

Minutes of 185th meeting of Expert Appraisal Committee for projects related to Infrastructure Development, Industrial Estate/ Parks/ Complexes/ Areas, Export Processing Zones /Special Economic Zones/Biotech Parks, Leather Complexes and National Highways held on 26th March, 2018 at Indira Paryavaran Bhawan, Ministry of Environment, Forest and Climate Change, Jor Bagh Road, New Delhi.

- 1. Opening remarks by the Chairman.**
- 2. Confirmation of the minutes of the 183rd meeting held on 24th January, 2018 at New Delhi**

The EAC, having taken note that no comments were offered on the minutes of 183rd meeting held on 24th January 2018 at New Delhi, confirmed the same.

3. Consideration of Proposals

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| 3.1 | Construction of Ahmedabad - Dholera Expressway Road (110 km) (NHA/BM/21) in the State of Gujarat by M/s National Highways Authority of India – Terms of Reference [IA/GJ/MIS/72899/2018] [F.No.10-9/2018-IA.III] |
| 3.1.1 | <p>The project proponent along with EIA Consultant Enviro Infra Solutions Pvt. Ltd., GZB, made a presentation and provided following information to the Committee:</p> <ul style="list-style-type: none"> (i) The proposed Expressway from Ahmedabad to Dholera has a total length of 109.019 Km. Project road is entirely Greenfield alignment project and proposed for 6 lane expressway. The project road takes off from Sardar Patel Ring Road near Sarkhej, southwest of Ahmedabad, 2 Km east of National Highway NH-8A. The corridor runs southerly towards Dholera between NH-8 (in the west) and SH-4, SH-6, Sabarmati river course / Gulf of Khambhat (on east side). It forms central spine of DSIR (Dholera Special Investment Region). (ii) The proposed expressway corridor is sited between two existing road routes to Bhavnagar; Ahmedabad-Bagodara-Dhandhuka-Bhavnagar route at its west and Ahmedabad-Dholka-Vataman-Dholera-Bhavnagar route to its east. However, the proposed expressway merges with the later before Dholera and follows thereafter. (iii) Justification of Selection of the site: The proposed expressway is part of an exclusive transport corridor being planned between Ahmedabad and Bhavnagar by the Government of Gujarat, keeping the development of SIR around Dholera in centre. The proposed |

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| | <p>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 way side amenities.</p> <p>(iv) Water requirement, source, status of clearance: The Peak water requirement is 450KLD during construction stage and will be extracted from local surface water sources.</p> <p>(v) Connectivity to the site: The site is approachable by road from Ahmedabad district. The city is approx 5 km away from project site. The project starts at 0.00 km in Ahmedabad and ends at km 109.019 in Dholera, Bhavnagar.</p> <p>(vi) Tree cutting, types, numbers, girth size etc.: The alignment will require cutting of approximately 4088 no. of trees.</p> <p>(vii) Rehabilitation involved if any - The Project requires approx.1500 ha land. Total 103 no. of structures are coming in the proposed RoW of the expressway. The land will be acquired as per procedure laid down in RFCT LARR Act, 2013.</p> <p>(viii) Investment/Cost: Rs. 7451.77721 Crores.</p> <p>(ix) Court cases if any: Not Applicable.</p> <p>(x) Employment Potential: There will be temporary influx of people to the area as other people who will be involved directly and indirectly during the construction will come for work. However, preference will be given to local people for employment.</p> <p>Benefits of the project: 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.</p> |
| 3.1.2 | <p>During 185th meeting held on 26th March, 2018, EAC observed following:</p> <p>(i) Wildlife Institute of India has developed Eco-friendly measures to mitigate impacts of linear infrastructure. It is accepted by MoEF&CC. Since, the Velavadar National Park is in close proximity to the alignment which provides habitat for Indian Blackbuck. It is very important and critical habitats to this rare and endangered species.</p> <p>(ii) In view of critical nature of habitat and species the project proponent should also explore possibilities to find alternate alignment to avoid</p> |

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| | <p>disturbance to the wildlife.</p> <ul style="list-style-type: none"> (iii) Mapping of perennial and seasonal wetlands along the alignment should be done. (iv) Impact of proposed project on Saurus Crane needs to be carried out. (v) Detailed traffic study is required. (vi) Proponent should furnish the integrated design for entire stretch on either side of Velavadar National Park. (vii) Cumulative impact of proposed project on movement of wildlife up to at least 5 km radius of the park as per guidelines published by the Wildlife Institute of India for Linear projects. (viii) Acoustic and light proofing measures shall adequately be provided at all the required places which needed to mitigate any disturbance to wild life movement. (ix) The proposal requires the wildlife and forest clearances. (x) Wildlife corridors mapped by the Wildlife Institute of India need to be taken into account in project planning and measures required. |
| 3.1.3 | <p>After detailed deliberation EAC recommended to grant the ToR subject to all standard ToR conditions in addition to following specific conditions:</p> <ul style="list-style-type: none"> (i) Proponent should incorporate the integrated eco-freindly design for entire stretch on either side of Velavadar National Park as per the WII guidelines. Impact of proposed project on movement of wild life up to 5km radius of the park should also be taken into account in the impact assessment study. (ii) Proponent should explore the possibilities to find alternate alignment to avoid disturbance to the wildlife including Blackbuck and roosting and feeding sites for harriers. (iii) Furnish the authentic maps of perennial and seasonal wetlands (based on Survey of India toposheets) along the proposed and alternate alignment. Also state the size of each wetland and distance from proposed and alternate alignment. (iv) Carry out the study of cumulative impact of proposed project on Saurus Crane, Harrier roosting and foraging sites and Blackbuck and other important wildlife species along the proposed and alternate alignment. (v) Carry out detailed traffic study to assess inflow of traffic from adjoining areas like airport/urban cities. (vi) Furnish report on Acoustic and Light Proofing measures considering the WII manual and if any, other such documents. It should be |

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| | <p>conducted by the reputed institute having adequate experience for such study.</p> <p>(vii) Wildlife corridors mapped by the Wildlife Institute of India also need to be taken into account in project planning and requirement of suitable eco-friendly measures.</p> |
| 3.2 | <p>Integrated Industrial Township at Pen, Raigad by Karanja Infrastructure Pvt. Ltd now named as Orange Smart City Infrastructure Pvt. Ltd. at villages Boregaon, Shene, Virani, Belavade, Walak, Mugoshi, Govirle and Hamarpur, Tehsil Pen, District Raigad (Maharashtra) – Environmental Clearance</p> <p>[IA/MH/MIS/73042/2015] [F.No.21-130/2015-IA.III]</p> |
| 3.2.1 | <p>Proponent has not submitted the desired documents/information through e-mail, hence EAC did not consider the project.</p> |
| 3.3 | <p>Access Controlled Nagpur–Mumbai Expressway (Package-II), Maharashtra by M/s Maharashtra State Road Development Corporation – Environmental Clearance</p> <p>[IA/MH/MIS/59164/2016] [F. No. 10-79/2016-IA-III]</p> |
| 3.3.1 | <p>The project proponent made a presentation along with EIA Consultant Global Management and Engineering Consultant International, Jaipur (Rajasthan) and provided the following information to the Committee:</p> <ul style="list-style-type: none"> (i) The proposal is for the Development of Access Controlled Nagpur-Mumbai Expressway (Package-II) from Village Ashta near Pulgaon to Village Sindhakhedraja located in District Amravati, Washim and Buldhana (Maharashtra). (ii) The project corridor starts from Amravati and traverses through number of 149 villages/towns of 11 Talukas viz. Dhamngaon Rly, Chandur Rly, Nandgaon (Khandeshwar) of Amravati District, Karanja, Mangrulpir, Malegaon, Risod of Washim District and Mekhar, Lonar, Sindhkhed Raja, Deulgaon Raja of Buldhana District (Maharashtra). (iii) The total length is of NMEW Package-II is 257.881 km out of 701 km. The expressway is designed for (3+3) lanes in the initial phase with a provision for widening to (5+5) configuration with paved shoulders. For the proposed road alignment the Right of Way is 120m. |

(iv) The details of land use pattern are:

| Sr. no. | District | Area (in Ha) | Percentage |
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| | Agricultural/ Barren | 3663.94 | 95.65 |
| | Forest | 166.485 | 4.35 |
| Total | | 3830.485 | 100 |

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| Bridge | 10 Major and 138 Minor. |
| | 03 nos. |
| Interchanges | 08 nos. |
| Overpass | 52 |
| Underpass | 201 |
| Road Safety | Metal Beam Crash Barriers will be provided along the outer edges of the carriageway. Additional Safety features will be ensured by providing adequate Sight Distances while designing the expressway. Retro reflective road signage will be provided for better night visibility |
| Service Roads | Service Roads will be provided to cater local traffic. |
| Road User Facilities | Emergency telephones, Traffic Aid Posts, Medical Aid posts, Truck Lay byes, Bus Bays, in addition to above Rest Areas will be provided at every 50 km along the expressway. |

(v) **Eco-Sensitive Zone / National Park / Wild Life Sanctuary in 10 km radius area:** The proposed alignment is passing through default 10 Km Eco-Sensitive Zone of Katepurna Wildlife Sanctuary and Karanja Sohal Blackbuck Wildlife Sanctuary.

(vi) Details of Forest land involved, if any: The proposed alignment is passing through 166.485 Ha of forest land.

(vii) **Water requirement:**

Construction Phase: Total Water requirement for construction phase will be 2250 KLD. Out of the total water requirement 2000 KLD will be required for construction purpose and 250 KLD will be required for domestic use of workers. The water requirement for domestic purpose will be fulfilled through potable water sources and for construction work water from surface water sources such as

ponds, rivers and tanks etc. shall be used with due permission from respective Government Department.

Operation Phase: Total Water requirement for operation phase will be 613 KLD. Out of the total water requirement 562.5 KLD will be for Rest Areas, Toll Plaza and Admin Buildings.

- (viii) Sewage Generation at the 6 labour camps will be 200 KLD. Mobile STPs will be provided for treatment of the same. During operation phase about 562 KLD of sewage will be generated from rest areas, toll plazas and administrative buildings. Full fledged conventional Sewage Treatment Plant will be provided. Treated sewage will be reused for gardening
- (ix) **Municipal solid waste generated disposal facility:** During construction phase there will be generation of solid waste due to construction activities as well as from labour camps. The solid waste treatment facilities such as vermin-composting/ composting facility will be provided for organic waste generated, whereas the inorganic waste will be disposed at designated places with concurrence of respective authorities. The recyclable waste will be sold to authorized vendors.
- (x) **Power requirement and source:** Total power requirement during construction phase will be 16376 KW. Also adequate Solar panel will be installed during construction phase. 61 Nos. of DG sets of 125 KVA capacities will be used as power backup for Construction purpose.
- (xi) **Proposed energy saving measures:** LED solar panelled street lights are proposed along the corridor.
- (xii) **RWH:** Along the proposed project corridor Rain water harvesting pits are proposed at every 500m on either sides of the corridor.
- (xiii) **Investment cost:** Rs. 13,017.03 Crores.
- (xiv) **ToR details:** ToR was granted vide letter No. 10-79/2016-IA-III dated 9th December, 2016.
- (xv) **Public Hearing:** The public hearing was held on:
- 5th July 2017 in Amravati district
 - 10th July 2017 in Washim district and
 - 15th July 2017 in Buldhana district
- (xvi) **Employment potential:** For construction phase manpower employed will be 2700000 nos. which will include skilled, semi-skilled workers, technicians, engineers, managers and other

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| | <p>professionals for both construction phase and operational phases.</p> <p>(xvii) Benefits of the project:</p> <ul style="list-style-type: none"> (a) Improvements in the physical infrastructure and road access, (b) Improvement in social services due to quicker and safe mode of transport, (c) Employment potential-skilled, semi-skilled and unskilled labour- both during construction and operational phases of the project with specific attention to employment potential of local population as well as necessity for imparting any specialized skills to them to be eligible for such employment in the project (d) Reduction in traffic congestion in the city/town/and other locations, (e) Development of tourism, industrial parks, technology parks, smart cities, and educational complexes along the route of the expressway (f) Reduction in air pollution, vehicle maintenance, fuel saving due to better quality of roads. (g) Overall development in economy and improved lifestyle. <p>(xviii) There is no court case pending against the project.</p> |
| 3.3.2 | <p>During 185th meeting held on 26th March, 2018, EAC observed following:</p> <ul style="list-style-type: none"> (i) The proponent instead of applying one time for all the stretches/packages of the Nagpur-Mumbai Highway, has applied for EC of various stretches/packages separately. (ii) Cumulative impact of proposed project on movement of wildlife around Katepurna Lake WLS, Karanja-Sohal Blackbuck WLS and Lonar Lake WLS is required as per guidelines published by the Wildlife Institute of India for Linear projects. (iii) More than 90% of land covered under the proposed project, <i>i.e.</i>, package II of Nagpur-Mumbai Expressway, is productive land that includes either Forest land or Agricultural land. (iv) Third party audit is needed for the entire plantation followed by the maintenance of plantation by the proponent for next 7 years. (v) It was made clear that use of ground water is not permitted for this package too, like it was not permitted in case of package III of the same project, for which Ministry issued the Environmental Clearance vide letter no. 10-41/2017-IA.III dated 8th February, 2018. (vi) There is need of examining the impact of proposed road alignment on ground water table. (vii) The District authority should examine the water admissibility as per requirement and sources of surface water for the project. Permission |

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| | <p>for water from competent authority needs to be furnished by the Project proponent.</p> <p>(viii) Status of Forest and Wildlife Clearances based on the report of Nodal officer of the State and Chief Wildlife Warden Maharashtra.</p> <p>(ix) Status of land acquisition</p> <p>(x) Furnishing of additional information about the issues raised during public hearings and proposed mitigation measures along with fund provision, in tabular form.</p> <p>(xi) The project requires cutting of over 1 lakh trees. Project proponent should furnish detail list of tree species that needs felling along with number of each species and detailed plan for afforestation with 3 times the number plus provision for replacement plantation. The plan should also include the financial requirement for afforestation, its maintenance for at least 5 years and third party audit on annual basis.</p> |
| 3.3.3 | After detailed deliberations, EAC deferred the proposal for want of additional information as mentioned in para 3.3.2 above. |
| 3.4 | <p>Development of Multi product SEZ and free trade warehousing zone (FTWZ) at Layja Mota, District Kutch (Gujarat) by M/s Sea Land Ports Pvt. Ltd. - Further consideration for Environmental and CRZ Clearance</p> <p>[IA/GJ/NCP/1702/2011] [F.No.21-68/2011-IA.III]</p> |
| 3.4.1 | <p>The project proponent made a presentation before EAC in its 162nd meeting held on 29-30 August, 2016 and provided the following information to the Committee:-</p> <p>(i) The project involves development of Multi Product SEZ/ Free Trade Warehousing Zone (FTWZ), DTA including Power Plants & Desalination Plant at Village Layja Mota, Taluka Mandvi, District Kutch (Gujarat). The geographical co-ordinates of the site are 22° 56' 11" North Latitude and 69° 14' 20" East Longitude. The SEZ/FTWZ & DTA (~3,473 acres) & the proposed utility corridor (~124 acres) encompass areas falling under Six (06) villages namely Layja Mota, Godhara, Ratadiya Mota, Undoth, Nana Layja and Bayat.</p> <p>(ii) Multiproduct SEZ/FTWZ is proposed to be developed in an area of ~3,473 acres. In addition, an area of ~124 acres is to be used for the dedicated Utility Corridor. The details of SEZ land allocation (in acres) for various industries are as follows:</p> <ul style="list-style-type: none"> • Coal based 4,000 MW TPP and 60 MLD Desalination Plant - 1,298 acres |

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| | <ul style="list-style-type: none"> • Gas Based 2,000 MW CCPP – 88 acres • Domestic Tariff Area (DTA) – 645 acres • Other industrial units with supporting infrastructure - 1,291.5 acres • Non-processing area with allied social infrastructure - 150.5 acres <p>(iii) The dedicated utility corridor, about 8.95 km long (60 m wide) is planned from SEZ boundary to proposed Shipyard cum Jetties including LNG terminal at Nana Layja coast.</p> <p>(iv) The estimated fresh water demand comprises of all forms of water usage in processing (including thermal power plants), non-processing area and DTA. Water demand for different industries, common areas, utilities and NPA are estimated as 70.70 MLD. After considering reuse of treated wastewater and fire fighting water as one time demand, net fresh water requirement is 54.63 MLD. The fresh water will be met from proposed 60 MLD desalination plant within the SEZ. The total seawater requirement for the proposed 4000 MW Coal based TPP, 2000 MW gas based combined power plant and 60 MLD desalination plant is 1206.4 MLD. Permission from GMB on sea water withdrawal was obtained.</p> <p>(v) Industrial process wastewater, washings, cooling tower and boiler blow down, etc., in processing area, from all the units in the SEZ/DTA and the sewage will be generated. In order to achieve effective/efficient treatment in CETP, sewage generated in processing area is proposed to be mixed with industrial effluents at aeration tank in secondary treatment. Considering the heterogeneous effluent characteristics, SEZ regulation for wastewater treatment at DTA, to achieve most effective treatment of wastewater from all industrial zones, and to avoid long-term O&M issues as suggested by MoEF&CC, five CETPs are proposed. Among them, two CETPs are with zero discharge (i.e., one at DTA 2 and one at NW area for focus engineering goods) and other three CETPs (one for Pharmaceuticals and Chemicals, one for Non-Metallic Minerals, Textiles and Handicrafts, and one for Engineering goods, FTWZ, shipping and textiles industries) the treated wastewater are proposed to be discharged through marine outfall. From 4000 MW TPP premises, approximately 4.68 MLD of wastewater (effluent) and 0.384 MLD of sewage will be generated and ETP of 4.70 MLD and STP of 0.40 MLD capacity of treatment plant is proposed. The effluent treated water will be used for coal/ash handling plant, greenbelt application, etc. During rainy season, about 110 m³/hr (2.64 MLD) of treated water from TPP, will be sent to marine outfall after meeting prescribed standards. From 2000 MW TPP premises, approximately ETP of 0.47 MLD of and STP</p> |
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of 0.09 MLD capacities is proposed. The treated effluent will be used for greenbelt application.

(vi) **Components in CRZ area:** Entire SEZ/ FTWZ/DTA and utility corridor of about 7.8 km fall outside CRZ area. The project associated facilities/ components falling under CRZ area are:

- Sea Water Intake pipeline, intake pump house, intake system - CRZ IV, IB
- Marine Outfall pipeline and diffuser system – CRZ IV, IB
- Utility corridor (UC) Consists of Coal conveyor ; NG pipeline, Transmission tower, Road, Intake Pipeline; Outfall Pipeline - CRZ III, IB and 1A.

(vii) The Gujarat Coastal Zone Management Authority (GCZMA) has recommended the project vide their letter dated 29th June, 2016

(viii) The CRZ mapping/HTL & LTL demarcation of the proposed project has been carried out by National Institute of Oceanography (NIO). The main SEZ/FTWZ/ DTA are located outside CRZ influential area. The associated facilities like intake/outfall system and the utility corridor fall in CRZ area and these are permissible as per CRZ Notification, 2011.

(ix) The industries proposed in the SEZ shall have their independent Hazardous/Non-hazardous waste collection and segregation system. These segregated wastes shall be further compacted for volume reduction and out of this organic waste can be used for composting or vermi-composting. The other wastes like paper, plastic and metal scraps shall be sent to GPCB approved recycling units. The sludge generated from STP shall be composted and will be used as manure for greenbelt/green areas development. The industries shall have a temporary storage facility for 30 days detention which will be designed as per the requirement. However, STP and CETPs will have a temporary storage facility in their premises. Hazardous waste generated from the SEZ shall be sent to nearby TSDF approved by GPCB. It is proposed to have a Sanitary landfill site at SEZ along with Organic Waste Convertor (OWC) facility at NPA area. In addition, it may be required to send the municipal solid waste generated to Vermi Compost plant at Mandvi/biomass plant at Kothara.

(x) The power required during operation phase of the SEZ/FTWZ including DTA but excluding Power plants and desalination plant is 360 MW. About 320 MW for Power plants and 12.5 MW for Desalination plant are required. The total power requirement of about

692.5 MW will be sourced from in-house power generation.

- (xi) Solar Power Harnessing has been proposed within the 4000 MW TPP and 2000 MW gas based power plant and SEZ and DTA built up areas particularly at available roof tops. The available technologies for generating solar power are mainly Solar Photo Voltaic (PV) Cells and Solar Thermal. Technology of Solar PV Cells is suitable for solar power generation with proper utilization of the roof top areas available on the roofs of buildings/structures within the industry premises. Based on the availability of rooftop area for solar power installation, 4 MW of solar power generation is considered in SEZ excluding power plants.
- (xii) RWH is proposed as a part storm water management.
- (xiii) Parking requirements will be provided; Logistic zones meant for truck parking are provided within processing area. This parking space will serve the trucks until custom clearance to enter the SEZ.
- (xiv) Estimated project cost for development of SEZ including proposed power plants is around Rs. 38,741 Crores and Rs. 502 Crores for DTA.
- (xv) **If the project involves Marine disposal:** Yes; A common marine outfall system is proposed for return cooling water discharge from 4000 MW coal based thermal power plant & 2000 MW Gas based thermal power plant, reject brine from 60 MLD Captive Desalination plant, CETPs treated discharge and discharge from Shipyard cum captive jetties including LNG terminal. The total marine outfall discharge quantity is around 921.4 MLD.
- (xvi) Based on the mathematical model study, the discharge point is suggested at 10.3 m of water depth at Latitude 69°13'49.13"E N; Longitude 22°48'52.63"N, which is at ~2.3 km from the shore. Considering the discharge quantity, it is proposed to have four pipelines to carry the effluent to the outfall location. Each pipe is proposed to have a 25 m long diffuser aligned 90° to the coast. Each of the diffuser can have five risers with two ports of 0.3 m diameter on each riser. The centre to centre spacing between risers can be 5 m. The results of the same are:
 - Excess salinity @100 m: 0.5 ppt; @500m: 0.25 ppt
 - Excess temp.@100 m: 0.25°C; @500m: 0.15°C
 - Excess salinity & temperature beyond 0.3 ppt and 0.15°C or more will never reach shore or intake location.
 - Temporal-Maxima: maximum excess salinity was 0.54 ppt &

maximum excess temperature was 0.3°C.

- These variations are comparable with the seasonal variations of temperature and salinity of coastal waters.

(xvii) **Location of intake/outfall:** Seawater Intake system - 69°13' 58.6"E, 22° 49' 15.9"N (Planned between breakwaters) and Seawater Outfall system - 69° 13' 49.13"E, 22° 48' 52.63"N (at 10.3 m Water Depth).

(xviii) **Dredging details, disposal of dredge material:** Not applicable. Only 4 m trenching of seabed for construction of sub seabed intake & outfall pipelines.

(xix) **Details of water bodies, impact on drainage if any:** There are some natural drains of lower order passing through the project site. Storm water drainage networks for the Project are planned by diverting such drains. Outlets are proposed for the storm water towards natural sloping which can be used during monsoon. Outlets will be connected to existing natural drainage network.

(xx) Proposed project is not falling within 10 km of any Eco Sensitive Area as defined/declared by GoI and GOG. A Reserve Forest "Dhuva Reserve Forest" is located at a distance of 10.7 km from the project site. Minor part of the proposed utility corridor passes through Sand dune area which is a permissible activity. As per GCZMA recommendations, the corridor will be constructed at least 1 m above the height of sand dune.

(xxi) The project benefits are given below:

- Increase in the infrastructure resources due to the project in the region by the way of additional/improved transport, communication, health facilities, drinking water facilities, sanitation and hygiene facilities, and other basic facilities will be created;
- Due to proposed project, surrounding villages and region would get maximum benefits such as considerable number of direct and indirect employment, skill development activities to the employable youth in the region, better quality of educational and medical facilities to the local people, improvements to physical and social infrastructures also catering to the growing demand-supply gap of physical and social infrastructure etc,
- Quality of life in the region is likely to improve due to the creation of jobs for the local people so that the dependency changes and there will be more than one earning member in the family, which will provide economical freedom and would facilitate a higher standard of living with better facilities
- As a part of the Corporate Social Responsibility (CSR) initiatives, it is envisaged to create better and quality health care facilities,

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| | <p>education facilities, etc.</p> <ul style="list-style-type: none"> • Improvement in the trading, marketing as well as value addition of local products. • The proposed project shall further act as a catalyst to industrialization and urbanization of the region; Overall economic growth of Kutch District and Gujarat State. <p>(xxii) Employment potential: The expected direct employment is about 45,000.</p> <p>(xxiii) The proposed project is categorised under Industrial Estates listed as Item 7(c) in the Schedule of the EIA Notification, 2006. The project area is more than 500 ha and houses category A and B industries.</p> <p>(xxiv) Details of Forest land involved, if any: No forest area is involved.</p> <p>(xxv) Terms of Reference was granted vide letter No.21-68//2011-IA-III dated 5th March, 2013, validity extended on 13th July, 2016.</p> <p>(xxvi) Public hearing was held on 12th December, 2014 at, Mota Layja Village, Mandvi taluka, Kutch district, Gujarat.</p> |
| 3.4.2 | <p>The project was earlier considered by the EAC in its 162nd meeting held on 29-30 August, 2016, wherein the EAC noted the details as under:-</p> <ul style="list-style-type: none"> (i) The project envisages development of Multi-product SEZ/Free Trade and Warehousing Zone (FTWZ) & Domestic Tariff Area (DTA) with 4000 MW coal based TPP, 60 mld desalination plant, 2000 MW gas based Combined Cycle Power Plant, other industrial units and non-processing area with supporting/social infrastructure, utility corridor in a total area of 3473 acres at Layja Mota village in District Kutch (Gujarat). (ii) The dedicated utility corridor, about 8.5 km long, 60 m wide and covering an area of 124 acres, is planned from SEZ boundary to the proposed shipyard cum jetties site at Naya Layja coast. (iii) The utility corridor shall cater to coal conveyors, LNG pipeline, power evacuation tower, intake/outfall pipeline, waste water conveyance pipeline, road etc. (iv) The ToR for the project 'Development of Multi-product SEZ and Free Trade and Warehousing Zone' was granted by this Ministry on 5th March, 2013 valid for 2 years. Its validity period was later extended up to 4th March, 2017. (v) The Ministry has accorded EC to 'Supercritical Thermal Power Plant of 3960 (6x660) MW' at village Layja Mota, Mandvi Taluka in District Kutch (Gujarat) vide letter dated 26th June, 2015 in favour of M/s Nana Layja Power Company Ltd based on the recommendations of |

the sectoral EAC. One of the specific conditions reads as:

“The activities attracting CRZ clearance shall only be initiated after obtaining prior CRZ clearance from the competent authority. A copy of the same shall be submitted to the Ministry and its Regional Office.”

- (vi) As per the NIO report, the entire SEZ/FTWZ/DTA and utility corridor of about 7.8 km out of a total length of 8.5 km, fall outside CRZ area. The project associated facilities/ components falling under CRZ area are:
- Sea Water Intake pipeline, intake pump house, intake system - CRZ IV, IB
 - Marine Outfall pipeline and diffuser system – CRZ IV, IB
 - Utility corridor (UC) Consists of Coal conveyor ; NG pipeline, Transmission tower, Road, Intake Pipeline; Outfall Pipeline - CRZ III, IB and 1A.
- (vii) The Gujarat Coastal Zone Management Authority (GCZMA) has recommended the project vide their letter dated 29th June, 2016.
- (viii) Public hearing was conducted on 12th December, 2014.
- (ix) The project proponent has relied upon this Ministry's OM dated 24th December, 2010 on procedure for consideration of integrated and inter-linked projects, and a common EIA report has been submitted covering impact of each of the component in a comprehensive manner after obtaining ToR from each of the sectoral EACs.

During deliberations, the observations of the EAC included the following:-

- (i) In terms of the requirement contained in para 4(i) of the CRZ Notification, 2011, the sectoral EAC was required to consider the proposal for grant of EC to the STPP of 3960 MW, inclusive of the intake and outfall facilities proposed for that, only after having been recommended by the SCZMA, and the same to be mentioned in the EC accordingly.
- (ii) In terms of the Ministry's OM dated 24th December, 2010, public hearing was to be conducted based on the common EIA report so prepared, for each component as per the provisions of the EIA Notification, 2006. The project proponent was unable to clarify the same.
- (iii) In terms of the above said OM, the proposals for EC in respect of all the sectoral components of the project were to be submitted simultaneously. The same has not been done in the instant case, and the proposals are at different stages.

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| | <p>(iv) The relevance of the said OM (project proponent has relied upon) for such projects also attracting the provisions of the CRZ Notification, 2011, needs to be looked into.</p> <p>(v) The concerns raised by the Conservation Action Trust regarding environmental impacts of the project, are serious, and need to be suitably addressed by the project proponent.</p> <p>(vi) The Committee appreciated the earnestness and diligence of the project proponent and the consultant, though it is a very complex proposal and would need clarity in the road map for granting clearance.</p> <p>The EAC, after deliberations, had desired that the Ministry may examine the proposal vis-a-vis the procedure detailed in the said OM, read with the relevant provisions of the CRZ Notification, 2011 to arrive at the appraisal mechanism to be followed in such cases. The project proponent was also asked to respond to the concerns of Conservation Action Trust through a para-wise response. The proposal was deferred.</p> |
| 3.4.3 | <p>The project was again considered by EAC in its 163rd meeting held on 9th September, 2016, wherein the EAC was informed about the appraisal mechanism of the instant mechanism involving SEZ (requiring EC under the EIA Notification, 2006) along with the intake and outfall facilities requiring CRZ clearance for the portion falling in CRZ area. The Committee was also informed that the proposal needs comprehensive examination from CRZ perspective.</p> <p>After the presentation made by project proponent, especially highlighting their response in reply to the earlier observations of the EAC, the Committee noted the following:-</p> <p>(i) There are many legal entities that could be designated as project proponents, and are involved in developing the SEZ, Port, TPP, CCPP, and/or other identified industrial units. The different documents submitted reveal non-uniformity in this regard e.g. public notice issued by GPCB for conducting public hearing reflects M/s Sealand Ports Pvt Ltd as the project proponent, for CRZ mapping, the clients are named as M/s Sealand Ports Pvt Ltd, M/s Avash Logistic Park Pvt Ltd, M/s Nana Layja Power Company Ltd, whereas the ToR for the instant proposal has been issued in the name of M/s Sealand Ports Pvt Ltd, M/s Avash Logistic Park Pvt Ltd. This needs to be clarified appropriately.</p> <p>(ii) Since the proposal involves discharge of effluents also, the project proponent was required to apply to the GCZMA along with the 'No Objection Certificate' from the concerned SPCB. The same was not</p> |

done.

- (iii) The public hearing was allowed to be conducted by Hon'ble High Court of Gujarat vide order dated 11th December, 2014. The project proponent should provide the final outcome of the same.
- (iv) The CRZ mapping in respect utility corridor, especially around the creek, is not correct and needs to be reviewed and authenticated by the authorised agency.
- (v) Since the proposal involves combined intake and outfall facilities for all the constituent units of SEZ, cumulative impact on the marine eco-system is of prime concern and needs in-depth deliberations. That necessitates ascertaining the pollution loads from the individual units along with the characteristics, and also a relook at the conditions stipulated in the EC by the sectoral EACs.
- (vi) In view of the fact that intake and outfall facilities remain an integral part of the Super Critical Thermal Power Plant, and accordingly, as required under the provisions of the CRZ Notification, 2011 read with section 8(v) of the EIA Notification, 2006, the EAC desired that the Ministry may examine if the EC for the TPP was to be granted after appraising the proposal from CRZ perspective also.
- (vii) The CRZ area around the utility corridor is having significant sand dunes, which needs to be visited for contouring and geo-morphological characteristics of the area. The Committee felt the necessity for an expert opinion in this regard through a site visit.
- (viii) A substantial part of the SEZ area and the complete area of 124 acres for the very crucial utility corridor, are yet to be acquired by the project proponent. In terms of this Ministry's OM dated 7th October, 2014, the project proponent were asked to submit copies of the State Government Notification for acquiring the Government land and the letters of intent or purchase agreements from the private land owners.

The EAC, after deliberations, had desired that the Ministry may examine the instant proposal for the adequacy and applicability of proposed environmental safeguards for the constituent units of SEZ and for which stand alone ECs have been issued or are in advanced stages without accounting for intake and outfall facilities. The Ministry may like to structure and schedule the sequence of presentations before the different EACs. The EAC sought detailed clarification and inputs in respect of its observations contained in para 3.4.3 above. *The proposal was, therefore, deferred.*

| 3.4.4 | <p>During deliberations in 177th meeting held on 16th October the EAC noted the following:</p> <ul style="list-style-type: none">(i) No clarity on land details for proposed SEZ/FTWZ area and utility corridor.(ii) Submission of details with CETP designs proposed different industries to be housed in SEZ/FTWA with effluent and treated effluent characteristics.(iii) Copy of Judgment of High court of Gujarat with writ petition (PIL) No 325 of 2014.(iv) Further, more clarity on cumulative impact of marine eco system and pollution loads on individual units along with characteristics.(v) Four pipes are slightly complicated to execute and also to maintain. What would be monitoring mechanism for outfall leaks?(vi) Submission complete documentation on marine intake/outfall.(vii) Details about court cases pending against the setting up of 4000 MW Thermal power plant & 60 MLD desalination plant and 2000 MW Gas based combined cycle power plant, where EC was already granted by MoEF&CC. <p>After deliberations, the EAC deferred the proposal for further consideration on above points.</p> <p>Further to have correct assessment of the site specific issues with respect to CRZ clearance point of view, a sub-committee of the EAC shall inspect the project site, verify the relevant document/reports on above mentioned points and furnish its report to MoEF&CC, which would be placed before the EAC for further consideration of the proposal.</p> | | | | | | |
|--------|--|---------------|-------------|---------------|---|---------------------|------|
| 3.4.5 | <p>A team of Subcommittee of EAC visited project site from 25th December, 2017 to 27th December, 2017. Report is enclosed as Annexure-1.</p> | | | | | | |
| 3.4.6 | <p>The project was again considered by EAC in its 185th meeting held on 26th March, 2018. After the presentation made by project proponent, especially highlighting their response in reply to the earlier observations of the EAC, the Committee noted the following:</p> <ul style="list-style-type: none">(i) SEZ Industrial area is reduced from 3473 acres to 3147.70 acres. Utility Corridor area is 133 acres. The final land use break up of Industrial area is as under: <table><tr><th>S. No.</th><th>Particulars</th><th>Area in Acres</th></tr><tr><td>1</td><td>Thermal Power Plant</td><td>1298</td></tr></table> | S. No. | Particulars | Area in Acres | 1 | Thermal Power Plant | 1298 |
| S. No. | Particulars | Area in Acres | | | | | |
| 1 | Thermal Power Plant | 1298 | | | | | |

| | | |
|---|---------------------|--------|
| 2 | Gas Power Plant | 88 |
| 3 | Other SEZ Units | 1281.3 |
| 4 | Non Processing Area | 148.9 |
| 5 | DTA | 61.5 |
| 6 | FTWZ | 270 |
| | Sub-Total | 3147.7 |

- (ii) Submitted details with CETP design proposed for difference industries to be housed in SEZ/FTWA with effluent and treated effluent characteristics. Following five CETPs are proposed in SEZ area.

| CETP | Industrial Sectors to be serviced | Estimated Effluent Quantity (MLD) | Approx CETP Area (Acres) | Treated Water Disposal System |
|--------|---|-----------------------------------|--------------------------|-------------------------------|
| CETP 1 | Pharmaceuticals and Chemicals | 8.74 | 5.65 | Marine discharge |
| CETP 2 | Non-Metallic Minerals, Textiles and Handicrafts | 2.42 | 1.6 | |
| CETP 3 | Plastic Industry (DTA) | 1.39 | 1 | Reuse and Recycle |
| CETP 4 | Engineering Goods, Shipping, Textiles and FTWZ | 8.18 | 5.3 | Marine discharge |
| CETP 5 | Engineering Goods | 1.75 | 1 | Reuse and Recycle |

- (iii) Submitted the copy of Judgement of Hon'ble High Court of Gujarat w.r.t. WP (PIL) No. 325 of 2014. As per Court Order, the collector kutch was directed to decide the allegation made by the petitioner within a period of three month. And the petition was disposed of by the Hon'ble High Court of Gujarat.

- (iv) Submitted the following details about cumulative impact on Marine eco-system and marine discharge:

- (a) Combined outfall quantity of ~921.4 MLD discharged into sea through outfall pipes:

- TPPs and Desalination discharge – 891.9 MLD.
- CETPs treated discharges – 19.4 MLD.
- Treated sewage from SEZ NPA and both the power plants – 7.04 MLD.
- Treated wastewater from shipyard cum captive jetties – 3.0 MLD.






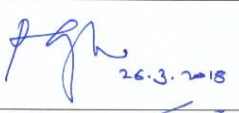

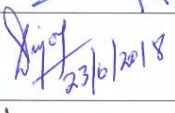
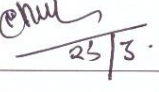
- (b) Based on the mathematical model study, the discharge point is proposed at 10.3 m of water depth at Latitude 69°13'49.13"E N; Longitude 22°48'52.63"N, which is at ~2.3 km from the shore.



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| | <p>(v) Submitted following details for monitoring mechanism for outfall leaks:</p> <p>(a) Four Pipelines with 1.6 m Dia Execution.</p> <ul style="list-style-type: none"> • With available construction techniques, installation is easy. • Four pipelines will enable phased installation in line with progress of industries development. <p>(b) Monitoring Mechanism and Measures:</p> <ul style="list-style-type: none"> • Necessary preventive measures for spillage from pipelines, such as surface RCC channels along the pipelines of outfall and intake will be adopted. • Periodic maintenance and check of wastewater conveyance pipelines by the Operation & Maintenance team member. • Attempt to restore by replacing a part or putting together the torn or broken parts of the conveyance pipeline in case of any leakage detected. <p>(vi) Submitted details of Court cases against 4000 MW TPP and 2000 MW CCPP, which are still subjudice.</p> |
| 3.4.7 | <p>During 185th meeting held on 26th March, 2018, EAC observed following:</p> <p>(i) The SEZ area is being utilised for agriculture purpose due to good ground water resources with water level 2.84 m to 7.19 m and it need to be protected from over exploitation or its contamination by the effluents such as pharma, polymer and basic & allied chemical industries due to potential to contaminate ground water.</p> <p>(ii) The intake/outfall of sea water for power plants (2000 MW gas based) and (4000 MW coal based) may be considered with appropriate location of intake point as well as outfall point with diffusers at adequate depth. Sea water intake for desalination plant as well as its reject along with discharge of cooling water bleed of power plants may be considered. It needs to be ensured that there should not be any discharge of chemical constituents and heavy metals.</p> <p>(iii) The industry categories that could be considered are plastic industry with Zero Liquid Discharge (ZLD), textile industry comprising spinning and weaving operations and apparel making with ZLD, Free Trade and warehousing zone activity, focus engineering goods, shipping ancillary, handicrafts, non-metallic and mineral products with ZLD and desalination plant with intake and outfall as mentioned above.</p> |

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| | <p>(iv) The utility corridor will pass through stabilized sand dunes which is proposed to be utilized for conveyor belt for coal transportation, intake and outfall pipelines to sea as well as LNG pipeline, and road, all of which will pass above sand dunes. Hence, the sand dunes should not be disturbed with structures and corridor should be built on stilts with minimum structural intervention. A proper management plan for protection of sand dunes should be prepared, as entire foreshore area was proposed to be reclaimed and utilised for hinterland facilities of port/shipyard.</p> <p>(v) Considering the sea coast adjoining proposed project site is known for breeding ground of Olive Ridley and Green Sea Turtle and quality of sea water is pristine as well as used for fishing activity by locals, no effluent discharge be allowed from drugs and pharmaceuticals, polymer and basic and allied chemical industries including dyeing operation in textile industry. As such these chemical industries categories cannot be considered to ensure that no chemical constituents find a way even through a storm water drain during rainy season.</p> <p>(vi) It is to be ensured that ship building activity should not result in any deterioration of sea water quality and suitable measures to be devised, as Olive Ridley and Green Sea Turtle are noticed in this area.</p> <p>(vii) The construction of shipyard and port requires reclamation and raising of ground level at beach front with dredged material. During construction, sea water turbidity will increase and hence it will temporarily affect the fishing activity, which should be compensated with CSR activity.</p> <p>(viii) The LNG jetty, shipping jetty and ship yard are proposed in beach portion with reclamation of adjoining sand dunes and it was reviewed by Infra 2 committee. The CRZ provisions should be met to minimise the impact of port facilities and utility corridor.</p> <p>(ix) 2% project cost should be earmarked for sea turtle and other marine biodiversity conservation of the region. Conservation work must be carried out by nationally and internationally reputed organization. It also involves monitoring of sea turtle nesting activity annually and monitor change in habitat is any. A third party audit of the funds and the conservation measures must be undertaken annually.</p> <p>(x) Illumination at all installations must be sea turtle friendly.</p> <p>(xi) Effluent discharge from Engineering Goods, Shipping, Textiles and FTWZ should not be mixed together for sending to CETP as</p> |
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| | proposed by the proponent. |
| 3.4.8 | <p>The EAC deferred the proposal for want of response from proponent in respect of observations made by the committee as mentioned in para 3.4.7 above.</p> <p>EAC also advised this Ministry to take legal opinion, as the project location is subjudice before the court of law.</p> |

List of the Members attended 185th meeting of Expert Appraisal Committee for Projects related to Infrastructure Development, Industrial Estate and Miscellaneous projects held on 26th March 2018 and approved the above minutes.

| Sl. No. | Name of the EAC member | Role/Designation | Signature |
|---------|---|------------------|--|
| 1. | Dr. Deepak Arun Apte, Director, Bombay Natural History Society (BNHS), Mumbai | Chairman |  |
| 2. | Dr. V.K. Jain, Professor of Chemistry, School of Sciences, Gujarat University, Ahmedabad | Member |  |
| 3. | Dr. M.V. Ramana Murthy, Project Director, NIOT Campus, Pallikarai, Chennai | Member |  |
| 4. | Shri T.P. Singh, Advisor, MEITY, New Delhi | Member | |
| 5. | Dr. N.K. Verma, Former AD, CPCB, New Delhi | Member |  |
| 6. | Dr. Asha Ashok Juwarkar, Former Chief Scientist and Head, NEERI, Nagpur | Member | |
| 7. | Dr. Anil Kumar Singh, IFS (Retd), Ex PCCF Assam, Tower F, Float No. 103 Grand Ajnara Heritage, Sector 74, Noida, UP | Member |  |
| 8. | Dr. Mohan Singh Panwar, Associate Professor, Garhwal University, Uttarakhand. | Member | |
| 9. | Shri Narendra Surana, Managing Director, Bhagyanagar India Limited and Surana Telecom. and Power Limited, Hyderabad | Member | |
| 10. | Shri Prabhakar Singh, Special DG, CPWD, Delhi Region, Nirman Bhawan, New Delhi (Building Construction Sector) | Member |  26.3.2018 |
| 11. | Dr. Anuradha Shukla, Central Road Research Institute (CRRI), Mathura Road, New Delhi | Member |  24/3/18 |
| 12. | Dr. D. Chakraborty, Scientist MoWR, RD & GR, New Delhi | Member |  23/6/2018 |
| 13. | Shri N.K. Gupta, Member (EAC), Scientist E & In-charge (ESS), Central Pollution Control Board, | Member |  25/3 |
| 14. | Smt. Bindu Manghat, Director Survey of India New Delhi | Member | |

| Sl. No. | Name of the EAC member | Role/Designation | Signature |
|---------|---|--------------------------------------|---|
| 15. | Shri Raghu Kumar Kodali, Director/Scientist-F, IA-III Division, MoEF&CC | Member Secretary (Infra-1 EAC) |  |
| 16. | Dr. Ashish Kumar, Joint Director, Ministry of Environment, Forest and Climate Change, | Special invitee |  |

Report and Recommendations of Site Inspection of the project development of Multiproduct SEZ and Free Trade Warehousing Zone (FTWZ) at Layja Mota, Kutch District, Gujarat by M/s Sea Land Ports Ltd CRZ Clearance.

Back ground

The project involves development of Multi Product SEZ/ Free Trade Warehousing Zone (FTWZ), DTA including Power Plants & Desalination Plant at Village Layja Mota, Taluka Mandvi, District Kutch (Gujarat). The geographical co-ordinates of the site are 22° 56' 11" North Latitude and 69° 14' 20" East Longitude. The SEZ/FTWZ & DTA (~3,473 acres) & the proposed utility corridor (~124 acres) encompass areas falling under Six (06) villages namely Layja Mota, Godhara, Ratadiya Mota, Undoth, Nana Layja and Bayat.

Components in CRZ area: Entire SEZ/ FTWZ/DTA and utility corridor of about 7.8 km fall outside CRZ area. The project associated facilities/ components falling under CRZ area are:

- Sea Water Intake pipeline, intake pump house, intake system - CRZ IV, IB
- Marine Outfall pipeline and diffuser system – CRZ IV, IB
- Utility corridor (UC) Consists of Coal conveyor ; NG pipeline, Transmission tower, Road, Intake Pipeline; Outfall Pipeline - CRZ III, IB and 1A
- The Gujarat Coastal Zone Management Authority (GCZMA) has recommended the project vide their letter dated 29th June, 2016
- The CRZ mapping/HTL & LTL demarcation of the proposed project has been carried out by National Institute of Oceanography (NIO). The main SEZ/FTWZ/ DTA are located outside CRZ influential area. The associated facilities like intake/outfall system and the utility corridor fall in CRZ area and these are permissible as per CRZ Notification, 2011.

During deliberations in 177th meeting held on 16th October, 2017 the EAC noted the following:

- (i) No clarity on land details for proposed SEZ/FTWZ area and utility corridor.
- (ii) Submission of details with CETP designs proposed different industries to be housed in SEZ/FTWA with effluent and treated effluent characteristics.
- (iii) Copy of Judgment of High court of Gujarat with writ petition (PIL) No 325 of 2014.
- (iv) Further, more clarity on cumulative impact of marine eco system and pollution loads on individual units along with characteristics.

- (v) Four pipes are slightly complicated to execute and also to maintain. What would be monitoring mechanism for outfall leaks?
- (vi) Submission complete documentation on marine intake/outfall.
- (vii) Details about court cases pending against the setting up of 4000 MW Thermal power plant & 60 MLD desalination plant and 2000 MW Gas based combined cycle power plant, where EC was already granted by MoEF&CC.

After deliberations, the EAC deferred the proposal for further consideration on above points. Further to have correct assessment of the site specific issues with respect to CRZ clearance point of view, a sub-committee of the EAC shall inspect the project site, verify the relevant document/reports on above mentioned points and furnish its report to MoEF&CC, which would be placed before the EAC for further consideration of the proposal.

2.0 Site visit

Pursuant the same, a team of subcommittee of EAC, MoEF&CC comprising of following members of visited the site from 25th to 27th December, 2017. The officials from Gujarat State Pollution Control Board and proponent were present during the visit. The team visited sand dunes and sea beach portion as well as area of SEZ.

Subcommittee of MoEF&CC

1. Dr. Deepak Apte (Chairman, EAC & Infra 1)
2. Dr. N.K Verma (Member, EAC & Infra 1)
3. Dr. M.V Ramana Murthy (Member, EAC & Infra 1)
4. Shri Raghu Kumar Kodali (Member Secretary, EAC & Infra 1)

Other Members from GCZMA

1. Shri K.C Misty Director (Env.) ,GPCB
2. Shri Ashok M Chuuha JTO & US, GPCB
3. Shri Mannan Shukla Manager (Env.), Gujarat Maritime Board

Project proponent team:

IL&FS Team:

1. Mr. Saibal De – Director - Gujarat Integrated Maritime Complex Private Limited (GIMCO)
2. Ms, Sumathy Sivaramakrishnan Iyer – Director – Sealand Ports Private Limited (SPPL)
3. Viswash Dhonde - Vice President, IL&FS Maritime

4. Akhil Agarwal – Authorized Representative, Nana Layja Power Company Limited (NLPCL)

L&T Infrastructure Engineering Limited Team

1. B. Ratheesh – Associate Project Consultant
2. Adnan Diwan– Senior Engineering Consultant

3.0 Findings of the Committee:


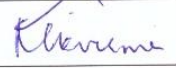

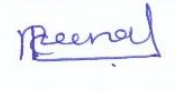
The team inspected the SEZ area to Coast on various aspects such the proposed industries in SEZ, Utility corridor from SEZ to coast within provisions of CRZ and likely impacts of proposal of SEZ and utility corridor. The following are the observations of the subcommittee.

1. The SEZ area is being utilised for agriculture purpose due to good ground water resources with water level 2.84 m to 7.19 m and it need to be protected from over exploitation or its contamination by the effluents such as pharma, polymer and basic & allied chemical industries due to potential to contaminate ground water.
2. The intake/outfall of sea water for power plants (2000 MW gas based) and (4000 MW coal based) may be considered with appropriate location of intake point as well as outfall point with diffusers at adequate depth. Sea water intake for desalination plant as well as its reject along with discharge of cooling water bleed of power plants may be considered. It needs to be ensured that there should not be any discharge of chemical constituents and heavy metals.
3. The industry categories that could be considered are plastic industry with Zero Liquid Discharge (ZLD), textile industry comprising spinning and weaving operations and apparel making with ZLD, Free Trade and warehousing zone activity, focus engineering goods, shipping ancillary, handicrafts, non-metallic and mineral products desalination plant with intake and outfall as mentioned above.
4. The utility corridor will pass through stabilized sand dunes which is proposed to be utilized for conveyor belt for coal transportation, intake and outfall pipelines to sea as well as LNG pipeline, and road, all of which will pass above sand dunes. Hence, the sand dunes should not be disturbed with structures and corridor should be built on stilts with minimum structural intervention. A proper management plan for protection of sand dunes should be prepared, as entire foreshore area was proposed to be reclaimed and utilised for hinterland facilities of port/shipyard.
5. Considering the sea coast adjoining proposed project site is known for breeding ground of Olive Ridley and Green Sea Turtle and quality of sea water is pristine as well as used for fishing activity by locals, no effluent discharge be allowed

from drugs and pharmaceuticals, polymer and basic and allied chemical industries including dyeing operation in textile industry. As such these chemical industries categories cannot be considered to ensure that no chemical constituents find a way even through a storm water drain during rainy season.

6. The construction of shipyard and port require reclamation and raising of ground level at beach front with dredged material. During construction, sea water turbidity will increase and hence it will temporarily affect fishing activity, which should be compensated with CSR activity.
7. The LNG jetty, shipping jetty and ship yard are proposed in beach portion with reclamation of adjoining sand dunes and it was reviewed by Infra 2 committee. The CRZ provisions should be met to minimise the impact of port facilities and utility corridor.
8. It is to be ensured that ship building activity should not result in any deterioration of sea water quality and suitable measures to devised, as Olive Ridley and Green Sea Turtle are noticed in this area.
9. A dedicated fund needs to be created to undertake sea turtle conservation measures including habitat restoration.

The Following Members of Sub – Committee of EAC (Infra-I) MOEF&CC visited the project site of Multiproduct SEZ and Free Trade warehousing (FTWZ) at Layja Mota, Kutch District, Gujarat by M/s Sea Land Port Ltd from 25th to 27th December, 2017.

| S.No. | Name of Committee Member | Role/Designation | Signature |
|-------|--|--------------------------------|---|
| 1. | Dr. Deepak Kumar Apte, Chairman, EAC Infra | Chairman |  |
| 2. | Dr. N.K Verma , Former AD, CPCB, New Delhi | Member |  |
| 3. | Dr. M.V. Ramana Murthy , Project Director of NIOT. | Member |  |
| 4. | Shri Raghu Kumar Kodali, Director/Scientist-F, IA-III Division , MoEF&CC . | Member Secretary (Infra-I) EAC |  |