation stage. Besides providing better mode and frequency of transport, access to quality health care facilities, educational and other infrastructural facilities will increase economic activities especially supporting transport like gasoline station, automotive repair shops, lodging and restaurants. Increase agro-industrial activities are also expected to take an advantage of improved access to urban centers, where there are higher demands and better prices for agricultural products. Further, tourism activities in the area and state will be enhanced which in many terms will boost the local economy and build better investment climate for industries creating more employment opportunities to local people. (xviii) **Details of Court cases:** No court cases are present for the present proposed project.
4.6.2	The EAC, after examining the documents submitted by the project proponent and detailed deliberations during 241st meeting held on 25-26 August, 2020, **recommended** the project for grant of **Terms of Reference (ToR)**, and for preparation of EIA/EMP report with public consultations subject to compliance of all conditions as notified in the standard ToR applicable for such projects and specific conditions, as mentioned below: (i) The proponent, with the help of an independent institution/expert of national repute, shall carry out the impact of proposed alignment on avifauna, associated biodiversity and wetland ecology including ecological productivity of the important lakes/waterbodies situated within 10 km distance of proposed alignment) and prepare a detailed Conservation Plan along with adequate mitigation measures. The plan shall be duly prepared in consultation with respective Forest/Wildlife Departments of the Governments of Tamil Nadu and Puducherry. (ii) The proponent, with the help of an independent institution/expert of national repute, shall carry out a comprehensive socio-economic assessment and also Impact on Biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels. (iii) The proponent, with the help of an independent institute/expert of national repute, shall carry out a detailed traffic study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation

	plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included. (iv) Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety. (v) Cumulative Impact assessment study to be carried out along the entire strech including the other packages in the same strech. Cumulative Impact asessment study to be carried out along the entire stretch including the other packages in the same stretch (vi) Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers. (vii) Provide compilation of road kill data on existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan. (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. (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. (x) The activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be as per ministry's O.M No 22-65/2017-IA.II (M) dated 1st May, 2018 and the action plan on the activities proposed under CER shall be submitted at the time of appraisal of the project included in the EIA/EMP Report. (xi) The PP shall not use groundwater/surface water without obtaining approval from CGWA/SGWA as the case may be. The project proponent shall apply to the Central Ground Water Authority (CGWA)/State Ground Water Authority (SGWA)/Competent Authority, as the case may be, for obtaining No Objection Certificate (NOC), for withdrawal of ground water. (xii) 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.
4.7	**Construction of 4 lanes Access Controlled (New NH-365BG) Greenfield Highway Section of Khammam to Devarapalli of length 162.126 km from Khammam in the state of Telangana & Andhra Pradesh under Economic Corridor under Bharatmala Pariyojana by M/s National Highways Authority of India – Terms of Reference.** **[Proposal No. IA/TG/NCP/166585/2020] [File No. 10-51/2020-IA.III]**
4.7.1	The project proponent along with the EIA consultant M/s Enviro Infra solutions, Gaziabad, made a presentation through Video Conferencing and provided the

following information:

(i) **Brief description of the Proposal:** The proposed project is Construction of 4 lane Access Controlled (New NH-365BG) Greenfield Highway Section from Khammam to Devarapalle of length 162.126 km from Khammam in the state of Telangana to Devarapalle in the State of Andhra Pradesh under Economic Corridor under Bharatmala Pariyojana. The alignment starts from Khammam in the state of Telangana to Devarapalle in the State of Andhra Pradesh from CH: 0+000 to 162+126. Alignment has been approved vide letter NHAI/Tech/AP/DPR/KMT-ASH//2018-19/120350, Dated. 24.07.2018 (Minutes of Meeting dated: 17.07.2018).

(ii) **Nature of project (New/Expansion/Amendment/Extension etc.):** New.

(iii) **Whether the proposal was considered in earlier meetings of EAC: If yes, provide date of EAC meeting and reasons for deferment, if any:** Not applicable.

(iv) **Whether proposal is part of interlinked project: If yes, provide details in brief:** No.

(v) **Address of project site (Plot No./ Village/ Tehsil/ District/State):** The alignment starts from Khammam in the state of Telangana to Devarapalle in the State of Andhra Pradesh from CH: 0+000 to 162+126. Alignment has been approved vide letter NHAI/Tech/AP/DPR/KMT-ASH//2018-19/120350, Dated. 24.07.2018 (Minutes of Meeting dated: 17.07.2018).

(vi) **Geo-coordinates of project site:**

- Start Location: 17°14'5.75"N 80°03'34.46"E
- End Location: 17°2'43.40"N, 81°32'3.83"E

(vii) **Site alternatives under consideration:** Alternate sites were not analysed.

(viii) **Area (ha)/Length (km) of the proposed project:** 162.126 km.

(ix) **Connectivity to the site:** The site is approachable by NH365BB near Khammam and by NH16 Devarapalli-Kovvuru section road near Devarapalli. The proposed alignment is connected with Khammam, Kodad, Wyra, Madhira, Penuballi, Sathupally, Eluru, Jangareddygudem, Devarapalli, Kovvur and Rajamundry.

(x) **Investment/Cost of the project: Rs.** 2780.53 Crores.

(xi) **Item of Schedule to the EIA Notification, 2006:** 7 (f).

(xii) **Applicability of General/Specific Conditions as per EIA Notification, 2006:** No.

(xiii) **Why appraisal/ approval is required at the Central level:** Category "A" as per EIA notification – 14, September 2006 and its amendments.

(xiv) **Whether project involves any violation under notification S.O 804(E) dated 14.03.2017:** No.

(xv) **Landuse/Landcover of project site in tabular form:**

S.No.	Landuse / Landcover	Area (ha)	Percentage %	Remarks if any
1.	Private land	989.06	92.13	Agriculture Land
2.	Government land	84.47	7.87	Agriculture Land
3.	Forest land	Nil	Nil	
	Total	**1073.53**	**100**	-

(xvi) **Landuse/Landcover around 10 km radius of project site (1 km in case of Highway projects):** This is a Greenfield project. The alignment is passing through agriculture land.

(xvii) **List to industries to be housed with the proposed project site, only for projects covered under 7(c) category of EIA Notification, 2006:** Not Applicable.

(xviii) **Right of Way (RoW), only for projects covered under 7(f) category of EIA Notification, 2006:** 60m.

(xix) **Terrain and topographical features:** The terrain of the alignment is basically flat to undulating in nature.

(xx) **Details of water bodies, impact on drainage:** There are 5 Rivers and 15 Canals are crossing the proposed alignment. Also there is presence of two reservoirs (Vengalarao Reservoir and Wyra Reservoir which are 1.0 km and 2.5 km respectively away from the proposed alignment. There shall be no major impact on the drainage system as sufficient numbers of structures (such as culverts, minor bridges etc.) will be constructed.

(xxi) **Water requirements, sources (during construction and operation phases) and NOC:** Total requirement of water for the construction is estimated 4,417 KLD which will be met through surface water and ground water proposed to be used only for camp site for transient period after obtaining the permissions from appropriate authority.

(xxii) **Groundwater extraction/usage and NOC/Clearance from CGWA/State Ground Water Department:** Ground water proposed to be used only for camp site for transient period after obtaining the permissions from appropriate authority.

(xxiii) **Whether the project is in Critically Polluted area:** No.

(xxiv) **Tree cutting, types, numbers, girth size etc.:** The alignment will require cutting of approximately 2,446 no. of trees.

(xxv) **Whether the project involves diversion of forest land: If yes, provide the extent of the forest land involved and status of the**

forest clearance.: No forest area is involved.

(xxvi) **Whether the project is located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc.: If yes, provide details of the PA, distance from project site and status of clearance from National Board for wild life.:** Not applicable.

(xxvii) **Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC: If yes, provide the status of recommendation of the Monitoring Committee of ESZ/ESA.:** Not applicable.

(xxviii) **Whether project site is in CRZ area if yes furnish the CRZ map:** Not applicable.

(xxix) **Brief description of Socio-economic condition of local people:**

- The project Corridor Area falls under two States & two districts namely Telangana, Andhra Pradesh & Khammam and West Godavari.
- The entire Corridor population residing around 95 villages/ Hamlets/ Urban Municipal Wards.
- Majority of the population belongs to OC + BC Caste (68%).
- Majority of population belongs to 7+ age group (89.6%)
- Average Literacy Rate of the population is poor (57.94%)
- The work profile indicates majority of the main workers (89%) followed by marginal workers (11%).

(xxx) **Land acquisition and R&R issues involved:** The Project requires approx. 1073.53 ha. approx. land. Total 36 no. of structures are coming in the proposed RoW. The land will be acquired as per procedure laid down in RFCT LARR Act, 2013.

(xxxi) **Employment potential, No. of people to be employed:** During the construction of the road project around 1200 persons would be employed temporarily for a period of 2.5 years. However due to construction of toll plazas approx. 486 persons will be employed on permanent basis. Preference will be given to local people for employment.

(xxxii) **Benefits of the project:** This package starts from Khammam in the state of Telangana to Devarapalle in the State of Andhra Pradesh under Economic Corridor under Bharatmala Pariyojana by the Government of India. The proposed access controlled project with new alignment has been envisaged through an area which shall have the advantage of simultaneous development as well as shall result in a shorter distance to travel. The junctions with existing road will be planned in the form of interchanges and flyover to ensure uninterrupted flow of traffic. The proposed road would act as the prime artery for the economic flow to this region. It will enhance

	economic development, provide employment opportunities to locals, strengthen tourist development, ensure road safety, and provide better transportation facilities and other facilities such as way side amenities. Vehicle operating cost will also be reduced due to improved road quality. The compensatory plantation and road side plantation shall further improve the air quality of the region. (xxxiii) **Details of Court cases:** Not applicable.
4.7.2	The EAC, after examining the documents submitted by the project proponent and detailed deliberations during 241st meeting held on 25-26 August, 2020, **recommended** the project for grant of **Terms of Reference (ToR)**, and for preparation of EIA/EMP report with public consultations subject to compliance of all conditions as notified in the standard ToR applicable for such projects and specific conditions, as mentioned below: (i) The proponent, with the help of an independent institution/expert of national repute, shall carry out the impact of proposed alignment on avifauna, associated biodiversity and wetland ecology including ecological productivity of the important lakes/waterbodies situated within 10 km distance of proposed alignment) and prepare a detailed Conservation Plan along with adequate mitigation measures. The plan shall be duly prepared in consultation with respective Forest/Wildlife Departments of the Governments of Tamil Nadu and Puducherry. (ii) The proponent, with the help of an independent institution/expert of national repute, shall carry out a comprehensive socio-economic assessment and also Impact on Biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels. (iii) The proponent, with the help of an independent institute/expert of national repute, shall carry out a detailed traffic study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included. (iv) Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety. (v) Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers. (vi) Provide compilation of road kill data on existing roads (national and state

	highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan. (vii) 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. (viii) 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. (ix) The activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be as per ministry's O.M No 22-65/2017-IA.II (M) dated 1st May, 2018 and the action plan on the activities proposed under CER shall be submitted at the time of appraisal of the project included in the EIA/EMP Report. (x) 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. (xi) 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.
4.8	**Development of Greenfield Port at Vadhavan, District Palghar, Maharashtra by M/s Jawaharlal Nehru Port Trust (JNPT) – Terms of Reference.** **[Proposal No. IA/MH/MIS/164438/2020] [File No. 10-52/2020-IA.III]**
4.8.1	The project proponent along with the EIA consultant M/s Global Management and Engineering Consultants International, made a presentation through Video Conferencing and provided the following information: **(i) Brief description of the Proposal:** JNPT has proposed to develop a deep draft all weather port at Vadhvan, District- Palghar Maharashtra. The new port as major port is notified under the Indian Port Act 1908 by Government of India and it would be developed as land lord Port jointly by JNPT and Maharashtra Maritime board (MMB) with a shareholding of 74% and 26% respectively. The total area of the Project area is 17, 471 Ha out of which 16,900 Ha has been declared as Port Limit and 571 Ha outside port Limit. The Port Limit area has three components namely; • Water front area 15363.5 Ha • Reclamation of 1,473.0 ha for inter tidal zone • Berth area 63.5 Ha In addition to the above an area of 1,000 ha Govt Land has been earmarked for road and rail enabled services and port related infrastructure. The proposed project area lies in CRZ-I (A), CRZ I (B), CRZ – III and CRZ IV (A). The Estimated Project Cost is - Rs 65,544.54 Crs to be invested by SPV/ JV and Private Sector Concessionaires. **(ii) Nature of project (New/Expansion/Amendment/Extension etc.):**

New.

(iii) **Address of project site (Plot No./ Village/ Tehsil/ District/State):** Port project is located in foreshore and reclaimed land near Village Vadhavan, Tahsil: Dahanu, District-Palghar, Maharashtra.

(iv) **Geo-coordinates of project site:** A line drawn from the coast in Vadhavan region from. **Point A** (on the Coast): Lat. 19º 54' 26" N and Long. 72º 40' 34" E along the coast northward to **Point B** (on the Coast): Lat. 19º 57' 59" N, Long. 72º 42' 18" E including banks and shores up to high-water-marks and creeks within the line as far as navigable and into the sea westward to **Point C** (In territorial waters): Lat. 20º 0' 0" N Long. 72º 30'0" E, then southward to **Point D** (in territorial waters): Lat. 19º 54' 5" N Long. 72º 30' 0" E and back to coordinate (A) on the coast.

(v) **Site alternatives under consideration:** NA.

(vi) **Area (ha)/Length (km) of the proposed project:** The total area of the Project area is 17, 471 Ha out of which 16,900 Ha has been declared as Port Limit and 571 Ha outside port Limit. The Port Limit are has three components namely;

- Water front area 15363.5 Ha
- Reclamation of 1,473.0 ha for inter tidal zone
- Berth area 63.5 Ha

In addition to the above an area of 1,000 ha Govt Land has been earmarked for road and rail enabled services and port related infrastructure.

(vii) **Connectivity to the site:** The site is 150 km away from Mumbai on Northern side and 150 Km away from Nashik and 180 km away from Surat on western and southern side. Vadhavan's primary hinterland includes the state of Maharashtra. The secondary hinterland comprises of Gujarat, Madhya Pradesh, Chhattisgarh and northern states. Hinterland of Vadhavan Port.

(viii) **Investment/Cost of the project:** 65,544.54 Crores.

(ix) **Item of Schedule to the EIA Notification, 2006:** 7(e) Ports, Harbours.

(x) **Applicability of General/Specific Conditions as per EIA Notification, 2006:** NA.

(xi) **Landuse/Landcover of project site in tabular form:** The project envisage Reclamation of 1473 Ha and Acquisition of 571 ha. Reclamation of 1473 ha in inter tidal zone proposed near the shore in levels ranging from +4.2m CD to -2 m CD and acquisition of 571 ha land for road and rail linkages is proposed. Acquisition of additional land area of 1000 ha of Govt Land is proposed for road and rail related infrastructure and other allied services of port i.e solar power, corridor for power and water pipelines, public amenities, housing for employees and emergency personnel etc.

(xii) **Landuse/Landcover around 10 km radius of project site (1 km in**

		case of Highway projects): The new land use plan envisages to provide port facilities which essentially comprises of Port and Port related activities. It is proposed reclaim 1473 ha land in intertidal zone near to shore in levels ranging from +4.2m CD to up to 2 m CD. As per new land use plan it also proposed to acquire 571 ha of land for road and rail linkages owned by Private, Government and Forest Department. In addition to above it is proposed to acquire Government land of 1000 ha is also proposed for rail and road allied services of port in addition to Port related infrastructure like solar power, corridor for power and water pipelines, public amenities, housing for employees and emergency personnel etc.
	(xiii)	**Terrain and topographical features:** Topography of the intertidal zone is rocky and highly undulated. Casuarina plantations are observed along the shoreline. The bed levels in inter tidal zone are sloping west. The slope varies from 1:350 to as gentle as 1:2000 in some section Most of the rock at Vadhavan Point and off comprises rock of basaltic composition. The basaltic rock is dark grey, black and hard, tough and compact. The rock is susceptible to superficial weathering. Most part of the hard rock under the sea is weathered and degree of weathering varies from exposed rock to subsurface rock with subsurface rock more weathered than the exposed one.
	(xiv)	**Details of water bodies, impact on drainage:** Port project is located in foreshore and reclaimed land. Changes in water bodies or the land surface affecting drainage or run-off have not been envisaged in this project.
	(xv)	**Water requirements, sources (during construction and operation phases) and NOC:** Drinking water requirements will be met from State water supply Board i.e Maharashtra Jeevan Pradhikaran (MJP). The requirement for Drinking purpose is: 105KL/day (2630 peak manpowerX40 lit/day) Water required for Construction: (Peak): 800 KL/day.
	(xvi)	**Groundwater extraction/usage and NOC/Clearance from CGWA/State Ground Water Department:** No ground water extraction is envisage.
	(xvii)	**Whether the project is in Critically Polluted area:** Tarapur MIDC which is declared as Critically Polluted Area by CPCB in the Year 2018 is located at 12 km from Project site.
	(xviii)	**Tree cutting, types, numbers, girth size etc.:** NA.
	(xix)	**Whether the project involves diversion of forest land:** NA.
	(xx)	**Whether the project is located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries and Tiger Reserves etc.:** NA.
	(xxi)	**Whether the project is located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC:** NA.
	(xxii)	**Whether project site is in CRZ area if yes furnish the CRZ map:** The proposed project area lies in CRZ-I (A), CRZ I (B), CRZ – III and

CRZ IV (A) CRZ map is submitted.

(xxiii) STP: Provide details of treatment and usage of treated sewage with STP's capacity.: The Mobile STP plant will be provided for construction workers and site office/ premises and the treated water will be reused. Under no circumstances Treated or untreated liquid waste will be disposed into marine water. During operation phase, separate STP with adequate capacity will be constructed based on realistic sewage generated. Treated Water will be used for gardening.

(xxiv) For projects related to Port and harbour, provide details on:

- **Details of shore line change:** Mathematical Model Studies for Shoreline Changes has been carried out by CWPRS.
- **Details of channel, breakwaters, dredging, disposal and reclamation.:** The project involves Dredging, reclamation, land filling and disposal of dredged material as follows: Dredging – 12.34 Million Cubic metre, Reclamation/ Land Filling – 1473 Ha (Murrum Filling/Earth) (86.88 Million Cubic metre), Disposal – 12.43 Million Cubic Metre proposed to disposed off in deep sea at 30 metre contour if not found suitable for land filling
- **Handling of each cargo, storage, transport along with spillage control, dust preventive measures:** Cargos are potential sources of dust and would contribute to fugitive dust emissions The impacts due to dust emissions could be substantially managed by containment and reduction of emissions. The reduction in the emissions is achieved by continuous spraying of water so that the surface remains moist and the dust gets suppressed. In materials where the water spray would change the characteristics of the material by making it muddy and slushy, foam cover has been successfully used elsewhere in the world. Accordingly at the present facility, both water sprays and foam suppressants shall be used. It is proposed to install mechanized handling system and the other associated equipments such as hoppers, belt conveyors, stacker cum declaimers along with integrated dust suppression systems.
- **Details of fishing activity in the vicinity:** Vadhvan village and other nearby villages are known as Fishery villages. Major occupation of the villagers is fishing. Construction of Vadhvan port will likely to impact on fisheries on that region. After examination fisheries in the Vadhavan area, it is understood that Vadhavan shoreline have good fish catch and lobster culture practices. JNPT appointed Central Marine Fisheries Research Institute (CMFRI) to study possible impact on Costal fisheries and to alternatives for fishing activates.

(xxv) Brief description of Socio-economic condition of local people: The Port has carried out Socio Economic Survey of 25 villages within 10 km radius of the proposed port and 16 villages along the road and rail connectivity. The port also carried out Impact Study on coastal fisheries. Findings of the reports will be taken care in this project. A details will be included in the EIA report.

(xxvi) Land acquisition and R&R issues involved: No land acquisition is

	required for port area as the port is planned off the coast of Vadhavan by reclaiming the land. Acquisition of additional land area of 1000 ha of Govt Land is proposed for road and rail related infrastructure and other allied services of port i.e solar power, corridor for power and water pipelines, public amenities, housing for employees and emergency personnel etc. **(xxvii) Employment potential, No. of people to be employed:** Employment Generation, Direct employment: 1000 nos., Indirect employment : 6000 nos. **(xxviii) Benefits of the project: Project Benefits:** • The development is envisaged to play a significant role in strengthening connectivity along the Maharashtra coastline. • Enhancement in economy of Maharashtra. • Substantial positive impact on socio-economic profile of Vadhavan, in Particular, and Dahanu, in general, both in terms of overall employment and skill development of local workforce. • Direct as well as indirect employment potential is envisaged. Probable augmentation in infrastructure resources such as transport, Communication, health facilities & other basic facilities. **Socio-Economical Benefits:** The socio-economic scenario in the region will certainly change with positive impact on the existing regional socio-economic pattern. There will be change in employment pattern with local residents will be given preference for jobs opportunities and/or self-employment. The economic growth will have positive impact; it will also help in increase in living standards of the local residents. Due to enhancement in infrastructure facilities and utilities in living condition will also improve. During the construction phase of the project, many persons are expected to be employed whereas during operation phase there will be lots of job openings. Most of these workers/staff are likely to be from the study area. Hence there shall be temporary minor positive impact on the employment. **(xxix) Details of Court cases:** NA.
4.8.1	The EAC, after examining the documents submitted by the project proponent and detailed deliberations during 241st meeting held on 25-26 August, 2020, **recommended** the project for grant of **Terms of Reference (ToR)**, and for preparation of EIA/EMP report with public consultations subject to compliance of all conditions as notified in the standard ToR applicable for such projects and specific conditions, as mentioned below: (i) Environmental cost benefit analysis to be carried out and submitted in EIA/EMP report (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 Maharashtra CZMA. (iv) No POL Jetty is envisaged view eco sensitive location

	(v)	NoC to be obtained from Dahanu Taluka Envoironment Protection Authority (DTEPA) as applicable
	(vi)	Submit superimposing of latest CZMP as per CRZ (2011) on the CRZ map.
	(vii)	Submit a complete set of documents required as per para 4.2 (i) of CRZ Notification, 2011.
	(viii)	Hydrodynamics study on impact of dredging on flow characteristics.
	(ix)	Flooding and related impact on creek and control area during the cyclonic storm should be studied.
	(x)	The EIA would give a detailed analysis of the Impacts of storage and handling and the management plan including hazard mitigation measures of each cargo type along with the proposed compliance to the Hazardous Chemicals Storage rules.
	(xi)	Study the impact of dredging and dumping on marine ecology and draw up a management plan through the NIO/NIOT or any other institute specializing in marine ecology.
	(xii)	Ship Navigation studies for entrance channel and turning circle should be conducted for prevention of navigation hazards
	(xiii)	Traffic forecast and congestion studies at roads connecting arterial roads to be conducted. Detail traffic density study to be conducted since lot of container movements are expected in & out of the proposed port.
	(xiv)	Impact of port on shoreline changes and sea bed morphology to be conducted and mitigation measures for shore protection to drawn based on above studies.
	(xv)	Details of Emission, effluents, solid waste and hazardous waste generation and their management in the existing and proposed facilities.
	(xvi)	Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
	(xvii)	Permission from CGWA in case of groundwater use being proposed for the project.
	(xviii)	Wastewater Management Plan.
	(xix)	Details of Environmental Monitoring Plan.
	(xx)	To prepare a detailed biodiversity impact assessment report and management plan through the reputed institute such as NIO, NIOT or university having specialized skills on marine, brackish water ecology and biodiversity with focus on winter season. The report shall study the impact of the activity on the intertidal biotopes, corals and coral communities if present, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, cetaceans and other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity.. The data collection and impact assessment shall be as per standard survey methods.
	(xxi)	Impact of undersea noise on cetaceans needs to be studied through the reputed institutes like NIO.
	(xxii)	The concentrations of Petroleum Hydrocarbons in seawater at low tide and high tide conditions should be presented at proposed SPM site.

	(xxiii) A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point. (xxiv) 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. (xxv) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project. (xxvi) 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. (xxvii) 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. (xxviii) Disaster Management Plan for the project. (xxix) Details and status of court case pending against the project, if any. (xxx) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made. (xxxi) Plan for Corporate Environment Responsibility (CER) as specified under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May, 2018 shall be prepared and submitted along with EIA Report. (xxxii) A tabular chart with index for point-wise compliance of above ToRs.