Minutes

The Minutes of the 128th Meeting of the Expert Appraisal Committee for Projects related to Infrastructure Development, Coastal Regulation Zone, Building/Construction and Miscellaneous projects held from 20th – 23rd November, 2013 in the Conference Hall, MMTC, Scope Complex, Lodhi Road, New Delhi.

1. Opening Remarks of the Chairman.

The Chairman welcomed the members to the 128th meeting of the Expert Appraisal Committee.

2. Confirmation of the Minutes of the 127th Meeting of the EAC held on 28th -30th October, 2013 at New Delhi.

Minutes of the 127th Meeting of the EAC held on **28th -30th October, 2013** at New Delhi were confirmed.

In item 4.26 'Environmental and CRZ Clearance for expansion of Port facility at Hazira, Surat, Gujarat by M/s Essar Bulk Terminal Ltd [F.No.11-46/2011-IA-III]', the "two turning of 600 sqm' shall be added as project component instead of 'a turning circle of 600 sqm' and conditions at (i) , (iii), (v), (xiii) and (xiv) shall be replaced with the following:

(i) Project Proponent shall appoint a consultant to look after and advice on the transportation of dangerous chemicals. Sensors for early detection of leakage of propylene and butadiene shall be provided at berths along with water sprinklers.

(iii) Natural drainage system shall be maintained so that there is free flow to the existing mangroves. Mangrove plantation in 500 ha of land in consultation with GEC/Forests Department, Government of Gujarat.

(v) Hazardous chemicals except the permissible Petroleum products shall not be stored within CRZ area. All the construction, storage shall be as per the CRZ Notification, 2011.

(viii) The hazardous wastes generated shall be collected and disposed as per rules, disposable wastes shall be sent to authorized TSDF. MoU in this regard shall be submitted to the Ro, MoEF along with the six monthly monitoring report.

(xiv) The dredging materials shall be utilised for reclamation and excess shall be disposed at the site identified by CWPRS.

3. Consideration of old Proposals

3.1	**CRZ Clearance for Pedder Road Viaduct, Maharashtra by M/s MSRDC [F.No.11-42/2010-IA.III]** As presented by the Project Proponent, exponential increase of the daily traffic count over the years on the Pedder Road led to congestion and added to the pollution

levels in the area. There are about 10 signals in a stretch of 4.1 kilometers. During peak hours, it takes about 45 to 50 minutes to pass this alignment in the existing status. The service levels are in the "E" category, that is speed of 17kmh. In view of this, Government of Maharashtra planned the Pedder Road viaduct in the year 2000. MSRDC stated that after construction of Pedder Road Viaduct (PVR), the service levels will be improved to "D" category with speed to 40kmh and uninterrupted travel avoiding 10 signals posts on the north south connection of the western corridor.

MSRDC stated that the existing Kemps Corner flyover is 50 years old and is not in a very worthy condition. The Traffic Police Department has also suggested for an alternative to this flyover. After the construction of Pedder Road Viaduct (PRV) traffic congestion in the stretch would ease. It will save time and there will be uninterrupted travel avoiding 10 signals posts on the north south connection of the western corridor.

The length of the Viaduct from Haji Ali square to beyond G.B Pant Chowk on Marine Drive is proposed as 4100 m which includes an approach from Haji Ali side and 200 m from Wilson College side. The Overall width is 13m. The carriageway will be 12m of 4 lane without any median and crash barriers of 0.5m width on either side. There is an entry and exit ramp at Haji Ali and Marine Drive. There is a provision in design for entry ramp at Khadyamarg and at Tardeo Road. The viaduct will be constructed above pillars of 2 – 2.5 m size. The latest noise and visual barriers will be installed throughout the viaduct. Substructure will be a single pier with single pour or pre-cast pier caps. Superstructure shall be of steel and concrete composite section. Girders fabrication will be off site. Transportation on trailers and erection of the same will be at night. Deck slab will be cast in situ. There will be no staging for deck slab. Sheet decking will be used. Noise barriers on both the sides of the flyover will be installed. The noise levels are expected to be less than 35db.

In order to have better safety and lesser inconvenience, the following safeguards have been proposed during the construction phase;

(i) Work in short stretches of 100 m to avoid disturbance to traffic.

(ii) Concreting using RMC to avoid pollution at site.

(iii) Concreting in the night to minimize inconvenience to traffic.

(iv) Transportation of girders at night to avoid difficulties to traffic.

(v) Safety nets for superstructure works and traffic wardens to be used to safeguard the area and for safety of traffic.

MSRDC informed that a Public Consultation was held in March 2008 to examine the grievances of the local residents. All the suggestions were heard and were properly incorporated in the project, wherever applicable. High-tech air purifiers, noise barriers and visibility barriers will be installed.

Various alternatives have been studied so as to avoid CRZ area for the alignment. The beginning of the Pedder Road Viaduct (PRV) i.e Rajni Patel Chowk

fall under CRZ –II (300 m) and a loop at Tambe Chowk also falls under CRZ –II**.** MCZMA considered the project in its 60th meeting held on 25th February 2010 and recommended the proposal vide letter No. MCZMA/06/186 dated 19th April 2010. In keeping with the MCZMA recommendations, one pillar earlier proposed in CRZ-I will be shifted to CRZ-II.

The proposal was examined by the EAC in its 91st meeting held on 21st – 23rd September, 2010 and additional information including public hearing was sought though it is not required under CRZ Notification, 1991, owing to various representations received from some local residents of Pedder Road.The Committee suggested that a Public Hearing be held in terms of provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environment Management Plan.

The Public Hearing was conducted on 19.07.2011 at Institution of Engineers Hall. The EAC in its meeting held in September, 2012, noted from the minutes of the Public Hearing (PH) that the PH was disrupted and ended abruptly. However, it was noted that the some of the issues raised by the public during PH included noise pollution. Project Proponent was asked to submit a detailed action plan on all the issues raised during Public Hearing. Project Proponent has informed a that Noise Barrier of 3 – 3.5m height is proposed throughout the stretch, which can reduce about 20-27 dB(A) of noise. Pre-fabricated steel super structure will be used so as to reduce the noise/ disturbance to the public. Expansion joints are reported to main source of the noise. Hence the span has been increased to reduce the number of joints. Air purifiers will be mounted at the light poles. An initial cost of Rs 10 crore is proposed towards the above measures.

The EAC in its meeting held in December, 2012, decided to hear the representations from the residents of Pedder Road. Accordingly, EAC in January, 2013 heard the representatives of Pedder Road Residents Association (PRRA) and held discussions with them on the various issues highlighted in their representation. It was decided to obtain the comments of MSRDC and State Government on the representation of PRRA.

MSRDC has provided comments on various points raised by the Association as given below.

1. The Public Hearing on 19th July 2011 was arranged by MPCB. It was chaired by Collector, Mumbai, who was the presiding officer. There was a large gathering, in favour of Pedder Road Flyover. Those who are against the Pedder Road Flyover were also present at the meeting. The Public Hearing was completed as per the required procedure and the proceedings were also presented and discussed with EAC.

2. The Environment Impact Assessment (EIA) study was carried out by MSRDC in Feb 2011. It was analysed by an independent agency, namely, Fine Envirotech. The name of this consultant for EIA is included in the list of agencies approved by the Government of Maharashtra and Government of India.

3. The views of the Pedder Road residents/objections have already been taken care of. Accordingly the design of flyover has been finalised and offers for the work have been received pursuant to the tender notice issued by MSRDC.

4. The traffic volume in 2006 on Pedder Road was 90,000 PCUs and is increasing every year. The present proposal is for adding additional four lanes on the existing corridor of Pedder Road. This will provide additional and faster vehicle movement for the southern and northern axis traffic. This will facilitate easy movement of traffic below and over the flyover and which will reduce air and noise pollution in the corridor. This would avoid traffic chaos being experienced at present, particularly during the MCGM maintenance of storm water drains and other services.

5. The existing corridor is owned by MCGM. There is no land acquisition of private or other land or property for construction of the project. Hence there are no persons /stakeholders directly affected. Vertical development is necessary to deal with present and future traffic problems.

6. It was noticed during the Public Hearing that the Pedder Road residents were not interested in Public Hearing. Their sole object was to create chaos and ultimately make the organisers of Public Hearing stop the conduct of Public Hearing. However, public hearing was completed. The environmental data is prepared by MSRDC by engaging the authorised agency recommended by Government of India and Government of Maharashtra to get realistic data. The EIA as arrived at is, based on the factual data collected by the accredited EIA consultant.

7. The Pedder Road Flyover is starting from North side of Haji Ali junction on Lala Lajpatrai Road and ends at Wilson College on Girgaum Chowpatti. The North side of Haji Ali junction and at Wilson College end is quite wide to accommodate the solid ramps.

8. The whole Pedder Road corridor is free and vertical clearance on existing Pedder Road to proposed flyover soffit is minimum 7.00m. The vertical clearance at pier cap bottom is minimum 5.5m which will also facilitate a Double Decker bus to ply below flyover adjacent to the piers & keep maximum possible width of existing road available for the traffic.

The MSRDC presented additional details about the project and explained the above to the EAC on 20th November, 2013. EAC was informed and noted that only about 500 m portion of proposed road at Rajni Patel Chowk and at Tambe Chowk , fall under CRZ –II and the proposal is for CRZ clearance only. To the enquiry on other options viz. construction through Hughes Road, and extending the Sea link from Haji Ali to Nariman Point, MSRDC informed that the four lane is not possible due to existing less ROW in Hughes Road and cost of proposed via duct is Rs 300 crore and whereas the cost of the Sea link is about Rs 8000 crores. Underground carriageway was also ruled out by MSRDC owing to surrounding building and high cost.

The EAC noted that the Project Proponent has assessed all likely impacts due to the project and arrived at a suitable EMP. Also responded properly to all the issues

raised in the Public Hearing and in the representations made against the project. Therefore the EAC has recommended for grant of clearance stretches (500 m length) stipulating following conditions:

(i) *Project Proponent should address the other aspects relating to the rest of the stretch and obtain necessary approvals as applicable and observe IRC norms strictly for construction of the viaduct, particularly along the loops.*

(ii) *MSRDC shall install Noise Barrier system during construction and post construction phase on the alignment of the project. Also thick vegetation cover wherever required will be used for attenuation of noise.*

(iii) *Stationary construction equipment will be placed away from habitation.*

(iv) *Construction Contract Specifications should specify use of less noise generating equipment. Noise during construction, particularly at night, should be suppressed as much as possible.*

(v) *Construction Contract Specification should stipulate levels of maximum noise generation in various zones (residential, commercial and sensitive) based on CPCB Noise Standards.*

(vi) *High noise generating construction activities like drilling, compacting etc. should be carried out only during day time in residential areas.*

(vii) *Asphalt and hot-mix plants shall not be installed at site*

(viii) *Fugitive dust entrainment will be controlled by sprinkling water*

(ix) *Eco Gadgets- like Solar-powered city air purifiers shall be mounted on streetlight poles.*

(x) *The Project Proponent shall use Composite Structures for the construction of the flyover to tghe maximum possible extant.*

(xi) *Construction material as well as excavated material should be disposed off or shifted only during the night time when the traffic will be much less.*

(xii) *For Construction of Super Structure Pre-cast Segmental construction technology would be adopted, while for in-situ construction, a movable Scaffold System construction method shall be adopted. Thus the construction of piles and substructure shall use only a small part of the lane for a few days.*

(xiii) *Adequate construction boards, portable traffic signs, Chevron Signs, Road Marker Signs, Central lights & Blinkers on Barricades, etc will be put-up uniformly across near the construction and barricading all along the effective stretch of the proposed road.*

	(xiv) Traffic Marshalls with reflective Jackets will be assigned for smooth flow of traffic Safety hoardings and Boards shall be put at various locations of the construction site. *(xv) All crane and heavy equipment movement will be accomplished by sound alerts.* *(xvi) Emergency Preparedness Plan shall be followed.* *(xvii) Ambulance/first aid for any accident injuries should be readily available.*
3.2	**CRZ Clearance for laying of the pipeline for marine discharge of treated effluents and installation of mobile container sea water reverse osmosis units for desalination of sea water, Visakhapatnam, A.P. by M/s Rashtriya Ispat Nigam Ltd [F.No.11-121/2010-IA.III]** As presented by the Project Proponent, this is a proposal for laying of pipeline for marine discharge of treated effluents and installation of mobile container seawater reverse osmosis units for the Visakhapatnam Steel Plant. The total effluent proposed to be discharged into marine environment is about 14,1400 cum/day. The industry proposed to lay a subterranean and submarine pipeline for the discharge of treated effluents into the sea near Gangavaram within the project premises. The National Institute of Oceanography (NIO), Visakhapatnam, an authorized agency carried out the demarcation of LTL, HTL and CRZ area, including firming up of outfall point. The NIO carried out field studies to generate baseline and site-specific data and also suggested suitable disposal point to facilitate quick dispersal of treated effluents. The width of the inter tidal zone varied between 130 and 175 meters at this stretch and is covered with sand/beach and interspersed with low elevated sand dunes. The NIO Visakhapatnam, after considering the prevailing physico-chemical and bathymetry data of the study area, recommended the discharge point at 20 m water depth i.e. at 17^0 35' 39" N latitude and 83^0 13' 50" E longitude which is 1.12 km from the Land Fall Point (LFP). They assessed that the fluid dilution can be enhanced with a jet velocity of 2 m/s at a depth of 20 m. The dilution can be enhanced 198 times by using a 6 port diffuser of 0.11 m diameter with a jet velocity of 2.5 m/s at a depth of 20 m. It has been recommended that the jet velocity of 2.0 m/s is essential to avoid bio fouling and the accumulation of the particulate matter inside the pipeline. The industry intends to establish Mobile Container Seawater Reverse Osmosis (MCSRO) Units to treat sea water in mobile RO units as make up water to the plant for 3 months which will be extendable 6 months to tide over the water crisis period. It is proposed to draw seawater through an open channel of 2M x 1M size and lagoon size of 100 M x 200 M along with stand trap sumps. The lagoon will be provided with 3 mm PVC sheets to avoid any seepage loss. The water from the lagoon will be pumped to MRO units through mobile pre-treatment units. The water will be drawn through the

	pipeline for discharge of treated effluents by installing pumps on the beach on a temporary basis. The treated seawater with TDS less than 400 ppm will be pumped to make-up water pressurized net work, which is at a distance of 3.5 km. The TDS of the RO reject will be 74,000 ppm approximately. It involves digging an open channel from the sea to the lagoon and another to discharge rejects from the RO units. The total quantum of drawal of seawater is 3750 cum/hour. The NIO carried out studies to firm up the intake and outfall locations and also the impact on account of the discharge of high-density plant rejects. The temperature of the seawater varies between 26.8^0 C to 27.9^0 C. Salinity range is 32.92 to 34.04 psu in the study area. Seawater density varies between 1021 and 1022 kg/cum in the water column. The temperature and salinity vary with the season, the density generally varies between 1015 - 1025 kg/cum on the annual scale. No ecologically sensitive areas such as mangroves or national parks are present in the vicinity of the proposed landfall point or along the route of the pipeline. The estimated cost of the pipeline project is Rs. 6.0 crores. The proposal was examined by the Andhra Pradesh State Coastal Zone Management Authority on 14.09.2010 and recommended. The proposal was examined by the EAC in its 106th meeting held in October, 2011. The Committee deferred the proposal noting that the proposal involves construction of a lagoon to store sea water for the proposed desalination plant, which is not permissible in CRZ area, and because the proponent was not ready with details of dispersion model studies for presentation and discussion etc. The matter was again considered in the 115th EAC meeting. Regarding lagoon it was clarified by the proponent that the available low lying area will be used providing bottom lining and there will not be any new construction of lagoon. Further, Project Proponent claimed that it was an associated facility for desalination which is permissible under CRZ Notification, 2011. Also Project Proponent informed that the desalination is purely a temporary use for 3-5 months for 2-3 years. Since the notification permitted facilities for Desalination in CRZ area and it requires storage of sea water, the Committee decided to consider the project. However, in the same meeting the Committee noted that the rejects from Desalination were to be discharged on the shore itself which was not acceptable. It wanted the Proponent to discharge the rejects into the sea through a pipeline and submit the details. ***In respect of discharge from the desalination plant, the Project Proponent informed that it is proposed to discharge the mobile RO rejects into the sea through proposed discharge pipeline. Arrangements like no-return valve, tapping point at LFP for feeding mobile RO reject shall be made.*** ***As the arrangement is temporary for a period of two years the Committee recommended the proposal for CRZ clearance only for one year for the RO plan subject to the following condition:*** *(i) The intake and outfall shall be buried pipelines and no open channel /cutting is permissible in CRZ areas. The pipelines shall be buried 2 m below the ground level /sea bed.*

	(ii) The marine outfall shall be at least 1.12 km from the shore line. The effluents shall be discharged through multiple ports at the outfall for proper thermal and salinity dispersion. *(iii) The disposal shall meet State Pollution Control Board norms.* *(iv) The outlet quality as well as the sea water near the outfall shall be monitored especially for temperature and salinity regularly. A report in this regard shall be submitted to Regional Officer, MoEF along with six monthly monitoring report.*
3.3	**Extension of validity of ToR granted for sand mining at Goakhandi, Undi, Varwade, Reel Villages of Ratnagiri Dist., Maharashtra by M/s Indian Garnet Sand Co. (P) Ltd. [F.No.10-70/2008-IA.III]** As presented by the Project Proponent, ToR was granted vide letter No. F.No.10-70/2008-IA.III dated 17.07.2008 for sand mining at Goakhandi, Undi, Varwade, Reel Villages of Ratnagiri Dist., Maharashtra. There was delay in carrying out studies due to imposition of moratorium from 16.08.2010 for Ratnagiri. The same was lifted from some areas on 17.10.2013. Hence the Project Proponent requested for extension of ToR. The EAC noted that the ToR validity has already expired, hence it should be treated as a fresh proposal. The Project Proponent informed that fresh application has been submitted. However, Project Proponent was not ready with the details of site, like topo sheet, photographs etc, ***In view of the foregoing observations, the EAC recommend to defer the proposal. The proposal shall be reconsidered after the above essential details are addressed and submitted.***
3.4	**Extension of validity of ToR granted for Ilmenite mining at Peth Purnagad village of Ratnagiri Dist., Maharashtra by M/s Indian Garnet Sand Co. (P) Ltd. [F.No.10-71/2008-IA.III]** As presented by the Project Proponent, ToR was granted vide letter No. F.No.10-71/2008-IA.III dated 17.07.2008 for sand mining at Pethpurnagad village of Ratnagiri Dist., Maharashtra. There was delay in carrying out studies due to imposition of moratorium from 16.08.2010 for Ratnagiri. The same was lifted from some areas on 17.10.2013. Hence the Project Proponent requested for extension of ToR. The EAC noted that the ToR validity has already expired, hence it should be treated as a fresh proposal. The Project Proponent informed that fresh application has been submitted. However, Project Proponent was not ready with the details of site, like topo sheet, photographs etc. ***In view of the foregoing observations, the EAC recommend to defer the proposal. The proposal shall be reconsidered after the above essential details are addressed and submitted.***

3.5	**Extension of validity of ToR granted for Ilmenite mining at Kalpadevi village of Ratnagiri Dist., Maharashtra by M/s Indian Garnet Sand Co. (P) Ltd. [F.No.10-72/2008-IA.III]** As presented by the Project Proponent, ToR was granted vide letter No. F.No.10-72/2008-IA.III dated 17.07.2008 for sand mining at Kalpadevi village of Ratnagiri Dist., Maharashtra. There was delay in carrying out studies due to imposition of moratorium from 16.08.2010 for Ratnagiri. The same was lifted from some areas on 17.10.2013. Hence the Project Proponent requested for extension of ToR. The EAC noted that the ToR validity has already expired, hence it should be treated as a fresh proposal. The Project Proponent informed that fresh application has been submitted. However, Project Proponent was not ready with the details of site, like topo sheet, photographs etc. ***In view of the foregoing observations, the EAC recommend to defer the proposal. The proposal shall be reconsidered after the above essential details are addressed and submitted.***
3.6	**Extension of validity of Environmental Clearance for construction of 13th to 16th Cargo berth at Kandla by M/s. Kandla Port Trust (KPT) [F.No.11-70/2006-IA.III]** As presented by the Project Proponent, Environmental and CRZ clearance was granted for this project in September, 2008. There was delay in bidding and finalising the concession agreement. This was finally completed on 14/3/2013. Hence, the Project Proponent vide his application dated 08.04.2013 has requested for extension of validity of clearance by another 5 years. ***The EAC has recommended to extend the validity of EC / CRZ clearance for another 5 years.***
3.7	**Environmental and CRZ Clearance for setting up of LNG terminal at Ennore, Tamil Nadu by M/s Indian Oil Corporation [F.No. 11-30/2011-IA.III]** The Chairman recused himself. Shri M L Sharma took the chair. As presented by the Project Proponent, the proposal involves setting up of LNG terminal at Ennore. As a part of diversification strategy to provide complete fuel solutions to its customers, IOCL started RLNG marketing in the year 2004, as one of the major off takers of RLNG from Dahej LNG import terminal of Petronet LNG Limited (PLL- a Joint Venture Company of IOCL, BPCL, GAIL and ONGC). IOCL also has a marketing share of 30% of RLNG in the upcoming PLL's Kochi LNG terminal. Ennore Port is an all weather port with all the infrastructure facilities already in place. Ennore Port has already earmarked water front for LNG Jetty and land for LNG storage and re-gasification terminal with in the port premises in their master plan. On completion of the project RLNG would reach the gas starved Southern states of India particularly Tamil Nadu and some parts of Karnataka and Andhra Pradesh. RLNG from the terminal is proposed to be supplied to customers through

extensive pipeline network to the existing and new power plants, fertilizer plants, existing and new industries, CNG/LCNG, etc. LNG would also be supplied by road through cryogenic LNG road tankers to customers who are far away and not connected with gas pipeline networks. Capital cost is Rs. 4,320 Crore.

The proposal was examined by the EAC in its meeting held in August, 2011 which finalized ToRs including conduct of Public Hearing. IOCL has already completed Environment Impact Assessment (EIA) studies through M/s NEERI, Nagpur.

The IRS, Anna University, an authorised agency has demarcated the HTL/LTL for the area. TCZMA has recommended the project vide letter No. 5132/EC.3/2013-1 dated 20.09.2013. As per the TCZMA, the site is in CRZ-I-B (intertidal area), CRZ-III, CRZ-IV.

Public Hearing was conducted on 13.09.2012 inside the Ennore Port by the Tamil Nadu Pollution Control Board. Though the venue is inside the Port, the ease of access was made to public. Around 500 people attended the hearing. Major issues raised during the Public Hearing are that emergency precautionary measures, employment etc. Project Proponent presented the compliance to ToRs including the studies carried out and the response/ action plan on each issue raised during public hearing.

The proposal was examined by the EAC in 127th meeting held in October, 2013 and after deliberation, the Committee suggested the Project Proponent shall revise the EIA incorporating the impacts due to construction of berth. The Project Proponent presented the *c*omponent of LNG Berth and its construction. Its likely impact on the surrounding environment was discussed in the meeting.

The EAC noted that the Project Proponent has assessed all likely impacts due to the project and arrived at a suitable EMP. Also responded properly to all the issues raised in the Public Hearing. Therefore the EAC has recommended for grant of clearance stipulating following conditions:

(i) Precautionary measures shall be put in place to prevent leakage of LNG due to any disasters including tidal/tsunami wave, seismic and other natural calamities. Disaster Management Plan shall put in place to manage emergencies.

(ii) Oil Spill Contingency Management Plan shall be put in place.

(iii) Mooring hooks shall be provided with online sensor for load monitoring as committed.

(iv) No R& R is involved and no livelihood is affected since the facilities are within the existing Port.

(v) Project proponent shall explore training the local population with the help of training institutes like ITI etc, to make them suitable for employment in the facility.

	(vi) All the recommendations made by the TCZMA shall be complied with.
3.8	**Amendment permitting water drawal in the CRZ clearance granted for resort building in R.S.No. 48/2, 48/3A, 48/3B1, 48/3B2 at Poornamkuppam village by M/s. Deedi Resorts Private Limited [F.No.16-9/2006-IA-III]** The proponent informed that the CRZ clearance was granted for the beach resort with a condition to obtain water from outside source beyond CRZ. Now, the State Ground Water Authority has permitted drawl of 33 KLD water from the existing bore well between 200 to 500 m from HTL. Hence it has requested amendment to the clearance to permit water drawal. The Puducherry CZMA has recommended the proposal. The proposal was examined by the EAC in its 119th meeting and the Committee noted that the validity of the NOC granted by the State Ground Water Authority had expired. Hence it is suggested that the Project Proponent shall to provide valid NOC. Clarification was also sought with respect to the OM on restriction of ground water drawal of more than 10 KLD within 6 km from Coast. ***The EAC noted that though ground water drawal is permissible within 200-500 m from HTL with the permission of Ground Water Board. The Committee suggested that the Project Proponent should study and submit the likely impacts/ sea water intrusion due to drawal of 33 KLD water and also carry out ground water modelling.***
3.9	**Environmental and CRZ Clearance for setting up 10 MMTPA LNG Import, Storage and Re-gasification facilities at Gangavaram Port Limited, Visakhapatnam by M/s Petronet LNG Ltd [F.No. 11-12/2012-IA.III].** As presented by the Project Proponent the proposal is for setting up 10 MMTPA LNG Import, Storage and Re-gasification facilities at Gangavaram Port Limited, Visakhapatnam by M/s Petronet LNG Ltd (PLL). PLL is planning to set up its Third LNG Import, Storage & Regasification Terminal of 10 MMTPA capacity on the east coast of India within Gangavaram Port, Visakhapatnam. The port is developed by M/s Gangavaram Port Ltd (GPL). GPL is incorporated as a Special Purpose Company by equity partnership of Govt. of Andhra Pradesh and port developer to implement the project on a Build, Own, Operate and Transfer (BOOT) basis. In Phase-I, the raw material LNG (Liquefied Natural Gas), will be imported and transported to the customers directly and in Phase-II, it will be regasified and transported to customers through pipelines. No water is required for the process. 20 KLD raw water for other purposes will be sourced from the port. Power requirement of 2 MW will be supplied by captive gas generators, which will operate on the boil off gas generated during the process itself. About 0.5 KL/year of hazardous oil waste will be generated during the periodic maintenance which will be collected, and stored at a specified identified area and disposed through authorized agency. LNG being a flammable liquid /gas, vegetation during dry season may pose a fire/safety threat. Norms of International standards, OISD 194 and M.B.Lal

Committee's recommendations will be followed. Further, there is no fugitive dust emission envisaged from the proposed project during operation stage. Hence, massive afforestation is avoided. However a greenbelt with 10m width will be developed all along the periphery of the project site. Certified personnel will be engaged in operation purposes. Clearance from Explosive Directorate has been obtained.

The project is planned to be executed in two concurrent stages, namely,

i. Implementation of FSU/FSRU: (for early gas): This phase shall consist of a marine jetty to berth the LNG FSRU/FSU (Floating Storage & Re-gasification Unit or Floating LNG Storage Unit) that shall remain on berth and will be supplied LNG by another LNG carrier. The LNG unloaded into the vessel shall be re-gasified onboard in case of FSRU/ onshore in case of FSU. The use of FSU/FSRU shall only be for an initial period, till the onshore facilities are completed.

ii. Implementation of facilities for LNG Terminal: Simultaneously, LNG facilities for 10 MMTPA terminal will be developed onshore and will broadly consist of four (04) LNG storage tanks (each of approximate 200,000 cbm capacity), vaporizers, send-out pumps, gas metering station, utilities etc .

The project was considered by EAC in its meeting held in April, 2012 when the ToR were finalized including the conduct of a Public Hearing. The Public Hearing was conducted on 03.01.2013 near the Gangavaram Port entrance. Major issues raised during the public hearing were pollution problems due to Gangavaram Port and employment prospacts. The response presented by the Project Proponent were examined.

IOM, Annan University has carried out shoreline change study and as per the study, the shore line is accreting. NIO, Vishakhapatnam has demarcated the HTL/LTL and submitted map in 1: 4000 scale. Andhra Pradesh CZMA has recommended the project vide letter No. 5953/ENV/CZMA/2013 dated 09.10.2013.

The proposal was examined by the EAC in its 127th meeting held in October, 2013. After deliberation, the Committee suggested that the Project Proponent should obtain reports on compliance status of EC/Consent conditions of M/s Gangavaram Port from the Port, APCB and RO, MoEF, Bangalore as pollution problems from M/s Gangavaram Port were raised during Public Hearing.

The Project Proponent presented the details in the 128th EAC meeting. The EAC noted that the Project Proponent has assessed all likely impacts due to the project and arrived at a suitable EMP. Also responded properly to all the issues raised in the Public Hearing. Therefore the EAC has recommended for grant of clearance stipulating following conditions and after receipt and examination of the Report from Regional Office and APCB:

(i) Norms of International standards, OISD 194, M. B. Lal Committee's recommendations shall be followed.

	(ii) Certification from port facility shall be obtained which is successfully handling similar facility. *(iii) Mock drill shall be conducted in collaboration with State Disaster Management Authority or National Disaster Management Authority* *(iv) Tie-up with specialized hospitals for handling any disaster situation. Earmarking of identified beds in burns ward be done.* *(v) Onsite Emergency Management Plan shall be put in place.* *(vi) All the conditions stipulated by the APCZMA shall be complied with.* (vii) *Regarding compliance report of EC/Consent conditions of M/s Gangavaram Port from Port, APCB and RO, MoEF, Bangalore the Committee advised the Ministry to communicate with the RO, MoEF and expedite the compliance report.*
3.10	**Environmental Clearance for widening and upgradation of existing 4/6 laning of Goa – Karnataka Border (Km 93.700) to Kundapur (Km 283.300) Section of NH-17 in the State of Karnataka by M/s NHAI [F.No.10-107/2011-IA.III]** As presented by the Project Proponent the proposal involves widening and upgradation of existing 4/6 laning of Goa – Karnataka Border (Km 93.700) to Kundapur (Km 283300) Section of NH-17 in the State of Karnataka. The proposed project is a part of NHDP programme of 4/6 laning and has total length of 189.600 km. Project road is part of National Highway No.66 (Formerly NH-17) from Goa - Karnataka border at km 93.700 and ends in Kundapur, Karnataka at km 283.300. The existing Right of Way (ROW) width obtained from the National Highways Department of Karnataka PWD (Honnavar) varies from 11 to 45 m on the project road. As per NHAI notification a uniform width of 60 m will be maintained throughout the project stretch for 4/6 lane carriageway along the project road. Therefore widening of the road would require additional lands to accommodate the proposed RoW width throughout the project length. The project stretch passes through 120.130 Km of plain terrain, 24.20 Km of hilly terrain and 45.67 Km of rolling and hilly terrain. Land use along the highway is predominantly built-up and agriculture. The entire stretch of the project road falls under seismic zone III of India. Patches of reserved forests are situated along the existing RoW. The existing RoW is not sufficient and for accommodating 60 m of RoW width, acquisition of forest area would be required thus affecting forests. Approximately 162.429 Ha of forest land is required to be acquired including 2.629 ha mangroves area. Few sections of the existing highway fall under CRZ and the road is proposed on stilt in mangroves. There are about 23,491 plants/trees along the roadside which are likely to be affected due to the proposed development. The existing RoW width varies from 11m to 45m from Km 93.600 to Km 241.000 and from Km 241.000 to Km 283.300 it is 45m. The land which is required to be acquired all along the project road for widening of the existing 2-lane road to 4-lane is 525.16 ha, where the available ROW is less than design requirements. There are 13 major bridges, 41 minor bridges and 606 nos. of culverts along the existing road. Existing bridges and culverts along the existing road will be upgraded or reconstructed during the proposed development. There are 2 pedestrian underpasses, 4 numbers of RUBs and 2 numbers of ROBs along the existing alignment. In the proposed development 22 underpasses (3 vehicular, 19 pedestrian and cattle), 4 new flyovers have been proposed. There are 15 major junctions along the existing alignment. A total of 4 number of truck lays and 53 number of bus bays have been proposed. 3 new Toll Plazas have been proposed. 7m wide service roads of 60.742km are proposed on both sides at urban and rural built up

stretches. Cost of Environmental Management Plan is Rs. 45.00 Cr. It was informed that 1132 structures will be affected and the total cost of R&R is Rs. 328.32 Cr. The total cost of the project is Rs. 1756.32 Cr.

The EAC in its meeting held in January, 2012 finalised ToR including conduct of PH. The Public Hearing was conducted on 05.12.2012 at Bundoor, 02.04.2013 at Kumta. The major issues raised are tree cutting, forests land involvement etc. The responses presented by the Project Proponent were examined by the EAC in its 127th meeting held in October, 2013. After deliberation, the Committee decided that Shri Sinha, Member, EAC will go through the original map and provide comments since it is not giving clear CRZ boundary. Though the Project Proponent has prepared the CRZ maps of 1:4000 scale through IRS, Anna University, however they have not submitted maps of scale in view of the large size and numbers.

The Member informed that the total length of Proposed Right of Way (PROW) is 189.6 km (from chainage 93.7 km to 283.3 km). The intersections of PROW with CRZ Zone are as follows:

(i) CRZ IA – 2.13 km
(ii) CRZ IB – 9.75 km
(iii) CRZ II – nil
(iv) CRZ III – 34.32 km

CRZ I crossings are mainly over the creeks. The PROW directly overlaps 10.5 hectares of mangrove area. All the above estimates are based on the original survey/mapping generated by IRS which were offered for examination.

Project Proponent presented the details of the mangroves area likely to be affected. The EAC noted that the Project Proponent has assessed all likely impacts due to the project and arrived at a suitable EMP. Also responded properly to all the issues raised in the Public Hearing. Therefore the EAC has recommended for grant of clearance stipulating following conditions:

(i) Road in Mangrove areas shall be on stilts. It is noted that the proposed ROW overlaps 10 .5 ha of mangrove area. The Project Proponent shall carry out mangrove plantation in an area of 50 ha. in consultation with Forest Department.

(ii) The projects is located within 10km. of the sanctuary .Necessary permission from NBWL shall be obtained.

(iii) The proposal indicates the acquisition of 162.429 ha protected forest land. Necessary stage –I forestry clearance shall be obtained.

(iv) It is indicated that 23491. nos. trees are proposed to be cut. Necessary permission from competent authority shall be obtained for tree cutting. Necessary compensatory plantation shall be carried out and cost provision should be made for regular maintenance.

(v) Explore the possibilities of using cold mix technology wherever possible

	particularly near wildlife sanctuary. *(vi) Rain water harvesting including oil and grease trap shall be provided. Water harvesting structures shall be located at every 500 mts along the road. Vertical drain type rainwater harvesting structures shall be set up to minimize surface runoff losses of rainwater.* *(vii) R&R shall be as per the guidelines of NHAI/State/Central Government which ever is higher.* *(viii) IRC guidelines shall be followed for widening & up-gradation of road.* *(ix) The responses/commitments made during public hearing shall be complied with in letter and spirit.* *(x) All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.*
3.11	**Amendment in CRZ Clearance for enhancing effluent quantity from 60 MLD to 75 MLD treated effluent pipeline for discharge of effluent from Kantiyajal in to deep sea through existing offshore pipeline and diffuser dist: Bharuch by M/s Narmada Clean Tech Ltd. [F.No. 11-76/2012-IA.III]** As presented by the Project Proponent the effluent generated from Panoli, Ankleshwar and Jagadia were treated and discharged deep sea through existing offshore pipeline and diffuser in Bharuch District, Gujarat. The CRZ Clearance was obtained vide letter No. J-17011/25/2002-IA.III dated 07.03.2003 for laying effluent disposal pipeline for 60 MLD discharge. The Project Proponent stated that the existing capacity of pipeline is 60 MLD (32 MLD (Ankleshwar) + 8 MLD (Panoli) & 20 MLD (Jhagadia). The effluent generation at Jagadia is about 3 KLD against 20 KLD and it is likely to be increased to 35 KLD. After expansion, the capacity will be 75 MLD (32 MLD-Ankleshwar, 08 MLD – Panoli, 35 MLD-Jhagadia). Total effluent pipeline (Onshore) length is 61 km from Jhagadia to Kantiajal, Offshore pipeline length is 9.37 km. The total cost of the project is Rs 109 Crores. The Project Proponent made a plea that the pipeline would not be changed or replaced, except for the Jhagadia stretch. The project was examined by the EAC in its meeting held in December, 2012 and EAC sought additional information namely copy of the NOC of GPCB, monitoring report of GPCB on CETP/FETP and marine outfall, map of 1: 4000 and the CRZ zone details. It also noted that the current movement during high tide to low and Low to High shows parallel to shore which is not acceptable since it is near the mouth of Narmada river and there will be movement of current towards river during high tide. ***The EAC examined the proposal in detail. It was not convinced that there would be no change or replacement of the pipeline in the offshore area because of***

	the substantial increase in the effluent. It was noted that the proposal is to be considered afresh and not as an amendment to the earlier clearance since the clearance was granted in 2003 and it was put in operation. The EAC after deliberation suggested the Project Proponent to submit the effluent balance, modelling and dispersion details, afresh.
3.12	**CRZ Clearance for up-gradation of existing Dock for Ship building and repairing facilities at existing Bedi Port, Jamnagar by M/s Parekh Marine Agencies Ltd. [F.No.11-38/2011-IA.III]** As presented by the project proponent, the proposal involves up-gradation of existing Dock for ship building/ repairing at existing Bedi Port. The proposed project has been allotted to proponent by GMB on Long Lease basis. The GMB allotted total 52000 sq. Mt land to the proponent for the proposed project. Out of this, 9000 sq. Mt area will be required for building, shed and other allied facilities. The existing site has a basin with berthing walls for vessels as well as a few godowns, on a largely plain level ground. The berthing wall appears to be in good shape for most of the area, and has fallen apart in a few places. The basin area was used in the earlier days for berthing of country craft and smaller vessels such as fishing trawlers. The area was used for loading and unloading of goods as is indicative from existing godowns and to cater to minor afloat repairs of small vessels. Bedi Port is located in Jamnagar district of Gujarat along the Gulf of Kutch where the tidal range at places is as high as 6.70 m. The proposed site lies within jurisdiction of Bedi Port, a few kilometres from Jamnagar City. Existing road from Jamnagar City to the site is a sufficiently wide tar road. The existing 7 km. long creek that connects the site to the Gulf of Kutch is narrow and silted without much water at low tides, at many stretches. This would have to be dredged up to CD +0.70 meters. The prime concept is to create a facility which can be used for repairs of small/ medium sized crafts, construction of small/medium sized crafts and fabrication of any shipping or industrial machineries which basically move by sea. Thus unlike other shipyards being created for repair or construction of large crafts, Parekh Group propose to create facilities which are basically for small/medium sized crafts or medium sized industrial machineries as mentioned above. The proposed project would require total 50 KLD water on average during the operation phase. The water would be required for hydro jetting, hydro testing, washing and domestic activities. The Hydro testing & Hydro jetting water shall be only utility water which will be recycled and after a number of cycles it may be discharged in to STP (30 KLD) as it may only have physical impurities as the manufacturing process does not require any water there shall be no effluent discharged from the Shipbuilding yard. The treated sewage will be utilised for irrigation of Greenbelt area. The water requirement will be met by the Tanker Water Supply. The proposal was examined by the EAC in its 110th meeting held in March, 2012 and EAC noted that the proposed facilities are within the port and include port components viz dry dock, slipways, dredging etc., therefore the EAC finalised ToR. The Project Proponent clarified that there is no new construction except repairing the existing facility and no capital dredging is involved and only maintenance

	dredging will be carried out, since maintenance dredging within the port limit was exempted from EIA, 2006, Project Proponent requested to consider CRZ clearance. GMB vide email dated 14.02.2013 clarified that no capital dredging is involved. The EAC in 126th meeting held in September, 2013 examined the details submitted and presented by the proponent. After deliberation it decided to consider the project for CRZ clearance alone and suggested the proponent to come with Rapid EIA, EMP and recommendation of the SCZMA. *The* Project Proponent presented the EIA, EMP to the EAC in its meeting in November, 2013. ***The EAC after deliberation advised the Project Proponent to submit clear layout indicating the existing and proposed facilities in different colour and superimpose the layout on the latest Google map, as there was some confusion about the existing port boundary in the layout and also in respect of a new basin and some abandoned godown space sought to be re-designated.***
Meeting Chaired by Shri M. L. Sharma	
4.1	**CRZ Clearance for laying of additional phosphoric acid pipeline from jetty (Kakinada Seaport) to Plant Kakinada, Andhra Pradesh by M/s. Coromandel International Ltd. [F.No.11-62/2013-IA.III]** As presented by the Project Proponent the proposal involves laying of additional phosphoric acid pipeline from jetty (Kakinada Seaport) to Plant Kakinada, Andhra Pradesh by M/s. Coromandel International Ltd. The present proposal is for the following 2 component: (i) **Laying of additional pipe line for unloading Phosphoric acid from jetty to plant premises** Raw materials like Sulfuric acid and Phosphoric acid for the production of NP/NPK fertilisers are received at Kakinada Port and transferred to the plant, 2.5 KM away from the berth. At present both Sulfuric acid and Phosphoric acid are transported through one single dedicated pipe line from Port and these acids are stored in storages tanks located in the plant premises. As the pipe line is utilized for both Sulfuric and Phosphoric Acid service, huge corrosion have been observed in the line which is reducing the life of the pipeline. Apart from becoming unsafe to operate, this has also limited discharge rates for transfer of acid and delaying unloading of acid shipments and causing longer berth occupancies and additional demurrage. In view of the above, it is proposed to lay a new dedicated line of SS316 material in the pipe rack and trench (approved pipe line corridor) along with the existing pipe line for Sulfuric acid and use the existing line for Sulfuric acid service. (ii) **Establishment of Sulfuric acid storage tanks in plant premises**:

	Coromandel Kakinada proposes to install 2 nos of Sulfuric acid storage tanks each 5000 MT capacity in plant premise in place of existing old acid storage tanks. This is a replacement which is to be done due to ageing of old tanks which were built in the year 2001. Proponent is not clear about the location of the storage facility. The EAC noted that storage of Hazardous chemicals -Sulpuri acid within CRZ is not permissible. ***After deliberation, the EAC suggested the Project Proponent to submit the following documents:*** *(i) Submit details regarding the location of the existing storage tanks, capacity of the tanks and approvals obtained for the same.* *(ii) Submit drawings for the cross-sections of viaduct showing the existing pipeline, inspection road and the proposed pipeline along with the photographs* *(iii) Recommendation from the APCZMA instead of No Objection Certificate (NOC) should be obtained and submitted.* *(iv) Shape file for the CRZ map should be obtained from the authorized agency and submitted.*
4.2	**CRZ Clearance for development of Shollingnallur to Kalpakkam stretch of South Buckingham Canal in NW-4, Tamil Nadu by M/s Inland Waterways Authority of India [F.No.10-60/2013-IA.III]** ***The Committee decided to defer the project, since the project proponent did not attend the meeting.***
4.3	**CRZ Clearance for laying 1500 mm dia MS gravity main along NH-4 from Kalamboli Junction to MBR sector-26 at Kharghar, Maharashtra by M/s CIDCO [F.No.11-64/2013-IA.III]** As presented by the project proponent, the project involves laying of 1.9 km MS pipeline of 1500 m diameter along NH-4 from Kamothe Entry Road to Jal Marg Entry Point, Kharghar, Dist. Raigad, Maharashtra. Out of 1.9km, only 650 m comes under CRZ -I and CRZ -II area. The total land requirement for the proposed project is 0.65 ha. 1 Bridge over Taloja River will be constructed to support the water supply pipeline. Hence, river will be crossed but from overhead bridge.Water will be used during construction phase only. Expected source is from local body (tankers). The total cost of the project is Rs. 4.41 Crores. The Maharashtra Coastal Zone Management Authority has recommended the project vide letter no.CRZ 2013/CR-40/TC-4, dated 29.05.2013. ***After deliberation, the EAC recommended for grant of CRZ clearance stipulating following conditions:*** *(i) All the conditions stipulated by the MCZMA shall be strictly complied with.* *(ii) Compensatory mangrove plantation at the Five time the area of mangroves cut shall be carried out. Necessary permission from High Court shall be obtained.* *(iii) The mangroves area covered under the temporary pathway has to be restored by removing the reclaimed material from the patch of land.*

4.4	**CRZ Clearance for construction of seawater intake and outfall pipeline facilities, coal corridor, bridge over Buckingham Canal, Power evacuation Corridor and approach road from Painapuram, Nellore District, Andhra Pradesh by M/s. NCC Power Projects Ltd [F.No.11-44/2011-IA-III]** NCC Power Projects Limited (NCCPPL) is executing 2x660 MW (Phase-I) supercritical Coal Fired Thermal Power Project at Sivaramapuram, Aantapuram and Varakavipudi, Villages of T. P. Guduru Mandal and Pianapuram Village of Muthukuru Mandal, SPSR Nellore District in A.P. The Project has secured 70% coal linkage for indigenous coal while 30% imported coal has been tied up from Indonesia. The Project has received all the statutory clearances & permissions required for construction of the power project including MoEF Environmental Clearance, Consent For Establishment (CFE) from AP Pollution Control Board and CRZ clearance for construction of Sea Water Intake & outfall pipe line facilities, coal corridor etc., vide Ref: F. No. 11-44/2011-IA-III, dated 09/04/2012. The CRZ clearance was issued on 09.04.2012 for intake – 2km and outfall 1km. The geotechnical study reveals that the soil in the corridor is clay up to 5 m depth hence the pipe will not be stable. It is therefore proposed to shift the line about 1.27km m on southern side. The Intake will be 2 km at same 7.6 m depth and outfall will be 1.325 km at same 6 m depth. EIA & EMP studies were carried-out by M/s BS Envitech Hyderabad (QCI No. 2) and M/s Team Labs and Consultants (QCI No: 89) Hyderabad. Marine EIA studies & bathymetry studies are carried out by M/s Indomer Coastal Hydraulics (P) Ltd Chennai. The Institute of Remote Sensing, Anna University, Chennai a notified agency of Government of India carried out the demarcation of LTL, HTL and CRZ. Presently, majority of the BTG engineering has been completed and commencement of equipment supplies from China has already been started. Main Plant area Piling works & civil foundations works are under progress completed and erection of boiler (Unit-1) is being commenced. The time schedule for synchronization of Unit-1 & Unit-2 is envisaged as 39 months (Unit-1) & 42 months (Unit-2) respectively from the date of Notice to Proceed (NTP). The Commissioning of Unit-1 (660MW) would be by March 2015. The proposal was examined by the EAC in its meeting held in 124th meeting in May, 2013 and EAC sought recommendation of APCZMA. APCZMA has recommended the project vide letter No. 4278/ENV/CZMA/2013 dated 15.10.2013. The EAC in 128th meeting noted that there is similar proposed outfall about 1 km south of the proposed outlet and two more outfalls further southern side. Project Proponent has studied dispersion modelling taking in to consideration of these other outfalls. After deliberation, the EAC recommended for grant of amendment to the CRZ clearance dated 22.04.2012 stipulating the following conditions:

	(i) All the conditions stipulated by the APCZMA shall be strictly complied with. *(ii) All the conditions stipulated in the clearance dated 22.04.2012 shall be complied with.*
4.5	**CRZ Clearance for construction of additional guest rooms in Resort at Aravali, Taluk, Vengurla, Dist. Sindhudurg Maharashtra by M/s. Fomento Resort & Hotels Ltd. [F.No.18-6/2005-IA.III (Pt]** As presented by the Project Proponent, the project involves construction of additional guest rooms in Resort at property bearing Survey No. 28, 31, 32, 34, 35 & 39 (part) at AarvliTak, Tal. Vengurla, District Sindhudurg, Maharashtra. The present proposal is for construction of additional 16 guest rooms by raising additional upper floor as phase-II of the project above the planned 16 guest rooms. The No. of guest rooms increases from 16 to 32. The height of the proposed structure will be less than 9m. As per Coastal Landuse map prepared by SAC, Ahmedabad, the land under reference is falls in CRZ-III. (Partly falls in 0 to 200m landward side of HTL and partly falls in 200m to 500m landward side of HTL on the sea side as well as within 150m from HTL and beyond 150 m landward side of HTL on the Mochemmad creek side. The proposed construction is beyond 200mts from the HTL on the sea side and beyond 150 mtrs from the HTL on the creek side. The total area is 22.799 ha. Plot area in CRZ I – 104409 Sq.m., Plot area in CRZ III – 115038 Sq.m., Plot area Beyond 500 mt. – 8543 Sq.m., Total Plot area – 227990 Sq.m. No construction proposed in NDZ area. Sewage treatment plant will be provided. Solid waste will be segregated. Inert material will be disposed trough venders. The organic waste will be composted. Piped Water will be supplied by the Maharashtra Jeewan Pradhikaran. The total water requirement will be 47 m^3/day. Electricity for lighting and construction equipment will be taken from MSEDCL. 100 KW from MSEDCL/ stand by DG set. Sewage will be treated in STP and the sludge will be used as manure. The total sewage generation will be 30 m^3/day. This will be the additional built up area to the 7,128 Sq.m. being constructed for Phase I. Thus, the total built up area will be 8,496 Sq.m. No additional plinth area will be required. The total cost of the proposed project is Rs. 25 Crores. The MoEF has accorded Environmental Clearance vide letter no. 18-6/2005-IA.III dated 31.01.2006. The Maharashtra Coastal Zone Management Authority has recommended the project vide letter no.CRZ 2011/CR-89/TC-2, dated 03.12.2012. EAC noted that the project is under consideration and not yet commissioned. Last Six- Monthly compliance report was submitted to Regional Office, Bhopal on 27.07.2013 which shows construction is in progress. After deliberation, EAC recommended for grant of CRZ clearance stipulating following conditions: *(i) "Consent for Establishment" shall be obtained from Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.*

	(ii) Approval of the State or Union territory Tourism Department shall be obtained. *(iii) The project proponent shall not undertake any construction within 200 metres in the landward side of High Tide Line and within the area between Low Tide Line and High Tide Line;* *(iv) All conditions stipulated by MCZMA shall be strictly complied with.* *(v) The water requirement shall be met from Maharashtra Jeewan Pradhikaran as committed.* *(vi) The sewage after treatment shall be recycled for plantation / flushing.* *(vii) Green belt of minimum 15 m width shall be provided all along the boundary.* *(viii) The total covered area on all floors shall not exceed 33 percent of the plot size i.e., the Floor Space Index shall not exceed 0.33 and the open area shall be suitably landscaped with appropriate vegetal cover;* *(ix) The overall height of construction up to the highest ridge of the roof, shall not exceed 9metres and the construction shall not be more than two floors (ground floor plus one upper floor);*
4.6	**CRZ Clearance for construction of Beach Resort in Mahabalipuram village of ThirukalukundaramTaluk, Kancheepuram district by M/s VGS Estates Pvt. Ltd. [F.No.11-35/2013-IA.III]** ***The Committee decided to defer the project, since the project proponent did not attend the meeting.***
4.7	**CRZ Clearance for construction of Beach Resort in Kanathur village and Vadapatinam village of CheyyurTaluk, Kancheepuram by M/s V.G. Park Beach Resorts Pvt. Ltd. [F.No.11–34/ 2013- IA.III]** ***The Committee decided to defer the project, since the project proponent did not attend the meeting.***
Meeting Chaired by Shri Anil Razdan	
4.8	**Environmental and CRZ clearance for expansion of Redi Port, VengulaTaluka, Sindhudurg Dist., Maharashtra by M/s Redi Port Ltd. [F.No.11-15/2010-IA.III]** As presented by the project proponent, the proposal involves expansion of existing facilities at Redi, in Vengurlataluk of Sindhudurg district, Maharashtra ($15^0$44'05" N Latitude and 73^0 40'01" E Longitude). Redi Port (fair weather port) has existing facility with two working jetties performing lighterage operations since more than 40 years and handles up to two MTPA of iron ore. The project includes development of 1 container berth - 1770 m, 3 dry bulk berths - 900 m, 4 multipurpose

	berths- 670 m and 1 LNG/ Liquid berth and 1 Molasses berth. The expansion of port is planned in two phases i.e., Phase I and Phase II to handle 13.74 MTPA of cargo; the development plan comprises of three (3) berths for handling dry bulk cargo, general cargo and development of navigation and back up facilities. The proposed development will be over an area of 98 ha is within the already notified limits of the port. Out of 98 ha and 55.5 ha of land is planned to be reclaimed for port development and remaining 42.5 ha is onshore land. Road/rail connectivity will be developed for the port; a road 4.5 km to connect Terekhol road and a rail line of ~17 km to connect Konkan railway line will be developed. The total land area requirement for the road/rail corridor development is about 90 acres. In terms of the concession agreement with Maharashtra Maritime Board (MMB), the land for port expansion shall be provided by Government of Maharashtra. A Southern breakwater of length 860 m connected to a rock bund of length 2150 m is proposed in the initial phase to maintain the required tranquility in the harbor basin. The turning circle is designed so as to handle 60,000 DWT vessels with a diameter of 460m and dredged depth of (-) 12.7 m. The approach channel is proposed to have a length of 3070m and width of 165m with a dredge depth 0f (-) 13.3m. The initial development phase will require sand dredging of 1.82 million $m^{3.}$ The land available behind the waterfront is partially low lying and the ground level will have to be raised by backfilling with earth and murum with proper compaction to + 4.0 MCD. There will be reclamation also behind the berths. The water requirement upto Phase II expansion of port is 310 m^3/day will be met from Tilari canal and the necessary treatment facilities will be provided. The total estimated quantity of capital dredged material is about 3.36 MCM; 0.93 MCM of dredged material will be used for reclamation and remaining material will be disposed off in the designated offshore area between (-) 25 m to (-) 30 m depth. The EIA has been prepared by L&T-RAMBØLL based on TOR approved by MoEF and addresses all issues pertaining to marine, terrestrial and socio-economic aspects of the project. A hydro-dynamic study of the effect of dredge material dumping, shoreline changes has been carried out which suggests that there shall not be any significant impact on the shoreline abutting the project. The issues raised during the public hearing held on September 12, 2011 have also been addressed in the final EIA report which contains an Environment Management Plan covering all the above aspects. A fugitive dust modelling study has been carried out which suggests ground level concentrations to be well within the National Ambient Air Quality Standards. The CRZ mapping of the proposed locations including demarcation of HTL and LTL has been carried out by NIO which suggests that the development area falls within CRZ I (B), CRZ III and CRZ IV. The project development area does not fall or contain any environmentally sensitive areas as specified in CRZ Notification. The project was examined by the EAC in its meeting held in April, 2010 and finalized ToR including conduct of Public Hearing. ***The EAC noted that the precise details of land purportedly allotted by the Government of Maharashtra for the port were not available and land was not yet in the possession of the proponent. The EAC decided that the proposal shall be***

	considered once the land comes under the possession of the proponent. The EAC advised the Project Proponent to superimpose the layout map with port boundary on the Google map along with state boundary and the nearby creek system. The map should show the river and the existing port and the layout of the proposed port superimposed on the same map.
4.9	**Finalization of ToR for expansion of storage tanks in existing terminal at Port Exim Park area, Visakhapatnam, Andhra Pradesh by M/s East India Petroleum Pvt. Ltd. [F.No.11-18/2013-IA.III]** ***The EAC noted that the proposed expansion is within the Port of M/s Visakapatinam Port Trust. However the project proponent has not made any MoU with the Port regarding the proposed expansion. Therefore, the EAC deferred the project and advised the Project Proponent to submit the MoU.***
4.10	**Finalization of ToR for development of all weather deep water port in Hugli Estuary, West Bengal by M/s. Amma Lines Pvt. Ltd. [F.No.11-58/2013-IA.III]** As presented by the Project Proponent, the project involves development of an all weather deep water port in Hugli Estuary, West Bengal. The location of the project site is the Western bank of Hugli Estuary, Latitude 21^0 40'N, Long 87^0 50' E. The proposed cargo facility in Phase –I will be Coal- 12 MMTPA, Iron ore -8 MMTPA, Container -12 MMTPA and in the final Phase Coal- 48 MMTPA, Iron ore -36 MMTPA and container -120 MMTPA. The project consists of construction of Berths with associated structures at water depths up to 9 m. Capital & maintenance dredging will be required to maintain a depth of 9 mts. Approach channel of 300 m x 250 m , Dock basin – 60 m wide is planned. Coal & iron ore will be stacked in the stack yard areas. Facilities will be provided for collection treatment and disposal of solid and liquid waste. The requirement of fresh water is 275 CMD and Sea water is 2100 CMD. Electricity will be provided by the SEB. The Project Proponent indicated that he intends deploying a unique methodology of port development in the sea. ***The EAC after deliberation advised the Project Proponent to submit the justification for site selection, the alternatives considered, connectivity to main land and the likely impacts on the estuary and neighbouring areas and to present a comprehensive scenario which can be examined before finalising the ToR.***
4.11	**Finalization of ToR for development of a deep water port at Astaranga Area, Puri, Odisha by M/s. Navayuga Engineering Co. Ltd. [F.No.11-60/2013-IA.III]** Chaired by Shri M. L. Sharma As presented by the Project Proponent that the Government of Orissa (GoO) desired to develop the Astaranga Port into a full-fledged all weather multi-user port through private investment on Build, Own, Operate, Share and Transfer (BOOST) terms and signed a Concession Agreement with Navayuga Engineering Company Limited on November 22, 2010 for the development of a port at Astaranga, Puri District. Land area to an extent of 1578.269 ha required for the port development is agreed to be made

available by GoO as per the Concession Agreement. Proposed port site is located on the South of the existing Paradeep Port on East Coast of India (latitude $19^{o}56'$ N and Longitude $86^{o}17'$ E) in the Puri District of Odisha. The river Devi is on the Northern side of the proposed site. Astaranga is located at about 75 km from Bhubaneswar and 65 km from Puri. Nearest railway station is Bhubaneswar (road distance - 75 km) and nearest airport is BijuPatnaik Airport, Bhubaneswar (Road Distance - 75 km). The two major highway connectivity to the proposed port at Astaranga are NH-203 and SH-60.

The Port at Astaranga is proposed to be developed in phases. Present proposal is for Phase-IA of the project designed for a cargo handling capacity of 17.7 MTPA (Export Cargo – 11.7 MTPA and Import Cargo – 6 MTPA). Cargo to be handled in the Port includes Thermal Coal, Coking Coal, Aluminium products and General Cargo. Design Vessel Size: 85,000 DWT &120,000 DWT vessels light loaded to a draft of 14.0m.

Port Facilities Planned for Phase IA Development

- Breakwater : North Breakwater (300m) and South Breakwater (1300m)
- Approach Channel : Length – 6200m, Width – 180m, Turning Circle – 450m
- Dredging : Capital Dredging – 23.5 million cum,
  : Maintenance Dredging - 0.95 million cum per annum
- Total Quay Length : 1250m

A railway line about 75 km long connecting the port to the main line near Bhubaneswar New station is to be developed. A multilane road about 70 km long is also proposed as a part of the port project connecting NH-5 to the proposed port taking off from near Phulnakra as external Road and Rail Connectivity. Land for the same shall be made available by GoO as per Concession Agreement. The proposed project involves approval for de-reservation of village forest land (approximately 50 Ha). Application for de-reservation procedure is under process.

Natural creek passing through the identified area for port is proposed to be straightened by forming straight cuts and the meandering course is thereafter proposed to be reclaimed and used as port backup area. Required bridges for road and rail connectivity will be built across the creek duly maintaining the existing cross section of the waterway. The top of protection bunds shall be above + 6.00 m CD from considerations of high water level and storm surge during cyclones.

Water Resources Department, Govt. of Odisha has allotted 5000 KLD of water from River Devi with the intake point located near Bauriakhana at about 10 km from the port where the salinity levels normally possess river water quality. The water will be treated in the Water Treatment Plant before use.

Power requirement during construction phase is around 2-3 MW, which is proposed to be drawn from nearest 33 /11 KV substation (7 km from the site) and DG sets. Power requirement during Operation phase is 15-20 MW, which is proposed to be drawn from either of the 400 / 220 KV substations at Mendhasal or Chandaka in Khurda District.

	The Capital Cost for the Phase-1A development of the project is estimated at Rs. 7,417 Crores with an FIRR of 12.67%. Sahan Protected Forest (Casuarina) located adjacent on North-West along coast. ***After deliberation, the EAC deferred the project and advised the Project Proponent to submit the details of the selected site along with the alternative sites considered since a major creek system is passing in the site, about 13 habitations/villages fall within the site and many are adjacent to the port boundary and about 50 ha of reserve forest is within the site. EAC advised the Project Proponent to also submit the details of the present economic and social utility of the creek along with its proposal on its conservation/ maintenance.***
4.12	**Finalization of ToR for expansion of Marine Facilities at Sikka, Jamnagar by M/s Reliance Industries Ltd. [F.No.11-63/2013-IA.III]** As presented by the Project Proponent, the project involves expansion of Marine Facilities at Sikka, Jamnagar, Gujarat. Reliance Industries Ltd. has been granted EC in 1995 for setting up a grass root refinery at Jamnagar including the various infrastructure facilities like power plants, desalination plants, jetties including berths SPMs, pipelines, sea water intake and outfall facilities etc. Reliance Industries Ltd. stated that it has been granted EC in 2005 for expansion and modernization of the petrochemical refinery complex from 27 MMTPA to 59.7 MMTPA along with the associated infrastructure facilities like raw material receipt, product storage and dispatch, SPMs, jetty berths, seawater intake and outfall and integrated desalination plant, ETP and township. CRZ clearance details at this stage, if applicable, were not brought before the EAC. The Project Proponent stated that the MoEF granted EC to Reliance Jamnagar Infrastructure Ltd. vide letter no. J-11011/149/2007-IA.II(I) dated 30.03.2010 for the petroleum and the petrochemical complex in multiproduct SEZ, Jamnagar. Later, the EC for the above has been transferred to Reliance Industries Ltd. vide letter dated 18.10.2011. They stated that a specific condition laid down by the MoEF in the clearance dated 30.03.2010 also requires Reliance Industries Ltd. to comply with the conditions laid down in the previous clearance letter no. J-11011/232/2005-IA.II(I) dated 03.08.2005 inter-alia in consultation with NIO for addition of Jetties with three liquid berths and one coke/coal berths and for additional infrastructure required for seawater intake, outfall and desalination plant. The Project Proponent proposes to undertake the following activities in the CRZ area in addition to the existing marine facilities as part of Jamnagar expansion Phase-3 • Liquid jetty with 3 liquid berths namely, berths E, G and H for handling petroleum, petrochemical and chemical products. • Setting up of solid jetty with berth F and J for handling imported petcoke/coal required for gasification units. • Capital and maintenance dredging in the jetty area, including turning circle, navigational channel etc. • Captive augmentation for existing seawater intake and marine outfall system.

- Dredge/Desiltation

The Project Proponent stated that the proposed additional marine facilities will not disturb the existing mangroves and also do not fall under environmentally sensitive areas like Marine National Parks, Marine Sanctuaries, coral reefs or areas rich in genetic diversity and are far from the areas containing mangroves.

Project Proponent stated that the proposed jetty does not fall under Ecology Sensitive Area. The sea water requirement for this expansion will be 80,000m3/hr, from the hydraulics of the tidal channel of 80,000 m3/hr drawl, it was observed that the depth of the pump chamber (stilling basin) is not sufficient to enable uninterrupted water flow in to the pump cambers during low tides. The proposed stilling basins on the right and the left side of the existing stilling basins will possess a good carrying capacity of 60,000 m3/hr of continuous pumping. The depth of the existing intake channel should be maintained at about 2.0m CD.

The project proponent had submitted a number of maps indicating the proposed facilities and sensitive areas which were not to scale, as recorded on the maps. These maps were returned to the Project Proponent.

The EAC went through the CRZ recommendation letter dated June 5, 2013, from Director Environment, Government of Gujarat for grant of CRZ clearance for expansion of marine facilities at Sikka. This communication has raised number of serious environmental issues based on the findings of EIA Report by NEERI, which have been ostensibly resolved by presenting contradictory solutions, which rather than discussing mitigation, bank on the theory of avoidance of hazards by marine life and economic penalties on violators. The EAC noted that this expansion project was in the immediate vicinity of a Marine National Park and Sanctuary. The capital and maintenance dredging for the additional facilities and activities could have serious repercussions on the Marine National Park and marine life, which needs an unequivocal clarification from the appropriate wild life authority.

The Ministry representatives assisting the EAC were not clear whether the proposal was one for CRZ or TOR and whether it would warrant a Public Hearing before recommending any CRZ. The EAC wanted a clarification whether any CRZ clearance for the facility was required at any earlier stage. These issues would need clarification by the Ministry.

The EAC decided as follows:

(i) *The project proponent should submit maps to scale relating to the existing facilities, the proposed facility, the Eco Sensitive Zones, Marine National Park and Sanctuary and superimpose the same on the latest Google Map.*

(ii) *The Project Proponent should obtain No Objection Certificate from the appropriate wild life authority , in respect of the proposed facilities, the Capital and maintenance dredging outfall facilities and other operations and their impact if any during the construction and operation phase on the MNP and the Sanctuary.*

(iii) *The Ministry may clarify whether this proposal requires CRZ clearance at this stage or needed it earlier and whether the present proposal with its*

	various components would require the framing of Terms of Reference and Public Hearing before a further decision in the matter. ***(iv)*** *The EAC will re-examine this proposal after submission of the above mentioned clarifications and details.*
4.13	**Finalisation of ToR for extension of Fish Landing Centre at Junglighat, A&N by M/s Directorate of Fisheries, A&N Administration [F.No.11-61/2013-IA-III]** ***The EAC deferred the proposal since the Project Proponent did not circulate the documents in time to the Members.***
4.14	**Finalization of ToR for the augmentation of existing Ship Repair Facility at Cochin Port Trust by M/s Cochin Shipyard Ltd. [F.No.11-65/2013-IA.III]** As presented by the project proponent, the project involves augmentation of Existing Ship Repair Facility at Cochin Port Trust (CoPT) workshop establishment located at Survey No. 2578/4, Thoppumpady Village, Wellingdon Island, Cochin, Kerala. It includes installation of ship lift, transfer system & six (6) work stations for ship repair/ building, outfitting jetties and allied facilities. The total land requirement is 16.9 ha with 850 meters of water frontage facing Mattanchery channel. The location of the project site is 9°56'55.61"N, 76°16'0.99"E to 9°56'21.62"N, 76°16'12.19"E. The trees to be felled for the proposed project is 103. The water requirement is 6 KLD. The existing depth is -1.6 m CD at about 200 m from the shore line in Mattancherry Channel. The average depth requirement is around 5m below CD and 12m below CD at the pit area of ship lift system. The estimated quantity of dredging is 7.22 Lakh cum. The dredged material to be dumped in the designated disposal area in deep sea, located 24 km from the project site. This is presently being used as designated dredging disposal site by Cochin Port trust. Project proponent informed that the existing facility was established about 35 years beck, it is now operated with valid consent orders. As per the IOM studies, Cochin do not fall in eroding sites. After deliberation, the EAC finalized the following additional ToRs for carrying out EIA studies: *(i) Submit the details of the consent validity and compliance of the conditions.* *(ii) Though Rapid EIA is enough for the project, two seasons data shall be considered to stimulate monsoons and non-monsoon data for hydrodynamic study.* *(iii) Submit details of Risk Assessment, Disaster Management Plan including emergency evacuation during natural and man-made disaster like floods, cyclone, tsunami and earth quakes etc.* *(iv) Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale along with the recommendation of the SCZMA.* *(v) Submit the details of the reclamation along with the source of materials and its quantity & quality.* *(vi) Submit details of Environmental Management Plan and Environmental*

	Monitoring Plan with parameters and costs. *(vii) Submit the details of the fishing activity and likely impact due to the activity.* *(viii) Details of land breakup along with land use plan and Details of green belt development.* *(ix) Details of solid / liquid wastes generation and their management.* *(x) Water requirement, source, impact on competitive users.* *(xi) Submit the details of the eco-sensitive areas, if any.* *(xii) Submit the details of Oil Spill Contingent Management Plan.* *(xiii) Submit the details of dredging sludge quantity quality in terms of its toxic metals (atleast Cr+6, Arsenic, Mercury, and lead) and its disposal with quantity (reclamation/ dredging disposal site) If disposal is in sea, location, the justification for selecting such location, the dispersal of dumping material, its effect on marine environment, effect of fishes.* *(xiv) Submit the details of study on connectivity and its carrying capacity (both road and railway).* *(xv) The General guidelines as per the annexure-II to this Minutes shall also be considered for preparation of EIA/EMP.* *(xvi) Examine the impacts on marine environment & biological environment due to the development of proposed port.* A detailed draft EIA/EMP report should be prepared in terms of the above additional TOR and should be submitted to the PCB for conduct of PH. Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan. A detailed final EIA/EMP report after addressing issues raised during Public hearing and be submitted to the Ministry as per the Notification.
4.15	**Review of Environmental and CRZ Clearance for proposed expansion and moderation of Pipavav Port, TalukaRajula, district- Amreli, Gujarat by M/s Gujarat Pipavav Port Ltd. [F.No.11-91/2009-IA-III]** The proposal for expansion and modernization plan of Pipavav Port, was examined by the EAC in its meeting held on 23rd- 24th November, 2009 which finalized the ToRs including conduct of Public Hearing. The Public Hearing was conducted on 12.05.2011 within the Port. Gujarat Coastal Zone Management Authority has recommended the project vide letter No. ENV-10-2011-997-E dated 18.01.2012. EAC examined the proposal in its meeting held in March, 2012 and recommended for grant of clearance. Accordingly, the EC was granted on 05.06.2012. The EC was challenged before the NGT stating that proposed expansion will adversely affect mangrove forests, migrating birds etc. NGT allowed the appeal and ordered to keep the clearance in abeyance for six months and the matter was remitted to the EAC for the purpose of reconsideration of appraisal. The proposal was examined by the EAC in its 126th meeting held on 19th – 21st September, 2013 based on the order of NGT. The Project Proponent presented the response to the issues raised before the NGT. The EAC examined the responses

especially with respect to coal dust and its control, amenities for Shiyalbet, road access etc. After examining the details submitted and presented by the Project Proponent, EAC decided to call for the information viz. issues raised, NGT observations, empirical evidence for or against the issue, problem of inhabitants of Shiyalbet and measures proposed, report from Regional Office on the compliance of earlier conditions, Report of the PCB on the compliance of consent orders and details of mangroves conservation.

Project Proponent presented detailed information to the Committee at its 127th meeting. The EAC noted the following:

(i) *The coal is lifted from the ships by crane, dropped into the hoppers, and conveyed through closed conveyor to the coal stock yard. The conveyor is seamless without joints/transfer points.*

(ii) *The photographs presented by the Project Proponent that though three layers of plantation have been provided at the stock yard, there are some gaps between the trees. Project Proponent shall provide additional plantation at the gaps to develop proper filter screen.*

(iii) *Project Proponent has provided free bus transport to/from the port's main gate to the Shiyalbet jetty for commuting the residents from the jetty. They stated that they are bound by security instructions of DG Shipping for safety which vary according to threat perception. The landing jetty for the mooring of ferry crafts which facilitates transport of Shiyalbet islanders to/ from the Shiyalbet Island is being upgraded. However, the Shiyalpet residents are not willing to use the port bus service and insist on usage of motorised tri vehicles on hire and are not co-operating for security check which is required as per guidelines of DG Shipping issued pursuant to International Ship and Port facility Security Code and other security instructions for compliance by all ports in India. Regarding impact on migratory birds and endangered species of wildlife especially lions, Project Proponent informed that the proposed expansion will not have any adverse affect on the migratory birds or wild fauna as the project region does not cover any reserved or protected forest. The Gir Forest is about 90-100 kms away. Further, the proposed expansion falls within the existing Port Boundary. The Committee asked the PP to get a certificate on the above from the concerned Wildlife Warden.*

(iv) *In respect of the allegation of Village common land encroachment, The Project Proponent informed that on record it is shown as Gaucher land. The Government of Gujarat has handed over the land to the Project Proponent. The issue of encroachment has been decided in favour of the Project Proponent by Hon'ble Supreme Court and Hon'ble Gujarat High Court whereby, permission has been given to continue using the land. The project proponent has subsequently reached an amicable settlement with the petitioners on 18.04.2012 as per the directive of the Hon'ble Gujarat High Court.*

The EAC also advised the following:

(v) *The coal shall be stored only in designated stock yard with dust control measures viz.wind screen of height atleast 2 ft above the of coal stock, made of fabric/HDPE, water sprinkler assignment, green belt of at least three layers of suitable trees and scrubs. Use of creepers should also be explored in consultation with the Forest Department.*

(vi) *Project Proponent shall provide additional plantation in the gaps to develop proper filter screen.*

(vii) *Project Proponent should carry out a survey of the traffic movement of Shiyalbet island residents and consider enhancing the bus service during peak hours of traffic. It noted the desirability of using authorised or licensed vehicles within the port area.*

(viii) *Submit a map showing the existing and any alternative route for Shiyalbet residents movement in consultation with the other projects and establishments in the area.*

(ix) *Submit the details of the mangroves existing at the time of grant of EC with stipulation on measures in respect of this port along with the satellite imagery and their conservation status.*

Project Proponent submitted and presented the details to the 128th EAC in November, 2013. The EAC noted that the height of the curtain at coal stack yard on northern side has been increased by 3 feet. The Project Proponent had provided fabric screens at locations where trees had vegetation gaps above ground level. The Project Proponent also agreed to provide additional plants and explore use of creepers. According to the study on traffic movement of Shiyalbet island residents, the peak in movement is 50 per hour, peak out movement is 45 per hour, shuttle bus frequency is 20 minutes and the bus capacity is 25 nos. Project Proponent informed that the route used by residents prior to commissioning of port is no longer usable due to lack of adequate water through out the day and entire area is taken over by Pipavav Shipyard where Naval vessels are being built and increased defence security will be imposed. Local State Administration has been approached to assist in locating alternate landing point for shiyabet residents and if successful, persuading them to use alternate facility. Port is maintaining 85 acres of mangroves as against the requirement of 60 acres according to the EC granted in 2007. In addition 500 ha mangroves afforestation has been carried out at Surat and Bharuch in consultation within Gujarat Ecology Commission (GEC) according to EC and submitted a copy of the certificate from GEC. Regarding the Gaucher land matter, EAC noted that the Hon'ble Supreme Court dismissed the petition on 15.04.2013 with a direction that all the parties shall abide by the consent terms. Project Proponent has submitted a copy of certificate from Department of Forests stating that the Port site does not cover any reserve or protected forests.

EAC noted that Project Proponent has accessed all the likely impacts due to the project and arrived at suitable EMP and had also suitably responded to the issues raised during PH.

The EAC noted that the Project Proponent has assessed all likely impacts due to

	the project and arrived at a suitable EMP. Also responded properly to all the issues raised in the Public Hearing. Therefore the EAC has recommended for grant of clearance stipulating following conditions in addition to the conditions suggested during 127th EAC meeting held in October, 2013 *(i) The entry and exit points for dumber trucks shall be suitably designed with loop in and loop out arrangement of traffic and a fabric mesh for acting as a filter barrier for coal dust.* (ii) *Bus frequency for Shyalbet island residents should be increased during peak hours so as to reduce the waiting time to 10 minutes.*
4.16	**Environment Clearance for setting up of incinerator at TSDF, Dobaspet, Bangalore, Karnataka by M/s Ramky Enviro Engineers Ltd [F.No.10-65/2012-IA.III]** The project involves setting up of incinerator within the existing TSDF at Sy.No.7, 8, 9, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84 and 85 at Dobaspet, Bangalore, Karnataka. The capacity of incinerator is 5.5 million Kcal/Hr, Quantity of Hazardous Waste-1200-1500 Kg/Hr, Calorific Value-3000-5500 Kcal/Hr. The total area is 93.5 acres. Proposed area for incineration is 0.33 acres. The proposed area falls in the Industrial area of Karnataka Industrial Area Development Board (KIADB). Out of 76,569 MTA of Hazardous waste generated by various industries in the State of Karnataka, 8% of the waste is incinerable waste (6125 TPA). To dispose these incinerable waste in a scientific manner, the incinerator is proposed. Total water requirement 123m3/day (Bore well: 5m3/day, other source:118m3/day), Domestic - 5m3/day, process - 45m3/day, washings - 10m3/day, cooling - 60m3/day (Flue gas cooling in spray dryer), Gardening - 3m3/day. The above proposal was considered by the EAC in its meetings held on 18th - 19th October, 2012 and 13th – 14th May, 2013. The EAC exempted the Public Hearing for the project, since it is located in notified industrial area. The Committee noted that a representation was received by the Ministry and also by the members of the Committee from Shri Jagadish regarding the proposal of M/s Ramky Enviro Engineers Ltd, (REEL) Bangalore. It has been mentioned by the complainant that MoEF has already accorded EC to M/s Bangalore Eco Park Pvt Ltd (BEPPL) for common incineration facility at Dobaspet, which is at a distance of ½ km from the proposed facility of M/s Ramky Enviro Engineers Ltd. It has also been mentioned in the complaint that Karnataka State Pollution Control Board, Bangalore has already provided consent to establish to BEPPL. It has been mentioned that the KPPCB has accorded the consent to establish and consent to operate to REEL only for land dumping facility**.** ***The Committee advised Ministry to communicate with the KPPCB for their comments with respect to the direction/ guidelines of Hon'ble High Court, requirement of the facilities, whether both the facilities are required or only one facility is require. Which one has to be provided the clearance in case only one facility is to be located.***

4.17 **Environment Clearance for development of integrated Common Hazardous Waste Treatment, Storage, Disposal and Recycling Facilities at Undurmikidakkulam, Thiruchli Taluk, Virudhunagar District Tamilnadu by M/s Ramky Enviro Engineers Limited [F.No.10-77/2012-IA.III]**

As presented by the Project Proponent, the proposal is for setting up of Integrated Common Hazardous Waste Treatment, Storage, Disposal and Recycling Facilities with an investment of Rs.269.93 Crores. The proposed project activities consists of collection, transportation, reception, treatment, storage, re-use, recycle, blending and disposal of industrial hazardous wastes, bio-medical waste, Spent Solvent Recycling, used oil recycling, Alternate Fuel & Raw Material Facility, Used Lead Acid Batteries, Waste plastic & paper recycling and E-Waste generated in the state of Tamil Nadu. The quantities of hazardous wastes generated estimated to be about 175,000 TPA (expected to be received at the facility). 75.0 acres land at Undurumikidakkulam, ThiruchuliTaluk, Virudhunagar District, Tamil Nadu has been procured by M/s. RamkyEnviro Engineers Ltd. The total power required for the proposed project is 1000KVA and will be taken from the State Power Sector source, Tamil Nadu. The total water requirement of 25 KLD will be met through Ground Water Source. The total waste reaching the integrated waste management facility from Hazardous waste facility accounting to 12 cum/day will be collected and recycled. Phase wise waste treatment is as follows.

Phase-I

Secured Landfill	:	150000TPA
Treatment/ Stabilization	:	90000 TPA
Bio Medical Waste	:	30000 BEDS
E- Waste	:	30000 TPA

Phase-II

Spent Solvent Recycling	:	10000 KL
Incineration	:	20000 TPA
Used oil recycling	:	10000 KL
Alternate Fuel &Raw Material Facility	:	10000 TPA
Used Lead Acid Batteries	:	24000 TPA
Waste plastic recycling	:	10000 TPA
Waste paper recycling	:	10000 TPA

Phase-III

Renewable Energy	:	2 MW
Waste to Energy	:	2 MW

Green belt development is proposed to be taken up 15m wide (3 rows of different height) along boundary and open areas/closed dump site with 33% of total land area and proper treatment provided to leachate.

The above proposal was considered in the 118th EAC meeting held on 8th - 9th November, 2012 including conduct of public hearing. Public Hearing was conducted on 06.09.2013 at Thiruchuli, Virudhunagar. Major issues at the Public hearing were transportation, spillage of wastes, air pollution etc. Detailed responses presented by the Project Proponent were examined by the EAC.

	The EAC noted that the Project Proponent has assessed all likely impacts due to the project and arrived at a suitable EMP. Also responded properly to all the issues raised in the Public Hearing. Therefore the EAC has recommended for grant of clearance stipulating following conditions: *(i) Green belt of 15 meters shall be provided all along the periphery of the site. The green belt area shall not be used for any other purpose.* *(ii) The width of all internal roads should be 9.0 meters. The entry and exit point should be at different location. Revised layout plan shall be submitted.* *(iii) All measures for air pollution control shall be adopted.* *(iv) Vehicle maintenance unit within the project boundary shall be provided as committed.* *(v) Rain water runoff from the landfill area and other hazardous waste management area shall be collected and diverted to the leachate treatment plant.* *(vi) Zero discharge system shall be adopted.* *(vii) There should not be any spillage from the transportation vehicles.* *(viii) The response of the project proponent to the issues raised during the public hearing have to be re-submitted in form of Environmental Management Plan to the Ministry. A copy shall also be submitted to the Pollution Control Board.* *(ix) Double containment system shall be provided for all waste transport vehicles to avoid spillage. The spillage shall be cleared immediately.* *(x) Vehicles should prominently display complaint numbers for use of public as well as antidotes to any toxic waste.*
4.18	**Finalization of ToR for development of industrial estate of HSIIDC on Refinery Road, Panipat, Haryana by M/s HSIIDC [F.No.21-15/2013-IA.III]** As presented by the Project Proponent, the project involves development of industrial estate of HSIIDC on Refinery Road, Panipat, Haryana on a total area of 373 ha. HSIIDC had invited applications from the prospective entrepreneurs for setting up their units in Industrial Estate, Panipat. The site is located 6 Km from NH- 1 and is in close vicinity of Panipat Refinery and is located in panipat and Karnal districts. With objective to utilise the product streams from Petrochemical complex to achieve significant value addition through conversion by downstream processing projects, the Corporation has reserved 25% of advertised plots for petrochemical projects viz. Projects primarily using petroleum derivatives like HDPE, LDPE, MEG, PP, PTA, Butadiene, Styrene, Acrylonitrile. Etc. The eligible industry shall include the following: 1. Auto components: Plastic components manufactures for automobile applications like trims dashboards, bumpers, ducts battery cases etc. Using PP, HDPE. 2. Bottle grade PET chips: The PET chips segments using MEG and PTA to make bottles and containers. 3. Containers: Containers manufacturers for industrial products like

lubricants pesticides, pharmaceuticals and paints, Storage of water, chemical and pesticides, waste bins etc, using HDPE.

4. Engineering polymers – like ABS (Acrylonitrile Butadiene Styrene) Industries using ABS viz. Parts manufacturers for White goods, Consumer electronics &Automobile parts.

5. Films & packaging units manufacturing
   - BOPP (Bi-axially oriented polypropylene) film.
   - BOPET (polyster) film
   - Blown film (HDPE and LLDPE based)
   - TQPP (Tubular quenched polypropylene) film

6. Furniture & household items Units using PP & HDPE for items like trolleys, tables and tools, Plastic thermoware like bottles, food containers & other household/industrial items.

7. Man made fibres
   - Polyster Staple Fibre (PSF)
   - Polyster Filament Yarn (PFY)
   - Other Filament Yarns

8. Master batches using LLDPE

9. Pipes manufacturers using HDPE LLDPE for irrigation in agricultural sector,
Transaction of effluents and other chemicals in industrial units, plumbing applications & other industrial applications

10. Synthetic Rubber, Units manufacturing tyres, footwear and moulded products

11. Wires & Cables
   - Telecom cable (JFTC) insulation.
   - Jacketing for fibre optic applications.
   - Other wire and cable jacketing.

12. Woven sacks (PP & HDPE based)for packaging of cement, polymers, food grains, chemicals, Fertilizer packaging, tarpaulins, packaging food grains, chemicals etc.

13. Other Industries primarily using petroleum derivatives.

It is mandatory for all the units discharging effluents/producing toxic waste to provide for independent facility for treatment & disposal of waste/effluents.

One large fertilizer industry is proposed in the industrial estate that falls under the Category 'A', hence entire industrial area will be treated as Category A, irrespective of the area. 25% of Industrial plots are reserved for Petrochemical based processing

	inside Industrial Estate (processes other than cracking & reformation and not covered under the complexes) hence screened for Category 'B'. The total water demand for the operational phase of the proposed project with area of 373 ha would be {921.63ac x 6000gl/ac or (27276 l/ac)} = 25.1 MLD and would be met by ground water sources. The total power requirement will be 75 MW. The primary sources of solid waste in the project area are local households, commercial establishments, markets, hotels, restaurants, etc. The total quantity of waste generated per day is in the order of 11.5 tonnes per day (TPD) at a per-capita waste generation of 250 grams per day. ***After deliberation, the EAC sought the following information:*** *(i) Earlier the TOR was approved after the imposition of Moratorium. It was decided by the Committee that the proponent shall submit a map of administrative boundary of the Panipat municipal limits and the project boundary superimposed on the SOI toposheet of 1:10000* *(ii) As discussed during the meeting, a green buffer of 9 m + 9 m shall be provided all along the proposed industrial area.* (iii) *As the project site is in the vicinity of critically polluted area (Panipat) the proponent shall submit the baseline information for various critical parameters along with their limits in the study area.* (iv) *The area where project is proposed falls under 'over exploited' category as per the stage of groundwater development. It was clarified that HSIIDC has to recharge double the quantity of ground water withdrawal. Therefore a suitable recharge plan would be required.*
4.19	**Environmental Clearance for widening and improvement of existing 2-lane to 4-lane of Mahulia (Km 277.500 of NH33) ends at Kharagpur (Km 129.600 of NH06) in the States of Jharkhand and West Bengal by M/s NHAI [F.No.10-66/2012-IA-III]** As presented by the Project Proponent, the proposed project is Rehabilitation and Upgradation of NH-33 Section from Km 277.500 (Mahulia) to Km 332.900 (Baharagora) and NH-6 Section from Km 199.500 (Baharagora) to Km 129.600 (Kharagpur) in the State of Jharkhand from existing 2 Lane Configuration to 4 Lane Divided Carriageway Configuration . The total design length of the project is 127.13 km. (NH33- 55.480 Km & NH06 - 71.650 Km) It falls in the districts of East Singhbhum, Jharkhand and West Medinipur, West Bengal. There is mostly plain terrain along NH-33 and NH06 sections, except few stretches of rolling terrain along NH33 section. The proposed RoW is 60m. The available ROW varies from 45 m to 105 m. However, at few locations the existing road is occupying areas of forest land on NH-6 in West Medinipur district. The details are given in Table No.1. Land use within 10km buffer of the project road includes- Vegetation/agricultural :43%, Forest land : 25%, Barren/fallow land : 25%, Water bodies : 3% and Settlement : 3% A total no. of 133 villages will be affected due to the proposed development. (Jharkhand –103 Villages & West Bengal – 30 Villages). There is no bypass or re-alignment proposed in the project. Total of 9 nos. of ROBs are proposed. (3 nos.- 2 lane new construction adjacent to the existing ones, 2 nos.- retain with repair, 4 nos.- repair &widening), One RUB is proposed adjacent to the existing one. One flyover is proposed at Km 199.159 (NH-6).

	Existing major bridge – 3 nos. (2 lane, proposed to retain with repair). New major bridge proposed - 3 nos. (for 2 lane) along existing ones. Existing minor bridges - 21 nos (15 retained for 4-lane, 6 nos reconstruction for 4-lane) Improvement proposal for existing culverts: 87 nos (retained with repair), 12nos (retained) and 49 nos (reconstructed). Proposed underpasses :Pedestrian -12 nos. (4 nos along NH33 and 8 nos. along NH-6), Cattle-14 nos. (6 nos along NH33 and 8 nos along NH-6), Vehicular-08nos. (4 along NH33 and 4 along NH-6). Also, an underpass has been proposed for safe movement of elephants as per IRC guidelines having vertical clearance of 5.5m at $22^0$24'05" N and $86^0$38'01" E along the corridor in the East Singhbhum Elephant Range in Nayagram village. NOC in this has already been obtain from Chief WildLife Warden, Jharkhand, Ranchi. Service road of 23.535 Km length and 7m width proposed at 14 locations in Jharkhand (11.827 Km length) and at 11 locations (11.708 Km length) in West Bengal along the project roads. 11 nos.of truck lay byes are proposed along the project roads. (6 along NH33 and 5 along NH-6). Wayside amenities including drinking water facilities, toilet and bathrooms proposed along all truck parking lay byes .26 nos. of bus bays are proposed along the project roads. (12 along NH33 and 14 along NH-6). 2 nos, of Toll Plazas are proposed (4-lane), one at Km 306.900 at NH33 and other at Km 158.250 at NH-6. Rest area is proposed at Km 308 (on both sides of highway). At these location land acquisition will be over 120 meters outside the PROW. The projected traffic data for year 2042 is 42577 PCU on NH-33 stretch and 79683 PCU on NH-6. The total area of land to be acquired is 131.99 Ha and 28.91 Ha in Jharkhand and West Bengal respectively. Rain water harvesting structures at every 500m will be provided along the project road length (Appox.250 structures). The project is not passing through Wildlife area/Protected area/CRZ area/Mangroves area/Critically Polluted area. A total of 158.523 ha forest land is proposed to be diverted. Jharkhand –Reserved Forest Land: 44.158 Ha, Protected Forest: 17.586 Ha &Jangal Jhari: 9.140 Ha) (West Bengal - 87.640 Ha of Protected Forest land. At few locations the existing road is occupying areas of forest land on NH-6 in West Medinipur district. 4 major and 9 small river crossings fall in Jharkhand stretch and 5 irrigation channels crossings and 2 river crossings fall in West Bengal stretch. Subarnarekha River is the major river in study area located parallel to NH33 section (at a distance of 3km to 6km). A total of 14 nos. of ponds will get impacted A total of 48,873 nos. (28,460 in Jharkhand and 20,413 in West Bengal) of trees fall within proposed ROW of 60m, for which three times Compensatory Plantation has been proposed. (Approx.146,619 trees). Also, Green belt development is proposed as per IRC SP 21:2009 /MoRTH Code/Guidelines. The total no. of project affected persons (PAPs) will be 8435. (6265 in Jharkhand & 2170 in West Bengal) Total nos. of structures likely to be impacted are 1416 (Residential -350, commercial – 594, residential cum commercial – 94, squatters – 378) The total project cost is INR 974.2534 Crores Environmental Management Cost for the project is INR 42.14 Crores Resettlement Action Plan (RAP) Budget is INR 156.50 Crores. Public Hearing conducted on 10.05.2013, Bahragora, East Singhbhum, Jharkhan, on 06.08.2013 at Paschim Medinipur, West Bengal. Major points raised are compensation, safety for schools along the road. The EAC noted that the Project Proponent has assessed all likely impacts due to

	the project and arrived at a suitable EMP. Also responded properly to all the issues raised in the Public Hearing. Therefore the EAC has recommended for grant of clearance stipulating following conditions:: *(i) The proposal indicates the diversion 158.523 ha forests land including 44.158 Reserve Forests in Jharkhand, 87.640 ha in West Bengal. Necessary stage –I forestry clearance shall be obtained* *(ii) It is indicated that 48,873 nos. trees falls within the proposed RoW, however, bare minimum trees to be cut, the information should be provided. Necessary permission from competent authority shall be obtained for tree cutting. Necessary compensatory plantation shall be carried out and cost provision should be made for regular maintenance.* *(iii) The ponds along the alignment shall not be disturbed during construction.* *(iv) Explore the possibilities of using cold mix technology wherever possible particularly near wildlife sanctuary.* *(v) Rain water harvesting including oil and grease trap shall be provided. Water harvesting structures shall be located at every 500 mts along the road. Vertical drain type rainwater harvesting structures shall be set up to minimize surface runoff losses of rainwater.* *(vi) The holding capacity of the ponds R&R shall be as per the guidelines of NHAI/State/Central Government which ever is higher.* *(vii) IRC guidelines shall be followed for widening & up-gradation of road.* *(viii) The responses/commitments made during public hearing shall be complied with letter and spirit.* *(ix) All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.*
4.20	**Environmental Clearance for rehabilitation and upgradation of existing carriage way of Rajasthan Border (km.0.000) to Fatehpur-Salasar (km.154.141) section of NH-65 in the State of Rajasthan by M/sNHAI [F.No.10-30/2012-IA-III]** As presented by the Project Proponent, National Highway 65passes through Haryana and Rajasthan.NH65 starts at Ambala in Haryana and ends at Pali, in Rajasthan. The highway is 690 km long, of which 240 km is in Haryana and 450 is in Rajasthan. The proposal involves upgradation, widening and strengthening of existing two lane road to Two Lane with Paved Shoulder and with capacity augmentation to four lane in year 2023 from Rajasthan-Haryana Boarder (km 0.00) to Fatehpur-Salasar (154.141) section of NH-65 in the State of Rajasthan. Existing length is 158 km while proposed length is 154.141 km.The project road traverses through two district viz.Sikar and Churu in Rajasthan State. The alignment passes through the 18 Cities / villages /

towns like:- Salaser, Fathehpur, Devash, Khotiya, Ramgarh, Churu, Dhadhar, Lakhau, Sirsala, Dudhawa Khara, Ratanpura,Dokwa,Lasedi,Gothya etc. The road does not pass through any protected area nor falls in 10.00 Km boundary of any wild life Sanctuary / National Park etc.

The proposal for diversion of 2.773 ha forest land is with State Govt of Rajasthan. The total land required for the project is 843.547ha. The existing road is two lanes(5.5mto14m) with earthen shoulders. In project corridor PCUs Varies from 5350 to 11000 PCU.The existing ROW varies from10.00 m to 70.12 m. There is zero m ROW for a length of 24.00 Km. Proposed ROW width is 60m. The total length of new alignment including Rajgarh bypass, Churu-Ratannagar bypass & missing link is 62.640 km. There are 5 nos. major junctions & 03 nos. Culverts exist. All the existing junctions are proposed to be improved as per IRC guidelines.

The proposal is for 2nos.bypasses, 3.180 km Service Road on both Sides, 3 ROB, 1 flyovers, 1VUP, 20 Box culverts, 6CUP, 31 Pipe Culverts, 03 truck lay-by, 24 Bus Stop and 03 toll plaza in the section. 3000 trees are proposed to be felled within proposed Right of Way. Main species are, khejri, rohira, wild babool trees. Total water requirement for 36 months of construction period is 7000 kld. The water will be extracted from ground source mainly. 691871 cum of Aggregates, 4717 Cum sand, 3348 MT Cement, 27305 MT bitumen, and 4717 cum of sand is estimated to be required for construction of road. The construction material will be sourced from government approved quarries and borrow areas identified along the project road. There is no thermal power plant within 100.00 Km of the project 288 structures likely to be affected partially /completely. The affected structure will be compensated as per NH Act. Total Project Cost Rs.530.07 crores (Including Civil cost Rs.416.13crores, R&R cost Rs.24.31crore, and EMP cost Rs. 4.03 crores). i.e. Churu-Ratannagar and Rajgarh bypass.

The EAC noted that the Project Proponent has assessed all likely impacts due to the project and arrived at a suitable EMP. Also responded properly to all the issues raised in the Public Hearing. Therefore the EAC has recommended for grant of clearance stipulating following conditions::

(i) The proposal indicates the diversion of 2.773 ha Forest land. Necessary stage –I forestry clearance shall be obtained.

(ii) It is indicated that 4567 nos. trees falls within the proposed RoW, however, bare minimum trees to be cut. Necessary green belt shall be provided on both side of the highway with proper central verge and cost provision should be made for regular maintenance.

(iii) Explore the possibilities for utilization of fly ash in construction.

(iv) Explore the possibilities of cooled mixed technology instead of hot mixed technology.

(v) Rain water harvesting including oil and grease trap shall be provided. Water harvesting structures shall be located at every 500 mts along the road. Vertical drain type rainwater harvesting structures shall be set up

	to minimize surface runoff losses of rainwater. *(vi) The holding capacity of the ponds R&R shall be as per the guidelines of NHAI/State/Central Government which ever is higher.* *(vii) IRC guidelines shall be followed for widening & up-gradation of road.* *(viii) The responses/commitments made during public hearing shall be complied with letter and spirit.* *(ix) All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.*
4.21	**Environmental Clearance for rehabilitation and upgradation of existing 2-lane to 2-lane with paved shoulder and 4-lane of Birmitrapur – Barkot section from km.211.200 to km.336.815 of NH-23 in the State of Orissa by M/s NHAI [10-1/2013-IA-III]** The project proponent stated that the project involves rehabilitation and upgradation of existing 2-lane to 2-lane with paved shoulder and 4-lane of Birmitrapur – Barkot section from km.211.200 to km.336.815 of NH-23 in the State of Orissa. The total length of the road is 125.615 km. ROW ranges from 16 m to 22 m in urban area & 30 to 60 m in other areas. The estimated RoW is 60m for the proposed road alignment. Out of 125.615 km of the project road 35.200 km of road passes through reserve or protected forest land namely Chadari km 223.800 to 227.600, Veduvas km 235.450 to 235.800, Hathibandha km 248.550 to 267.150, Kuchaita & Champajharan km 258.450 to 267.150, Kurhadhi Forest, km 270.600 to 276.600 Dundpat, Mandasila km 312.500 to 32.550. Nearly 307.14 ha of agricultural land has to be acquired for the widening of this road. Forest land of about 70 ha (25 ha reserve land and 45 ha gramin forest) also has to be diverted. Existing land use of the project road indicate that – major part of the project falls under deciduous forest area (36.5%), Forest Plantation area (21%), Water bodies (4%), Barren land including wasteland, sandy, scrub and rocky land (1.3%) and under agricultural crop are (27.7%) & Agricultural fallow (5.2%). There are 6 major bridges, 26 minor bridges and 230 culverts. The following bridges have been proposed. Major bridges: new construction of 2 nos. to 2-lane bridges and 1 no. to 4-lane bridge. Minor bridges: - New construction of 25 nos. to 2-lane bridges and 12 nos. to 4-lane bridges, 230 nos of culverts has been proposed for construction/widening. There are 6 intersections with NH-6, NH-215 and SH-10, Municipal Road/town roads. Besides, there exist number of 29 minor junctions with access roads to small villages and habituated areas along the project road. Two vehicular Underpasses at km 231.050 and 235.486 and three pedestrian underpass are proposed at km 212.380, 214.925 and 253.150. 3 Numbers of 2-lane ROB's & One 4-lane ROBs have been added to the existing 3 numbers of ROB's where 4-laning is proposed (from Vedvyas to Rajamunda stretch). There is no service road along the existing road. The proposed length of Service road is 4.36 km and Sleep road is 4.73 km. There is no by-pass on existing road. Three bypasses have been proposed at Birmutrapur (km 211.350 to km 216.190, Total length is 4.6km), Kurmunda (km 226.600 to km 260.300, total length is 3.2 km),

	and Lathikatha (km 252.000 to km 255.700, total length is 3.7km). The project road is proposed to be developed as Tolled Road. Toll plaza has been proposed at km 182.000 and km 244.500. 9 (Nine) nos of Bus bays on both sides with bus shelters have been proposed for road user facilities. Three nos. of truck lay-byes are also proposed. Approx. 7280 trees are to be felled. 1149 structures, 19 religious structures, 8 nos. of educational institutional buildings and 6 Health Centers buildings which are on the proposed RoW will be affected partially/completely. There are 11 water bodies in the form of fishing pond, community pond, canal, ditches, streams and river along the project road. Approx. 375 KLD water will be required for the project road. The total cost of the project is Rs. 1471.01 crores. The above proposal was considered in the 120th EAC meeting held on 28th - 29th January, 2013. Public hearing was conducted on 12.09.2013 at Rajamunda Village and on 01.10.2013 at Barkote. The Project Proponent states that the major issues raised were compensation, dust suppression etc. The details presented by the Project Proponent was examined by the EAC. ***The EAC noted that the answer/ responses given to the public during Public Hearing are not satisfactory, NHAI has informed that the matters are resolved, however, EAC suggested that NHAI should properly address all the issues raised during Public Hearing and submit the same to MoEF and PCB.***
4.22	**Finalization of ToR for widening and improvement of 6-laning of Rajkot to Bamanbore (km185.258 to km 215.600) section of NH-8B and Bamanbore – Samaikhiali (km.182.500 to km.306.000) section of NH-8A in the State of Gujarat (km 184.700 to 341.477 of New NH-27) by M/s NHAI [F.No.10-61/2013-IA-III]** ***The Committee decided to defer the project, since the project proponent did not circulate the documents in time to members.***
4.23	**Finalization of ToR for setting up of industrial Area Kunjbiharipura in Tehsil Phagi, Jaipur, Rajasthan by M/s RIICO [F.No.21-14/2013-IA.III]** ***It is noted that the site is in the River bed of 'Dandi' and flood plain and hence the EAC advised the Project Proponent to consider other alternatives.***
4.24	**Finalization of ToR for Delhi-Jaipur Greenfield Expressway by M/s NHAI [F.No. 10-62/2013-IA-III]** As presented by the project proponent, the project is for Delhi-Jaipur Greenfield Expressway. The proposed project road starts at km 20 of NH-8 and ends at km 242 of NH – 8 on Jaipur Bypass (near Daulatpura Toll Plaza). Total length of the main expressway is 226.4 km Three spurs connect the proposed Expressway at Bhiwadi, Jhajjar and Chandwaji /Manoharpur with NH 8. The total length of project road is 296.1 km including three spurs. The project road is a new alignment of 8/6/4 lanes. Terrain of the project road is 90% plain and 10% hilly/rolling terrain. It traverses 323 villages, 19 talukas& 8 districts namely: Delhi, Gurgaon, Jhajjar, Rewari, Mahendergarh, Alwar, Sikar and Jaipur of three states. The proposed RoW varies from 60 m-100 m. Total land acquisition is 2637.44 ha; Govt. Land is 535 ha, Private Land is 2010.47 ha and Forest Land: 91.97 ha Sultanpur Bird Sanctuary is situated at a distance of 2.24 km from the

main expressway. 6 nos. ROB, 4 nos. Flyovers, 6 nos. Rest areas, 143 nos. PUP, 3 nos. CUP and 72 nos. VUP/Overpasses are proposed. 4 Major bridges, 63 Minor bridges and 523 Culverts are proposed to maintain the natural drainage pattern of the area. Interchanges are proposed at 8 locations and Entry/ Exit ramps are proposed at 5 locations. 13 Toll Plazas are proposed at entry and e it locations of the proposed expressway. Approximately 22,000 no. of trees are to be felled for the proposed construction activity. The avenue plantation will be carried out apart from the statuary requirement as per IRC SP: 21, 2009. Around 600 properties/ structures are affected due to the construction of the above road. 590 KLD of water will be required during construction stage. Pragati Thermal Power Plant, NTPC Badarpur, Panipat Thermal Power station, Indira Gandhi Super Thermal Power Plant, Mahatma Gandhi Thermal Power Plant and NTPC Dadri Thermal Power Plants are within the project influence area. Fly ash is proposed to be utilized for construction of embankments if the same is available. The total environment budget is Rs. 20.60 Crore; R&R cost of the project is Rs. 5,000 Crore; Total civil cost is Rs. 6666.67 Crore.

During the discussions, the Committee finalized the following additional ToRs for carrying out EIA studies:

(i) *As the project road is about 2.24 km from Sultanpur Bird Sanctuary necessary prior clearance from NBWL shall be obtained.*

(ii) *The proposal indicates the acquisition of 97.97 ha Forest land. Necessary stage –I forestry clearance shall be obtained..*

(iii) *It is indicated that 22,000 nos. trees fall within the proposed RoW, however, bare minimum trees should be cut. Information should be provided in respect of their species and whether it also involved any protected or endangered species. Necessary green belt shall be provided on both side of the highway with proper central verge and cost provision should be made for regular maintenance.*

(iv) *Explore the possibilities for utilization of fly ash and pond ash.*

(v) *Explore the possibilities of cooled mixed technology instead of hot mixed technology*

(vi) *The additional ToR and General Guidelines will be in accordance with annexure-I and Annexure-II respectively to these Minutes shall also be considered for preparation of EIA/EMP.*

(vii) *Details on borrow areas as per OM dated 18/12/2012. The borrow areas being excavated should indicate that they are dedicated to this project.*

(viii) *Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measures. Project proponent can refer to the model ToR available on Ministry website "http://moef.nic.in/Manual/ Highways".*

Public hearing should to be conducted for the project according to

	provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environment Management Plan. **A detailed draft EIA/EMP report should be prepared in accordance with the above additional TOR and should be submitted to the Ministry required in the Notification**.
4.25	**Finalization of ToR for Development of Delhi – Meerut Expressway and other connecting roads including 6/8-laning of NH-24 from km 0.000 to km 49.923 (Hapur Bypass), NH-58 from km 6.800 (Delhi-UP Border) to km 52.528 (Meerut Bypass) and NH-235 from Km 0.360 to Km 8.800 in the State of Delhi and Uttar Pradesh under (Design length – 150.147 km) by NHAI [F.No. 10-63/2013-IA-III]** The project proponent stated that the project involves construction of 8-lane Delhi-Meerut Expressway (DME) under NHDP Phase-VI (rehabilitation and upgradation of existing carriageway to 6/8 lane expressway of NH-24 from Km 8.00 to Km 49.00 and NH-58 from Km 8.00 to 52.250 including 46 Km. The proposed project is part of NHDP Phase IV and has a total length of 150.600 km. The project originally consisted of development of Expressway between Delhi and Meerut on existing alignment of NH 24 from Nizamuddin Bridge (km 0.000) to Dasna (km 28.000) and new Greenfield alignment from Dasna (km 28.000 on NH 24) to NH 235 (at km 8.800 of NH 235 near Meerut City). The total length of Greenfield alignment will be 36.300 km. The project was modified at a later stage to include the following components into the design : - 1. 6-laning of Dasna (km 28.000) – Hapur Bypass section (km 50.000) (Length 22 kms) of NH-24 2. 6-laning of Delhi Border (6.800 kms) to Meerut Bypass (52.528 kms) section of NH-58 3. Connectivity between DME and NH-58 through a spur (starting from km 50.950 on DME near village Jainuddinpur to km 52.250 of NH-58 near Meerut Bypass) 4. 4-lane link road from Jurranpur Railway Level Crossing to DME near its junction with NH-235; and 5. 6-laning of NH-235 from its junction with DME to Children Park (km 1.550) and pavement improvement of section between Children Park (km 1.550) to Zero Point (km 0.000) for dispersal of traffic in Meerut City The project road passes through plain terrain. The land use pattern of the project area is mostly built up and agricultural. The exiting ROW of NH 24 (km 0.000 to 28.000) is between 90-100 m and NH 24 (km 28.000 to 50.000) is between 35-45 m, NH 58 (km 6.800 to 52.528) is between 36-60 m, NH 235 (km 8.800 to 0.000) is between 17-35 m and of stretch between Jurranpur Level Crossing and NH 235 (km 8.800) is between 17-35 m. The proposed ROW of DME along NH 24 (km 0.000 to 28.000) will be 90 m. The new alignment of DME in Greenfield (km 28.000 on NH 24 to km 8.800 on NH 235) will be 90 m. The ROW of the proposed link between DME and NH 58 will be 35 m. The ROW for NH 58, NH 24 (km 28.000 to km 58.000), NH 235 (km 8.800 to 0.000) and for the stretch between Jurranpur Level Crossing and NH 235 (km 8.800) will be kept as before. The design configuration of expressway is Carriage way (along existing road) - 15 m (4 Lanes, both sides), Carriage way (new

	road) - 7.5 m (2 lanes, both sides), Paved Shoulder (along new road) - 3 m (Both Sides), Unpaved Shoulder (along new road) - 2 m (Both Sides), Median (along existing road)- Minimum 2.5 m and Median (along new road) -6 m. The design configuration of 4/6 laning is Carriage way (existing road) - 10.50 m (3 Lanes, both sides), Carriage way (new/existing road) - 7.5 m (2 lanes, both sides), Paved Shoulder (along new/existing road) - 1.5 m (Left Side), Paved Shoulder (along new/existing road) - 0.5 m (Median Side), Median (along new/existing road) - 1.5 m. Approximately 10675 roadside trees are likely to be affected. Okhla Bird Sanctury is at a distance of 4 km from the project road. The project road passes through forest areas. The total forest land to be diverted is 9.3 ha. Total 3743 nos. of structures may get affected, due to the proposed development. There are 5 existing major bridges. The existing bridges will be widened or additional parallel bridges will be constructed to match the road configuration. Also, 2 new major bridges will also be constructed. There are 14 existing minor bridges. The existing bridges will be widened or additional parallel bridges will be constructed to match the road configuration. 5 new minor bridges will also be constructed. Two new ROBs are proposed. The existing 3 ROBs will be widened to match the road configuration. There are 4 flyovers existing on the project roads, which will be widened according to road profile. 47 new flyovers/elevated structures are proposed on project roads. Total 16 vehicular underpasses (5 existing and 11 new) and 36 pedestrian underpasses (1 existing and 35 new) are proposed along the project roads. The existing VUPs/PUPs will be widened. 97 culverts (79 existing and 18 new) are proposed along the project roads. The existing culverts will be widened or reconstructed. 9 entry and 9 exit points are proposed on DME. The expressway is being designed as access controlled facility. Total five toll plazas are proposed (3 for DME and 1 each for NH-58 and NH-24). Metal Crash Barriers (Guard Rails)/ Concrete Crash Barriers have been provided all along the expressway length. The design of the crash barriers will be in conformity with the guide lines and type design of the MoRT&H. Approximately 500 Kl / day water will be required for construction and other purpose including plantation and dust suppression. The water shall be taken from Upper Ganga Canal. Necessary permissions will be taken from concerned authorities prior to usage of water. Fly ash is available in abundance near the project road. The nearest Thermal Power Plants are at Badarpur, Indraprastha and Dadri (falling with in 100 km from the project road). The budget for environment management plan during construction and operation phases works out to be approximately Rs 11.0 crores. Approximately 434 ha of land will be acquired. The total cost for Land Acquisition, Resettlement and Rehabilitation is approximately Rs.493.0 crores. Total cost of the proposed project will be approximately Rs. 4914.0 crores. **During the discussions, the Committee finalized the following additional ToRs for carrying out EIA studies:** *(i) As the project road falls about 4 km from Okhla Bird Sanctuary. Necessary prior clearance from NBWL shall be obtained.* *(ii) The proposal indicates the acquisition of 9.3 ha Forest land. Necessary stage –I forestry clearance shall be obtained..* *(iii) It is indicated that 10675 nos. trees fall within the proposed RoW, however,*

	bare minimum trees to be cut, the information should be provided about their species and whether it also involved any protected or endangered species. Necessary green belt shall be provided on both side of the highway with proper central verge and cost provision should be made for regular maintenance. *(iv) There should be maximum utilization of fly ash and pond ash.* *(v) Explore the possibilities of cooled mixed technology instead of hot mixed technology.* *(vi) The additional ToR and General Guidelines as per the annexure-I and Annexure-II respectively to this Minutes shall also be considered for preparation of EIA/EMP.* *(vii) Submit details on borrow areas as per OM dated 18/12/2012. The forms area should clearly indicate their dedication to the project, as that proper accounting of excavated soil can be done.* *(viii) In view of scarcity of land in the NCR and the valuable agriculture land in the project area, the project Proponent should justify the requirement for all sections of the project based on realistic traffic flows and projections.* *(ix) The sanctity of the Expressway and its insulation from other connected reads should be adequately ensured in the design and operation. Unintended traffic flows and benefits should be guarded against and clearly segregated* *(x) Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measures, the Project Proponent can refer to the model ToR available on Ministry website "http://moef.nic.in/Manual/ Highways".* **Public hearing to be conducted for the project accordance with provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.** **A detailed draft EIA/EMP report should be prepared in accordance with the above additional TOR and should be submitted to the Ministry according to the Notification**.
4.26	**Environmental and CRZ Clearance for Vizhinjam International Container Transhipment Terminal at Vizhinjam by M/s Vizhinjam International Seaport Ltd [F.No.11-122/2011-IA-III]** The 126th EAC in its meeting held in September, 2013 noted that the State Government had not adequately responded and provided comments on the various representations received w.r.t. the proposed project. The representations received on the meeting day, were also provided to the State Government. Principal Secretary, Environment, Kerala Government was, requested to respond to all these

representations.

Numerous representations for and against the project were received by the EAC. The Chairman, during the 127th meeting checked whether any representations against the project were present and if they wished to make any further representations. None opposing the project were present. Two supporters of the project were present and they submitted their representations.

The Additional Chief Secretary, Government of Kerala provided comments on the various representations vide letter dated 17th October 2013. In their reply, it is stated that the representations which were received by the MoEF on 21st September 2013(after the Public hearing) and forwarded to the State Government have been reviewed by VISL and the State Government and it was noted that almost all the new representations are repetitions of the 235 representations received during the Public Hearing held on 29th June 2013,. These have been duly addressed in the relevant sections of the CEIA report, the consolidation of which is provided in Section 7.1.9 (page 7-26 to 7-71) of Volume I of CEIA report (Aug 2013). The State Government stated that the representations submitted after the Public Hearing are mainly on behalf of the resort owners whose land may have to be acquired for the project, and by their association, the Kerala Hotel & Restaurant Association (KHRA). The State Government informed that the CEIA study reveals that all the above resorts are located within 200M from the High Tide Line (HTL), in violation of the CRZ Notification,1991& 2011. The Hon.Supreme Court in its Judgement dated 8-08-2013 in SLP No.24390-24391 of 2013 filed by M/s Vaamika Island (Green Lagoon Resort) against the Judgement of the Hon.High Court of Kerala ordering demolition of the resort constructed violating the CRZ Notification, has held as under:

> '24. *Further the directions given by the High Court in directing demolition of illegal construction effected during their currency of CRZ notifications 1991 and 2011 are perfectly in tune with the decision of this Court in PiedadeFilomenaGonsalvesVs State of Goa and others(2004) 3 SCC 445, wherein this court has held that such notifications have been issued in the interest of protecting environment and ecology in the coastal area and the construction raised in violation of such regulations cannot be lightly condoned'*

The project proponent and the State Government pleaded that the EAC should take note of the advantage of the mega benefit project development, vis-a-vis the inconvenience caused to any party. In that respect, the project proponent stated the advantages of the project to the country, state and locality far outweigh the apprehended social issues. It was pointed out that many of the resorts on whose behalf the petitions have been sent to MoEF are violators of CRZ against whom Government have directed the KCZMA to take action. They stated that such petitions from violators of environmental laws of the land may not get consideration from the authority charged with the responsibility of ensuring compliance with such laws. The State Government stated that it was a Green Port project, incorporating all the modern environmental and ecological safeguards. 5% of the project cost amounting to Rs. 140 crores has been set apart for social responsibility activities.

As regards the issues on behalf of fishing community, the Project Proponent

	/State Government stated that an additional fishing harbour with 500m additional berth which could double the capacity of the existing fishing harbour, would benefit the fishing community immensely. The projects will solely benefit the fishing community and the locality. Such mega development projects of immense consequences to the community have been subjected to judicial scrutiny' in the environmental point of view in important cases reported as AIR 1992 Bom: 471 (Konkan Railway), AIR 2000 SCC 3751(Narmada Bachao Vs Union of India), etc where the development needs were held to be equally important as the environmental considerations. The Project Proponent stated that apprehensions in the petitions have been duly taken care of in the EIA report and the mitigation measures proposed would certainly take care of any genuine concern. The project proponent also submitted point wise replies vide their letters dated 21st &29th October 2013.The Project Proponent stated that out of 31 resorts in the vicinity, 29 are in violation of the CRZ Notification and the State Authorities have initiated action against them. Indian Navy and Coast Guard officials also made a presentation in support of the project and highlighted its strategic importance considering that the site is at the tip of the Indian penisula near the international shipping route, which is hardly 18 km away, where about 100 vessels are sailing daily. They also informed that the presence of foreign powers in the Indian Ocean and neighbouring countries makes the site strategically important from the national security perspective, for joint operation with the amphibian unit of the Indian Army and the Southern Air Command stationed at Thiruvananthapuram. The project proponent in his presentation stated that this port located near to the international shipping route should be a strong competitor to the Colombo port, which at present is handling about 40% of the Indian transhipment cargo and Vizhinjam is poised to become the transhipment hub of India with 18m natural draft with no maintenance dredging, which can dock the largest (18000TEU) vessels, which no other Indian port can boast. They also stated that a dedicated cruise terminal will result in the transformation of Vizhinjam as the cruise hub of the country resulting in a quantum jump in tourism. The proposal was examined by the EAC in its 127th meeting held in October, 2013. After deliberation, the EAC asked the Project Proponent to prepare a response subject wise on the issues raised during the public hearing and in the representations received subsequently. The major issues raised in the various representations are, false data in Form-I, presence of endangered species not given, site is in CRZ-I area, Shoreline study focus on impacts after 1980 but needs to assess the changes in 1969-73 also, fishery and tourism related impacts not addressed /mitigated in final CEIA, Difficulties in crossing the ship channel and to fish in deep sea, Dredging might cause extensive damage & pollution, no specific parameters in ToR on tourism and impact on tourist was not studied, EIA study area was taken as 10 against 15 km, unscientific site selection, violation of CRZ/MoEF, ToR compliance, Pollution & social relevant impacts already being felt,

	During the 128th meeting of EAC Mr. Cyriac Kodath and Mr.John Jacob Puthur, c/o Centre for Fisheries Studies, two representatives of Coastal Watch were present at the venue and submitted representations. Project Proponent presented the details of all major issues in the 128th EAC meeting. It was stated that all the issues have already been raised and addressed during Public Hearing. The purpose of raising the same issues again was to delay the process of clearance. Project Proponent informed that economic viability has been carried out as suggested by EAC and findings are in favour of the project. The issues raised are in personal interest of certain Resorts. Project Proponent provided the information / clarification along with the references on each of the issues raised. (i) Falsa data in Form –I, i.e. the presence of endangered species not given, site is in CRZ-I area: Project Proponent informed that the EIA study has confirmed that the proposed project stretch is not a nesting ground for turtles or any protected (RET) species, based on the field studies, social surveys, review of secondary data and historical data base &studies done by CMFRI station at Vizhinjam (refer section 4.5.3.7 of CEIA). The same was confirmed by the CRZ mapping report (CESS, April,2013,p-9),which stated "The project area does not have any sensitive ecosystems such as mangroves, sand dunes, corals, etc. eligible to be categorised as CRZ IA" (ii) Shoreline study: Shore line study carried out by Indian National Centre for Ocean Information Service (INCOIS), Government of India. The study categorically established that it is not in high erosion zone. Project Proponent informed that shoreline analysis are to be done with images of comparable resolution. 30 m resolution image of 1992 and 23 m resolution images of 1997,2001,2006 and 2011 were compatible (p-6 of shoreline report, Aug,2013) and hence used for the shoreline analysis excluding the low resolution image (80m) image of 1973. Ground truthing was carried out as part of the shoreline studies. The 1969-73 satellite data are not available with comparable resolution. However, ground truthing is matching with the findings. Further the findings are in conformity with the ICMAM and NCSCM study. The copy of the shoreline change map prepared by NCSCM presented before EAC reveals that generally the site has rocky coast with pocket beaches with a small area having low erosion status towards the northern end of the proposed port boundary. The Topo sheet of Thiruvananthapuram and Kanyakumari Districts, No. 58H/3/SW, 58D /15/NE, prepared based on survey carried out in 1989-90, produced by the Project Proponent, showed that the proposed site has rocky shore. The Project Proponent submitted the Comprehensive EIA study along with the shoreline change and modeling studies was carried out as required. Further the CESS, who mapped the CRZ also confirmed the suitability of site for port construction as per the CRZ Notification, 2011. Regarding the issues on deletion of pages from report on shoreline changes, project proponent informed that according to the ToR granted by MoEF, INCOIS, GoI was engaged and a standalone report was prepared. Asian Consulting Engineers (ACE) were also engaged who have included a section on shoreline changes in the Draft EIA. The method used by ACE was a crude method of sedimentation pattern analysis by comparing the Brightness values of the infrared band of the shoreline waters under different years. Project Proponent stated that comparison of 80 m low resolution image (1973) with 30/23m resolution images of 1990/2002/2011 used by ACE are not

	compatible for shoreline analysis due to high difference in resolution. In fact, infrared band is not used for turbidity analysis because water will not reflect any radiation in the infrared band. Moreover, it requires radiometric correction to compare the temporal satellite data for digital signatures. The methodology followed by INCOIS is similar to the methodology followed by MoEF through NCSCM. In view of the above, the report portion in Section 4.3.7 in the Draft EIA was excluded in the final EIA report. A comparison of the above two methodologies was presented to the Committee. The EAC noted from the above comparison that the methodology followed by INCOIS is similar to the methodology followed by NCSCM and the findings are the same and also in conformity with the ground truthing. Further, Modelling studies show that there will not be any significant erosion due to the development of the Port. (iii) Impact on Fishing activity and fishermen livelihood: Project Proponent informed that extensive stakeholder consultations with, 28 nos. of focus group discussions were carried out for fisheries sector. 22 coastal villages located up to 25 km North and 15 km on South were consulted. The exact number of fishermen affected due to the project were estimated and compensation will be provided to all eligible persons. Steps to safeguard the interests of the fisheries sector are included in the Resettlement Action Plan (RAP), Corporate Social Responsibility (CSR) and in the Integrated Fishing Community Management Plan (IFCMP). The project proponent has set apart Rs.7.1 crores as part of the compensation package for the fisheries sector (Table 7.17, CEIA Report, Aug, 2013), as livelihood restoration measures for mussel collectors, shore seine fishermen and others. As part of CSR activities in the fisheries sector an additional amount of Rs.41.30 crores has been set apart under (i) water supply scheme (7.3crores) (ii) new fishing landing centre (16crores) (iii) adoption of existing fishing harbor (5crores) (iv) sea food park(4crores) (iii) skill development centre(4crores) (iv) environmental sanitation(3crores) and (v) solid waste management(2crores),(CEIA Report,Aug,2013, Table 8.1). The Project Proponent has also submitted a stand alone report on Integrated Fishing Community Management Plan (October, 2013) based on the CEIA Report, Aug, 2013. Regarding the issues raised with respect to difficulties in crossing the ship channel and to fish in deep sea, due to the development of port, Project Proponent informed that presently the fishing vessels are crossing about 100 ships daily in the international shipping route located hardly 18 Km from Vizhinjam coast. During the construction phase a maximum of 8 barges and during peak operation phase a maximum of 3 container/other vessels are only expected and that too approaching the port in slow speeds under navigational guidance. Hence, the difficulties will be marginal, if not nil. Further, project proponent responded to the apprehended difficulty regarding long distance travel due to the project. The project proponent stated that the apprehension was not a major impact since the fishermen from the south of the proposed port have to circumvent the new breakwater only on two days in a year-prior to monsoon to dock their boats to Vizhinjam harbour and back to their home beach after monsoon. It was informed that Mussels re-colonisation on the outer BW is expected in 2-7 years after the commencement of Port construction. The beach existing near the fishing harbour will be maintained in the 300 m stretch between the proposed port and the existing fishing harbour and an additional fish landing centre is included as part of the proposed project in this 300 m stretch with berth along the outer phase of the proposed

	breakwater. (iv) Impact due to dredging: Project Proponent informed that Capital Dredging is a short time activity. The capital dredged material (7.6 Mm^3) in full can be utilised for reclamation of berths, based on geotechnical studies and hence there was no need of offshore disposal or marine borrow areas This has been covered under of CEIA Report, Vol I, Aug, 2013. (p-2.24). The annual sedimentation within the proposed port assessed is about 30000m^3/year, implying no need of routine maintenance dredging. Further the sedimentation rate within the fishing harbour will get reduced from the current 3000m^3/year to 400m^3/year (Modelling Report, Aug, 2013, p-108) (v) Impact on Wadge bank a fish breeding ground: Project Proponent informed that Wadge bank is located about 40 km away on the existing international shipping route, over which about 100 ships are sailing daily. Out of the above, only three ships are expected to deviate to Vizhinjam, and hence the concern of impact expected to be is nil or minor. Since the capital dredged material would be completely used for reclamation and maintenance dredging is not anticipated, there will not be any dredge disposal and impacts on that account are also ruled out. (CEIA, Aug, 2013, Fig.4.40). (vi) Impact on Tourism: Project Proponent informed that only 8 resorts are to be acquired for the project(all located in CRZ NDZ) for all the Phases. No land is proposed to be acquired for the projects in Phase II & III in accordance with current masterplan. While finalising the masterplan it became absolutely necessary that a stretch of about 14 acres of land behind the Phase I berths lying within the 200M HTL (housing 8 resorts in CRZ NDZ) shall also be acquired for the project for the back up facilities (for all the three Phases of development) over and above the three resorts envisaged at the ToR approval stage. However this change has not affected the site selection analysis as is evident from Chapter 3 of CEIA Report, Aug, 2013, which analysed the site selection under three scenarios, viz: Original siting studies (2003), ToR stage (2011) & CEIA stage (2013) Further the CEIA study has addressed the impacts on tourism comprehensively and is complete in all respects including the impacts on tourism. Further a stand alone report titled "Tourism Impact Mitigation & Management Plan", October,2013 was prepared by integrating the information in the CEIA Report, August,2013 and submitted to MoEF vide letter No. VISL/EC/MoEF/2013 dated 29th October 2013. Compensation packages in accordance with the entitlement framework will be given to the resort owners as project proponent has set apart Rs.1.464 crores for livelihood restoration measures to the staff of the 8 resorts (CEIA, Aug, 2013, Table7.17). As part of CSR activities in the tourism sector, Rs.63 crores has been set apart, with Rs.58 crore for construction of cruise terminal (DPR, May,2013,Annexure 2), and Rs. 5 crore for tourism facilities (CEIA,Aug,2013, Table 8.1).. Further the project proponent has set apart Rs.34 crores for Area Development Activities under CSR (CEIA, Aug, 2013, Table 8.1), for planned development of the region, to be implemented based on the ongoing study through CEPT University, Ahmedabad.

	(vii) Site selection: Project Proponent informed that the CEIA report, 2013, Aug, 2013, Chapter 3 unequivocally justifies the site selection. The site analysis (section 3.2 of the CEIA report) shows that the site north of Vizhinjam was not suitable as the same is eroding and the coast is more dynamic especially till Kollam (as per the MoEF report Status of Shoreline Change Due to Erosion & Accresion, by Institute of Ocean Management, Anna University, Chennai & MoEF) (viii) Violation /construction of approach road without prior CRZ/EC: Project Proponent informed that Vizhinjam International Seaport Limited (VISL), a fully owned Company of the Government of Kerala is mandated with the development of the Vizhinjam International Deepwater Seaport, which is of national and international importance. Accordingly VISL purchased land for the development of the project through a negotiated purchase basis, including land for a 2 Km long and 45 m wide port road. As part of the Kerala State Transport Project works of the Kovalam-Kaliyikkavila stretch, adjoining the proposed port road, the State Government initiated construction of a small temporary service road of 670 M length and 10 m width through the land in possession of VISL. The construction initiated on 16th August 2010 was stopped on 4th July 2012 after completing 550m, based on the revelation that part of the above stretch of road fell in the 200m/500m landward zone of the HTL as per the CRZ Notification,1991/2011. After the revelation, it was also decided that further construction activities shall only be taken up after obtaining the required clearance from Ministry of Environment & Forests (MoEF), Government of India. On completion of the EIA study, VISL has submitted the application for Environmental Clearance to the MoEF in August 2013. On compliance with section 5(i) of the MoEF office memorandum No. J-11013/41/2006-IA.II(I) dated 12th December 2012, the Board of Directors of the VISL has resolved to give a written commitment to MoEF that further construction activities will be taken up only after obtaining Environmental clearance. The copy of the resolution has been submitted to EAC of MoEF on 23rd Nov 2013, vide letter No.VISL/EC/MoEF/2013 along with the endorsement from the State Government. (ix) Addition of Navy components: Project Proponent informed that Navy Berth and Coast Guard Berth were included in keeping with the requirement of Ministry of Defence on consideration of national security. The port layout and engineering aspects remain unchanged. GoK gave in principle approval for the Navy & Coast Guard proposals (vide Government of Kerala letter No.344/E1/2013/F&PD dated 23-03-2013 & No.11976/E1/2011/F&PD dated 04-04-2013). The impacts were covered in the EIA and Navy Officers also made a presentation on the proposed components during Public Hearing. Photographs of the Public Hearing were shown to the EAC. (x) Quarry of raw materials for construction: Project Proponent informed that out of four quarry sites identified, two sites (existing quarries) were shortlisted. (xi) Study area: Project proponent informed that according to the EIA Guidance Manual for Ports & Harbours, 2010, "*proponent should collect primary baseline data in the project area as well as the area falling within 5 km from the proposed project boundary and secondary data should be collected within 15 kms aerial distance from the project boundary, as specifically mentioned at part 9 (III) of Form I of EIA Notification 2006".* The present study has been done accordingly, the primary data generated (Air, Water, Noise, Soil, etc.) are in 10 km radius, and secondary data collected from the

whole district i.e. Thiruvananthapuram (PIA District). Further, the details of the sensitive areas from 15 Km radius are given in Table 4.2 of CEIA, Aug, 2013. The socio-economic survey has been carried out for a 15 km stretch on both sides of the project site along the coast. Shoreline studies have also has been carried out for a 15 km stretch on both sides of the project site along the coast.

(xii)Viability: Project Proponent informed that a detailed study on the economic benefit of the project was carried out, which reiterated the economic viability of the project with an economic internal rate of return of 12.93% which justifies the investment (refer EIRR report, May, 2013 submitted vide letter No.VISL/EC/MoEF/2013 dated 29th October 2013). This has been computed based on financial model acceptable for all international projects. It was the acceptable scientific way of computation of cost benefits. The Project Proponent stated that the Project would bring overall economic benefit to the area, state, region, and the country and this has been addressed in the EIA report.

Regarding the issues raised by the opponents on 23rd November, 2013, Project Proponent reviewed the representations during the meeting and informed that all the concerns have been addressed in the CEIA report and subsequent submissions. All the mitigation measures suggested by the EIA, EMP will be followed strictly.

The EAC noted that the Project Proponent has assessed all likely impacts due to the project and arrived at a suitable EMP. Also responded properly to all the issues raised in the Public hearing as well as in various representations made against the project. Therefore the EAC has recommended for grant of Environmental/ CRZ clearance stipulating following conditions":

(i) "*Consent for Establishment" shall be obtained from State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.*

(ii) *Project Proponent shall carry out intensive monitoring with regular reporting six monthly on shore line changes to the Regional Office, MoEF.*

(iii) The capital dredged material (7.6 Mm^3) shall be utilised for reclamation of berths.

(iv) Additional fish landing centre shall be developed as part of the proposed Vizhinjam port for upliftment of fisheries sector.

(v) The project shall be executed in such a manner that there is minimum disturbance to fishing activity.

(vi) Steps would be taken to safeguard the interests of the fisheries sector as detailed in the Resettlement Action Plan (RAP), Corporate Social Responsibility (CSR) and in the Integrated Fishing Community Management Plan (IFCMP; namely a component of Rs.7.1 crores as part of the compensation package for the fisheries sector, as livelihood restoration measures for mussel collectors, shore seine fishermen and

		others, Rs.41.30 crores as part of CSR activities in the fisheries sector under (i) water supply scheme (7.3crores) (ii) new fishing landing centre (16crores) (iii) adoption of existing fishing harbor (5crores) (iv) sea food park(4crores) (iii) skill development centre(4crores) (iv) environmental sanitation (3crores) and (v) solid waste management(2crores). *(vii) Rail connectivity shall be parallel to the harbour road on elevated structures at +4/5.00 m level without affecting the entry to the existing harbor.* *(viii) Compensation packages in accordance with the Central/State Government norms shall be given to all the authorised-cum-affected (having valid clearances as applicable) resort owners.* *(ix) The port shall ensure that all ships under operation follow the MARPOL Convention regarding discharge or spillage of any toxic, hazardous or polluting material like ballast water, oily water or sludge, sewage, garbage etc. The emission of NOx and SOx shall remain within permissible limits* *(x) CSR activities shall cover villages within 10 km radius of the project.* *(xi) Oil spill Contingency Management Plan shall be put in place.* *(xii) All the recommendations of SCZMA shall be complied with.* *(xiii) The responses/commitments made during public hearing shall be complied with in letter and spirit.* *(xiv) All the recommendations of the EMP shall be complied with in letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.* *(xv) The Ministry will examine and take necessary action in accordance with the prevailing regulation against the construction of temporary service road by project proponent.* *(xvi) The project proponent shall bring out a special tourism promotion package for the area in consultation with the State Government and implement the same along with the project.* *(xvii) The project proponent shall place on its web site its response to the Public Hearing, and representations as presented to the EAC in the 128th Meeting held on 23rd November 2013, for information of the general public.*

4.27	**CRZ Clearance for construction of 5 star resort (Vivanta by Taj at Havelock) by M/s Indian Hotel Company Limited. [F.No.11–43/2013- IA.III]** As presented by the project proponent, the Indian Hotels Company Limited has proposed a premium 5 star resort "Vivanta by Taj at Havelock" to be located at 11°59'8.76"N and 92°57'19.00"E, Plot No: 149/1, 149/3, 150/3/2, 150/3/3, 150/3/4 at village - Radha Nagar, Gram Panchyat - Govinda Nagar, Tehsil - Port Blair, Havelock Island, Dist. Andaman, Andaman & Nicobar Islands. The project will come up on a 18.3308 ha beachfront parcel of land. For this, the Indian Hotels Company Limited (IHCL) has entered into a long term lease with Andaman & Nicobar Islands Integrated Development Corporation (ANIIDCO). The proposed project is designated under Island Coastal Regulation Zone (ICRZ) and falls under ICRZ-III and requires ICRZ clearance from Andaman & Nicobar Island Coastal Zone Management Authority (ANCZMA) for approval of the project. The project will be completed in two phase: 1st phase**:** 50 keys will be constructed over a period of around 2 years (commencement of construction: March 2013 and completion of construction: December, 2015). In addition 10 public buildings and 5 staff accommodation buildings will be constructed. 2nd[nd] Phase: Another 50 keys will be constructed to raise the inventory to 100 keys. The FSI area for this project is 15854.81 sq.m and non FSI area is 3116.76 sq.m. The total built up area for this project is 18971.57 sq.m. The resource required for this project is water (110 KLD in dry season and 88 KLD in wet season), power (100 KVA in construction phase and 2123 KVA in operation phase). Sewage Treatment Plant of capacity 100KL will be installed and the treated water will be used for gardening. Vermicomposting shall be provided for converting bio-degradable waste to manure and non-biodegradable waste will be sold to prospective buyers. Rain water harvesting will be done. The proposal was examined by the EAC in its 127th meeting held in October, 2013. After deliberation, the EAC suggested that the proponent should submit details of the highest ingress of water during Tsunami/ cyclone, proposed measures to tackle emergencies during natural disasters viz. Tsunami, cyclone etc. It was observed by the committee that the HTL/LTL map does not show the presence of mangroves and it was advised by the Committee that Project Proponent shall submit authentic details. It was also advised to submit details of the coordinates of the water channel/ stream at the site and details of source of water. The Committee advised the proponent to submit details on justifying the project as eco- tourism project. Regarding highest ingress of water during tsunami etc it has been explained that an average Tsunami height of 3 meters was observed. It has been explained that suitable design parameters have been considered to address the tsunami hazards. The evacuation

	plan to tackle emergencies during natural disaster has been accounted. One structure should be designed on the base of tsunami shelter. **After deliberation, the EAC recommended for grant of CRZ clearance stipulating following conditions:** *(i) 50 meters buffer should be observed from the HTL of the creek.* *(ii) All construction shall be on stilts. The slab height shall be maintained at 3.5 mts high above the HTL throughout.* *(iii) Approval from the CGWA shall be obtained for extraction of ground water.* *(iv) As committed, vermi-composting shall be adopted for handling Solid Waste.* *(v) Package Sewage Treatment Plant should be established for treatment of waste water.* *(vi) Project Proponent should correct and discard the site map which shows land level next to the sea front at 99 meters. Ground proofing of such maps should be done.* *(vii) The EAC also advise that the Ministry may also like to examine how such basic errors occur in maps provided by authorized agencies.*
4.28	**CRZ Clearance for construction of fishing harbour at Poompuhar in Nagapathnam Dist. proposed by Fisheries Department by M/s Department of Fisheries [F.No.11-55/2013–IA.III]** As presented by the Project Proponent, the Poompuhar fishing village is situated in Sirkali Taluk of Nagapattinam District in Tamil Nadu. The proposed Poompuhar fishing harbour site is situated on the open coast and the waves break at a distance between 100 meter and 150 meter from the shore line. The mechanized fishing vessels are not in a position to come closer to the shore for landing their catches and to get their supplies like ice, diesel, ration items etc., and this causes great hardship to the fishing vessels operators. The State and Central Governments considered the feasibility of developing a fishing harbour so as to alleviate the difficulties and problems faced by the fishermen in Poompuhar. The Central Institute of Coastal Engineering and Fishery (CICEF), Bangalore had carried out detailed engineering and economic investigations at Poompuhar and the conclusions and recommendations of the report were sent to NIOT, for model studies and EIA studies. Based on the report of NIOT, Techno Economic Feasibility Report was prepared by the CICEF, Bangalore. Fishing harbour is designed for berthing of 350 mechanized fishing vessels comprising 150 Nos of 11m length and 200 Nos of 13m length besides 350 no of FRP boats, The dredging level in the basin is proposed at (-) 3m, two Breakwaters are proposed for providing a sheltered basin with one Main Breakwater and one Leeward Breakwater, Quay wall for landing, outfitting, berthing and repair of vessels and a sloping hard have been provided. In addition, shore based infrastructural facilities like fish handling and Auction hall, Administrative building, Gear shed, Net mending shed, sanitary facilities, and communication facilities are also proposed. The Poompuhar fishing harbour is a long felt need of fishermen belonging to Poompuhar and other adjoining fishing villages and

	implementation of this project will yield overall fishery development in the region of Nagapattinam District. As per the NIOT study, the site does not fall in a high eroding site. NIOT has demarcated the HTL/LTL. TCZMA has recommended the project vide letter dated 28.06.2013. The proposal was examined by the EAC in its 127th meeting held in October, 2013. After deliberation, the EAC suggested the Project Proponent to submit the layout map clearly demarcating the river Kaveri. The committee also observed that since the dredged material is proposed to be dumped within the ports limit. Lat/long coordinates should be provided for the area. **After deliberation, the EAC recommended for grant of CRZ clearance stipulating following conditions:** *(i) As committed by the proponent the dredged material should be dumped within the ports limit* *(ii) Care should be taken that no damage should be made to the archaeological evidence during construction.* *(iii) All activities at the port during construction phase to be carried out under authorised archaeological supervision.*
4.29	**CRZ Clearance for proposed Ayurvedic Resort project at Punnayur village, Chavakkad, Thrissur Dist., Kerala by M/s Rajah Islands [F.No.11-66/2013–IA.III]** As presented by the project proponent, the project involves construction of aAyurvedic Resort at Re-Survey No. 47 / 3 / 49, 54 / 1, 47 / 3 / 15, 47 / 3 / 25 & 48/11 of Punnayur Village, Chavakkad, Thrissur District, Kerala. The total plot area is 1,82,108.25 Sq. Mtr. (18.2186 Ha.) and total built up area is 20,327.30 Sq. Mtr. (Existing-2,327.30 sq. m. + Proposed - 18,000 sq. m.). The project site falls partially in CRZ – I and CRZ-III area (between HTL & 200 Mtr. Line). The project site is beside Lakshadweep Sea. Project area is part of the Chettuwa- Veliyangod coastal stretch. The project site has few coconut trees.The solid waste generated (about 12 kg /day) of domestic solid waste collected through by providing adequate no. of collection bins separately for Biodegradable and Non-biodegradable waste within the premise. The Non-biodegradable waste sold to the recyclers. The biodegradable waste will be sent for composting. The domestic sewage about 2 KL/Day generated and treated through Sewage Treatment Plant to be developed within the project site. The total water requirement is 2.26 KLD. The power requirement is 100 KW. Sludge from S.T.P. will be generated and the dried sludge is used as manure. The total cost of the project is Rs. 6.63 Crores. ***The committee deferred the proposal as the proponent did not attend the meeting.***
4.30	**Finalization of ToR for proposed Greenfield facility for import of 5 MMTPA LNG floating storage unit (FSU) and handling facility within Krishnapatnam Port Ltd,**

Nellore, Andhra Pradesh by M/s LNG Bharat Pvt. Ltd. [F.No.11-27/2013-IA.III]

The Project Proponent stated that LNG BHARAT is proposing to set up an LNG import terminal at the Krishnapatnam port, Andhra Pradesh. LNG imported through this terminal can be supplied to the industries located in the areas of north Tamilnadu, south Andhra Pradesh and west Karnataka. LNG BHARAT is proposing not to build any additional berth for this purpose but rather use an already permitted berth which has been allowed to handle petroleum products by the MOEF and the state pollution control board.

Inorder to reduce the carbon foot print further, LNG BHARAT has decided not to construct any big permanent storage tanks on the shore during phase-I, but would be using an operational LNG ship as a floating storage facility berthed alongside this berth. This ship will have all the necessary permissions from the director general shipping of India under the stringent marine regulations. This is called a floating storage unit (FSU) and these kind of installations are already operating safely in 15 locations in the world in Europe, USA, south America, SE Asia and the gulf very safely for the past 10 years.

The LNG transferred from the floating storage to the small buffer tanks located onshore will be further transferred to cryogenic road tankers and transported to the industry location. This kind of operations are already being taken up at the Petronet Dahej terminal, Gujarat for the past 7 years very safely and LNG is being supplied to industries in Gujarat and Maharashtra by cryogenic road trucks.

The committee observed that the project is within the Krishnapattnam Port limits for which the decision is still pending with the Ministry on various issues related to violations. It has been communicated by the Ministry to the proponent that the EAC committee shall consider the proposal however the final decision on the proposal shall only be finalized once some decision in the matter related to Krishnapattnam Port is taken.

During discussion following points emerged:

(i) The Committee advised the proponent to submit the plan for Phase – I and Phase – II which was prepared for the Krishnapatnam Port Project

(ii) The Committee observed that although the proponent are not related to the violation done by the KPP, however any action taken by the Ministry on the KPP may impact the present proposal of LNG Bharat.

(iii) It is also observed by the Committee that a CWC Committee has also visited the site regarding the forest issues. The report is yet to be received by the Ministry.

In view of the forgoing Committee advised Ministry to decide, whether a conditional TOR may be provided to the proponent to collect the data and prepare the EIA report.

4.31	**CRZ Clearance for expansion of Srikurmam Mineral Sand Mine of Trimex Sand Pvt. Ltd, Village Vatsavalasa & Tonangi, Mandal Gara, District Srikakulam, Andhra Pradesh by M/s Trimex Sand Pvt. Ltd.[F.No.11-67/2013-IA.III]** ***The Committee deferred the proposal as the proponent did not attend the meeting.***

Annexure-I

(i) Any litigation(s) pending against the proposed project and/or any directions or orders passed by any court of law/any statutory authority against the project is to be detailed out.

(ii) Submit detailed alignment plan, with details such as nature of terrain (plain, rolling, hilly), land use pattern, habitation, cropping pattern, forest area, environmentally sensitive places, mangroves, notified industrial areas, sand dunes, sea, river, lake, details of villages, teshils, districts and states, latitude and longitude for important locations falling on the alignment by employing remote sensing techniques followed by ground truthing and also through secondary data sources.

(iii) Describe various alternatives considered, procedures and criteria adopted for selection of the final alternative with reasons.

(iv) Submit Land use map of the study area to a scale of 1: 25,000 based on recent satellite imagery delineating the crop lands (both single and double crop), agricultural plantations, fallow lands, waste lands, water bodies, built-up areas, forest area and other surface features such as railway tracks, ports, airports, roads, and major industries etc. and submit a detailed ground surveyed map on 1:2000 scale showing the existing features falling within the right of way namely trees, structures including archeological & religious, monuments etc. if any.

(v) If the proposed route is passing through any hilly area, examine and submit the stability of slopes, if the proposed road is to pass through cutting or embankment / control of soil erosion from embankment.

(vi) If the proposed route involves tunneling, the details of the tunnel and locations of tunneling with geological structural fraction should be provided. In case the road passes through a flood plain of the river, the details of micro drainage, flood passages and information on flood periodicity at least of last 50 years in the area should be examined.

(vii) The projects is located within 10km. of the sanctuary a map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon should be furnished at the stage of EC.

(viii) Study regarding the Animal bypasses / underpasses etc. across the habitation areas shall be carried out. Adequate cattle passes for the movement of agriculture material shall be provided at the stretches passing through habitation areas.

(ix) If the proposed route is passing through a city or town, with houses and human habitation on the either side of the road, the necessity for provision of bypasses/diversions/under passes shall be examined and submitted. The proposal should also indicate the location of wayside amenities, which should include petrol station/service centre, rest areas including public conveyance, etc.

(x) Submit details about measures taken for the pedestrian safety and construction of underpasses and foot-over bridges along with flyovers and interchanges.

(xi) Assess whether there is a possibility that the proposed project will adversely affect road traffic in the surrounding areas (e.g. by causing increases in traffic congestion and traffic accidents).

(xii) Examine and submit the details of use of fly ash in the road construction, if the project road is located within the 100 km from the Thermal Power Plant.

(xiii) Examine and submit the details of sand quarry, borrow area and rehabilitation.

(xiv) Climate and meteorology (max and min temperature, relative humidity, rainfall, frequency of tropical cyclone and snow fall); the nearest IMD meteorological station from which climatological data have been obtained to be indicated.

(xv) The air quality monitoring should be carried out as per the new notification issued on 16th November, 2009.

(xvi) Identify project activities during construction and operation phases, which will affect the noise levels and the potential for increased noise resulting from this project. Discuss the effect of noise levels on near by habitation during the construction and operational phases of the proposed highway. Identify noise reduction measures and traffic management strategies to be deployed for reducing the negative impact if any. Prediction of noise levels should be done by using mathematical modeling at different representative locations.

(xvii) Examine the impact during construction activities due to generation of fugitive dust from crusher units, air emissions from hot mix plants and vehicles used for transportation of materials and prediction of impact on ambient air quality using appropriate mathematical model, description of model, input requirement and reference of derivation, distribution of major pollutants and presentation in tabular form for easy interpretation shall be carried out.

(xviii) Also examine and submit the details about the protection to existing habitations from dust, noise, odour etc. during construction stage.

(xix) If the proposed route involves cutting of earth, the details of area to be cut, depth of cut, locations, soil type, volume and quantity of earth and other materials to be removed with location of disposal/ dump site along with necessary permission.

(xx) If the proposed route is passing through low lying areas, details of fill materials and initial and final levels after filling above MSL, should be examined and submit.

(xxi) Examine and submit the water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, quality likely impacts on them due to the project.

(xxii) Examine and submit details of water quantity required and source of water including water requirement during the construction stage with supporting data and also classification of ground water based on the CGWA classification.

(xxiii) Examine and submit the details of measures taken during constructions of bridges across river/canal/major or minor drains keeping in view the flooding of the rivers and the life span of the existing bridges. Provision of speed breakers, safety signals, service lanes and foot paths should be examined at appropriate locations through out the proposed road to avoid the accidents.

(xxiv) If there will be any change in the drainage pattern after the proposed activity, details of changes shall be examined and submitted.

(xxv) Rain water harvesting pit should be at least 3 - 5 m. above the highest ground water table. Provision shall be made for oil and grease removal from surface runoff.

(xxvi) If there is a possibility that the construction/widening of road will cause impact such as destruction of forest, poaching, reductions in wetland areas, if so, examine the impact and submit details.

(xxvii) Submit the details of road safety, signage, service roads, vehicular under passes, accident prone zone and the mitigation measures.

(xxviii) IRC guidelines shall be followed for widening & upgradation of road.

(xxix) Submit details of social impact assessment due to the proposed construction of road.

(xxx) Examine road design standards, safety equipment specifications and Management System training to ensure that design details take account of safety concerns and submit the traffic management plan.

(xxxi) Accident data and geographic distribution should be reviewed and analyzed to predict and identify trends – incase of expansion of the existing highway and provide Post accident emergency assistance and medical care to accident victims.

(xxxii) If the proposed project involves any land reclamation, details to be provided for which activity land to reclaim and the area of land to be reclaimed.

(xxxiii) Details of the properties, houses, businesses etc. activities likely to be effected by land acquisition and their financial loses annually.

(xxxiv) Detailed R&R plan with data on the existing socio-economic status of the population in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternative livelihood concerns/employment and rehabilitation of the displaced people, civil and housing amenities being offered, etc and the schedule of the implementation of the project specific

(xxxv) Submit details of Corporate Social Responsibility. Necessary provisions should be made in the budget.

(xxxvi) Estimated cost of the project including environmental monitoring cost and funding agencies, whether governmental or on the basis of BOT etc and provide details of budget provisions (capital & recurring) for the project specific R&R Plan.

(xxxvii) Submit environmental management and monitoring plan for all phases of the project viz. construction and operation.

Annexure-II

General Guidelines

(i) The EIA document shall be printed on both sides, as for as possible.

(ii) The status of accreditation of the EIA consultant with NABET/QCI shall be specifically mentioned. The consultant shall certify that his accreditation is for the sector for which this EIA is prepared.

(iii) On the front page of EIA/EMP reports, the name of the consultant/consultancy firm along with their complete details including their accreditation, if any shall be indicated. The consultant while submitting the EIA/EMP report shall give an undertaking to the effect that the prescribed TORs (TOR proposed by the project proponent and additional TOR given by the MoEF) have been complied with and the data submitted is factually correct (Refer MoEF office memorandum dated 4th August, 2009).

(iv) While submitting the EIA/EMP reports, the name of the experts associated with/involved in the preparation of these reports and the laboratories through which the samples have been got analysed should be stated in the report. It shall clearly be indicated whether these laboratories are approved under the Environment (Protection) Act, 1986 and the rules made there under (Please refer MoEF office memorandum dated 4th August, 2009). The project leader of the EIA study shall also be mentioned.

(v) All the TOR points as presented before the Expert Appraisal Committee (EAC) shall be covered.

(vi) Environmental Management Plan presented before the EAC as a part of EIA report, shall be made part of Concessionaire Agreement/ other relevant documents. Proponent shall submit an undertaking in this regard.

(vii) Since most of the environmental issues are related to design parameters, following additional information should also be sought under Chapter-II (Disclosure of Consultant)

Name of the Design Consultant, Name of the EIA consultant, EIA Coordinator, Functional Area Expert and detail of accreditation.

128th Meeting of the Expert Appraisal Committee for Projects related to Infrastructure Development, Coastal Regulation Zone, Building/Construction and Miscellaneous projects held from 20th – 23rd November, 2013 in the Conference Hall, MMTC, Scope Complex, Lodhi Road, New Delhi.

List of Participants

Expert Committee

1.	Shri Anil Razdan	Chairman
2.	Dr. M.L. Sharma	Member
3.	Sh. R. Radhakrishnan	Member
4.	Dr. M.V. Ramana Murthy	Member
5.	Dr. R. Prabhakaran	Member
6.	Dr. Anuradha Shukla	Member
7.	Shri S.K. Sinha	Member
8.	Shri Y.B. Kaushik	Member
9.	Shri Lalit Kapur	Member Secretary

MoEF officials

10.	Shri E. Thirunavukkarasu	Scientist 'C', MoEF
11.	Shri Amardeep Raju	Scientist 'C', MoEF

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