

MINUTES OF THE 226th MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR PROJECTS RELATED TO COASTAL REGULATION ZONE HELD ON 23rd OCTOBER, 2019 AT INDIRA PARYAVARAN BHAWAN, MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, NEW DELHI.

The 226th Meeting of the Expert Appraisal Committee for projects related to Coastal Regulation Zone was held on 23.10.2019 at Sutlej Conference Hall, Indira Paryavaran Bhawan, New Delhi. The members present are:

- | | | | |
|----|------------------------|---|------------------|
| 1. | Dr. Deepak Arun Apte | - | Chairman |
| 2. | Dr. M.V Ramana Murthy | - | Member |
| 3. | Dr. Anil Kumar Singh | - | Member |
| 4. | Dr. Mohan Singh Panwar | - | Member |
| 5. | Dr. N.K.Verma | - | Member |
| 6. | Ms. Bindhu Manghat | - | Member |
| 7. | Shri W. Bharat Singh | - | Member Secretary |

Shri Prabhakar Singh, Dr. Anuradha Shukla, Shri Narendra Surana, Shri N.K. Gupta, Dr. Prabhakar Singh, Dr. Rajesh Shah, Dr. V.K. Jain and Shri Sanjay Singh were absent.

In attendance: Dr. Saranya P, Deputy Director, MoEFCC. The deliberations held and the decisions taken are as under:

2.0 CONFIRMATION OF THE MINUTES OF THE LAST MEETING.

The Committee having noted that the Minutes of the 224th meeting are in order, confirmed the same with suggestions that in case any typographical/grammatical errors are noticed in due course, the same may be corrected suitably at the secretariat level.

3.0 FRESH PROPOSALS:

3.1 Proposal for mining of heavy minerals at IREL NK Block IV having an area of 40.566 Ha, in Alappad and Panmana villages, in Karunagapally Taluk, in Kollam District, Kerala by M/s IREL(India) Limited [IA/KL/CRZ/115285/2019] [F.No.11-36/2019-IA III] - CRZ Clearance.

The proposal of M/s IREL(India) Limited is for mining of Heavy Minerals in IREL NK Block IV having an area of 40.566 Ha in Alappad & Panmana villages, Karunagapally Taluk, Kollam District, Kerala. The project proponent made a presentation and provided the following information:

- (i) IREL is having a capacity to produce 2 lakh tons of Ilmenite and associated minerals per annum but, due to shortage of raw sand, IREL currently is able to supply less than 50% of its capacity.
- (ii) IREL has been granted renewal of lease for mining of heavy mineral sand at NK Block IV (Panmana and Karunagapally) in Kollam district, having a lease area of 40.566 ha vide G.O (MS) No 22/2005/ID, dated 22/02/2005, which was valid upto 2010. Subsequently the period of lease was extended till 28.02.2020 vide G.O (MS) No. 32/2006/ID, dated 15.03.2006 issued by the Government of Kerala.

- (iii) The plot lies between Latitude 09°02' 15.8" to 09°02' 16.8" & Longitude 76°30' 31.9" to 76°30' 34.0" (Toposheet No.58 C/8, C/12, D/9). A village road connects the Block IV to Karunagapally junction situated in NH 66 at a distance of 4km from the northern end of the block. The site office is located adjacent to the Southern side of site in block IV EE and it is located at a distance of 5.47Km from NH66. The nearest railway station is Karunagapally is situated at a distance of 6Km from the block.
- (iv) IREL (India) Limited and Kerala Minerals and Metals Ltd (KMML) are the only two major industries in this area. The area is barren land with sandy soil with isolated non-yielding coconut plantation. No rare or endangered species were observed during our terrestrial and ecological survey.
- (v) The present proposal of IREL is for mining capacity 8,36,732 TPA, which includes 87000 TPA from replineshable source as recommended by NCESS and maximum inland mining in the area is 7,49,732 MT. The mining plan for the plot covering this lease area was approved by Atomic Minerals Directorate (AMD) vide AMD Approval No. AMD/MRG/IREL – CHAVARA/MP/102.77Ha, dated 17.09.2019.
- (vi) The balance reserves of minable area as on 01-04-2019, in the inland area based on prospecting by AMD is around 27.31 lakh MT The average depth of the deposit is 7.7m and the average grade is 43.39%.
- (vii) The Lease area consists of CRZ I(A), CRZ I(B), CRZ III, CRZ IV. The seasonal beach and other intertidal zones are in CRZ IB. Mangrove vegetations are present as small isolated patches on the banks of backwater/canal and these belong to CRZ IA. As these rare minerals are available only in the CRZ area, mining of these minerals are permitted within the Coastal Regulation Zone notification under the section 3(x)(iii)(c), 4(ii)(g), para 8 I (ii) (h) of the CRZ notification, 2011 as amended in 2017.
- (viii) As per the mine plan the total area of this block (NK Block IV) under this lease is about 40.566 Ha of which 18.21 Ha is for inland mining and 2 Ha for beach washing minable. This available land includes seawall, statutory barrier, sensitive locations like temple (Kochochira Sree Sankaranarayana temple, St. Sebastian Church, Sri Yogeewara Temple), school (Pandarathuruth LP School) etc.
- (ix) The proposed method of mining will be: (a) Inland mining by using dredger / Tipper HEMM combination; and (b) Beach wash collection. In the inter-tidal area only manual mining will be carried out.

(a) *Inland mining by using dredger / Tipper HEMM combination*

- The beach sands inland deposits in CRZ-III area will be mined by open cast method mining by using dredger/Tipper HEMM combination (7,49,732 tonnes).
- No development work is required here. There is no over burden.
- The equipment used for dredging is cutter suction dredge. The dredge has a working length of 30 meters and width of 14 m and can dredge upto a depth of 8 mts. The unit contains a concentrator plant where the separation is through physical process and no chemicals are used. The semi mechanized mining includes simultaneous refilling of mined area using tailings from concentration plant.
- In some areas of NK Block IV, mining operation cannot be carried out by dredging because of restricted/ small extent of land. For operation of dredge, continuous availability of land having an extent of 4 to 5 Ha is required. Since the area is thickly populated and land acquisition is a big challenge, wherever sufficient land is not available, surface mining by deploying excavators is

done up to a depth of 8 meter and the excavated material is collected and transported to the plant.

- Surface mining usually renders the land unsuitable for other uses unless it is restored or rehabilitated. The simultaneous refilling of the mine in progression with mining. After the recovery of HM concentrates the reject sand is used for refiling the mined out area. As the back filling is integrated into the mining process, the excavated land will be subsequently reclaimed and the ground surface of the reclaimed land will be brought back to the contours matching with the surrounding topography. No temple or any sensitive locations will be disturbed. The reclamation will improve the overall landscape considerably. in a phased manner by green belt development and ponds for water conservation and ground water recharge, to improve the water quality / quantity. It will also be a sustainable source for water, availing infiltration of water where ever feasible.

(b) Beach wash collection

- Beach washing will be limited to *87,000 tons per year* as recommended by National Earth Science Studies (NCESS). The minerals mined by beach washing collection are replenished by the sea. Hence this reserve is not depleted.
- Beach washing from the Beach front is collected manually and heaped near the beach The heaped sand is loaded and then transported to the plant at the site.
- The sand collected from the mining using Tipper- HEMM combination and by the beach was collection is transported to mini separation plant at the site and the upgraded mineral sand is transported to the stockyard of the Mineral separation plant located at Chavara which is at a distance of 18 km from the project site.
- The families residing in the ML area are ready to vacate provided they are given suitable compensation. The R & R scheme has been formulated after tripartite discussion between district administration, affected people and project authorities. The scheme has been approved by district authorities.
- As a measure of coastal protection, constructing a groyene field of 4 nos. over a length of 700 meters in the southern end of the lease area.
- In this project there is no scope for development of green belt as the it is proposed to return back the land to owners after mining. However, coconut plantation will be setup in the refilled land before giving it back to the land owners.
- Another positive outcome of the proposed activity is that the mining out of sand and separation of HM concentrates eventually contributes to a reduction in the overall level of radiation in the environment which is a relief to the inhabitants in the area.
- Post project monitoring system will be setup, which will ensure that the mitigation measures planned by way of environmental protection, function effectively during the entire period of mining and reclamation. These include (1) Meteorological Observatory (2) periodic topography survey (3) Measures for coastal protection & it's monitoring (4) Water resource management (5) Socio economic development (6) Green belt development (7) Occupational health and biological monitoring (8) Radiation exposure monitoring (9) Organizational set up and staff requirement for post project monitoring .In addition to this a separate environmental monitoring committee (EMC) is

recommended comprising senior officers, external experts and representative of the Alappad, Panmana panchayat to ensure implementation of recommendations as per the EMP.

- (x) The total cost of the project will be Rs. 15 crores including an amount of Rs.180.50 lakhs will be required for post project monitoring initially which include capital and recurring expenditure. The recurring expenditure will be about Rs.131.50 lakh /year.
- (xi) Kerala Coastal Zone Management Authority has recommended the above proposal for clearance vide their letter No. 2424/A1/2019/KCZMA, dated 15.07.2019.

2. The Committee noted that IREL has other mine blocks in the area and some of which are even contiguous and there exists a sea wall (almost 16 km long) constructed by the Kerala Government. It was noted that construction of hard structures like a sea wall indicates that the area is prone to erosion. It was also noted that the report prepared by NCESS indicates that 87000 TPA of minerals can be extracted from replenishable source in addition to the mineral deposits available. The Committee however observed that the present proposal does not mention of any strategy for beach nourishment, which need to be first in place.

3. The Committee also perused the public hearing issues and the responses made by the project proponent and agreed that since the proposal would also entail environmental clearance under EIA Notification, 2006, perhaps in the fitness of things, the EAC (Non-Coal Mining) can deliberate in detail on these front.

4. Based on the deliberations held, the Committee therefore decided that the project is premature for consideration for recommendation of CRZ clearance in its present form and decided that the proponent shall first submit the following information /documents for its examination before the proposal is recommended for clearance from CRZ perspective:

- i) A strategy for beach nourishment after mining, clearly indicating sustainable mining plan of action including break-up of mining in inter-tidal and non-intertidal CRZ areas.
- ii) A revised marine conservation plan including the accretion and erosion data upto 5 km upstream and downstream of the project site and likely impact on live sand in the proposed mining area.
- iii) Appropriate financial allocation as per the Office Memorandum issued by the Ministry, dated 01.05.2018, on CER, for activities to be undertaken under CER shall be earmarked and detailed plan of action shall be submitted.

Accordingly, the proposal was deferred for reconsideration at a later stage once the above information/documents/actions are taken by IREL.

3.2 Proposal for four/six/eight laning of Mamallapuram to Mugaiyur section of NH-332A from 0.000 km to 31.000 km under Bharathmala Pariyojana, Phase-I (Package-I) in Kancheepuram District by M/s National Highway Authority of India (NHAI) [IA/TN/CRZ/114515/2019] [F.No. 11-37/2019-IA III]- CRZ Clearance.

The proposal of M/s National Highway Authority of India (NHAI) is for four/six/eight laning of Mugaiyur to Marakkanam Section of NH-332A from 0.00 km to 31.000 km under Bharathmala Pariyojana, Phase-I (Package-II) in Villupuram &

Kancheepuram Districts, in Tamil Nadu. The project proponent made a presentation and provided the following information:

- (i) The proposed National Highway is a section of the State Highway No. 49 (now renamed as New NH-332A) and starts at existing 52.900 km (Design 0.000 km) near Mamallapuram village and ends at existing 86.130 km (Design 31.000 km) near Mugaiyur village in the State of Tamil Nadu. The total length of this package will be 31 kms.
- (ii) The land use pattern of about 10 km either side of the project road is predominately cultivated & barren fields and coastal area.
- (iii) The project does not involve diversion of any forest land. The project neither passes through any protected area nor through any eco-sensitive area.
- (iv) The proposed Right of Way (RoW) is 60 m except at underpass locations, which will have RoW of 70 m. The proposal entail only widening of existing roads on landward side and only one new bridge will be constructed over a water body.
- (v) The entire stretch is falling under Kancheepuram district of Tamil Nadu. The stretch is predominantly passing through plain terrain and land use of agriculture, water bodies, settlements, shrubs, fallow lands etc.
- (vi) The proposed road will have 3 nos. of major bridges, 8 nos. of minor bridges, 8 nos. of VUPs, 3 nos. of LVUP, 2 nos. of SVUP, 1 no. of Trumpet Interchange, 1 no. of VOP and 1 no. of Toll Plaza. There is provision for 1 no. of Bus Bay, 20 nos. of Bus Shelters and 2 nos. of rest areas.
- (vii) Safety measures will be provided as per IRC guidelines, NHAI safety manual and MoRTH guidelines, circulars etc.,
- (viii) About 3319 nos. of trees will be felled.
- (ix) The alignment is passing through Palar river at Ch. Km 20.300 near Iiayanarkuppam. Also the road is crossing few creeks, estuaries, lakes and minor streams.

| Stretch | length in CRZ (km) | CRZ Category |
|--|--------------------|-----------------------------|
| 4/6/8 laning of Mamallapuram to Mugaiyur section of NH-332A from Km 0.000 to Km 31.000 | 5.056 | CRZ-II, CRZ-III and CRZ-IVB |

| Chainage (Km) | | As per approved CRZ Notification, 2011 | Length in Km |
|---------------|--------|--|--------------|
| From | To | | |
| 0.000 | 0.473 | CRZ-II | 0.473 |
| 1.666 | 1.821 | CRZ-II | 0.155 |
| 1.821 | 2.104 | CRZ-IVB | 0.283 |
| 2.104 | 2.504 | CRZ-II | 0.400 |
| 4.949 | 6.180 | CRZ-III | 1.231 |
| 15.569 | 15.670 | CRZ-III | 0.101 |
| 15.670 | 15.810 | CRZ-IVB | 0.140 |
| 15.810 | 15.972 | CRZ-III | 0.162 |
| 20.060 | 20.111 | CRZ-III | 0.051 |
| 20.111 | 21.400 | CRZ-IVB | 1.289 |
| 21.400 | 21.645 | CRZ-III | 0.245 |
| 23.250 | 23.354 | CRZ-III | 0.104 |
| 23.354 | 23.482 | CRZ-IVB | 0.128 |

| | | | |
|---------------------------------|--------|---------|--------------|
| 23.482 | 23.562 | CRZ-III | 0.080 |
| 26.312 | 26.381 | CRZ-III | 0.070 |
| 26.381 | 26.448 | CRZ-IVB | 0.067 |
| 26.448 | 26.525 | CRZ-III | 0.077 |
| Total Length of CRZ area | | | 5.056 |

Details of Bridges falling under CRZ area

| S. No. | Design Chainage (km) | Length (m) | Proposed span arrangement (m) | Category as per CRZ Notification, 2011 |
|--------|----------------------|------------|---|--|
| 1 | 1.835 | 48 | 1 x 6.70 + 1 x 26.70 + 1 x 6.70 (LHS) 1 x 48.0 (RHS) | CRZ-IVB |
| 2 | 2.069 | 52.5 | 3 x 17.5 | CRZ-IVB |
| 3 | 4.730 | 7.5 | 1 x 7.50 | - |
| 4 | 13.551 | 45 | 3 x 15.0 | - |
| 5 | 15.718 | 90 | 3 x 30.0 | CRZ-IVB |
| 6 | 17.191 | 18 | 1 x 18.0 | - |
| 7 | 20.805 | 1037.3 | 41 x 25.30 | CRZ-IVB |
| 8 | 23.373 | 120 | 4 x 30.0 | CRZ-IVB |
| 9 | 26.367 | 30 | 1 x 30.0 | CRZ-III |

- (x) About 776371 cum of fly ash is proposed to be used for construction of embankment and it will be sourced from Madras Automatic Power station.
- (xi) It is anticipated that 40 KLD of waste water will generate from temporary construction camps. Septic tanks with soak pits will be provided at camp sites. The supernatant liquid from secondary pond of treated water will be reused for water sprinkling in camp sites during loading & unloading of construction materials. These reused waters will be used for earthwork, during construction of sub grade & embankment. These will also be used for plantation and landscaping of camp area (24 months). Hence, there will be zero discharge of effluent water to adjoining sewer or any channel.
- (xii) There will be temporary employment of 1800 nos. during construction phase and 50 no. during operation of road at tolls and highway management, as per norms of IRC and MoRTH guidelines.
- (xiii) The civil cost of the project will be Rs.578.52 crores. The land acquisition cost will be Rs. 368.79 crores and R&R cost will be Rs. 20 crores. The Environmental cost including CER and additional plantation will be Rs. 20.71 crores.
- (xiv) Tamil Nadu Coastal Zone Management Authority has recommended the above proposal for clearance vide their letter No. 9910/EC-3/2019-1, dated 26.06.2019.

2. The project proponent stated that since the existing portion of the State Highways are now designated as National Highways and hence does not attract the provisions of the EIA Notification, 2006 as the total length of this package is less than 100 kms. The Committee in response therefore observed that the notification issued by MoRTH vide S.O.896(E) dated 01.03.2018, itself mentions the proposed highway as a new National Highway, whereas, the notification issued by MoEFCC for exemption of prior EC under EIA Notification, 2006, through an amendment in the EIA Notification vide S.O. 2559 (E), dated 22.08.2013, is for expansion of highway projects with certain conditions.

3. The Committee observed that according to the aforesaid MoEFCC notification issued vide S.O. 2559 (E), dated 22.08.2013, expansion of highway projects greater than 100 km involving additional right of way or land acquisition greater than 40 m on existing alignments and 60 m on re-alignments or by-passes, will attract EIA Notification, 2006. The Committee further observed that by way of breaking smaller packages of 31 km or so each and the explanation that the project shall not attract EIA Notification, 2006 since the project is less than 100 km, is purely an attempt to circumvent law and cannot be allowed. The Committee further noted that two proposals each of 31 km length and contiguous to one another, are placed now for consideration before the Committee and a third segment of similar length, which is also contiguous, is in pipeline, the proposal of which is being submitted soon. The Committee observed that the project proponent shall be mindful in future while submitting such proposals and decided that the project proponent shall declare and submit an undertaking stating the total distance (in km) of the National Highway in this stretch, and the areas under CRZ jurisdiction, to enable both the CRZ Sector and the Infra-I sector in proper understanding of the case.

4. The Committee observed that if at all, piers are required to be constructed in the water body, the distance between two piers shall not be less than 45 m. It was also stated by the project proponent that about 637 mangrove trees may be affected. The Committee observed that under unavoidable circumstances if at all 637 mangrove trees are affected, the project proponent shall take up with the Forest Department in the state for prior identification and plantation of five times the number of these mangroves affected and shall undertake plantation activity during the project period itself. It shall also be mindful that the survival rate of plantation does not fall below 80% and under any circumstances the project proponent shall ensure that five times the number of mangroves affected are planted/regenerated fully.

5. The Committee further observed that in so far as CRZ is concerned, the project will not change the CRZ characteristics of the area and therefore the proposal can be recommended for CRZ clearance. The Committee finally observed that the proposal can be referred to the concerned sector for appraisal under the purview of the EIA Notification, 2006 after following due procedures.

3.3 Proposal for four/six/eight laning of Mugaiyur to Marakkanam Section of NH-332A from 31,000 km to 62,000 km under Bharathmala Pariyojana, Phase-I (Package-II) in Villupuram & Kancheepuram District by M/s National Highway Authority of India (NHAI) [IA/TN/CRZ/114472/2019] [F.No. 11-17/2019-IA III] - CRZ Clearance.

The proposal of M/s National Highway Authority of India (NHAI) is for four/six/eight laning of Mugaiyur to Marakkanam Section of NH-332A from 31,000 km to 62,000 km under Bharathmala Pariyojana, Phase-I (Package-II) in Villupuram & Kancheepuram District, in Tamil Nadu. The project proponent made a presentation and provided the following information:

- (i) The site of project highway is a section of State Highway No. 49 (New NH-332A) and starts at existing 86.130 km near Mugaiyur village and ends at existing 118.435 km near Marakkanam village in the State of Tamil Nadu. It is over a stretch of 31 kms.
- (ii) The project does not involve diversion of any forest land. The project neither passes through any protected area nor through any eco-sensitive area.

- (iii) The proposed RoW is 60 m except at underpass locations where it will be 70 m at these locations.
- (iv) The proposed road will have three major bridges, one minor bridges, 6 nos. of VUPs, 5 nos. of LVUP, and 1 no. of Toll plaza. There will be provision for 2 nos. of truck lay byes and 14 nos. of Bus shelters.
- (v) Safety measures will be provided as per IRC guidelines, NHAI safety manual and MoRTH guidelines, circulars etc.,
- (vi) About 1560 No. of trees proposed to be felled within proposed ROW. It is also estimated that 637 Mangroves will also be affected.
- (vii) The road is crossing few creeks, estuaries, lakes and minor streams. Proper care shall be taken to free from dumping of solid wastes and earth materials.

| Stretch | length (km) | CRZ Category |
|---|-------------|---|
| 4/6/8 laning of Mugaiyur to Marakkanam section of NH-332A from Km 31.000 to Km 62.000 | 7.302 | CRZ-IA, CRZ-IB, CRZ-II, CRZ-IVB and NDZ |

| Chainage (km) | | As per approved CRZ Notification, 2011 | Length in Km |
|---------------------------------|--------|--|--------------|
| From | To | | |
| 33.815 | 33.915 | NDZ | 0.100 |
| 33.915 | 33.969 | CRZ-IVB | 0.054 |
| 33.969 | 33.993 | CRZ-IB | 0.024 |
| 33.993 | 34.093 | NDZ | 0.100 |
| 34.823 | 35.585 | NDZ | 0.762 |
| 36.806 | 36.908 | NDZ | 0.102 |
| 36.908 | 36.920 | CRZ-IB | 0.012 |
| 36.920 | 37.335 | CRZ-IVB | 0.415 |
| 37.335 | 37.359 | CRZ-IB | 0.024 |
| 37.359 | 37.557 | NDZ | 0.198 |
| 37.880 | 39.690 | NDZ | 1.810 |
| 54.804 | 54.884 | NDZ | 0.080 |
| 54.884 | 55.157 | CRZ-IA | 0.273 |
| 55.157 | 55.175 | CRZ-IB | 0.018 |
| 55.175 | 55.509 | CRZ-IVB | 0.334 |
| 55.509 | 55.559 | CRZ-IA | 0.050 |
| 55.559 | 55.806 | CRZ-II | 0.247 |
| 55.806 | 55.824 | CRZ-IA | 0.018 |
| 55.824 | 55.994 | CRZ-II | 0.17 |
| 55.994 | 56.116 | CRZ-IA | 0.122 |
| 56.116 | 56.168 | CRZ-IB | 0.052 |
| 56.168 | 56.761 | CRZ-II | 0.593 |
| 57.868 | 59.612 | CRZ-II | 1.744 |
| Total Length of CRZ area | | | 7.302 |

Details of Bridges falling under CRZ area

| S.No. | Design Chainage (km) | Length (m) | Proposed span arrangement (m) | Category as per CRZ Notification, 2011 |
|-------|----------------------|------------|-------------------------------|--|
| 1 | 33.993 | 120 | 4x30.0 | CRZ-IB |
| 2 | 37.150 | 480 | 16x30.0 | CRZ-IVB |
| 3 | 55.350 | 396 | 22x18.0 | CRZ-IA |

| | | | | |
|---|--------|----|--------|--------|
| 4 | 55.813 | 18 | 1×18.0 | CRZ-IA |
|---|--------|----|--------|--------|

Mangrove species recorded in Marakkanam region – Consolidated

| Design Chainage (Km) | Side | Height | Type of Plant |
|----------------------|------|-------------------------|--|
| 54.900 | LHS | 2.6 m 0.7 m 2.0 m | Avicennia marina Avicennia marina Rhizophora sp. |
| 54.900 | | RHS | 2.0 m |
| 55.060 | | RHS | 2.0 m |
| 55.580 | | RHS | 2.0 m |
| 55.650 | LHS | | 2.0 m |
| 55.700 | | RHS | 1.5m |
| 55.850 | LHS | | 2.0 m |
| 56.000 | | RHS | 1.5 m |

Additional mangroves plantation details

| S. No. | Chainage | Location | Area proposed for Mangrove plantation (Ha) | No. of Mangroves | Cost of Mangrove plantation (Lakh) |
|--------|----------------------------|--------------------------|--|------------------|------------------------------------|
| 1 | Km. 15.700 – Km. 15.800 | Creek Near Kalpakam | 5.044 | 17654 | 46.86 |
| 2 | Km. 23.300 – Km. 23.400 | Creek Near Vayaiur | 4.919 | 17217 | 45.70 |
| 3 | Km. 54.400 – Km. 55.600 | Creek Near Marakkanam | 11.32 | 39620 | 105.16 |

Additional tree plantation details

| S. No. | Chainage | Location | Proposed length for trees plantation (km) | No. of trees | Cost of trees Plantation (Lakh) |
|--------|----------------------------|--------------------------|---|--------------|---------------------------------|
| 1 | Km. 15.700 – Km. 15.800 | Creek Near Kalpakam | 5.05 | 1261 | 6.305 |
| 2 | Km. 23.300 – Km. 23.400 | Creek Near Vayaiur | 4.92 | 1230 | 6.150 |
| 3 | Km. 54.400 – Km. 55.600 | Creek Near Marakkanam | 5.24 | 1309 | 6.545 |

- (viii) Total requirement of water during construction is estimated at about 721154 KL.
- (ix) About 888632 cum fly ash proposed to be used for construction of embankment from Madras Automatic Power station.
- (x) Temporary employment of 1800 no. during construction phase and 50 no. for operation of road at tolls and highway management as per norms of IRC guidelines & MORTH guidelines.
- (xi) The civil cost of the project will be Rs. 579.71 crores. The land acquisition cost is Rs. 187.23 crores and R&R cost will be Rs. 27 crores. Budget for mangrove conservation plan will be Rs. 25 lakhs. The Environmental cost including CER and additional plantation is Rs. 19.86 crores.
- (xii) Tamil Nadu Coastal Zone Management Authority has recommended the above proposal for clearance vide their letter No. 9909/EC-3/2019-1, dated 26.06.2019.

2. The Committee deliberated this item and observed that as noted in the previous item, this section of the National Highway is contiguous to the previous item and a third segment is also in the pipeline, which is also contiguous to these two items. The Committee observed that the deliberations made in the last item also hold true in this item and need not be repeated for sake of brevity.

3. The Committee reiterated that as observed in the previous item, the project proponent shall be mindful in future while submitting such proposals and decided that the project proponent shall declare and submit an undertaking stating the total distance (in km) of the National Highway in this stretch, and the areas under CRZ jurisdiction, to enable both the CRZ Sector and the Infra-I sector in proper understanding of the case.

4. The Committee however observed that in so far as CRZ is concerned, the project will not change the CRZ characteristics of the area and therefore the proposal can be recommended for CRZ clearance. The Committee however finally observed that the proposal can be referred to the concerned sector for appraisal under the purview of the EIA Notification, 2006 after following due procedures.

3.4 Proposal for construction of 1.80m High Compound Wall at Little Andaman Lighthouse by M/s Directorate of Light House and Lightship [IA/AN/CRZ/103048/2019] [F.No. 11-38/2019-IA III] -CRZ Clearance.

The proposal of M/s Directorate of Light House and Lightship is for construction of 1.80m high compound wall at Little Andaman Lighthouse. The project proponent made a presentation and provided the following information:

- (i) The Little Andaman (Sandy Point) Lighthouse, at Hut Bay, in Little Andaman Island was established in the year 1986 with complete setup consists of staff quarter, powerhouse building and compound boundary made with barbed wire fencing. During Tsunami December in 2004, the place was severely damaged and the staff quarters and compound boundary were washed away completely.
- (ii) The Light House is providing the aids to the Indian Coast Guards vessels.
- (iii) The present proposal is for reconstruction of compound wall (1.8 m high) in order to secure the Lighthouse complex and its installations and for safety of the operational staff.
- (iv) The compound wall will be erected in the same alignment where the earlier wire fencing was in place. For construction of the compound wall, construction material will be brought from Port Blair and executed of the same will be done in a duration of 12 months from the date of issue of work order.
- (v) Length of compound wall will be 489 m with continuous strip footing. The depth of foundation will be 0.7m below ground. The entrance will be secured with a steel gate of 3.60 m wide to regulate the entry of personnel to the station premises.
- (vi) The proposed site location falls in CRZ- III (NDZ) area.
- (vii) The station is operated with limited men power and powered by 4.5 KW Solar power plant backed up by Diesel Generator sets.
- (ix) The total cost of the project will be Rs. 75 lakhs.
- (x) The Andaman & Nicobar Coastal Zone Management Authority has recommended the above proposal for clearance vide their letter No. PCCF(CRZ&FC)/EPA/1/Vol-XIV/634, dated 27.03.2019.

2. The Committee was informed by the project proponent that the Little Andaman (Sandy Point) Lighthouse, Hut Bay was established in the year 1986 with complete setup consists of staff quarter, powerhouse building and compound boundary with barbed wire fencing, and therefore there is no CRZ clearance for the existing structures.

3. The Committee deliberated the proposal and observed that the permissibility of such compound walls in NDZ as per the extant CRZ regulations is doubtful but the instant proposal merits consideration as it is a necessity for safety of the equipment and staff manning the light house, as the purpose of the light house is in larger public interest. The Committee also observed that in so far as CRZ angle is concerned there would be no adverse impact which could prejudice the coastal ecology of the area.

4. Based on the deliberations held the Committee therefore recommended the project for CRZ clearance subject to the following conditions:

- i) Use of non-conventional energy sources like solar power shall be adopted and the project proponent shall explore the possibility of avoiding sourcing back up power from DG Sets at all times.
- ii) All construction materials left over from the site after the construction shall be completely removed within one month and transported to its area of origin.

3.5 Proposal for construction of Lidar based offshore structure for wind measurement at Zone C1 (Dhanuskodi coast) & C2 (Valinokkam coast) in Gulf of Mannar, in Tamil Nadu by M/s National Institute of Wind Energy, Ministry of New and Renewable Energy, Government of India [IA/TN/CRZ/119895/2019] [F.No. 11-39/2019-IA III] – CRZ Clearance.

The proposal of M/s National Institute of Wind Energy, Ministry of New and Renewable Energy, Government of India is for construction of Lidar based offshore structure for wind measurement at Zone C1 (Dhanuskodi coast) and at C2 (Valinokkam coast) in the Gulf of Mannar, in Tamil Nadu. The project proponent made a presentation and provided the following information:

- (i) M/s National Institute of Wind Energy (NIWE) is the nodal agency for development of offshore wind energy and has been entrusted by the Government of India to carry out and coordinate wind resource assessment and surveys in India. Through the present proposal, NIWE is planning to carry out wind resource assessment near Gulf of Mannar, in Tamil Nadu under FOWIND project.
- (ii) NIWE has approached NIOT for design and installation of substructures for installation of Laser Detection and Ranging (LiDAR) device. The data collection platform will function for 2 years for measuring wind data to validate the wind potential at these sites. A LiDAR device is proposed to be used for the measurement of wind speed. The LiDAR obtains information from a signal which is sent from a transmitter, reflected by a target (the wind) and detected by a receiver back at the source to measure the velocity of wind.
- (iii) Three Lidar based offshore wind measurement, off Tamil Nadu Coast are proposed to be set up, of which, two locations proposed at C1 and C2 are in Ramanthapuram District. Both are at about 19 km (10.5 NM) from the LTL and falls under CRZ IVA category as per CRZ notification, 2011. The third location A1 will be in offshore in

Tuticorin District, at a distance of about 31.16 km (16.83 NM) from LTL and falls beyond CRZ jurisdiction.

- (iv) All the three locations have been carefully selected so that no coral beds are not disturbed. The locations of the three locations are as follows:

| S. No | Zone | Latitude (N) | Longitude (E) |
|-------|------|--------------|---------------|
| 1 | C1 | 9° 1'30.20"N | 79°19'27.00"E |
| 2 | C2 | 8°57'48.51"N | 78°49'14.74"E |
| 3 | A1 | 8°46'17.66"N | 78°25'11.78"E |

- (v) The proposed installation of third LiDAR based offshore structure (Zone A1) for Wind Measurement in Gulf of Mannar (Lat: 8°46'17.66" N, Lon: 78°25'11.78.66" E) if 31.16 km away from Thoothukudi City i.e. 16.83 nautical miles from the LTL to sea side.
- (vi) All the three structures will be set up such that they do not fall in navigational routes of ships.
- (vii) The total cost of the project will be Rs. 5.5 crores.
- (viii) The Tamil Nadu Coastal Zone Management Authority has recommended the above proposal for clearance vide their letter No. 17.98/EC.3/2019-1, dated 16.10.2019.

2. The Committee was informed that all three Lidar zones does not fall in an ecologically sensitive area and Gulf of Mannar Biosphere Zone as certified by the State Forest Department vide their letter dated 14.10.2019.

3. The Committee noted that the locations of Lidar Zones (C1 & C2) marked on the CRZ map drawn by NCSCM, Chennai and its distance from CRZ jurisdiction seem debatable as the distances seem to have been calculated not from the main coastline but from the nearest small island coast. The Committee noted perhaps only C1 (Dhanuskodi coast) may fall under the CRZ regulations i.e within 12 Nm. The Committee also noted that the latitudes and longitudes of C1 and C2 as mentioned in the report of NCSCM, Chennai and the information provided seem to differ slightly and therefore decided that the CRZ maps showing the distance of the Lidar zones in the context of CRZ jurisdiction may be reexamined and re-verified. The Committee further noted that perhaps only C1 may fall under CRZ jurisdiction.

4. The Committee further observed that in so far as the CRZ angle is concerned it recommends the proposal for CRZ recommendation, as such a project is in national interest and no irreversible damage would likely be caused to the marine ecology by such installations. The Committee finally decided that upon verification of the location of C1 and C2 in the context of CRZ jurisdiction, the CRZ clearance as may be necessary may be processed for clearance.

3.6 Proposal for container transit terminal at S.F.No.1/3B3, Pulicat Road, Kattupalli village, Tiruvallur District, Tamil Nadu by M/s Apollo World Connect Limited, Chennai [IA/TN/CRZ/117719/2019] [F.No. 11-35/2019-IA III] - CRZ Clearance.

The proposal of M/s Apollo World Connect Limited is for establishing a container Transit Terminal at S.F.No.1/3B3, Pulicat Road, Kattupalli Village, Tiruvallur District, Tamil Nadu. The project proponent made a presentation and provided the following information:

- (i) M/s Apollo World Connect Limited, is a step-down subsidiary of Apollo Logisolutions Ltd., and has acquired 10.01 acres of land for development of high-end container yard facility. Part of the land parcel (outside of CRZ) is already developed and is in operation.
- (ii) Container Transit Terminal is proposed within an area of 25511.80 Sq.m at S.F. No. 1/3B3, Pulicat Road, Kattupalli village, Ponneri Taluk, Tiruvallur District, Tamil Nadu State.
- (iii) The proposed project is planned near the Adani Kattupalli Port, Kattupalli village, Ponneri Taluk, Tiruvallur district. The site is located about 1.64 km-SW away from Kattupalli Village
- (iv) The proposed facility falls under CRZ-III and is outside port limits. The project proponent has proposed to develop green belt in NDZ of CRZ-III area i.e upto 200 m from HTL.
- (v) The project site is located at 13⁰19'09.5" N and 80⁰20'21.42" E.
- (vi) The proposed facility is for transit storage yard for handling and storage of products such as Timber, Coir Pith, White Cement and Agro Commodities such as Coconut Fiber, Salt, Chili powder, Vegetables, Fruits, etc.
- (vii) The built up area will have facilities like administration, canteen, toilets & other utilities.
- (viii) The total requirement of water for construction phase is 15 KLD and operation phase is 7 KLD, which is proposed to be met through tankers.
- (ix) The estimated solid waste generation during construction phase will be organic waste of 9 kg/day, collected and disposed to Municipal bins and inorganic waste of 13.5 kg/day will be collected and disposed through authorized vendors. During operation phase, organic waste-18 kg/day, collected and disposed to Municipal bins and inorganic waste - 27 kg/day will be collected and disposed through authorized vendors.
- (x) Power requirement will be 200 kVA which will be backed up by 2x 125 kVA DG sets (1 working and 1 standby). No additional power is required for the proposed expansion.
- (xi) Man power requirement will be 50 numbers during construction phase and 100 numbers during operation phase.
- (xii) The expected total project cost is Rs 4.99 Crores.
- (xiii) During the project implementation, demand for goods and services required for the project will directly or indirectly contribute to the growth of other sectors such as cement, heavy and light industries, food industry and other services.
- (xiv) Tamil Nadu Coastal Zone Management Authority has recommended the above proposal for clearance vide their letter No. 13523/EC-3/2019-1, dated 21.08.2019.

2. The Committee deliberated the proposal and noted that the transit facility is to be constructed adjacent the existing terminal which is in operation and located in non CRZ area. The Committee observed that setting up of the transit storage facility is not going to change the characteristics of the CRZ of the area and the proposal can be recommended for CRZ clearance subject to the following conditions:

- (i) The project proponent shall ensure that no construction materials are left and are completely removed with one month of finishing all construction activities.
- (ii) No excavated material during the construction shall be dumped in water bodies or adjacent areas. The site shall be restored to its near original condition after completion of construction of bridge.

- (iii) Solid waste shall be collected, treated and disposed of in accordance with the Solid Waste Management Rules, 2016.
- (iv) Appropriate financial allocation as per the Office Memorandum issued by the Ministry, dated 01.05.2018, on CER, for activities to be undertaken under CER shall be earmarked and detailed plan of action shall be submitted.

3.7 Proposal for construction of Home Stay Building owned by Smt. Renji Haridas & Smt. Manju Mohan, Sreepadmam, SNRA-37, Pazhaveedu, P.O. Alappuzha, Kerala by Shri Renji Haridas and Smt. Manju Mohan [IA/KL/CRZ/119649/2019] [F.No. 11-09/2019-IA III] - CRZ Clearance.

The proposal of Shri Renji Haridas and Smt. Manju Mohan is for construction of Home Stay Building at Sreepadmam SNRA-37, Pazhaveedu, P.O. Alappuzha, Kerala. The project proponent made a presentation and provided the following information:

- (i) The project site is located near Alappuzha beach, in Alappuzha (West) village, Ambalappuzha Taluk. The total plot area of the site is 821 m². The proposed construction will have a built-up area of 418.25 m² consisting of two blocks Unit 1 and Unit 2 with a built-up area of 157.39 m² and 103.47 m² respectively. Unit 1 block is a six-bedroom facility having a height of 9.09m (ground floor and first floor) and Unit 2 is a 2-bedroom facility with 5.90m height (ground floor).
- (ii) The expected cost of the proposed project is Rs. 67.50 lakhs.
- (iii) The project plot is situated at a distance of 64m from the HTL of Arabian Sea. The proposed construction falls in the category of CRZ-II as per the CRZ Status report prepared by the Institute of Remote Sensing (IRS).
- (iv) Kerala Coastal Zone Management Authority has recommended the above proposal for clearance vide their letter No. 7585/A1/2017/KCZMA, dated 02.11.2018.

2. The Committee noted that the proposed construction consists of built-up area of only about 418.25 sq.m, which is less than 20,000 sq.m and is in CRZ-II. The Committee noted that this would only require a clearance/approval from the concerned Town planning authorities based on the recommendation of the SCZMA, as per the provisions of the CRZ Notification, 2011. The Committee noted that the proposal has already a recommendation from the KCZMA and therefore decided to from CRZ perspective, the proposal can be recommended for CRZ clearance and the concerned Town and Country Planning Authority in the State Government may issue necessary clearance.

RECONSIDERATION

3.8 Proposal for Establishing 15 MLD Capacity Desalination Plant at S.No.817/1,817/2, Mullakadu Part-I, Village, Thoothukudi Taluk, Thoothukudi District by M/s South Water Alliance (P) Ltd., Chennai- CRZ Clearance [IA/TN/CRZ/113559] [F.No.11-27/2019-IA.III]

The proposal of M/s South Water Alliance (P) Ltd was earlier placed before the Expert Appraisal Committee (CRZ) in its 221st meeting held on 19.08.2019, wherein, the Committee had noted that the Gulf of Mannar Biosphere Reserve is located close by and the outfall point is not far off (about 450 m) from the Reserve which has coral reefs and need to be shifted. The Committee had also noted accordingly the dispersion model carried out by

IIT, Madras would need a remodeling after shifting of the outfall point by atleast 1000 m from the southern point of the nearest reef and submit revised dispersion model data for further examination by the Committee.

2. On submission of the same, the proposal was again placed for consideration of the Committee. The Committee noted the following revision in the proposal:

| Component | Earlier proposal | Revised proposal |
|--|---|---|
| Intake Sea Water Quantity | 37.50 MLD @ 1,562.5 cu.m/hr | 37.50 MLD @ 1,562.5 cu.m/hr |
| Brine Generation | 22.50 MLD @ 937.5 cu.m/hr | 22.50 MLD @ 937.5 cu.m/hr |
| Intake Location | 08°43'17.05" N & 78°09'48.08" E @ (-) 3.8 m CD | 08°43'17.05" N & 78°09'48.08" E @ (-) 3.8 m CD |
| Outfall Location (3 Diffusers- 0.2 m dia & 1.5 m ht.) | 08°43'12.00" N & 78°09'57.00" E @ (-) 4.6 m CD | 08°42'.56.26" N & 78°10'6.73" E @ (-) 4.6 m CD |
| Intake Pipeline (0.7 m Dia) Length | 1,215 m | 1,215 m |
| Outfall Pipeline (0.5 m Dia) Length | 1,450 m | 1,978 m |
| Product Pipeline Length | 3,200 m | 3,200 m |
| Sea Water Salinity : Ambient | 32 ppt | 32 ppt |
| Salinity : After Dispersion | 33.0-34.5 ppt | 33.0-34.5 ppt |
| Project Cost | Rs.48.85 Crores | Rs.50.00 Crores |

3. The Committee noted the changes made and agreed that the same can be accepted and the instant proposal may not alter the CRZ characteristics of the area provided the due precaution is taken during the laying of the pipelines. Based on the deliberations held and submissions made, the Committee reiterated its earlier recommendation of the proposal for CRZ clearance subject to the following conditions:

- (i) This clearance shall be subject to obtaining clearance from the Standing Committee of National Board of Wildlife, as may be applicable.
- (ii) Revised alignment of outfall pipeline and the coordinates of the outfall point along with a revised dispersion model data shall be submitted for further examination by the Committee.
- (iii) No groundwater shall be extracted to meet with the water requirements during the construction and/or operation phase of the project.
- (iv) Appropriate financial allocation as per the Office Memorandum issued by the Ministry, dated 01.05.2018, on CER, for activities to be undertaken under CER shall be earmarked and detailed plan of action focusing on Gulf of Mannar marine biodiversity conservation and should be developed in consultation with Chief Wildlife Warden of Tamil Nadu. The plan shall be submitted to the concerned agencies within six months of receipt of clearance letter.

3.9 Proposal for construction of Golf Course and Beach Resort Project at Sy.No.1/P1, 1/P2,1/P3,51/P1 of Bengre Village, Mangaluri Taluk, Dakshina Kannada, Karnataka by M/s Opus Laguna Gold and Resorts Pvt. Ltd. [IA/KA/MIS/72738/2018] [F.No.11-12/2018-IA.III] - CRZ Clearance.

The proposal of M/s Opus Laguna Gold and Resorts Pvt. Ltd was earlier placed before the Expert Appraisal Committee (CRZ) in its 190th meeting held on 08.05.2018, wherein, the Committee had desired clarification from the Karnataka State Coastal Zone Management Authority (KCZMA) in so far as the conformity/applicability of the proposal in consonance with CRZ Notification, 2011, as recommended vide its letter No.FEE.285 CRZ 2017, dated 26.09.2017. The Committee had also noted that the CRZ map seem flawed and had desired that a revised CRZ map (1:4000 scale) w.r.t HTL demarcation as per the approved CZMP may be redrawn. On receipt of these the same was placed for re-consideration of the Committee.

2. The Committee observed that the in response to the Ministry's letter seeking clarification as noted above, issued vide letter No. 11-12/2018-IA.III, dated 13.06.2018, followed by reminder dated 03.12.2018, the KCZMA vide their letter No. FEE 135/CRZ/2019, dated 03.08.2019, has provided their response and it has been mentioned that there is no specific provision in the CRZ notification for Golf Course activities. That, however, as per para 1(e) of the amendment to Annexure-III of the CRZ Notification dated 04.02.2015, construction of goal posts, net posts and lamp posts are permissible activities. The Committee noted that the project area falls in CRZ-II and CRZ-IB, and has submitted an undertaking to the effect that no construction activity will be carried out in CRZ-1B area.

3. The Committee was informed by the project proponent that the project is as per the Karnataka Tourism Policy 2015-2020 and will be implemented in PPP mode. On the issue of water requirement for the golf course, the Committee was informed by the project proponent that 800 KLD of water is required for golf course which shall be sourced from STP effluent treated water and desalination water from MRPL. It informed by the project proponent that they are entering into an agreement with MRPL on the supply of desalination water. *The Committee noted the point and decided that the project proponent shall submit the Agreement/MoU signed in this regard to KCZMA and the Regional Office of the Ministry within two months from the date the CRZ clearance is issued.*

4. The Committee observed that the CRZ map has been redrawn such that no facility is proposed in CRZ-I area and there are no changes in specification of the proposed resorts, which falls in CRZ-II areas. The Committee also observed that the project proponent has provided free access on both sides for public access to the beach as per the guidelines mentioned in Annexure-III of the notification. The Committee further observed that the project will not alter the CRZ characteristics of the area and therefore can be considered for clearance.

5. Based on the deliberations held the Committee recommended the project for CRZ clearance subject to the following conditions:

- i) A robust rain water harvesting system shall be installed as committed by the project proponent.

- ii) Use of non-conventional energy sources like solar power shall be adopted and the project proponent shall explore the possibility of solar power generation in all open areas and roof tops.
- iii) No groundwater shall be extracted to meet with the water requirements during the construction and/or operation phase of the project.
- iv) Appropriate financial allocation as per the Office Memorandum issued by the Ministry, dated 01.05.2018, on CER, for activities to be undertaken under CER shall be earmarked and detailed plan of action coastal area conservation. The plan shall be submitted to the concerned agencies within six months of receipt of clearance letter.

AMENDMENT OF CRZ CLEARANCE

3.10. Proposal for laying of crude oil pipeline project from Ennore Port to M/s CPCL along the NCTPCL compound wall, Tamil Nadu by M/s IMC Limited [F.No. 11-31/2009-IA.III] – Amendment of CRZ Clearance.

M/s IMC Limited was accorded CRZ clearance for laying of crude oil pipeline project from Ennore Port to M/s CPCL along the NCTPCL compound wall, in Tamil Nadu vide letter No. 11-31/2009-IA.III, dated 24.08.2009 by the Ministry of Environment and Forests. The validity of this clearance has been extended up to 23.08.2019 vide the Ministry's letter even no., dated 17.06.2015. Now M/s IMC Ltd. has requested for an amendment of the route in one section of the proposed pipeline and for further extension of validity of the clearance.

2. The Committee was informed by the project proponent that the construction work for the above mentioned pipeline has started in August, 2019 but there has been a necessity for slight changes in the alignment in one section of the route of the pipeline in order to avoid settlements, marshy water logged area, mangroves and ease of access as per OISD guidelines and for accessibility for monitoring of pipelines. The deviation of the route will be positive to the environmental/CRZ context as it is proposed to take the line along the sea wall in existence (1.004 km) and avoiding sensitive areas.

3. The Committee noted if the proposed change in alignment is made, the 7.349 km to 8.353 km chainage will now falls in CRZ-III, whereas, the 11.150 km to 12.320 km chainage, as per approved route, was located in CRZ-II. The Committee also observed that the length of the cross country pipeline due to proposed amendment is reduced to 20.393 km, compared to original approved length of about 23.2 km.

4. The Committee deliberated the issues involved and observed that the proposal merits consideration as the proposed changes/deviation in route for about 1 km will have better environmental/CRZ benefits than the original alignment. The Committee however decided that the project proponent shall obtain an endorsement / recommendation from the TNCZMA in this regard. In so far as validity of CRZ clearance is concerned the Committee noted that as declared by the project proponent and the latest pictures shown to the Committee, construction of the pipeline has begun since August, 2019 and as per the extant CRZ regulations, construction need to commence within the validity period of the clearance and hence in the instant case the CRZ clearance is valid and does not require its extension of validity.

4. Any other item with the permission of the Chair.

4.1 Laying of water supply pipeline crossing of Kaman river on NH-8, near Juchundra village by water pipeline of surya project by M/s Mumbai Metropolitan Region Development Authority [F.No. 11-34/2017 IA III] – reconsideration.

The proposal of M/s Mumbai Metropolitan Region Development Authority (MMDRA) was earlier placed before the Expert Appraisal Committee (CRZ) in its 224th meeting held on 24.09.2019, MMRDA informed the Committee that as stated in the last meeting, in compliance to the specific condition no. (v) of the CRZ Clearance issued by the Ministry's dated 09.02.2015, requiring permission of Hon'ble High Court for construction activity in mangrove area or its 50 m buffer zone area, MMRDA had approached Hon'ble High Court of Bombay. The Hon'ble Court vide its order dated 20.08.2019 granted permission for start of construction, provided Union of India, Ministry of Environment, Forest and Climate Change certifies that the said construction is not likely to adversely affect the existing mangroves. It was also stated by the project proponent that the drilling work would be carried out 15-30 m depth below the surface.

2. This item was chaired by Dr. Anil Kumar Singh in the last meeting as Dr. Apte recused himself on principle due to the fact that BNHS advises MMRDA on important issues of environment and also receive financial assistance and may not be appropriate for him to chair the meeting for the item. The item is therefore being chaired by Dr. Anil Kumar Singh.

3. The Committee had in the last meeting held on 24.09.2019, observed that the while it agrees *prima facie* there should not be any impact on the mangroves per say, the project proponent has no material data at hand such as soil characteristics, drilling techniques etc., to satisfy the Committee on this front. The Committee had therefore decided that the project proponent shall provide precise information on all issues of vibration including its impact on the surrounding before a go ahead for proceeding is give.

4. The project proponent furnished vibration study reports was placed before the Committee. They also presented data on vibration likely to be transmitted at surface due to Tunnel Boring Machine (TBM) operation at Kaman Creek and Vasai Creek and it was noted that it will be in the range of 0.025 to 0.4 mm/s (TRMS vibration) or 0.1 to 1.5 mm/s in terms of PPV and 0.015 to 0.3 mm/s (TRMS vibration) or 0.06 to 1 mm/s in terms of PPV respectively. The above vibration values are generally lower than building vibration value and therefore is not a concern. The Committee found the explanation acceptable. The Committee discussed the likely implications of the project in the context of the Order of the Hon'ble High Court and agreed that with adequate precaution a public utility project such as this pipeline network should not cause adverse impact to mangrove.

5. The Committee reiterated that as discussed in the last meeting that with adequate precaution a public utility project such as this pipeline network should not cause adverse impact to mangrove. The Committee also observed as stated in the last meeting that drilling works should be carried out with safety measures in place and shall not be carried out during 10 pm to 6 am under any circumstances. The Committee finally concluded that the Ministry may inform the project proponent officially, it's no objection to work being carried out in mangroves and mangrove buffers as per conditions given in the CRZ clearance issued on 09.02.2015.

4.2 Proposal for extending the disposal pipe line in Savitri River/Bankot Creek from Owale Village, Taluka Mahad, District Raigad, Maharashtra by M/s Maharashtra Industrial Development Corporation (MIDC) - CRZ Clearance [IA/MH/CRZ/111337/2019] [F.No.11-31/2019-IA-III]

The proposal of M/s Maharashtra Industrial Development Corporation (MIDC) was earlier placed before the Expert Appraisal Committee (CRZ) in its 224th meeting held on 24.09.2019, wherein, the Committee had decided that the proponent shall submit information /documents on the following:

- i) Effluent water quality data / report carried out by nationally reputed institute and endorsed/certified by the State PCB shall be submitted.
- ii) Marine EIA report including data of water quality of the receiving water body/Creek and likely impact on fishery downstream of the discharge point.
- iii) Revised water quality assessment report including biological and physicochemical characteristics (pre-monsoon & post monsoon data) along the downstream from the present release location.
- iv) The project proponent shall conduct consultation with villagers downstream of the point of discharge of the CETP effluent.
- v) The project proponent shall submit an in-built mechanism for ensuring that the member of the industries is to be held accountable for lapses (if any) for eventuality of non-conformity of the CETP discharge with the standards prescribed by the Central/State Pollution Control Board.

2. M/s MIDC requested the Committee to allow only laying of pipeline and complete the civil part of the work. The project proponent also informed that they will not operate the said pipeline until they obtain the clearance from the Ministry.

3. The Committee was of the view that the proposal for laying of pipeline and its operation in the CRZ area mandates prior Clearance from this Ministry. The Committee therefore decided that the request of M/s MIDC cannot be considered as there is no rationale and legal provisions of the notification does not warrant such requests.

There being no agenda item left, the meeting ended with a vote of thanks to the Chair.
