#### **MINUTES**

Minutes of the 136<sup>th</sup> meeting of Expert Appraisal Committee for Projects related to Infrastructure Development, Coastal Regulation Zone, Building/Construction and Miscellaneous projects held from 30<sup>th</sup> July, 2014 - 1<sup>st</sup> August, 2014 at Conference Hall (Narmada), Indira Paryavaran Bhawan, Ministry of Environment, Forests & Climate Change, Jor Bagh, New, Delhi -110003

#### 1. Opening Remarks of the Chairman.

The Chairman welcomed the members to the 136<sup>th</sup> meeting of the Expert Appraisal Committee.

2. Confirmation of the Minutes of the  $135^{th}$  Meeting of the EAC held on  $30^{th}$  June 2014 to  $2^{nd}$  July 2014 at New Delhi.

The EAC confirmed the minutes of the 135th Meeting

#### 3. List of proposals for consideration

3.1 Finalization of TOR for development of Dighi Port Industrial Area, Maharashtra in Maharashtra by M/s Delhi Mumbai Industrial Corridor Development Corporation Limited [F.No.21- 17/2011-IA.III]

As presented by the PP, the Dighi Port Industrial Area (Dighi Port IA) will be an important industrial, commercial town and logistics node within the state of Maharashtra, the entire Delhi Mumbai Industrial Corridor. The development strategies that have been identified are Build on Maharashtra's strengths in industry, Attract foreign and domestic investment for economic development, Balance growth in the service sector, Generate export revenues and substitute for manufactured imports, Link industrial development with commercial, residential, and social development, Provide a program for smart phased development with positive economic returns.

The Dighi Port IA will be developed as a new industrial and integrated township enclave, according to a comprehensive land use framework following international standards. The Dighi Port IA will offer ample real estate, parks and open space, public transportation, pedestrian and bicycle trails, and other amenities. This new industrial area will extend from the new Dighi Port IA from the east to the west crossing NH 17. Located in Dighi Port IA, just 10–15 kilometres (km) from Roha and about 15-20 kilometres from Panvel, it is located along Indapur, Mangaon, Ville villages. The industrial location is strategically positioned and directly connected to the major state highway NH 17, and the Konkan rail network. The area will provide direct connections through the east of the Dighi Port IA to the port and northwards to Mumbai. Additional lateral roads and new bypasses are proposed along the entire site. Because of the industrial area's connectivity, visibility, and strategic location, the area will provide an ideal site for investment and employment growth for years to come.

Dighi is well connected by both road and rail services. Dighi is served by NH-17 and by State Highways 92, 95, 96, 97 and 98 (SH-92, SH-95, SH-96, SH-97 and SH-98) NH-17 connects Dighi to Mumbai in the north and Goa in the south correspondingly, it also connects Dighi with other major port cities of southern India and NH-17 is the major link that takes traffic from all major ports that lie on the west coast. The State Highways also connect Dighi Port IA with the western parts of Maharashtra via NH-17.

Dighi Port IA is connected by the Konkan railway and the nearest railway connections are Indapur and Mangaon. The Roha-Pen link which is solely for goods movement is also near Dighi Port IA. In terms of air connectivity, Dighi Port IA is not well connected; the nearest airports are in Mumbai and Pune.

Freshwater requirements by 2042 are estimated at 505 million litres per day (MLD), which will be subsidised using treated wastewater. As such, treated water could account for 45% of total water demand. Kundlika River flowing through the town of Roha has been identified as the water source for Dighi Port IA. MIDC has been allocated 138 MLD, of which 45 MLD is the unutilized quantum available from the existing reservation. Given the required demand of 102 MLD for Phase 1, only 44% of the freshwater demand can be met. MIDC requires 70 MLD which can be sourced from Padwan Dam. Two proposed hydropower projects at Kar and Kombhe will provide 200 MLD to meet the partial water demand for Phase 2 and 3. Sea water is proposed as a source of water to meet the partial water demand in Phase 3; sea water desalination plant is also proposed. There will be a total of three water treatment plants: for Phase 1 with a capacity of 126 MLD, for Phase 2 a plant with a capacity of 110 MLD, and for Phase 3 with a capacity of 110 MLD. Area required is 2.5 – 3 hectares for each.

It is proposed to establish desalination plant with a 150 MLD capacity to meet the demand for Phase 2 and 3. Sea water from the Arabian Sea is the water source and will be treated through available desalination technologies.

Domestic and industrial wastewater generated will be treated separately. The wastewater from industries and sewage from the residential areas will be treated in a common effluent treatment plant and sewage treatment plant, respectively. According to estimates, wastewater and sewage generated at the Dighi Port IA to be 461 MLD and 380 MLD, respectively. Approximately 32.5 ha of land will be required by Phase 3.

The estimated waste generation in Phase 1, Phase 2, and Phase 3 to be 980 tonnes per day (TPD), 2,388 TPD, and 4,307 TPD, respectively. A solid waste management programme has been developed in compliance with the Municipal Solid Waste Rules 2000 and the Hazardous Wastes Rules 2008. The programme asserts the practice of waste segregation and provision of suitable bins/containers. A collection of municipal waste system is recommended that uses pneumatic automated collection and transportation, door-to-door collection, kerbside collection, block collection, and a community bin system. A secondary waste collection and transportation system is also suggested. The industrial waste collection and transportation systems will be separate.

A total of 62 ha will be required for solid waste management facilities for municipal and industrial waste. 50.8 ha will be required in Phase 1, 5.6 ha in Phase 2, and 5.6 ha in Phase 3.

The load requirements corresponding to each phase are 1,536 megawatts (MW) (2022), 3,803 MW (2032), and 7,085 MW (2042). The power requirements for industrial use at 5,614 MW (maximum) or 5,049 MW (coincident). This supports the total land area of 12,020 ha of industrial land and respective industry types. For residential use, estimated power requirements by 2042 are 2,669 MW (maximum) and 1,601 MW (coincident), accounting for 5,440 ha of residential land. For commercial use, the power requirements by 2042 are 335 MW (maximum) and 245 MW (coincident), accounting for 3.869 million square metres of gross floor area. For civic uses, open space, and roads, the power requirements by 2042 are 219 MW (maximum) and 189 MW (coincident), accounting for 6,860 ha.

The power demand projection is based on a forward-looking estimate of 30 years. The present development plan for Maharashtra's power system and the national grid in place only support demand to year 2022. This requirement does not justify setting up a dedicated captive power plant and power will be drawn from the grid. Six major sourcing points have been identified. For 2009–2010 Chakan (400 kilovolts [kV]) and at Lonikand II (existing 4000 kV). For 2010 – 2011 Hinjewadi substation (400 kV), Vile Baghad (220 kV) and at Yeolewadi-VSNL Dighi (220 kV). Pune substation (765/400kV 2 x 1500 megavolt amperes) proposed for 2012 – 2014.

ToR was approved by MoEF on 5-6<sup>th</sup> April 2011(99<sup>th</sup> EAC Meeting) and ToR letter was issued vide letter dated May 4, 2011. Additional ToR was recommended on 11-12<sup>th</sup> May 2011 (100<sup>th</sup> EAC Meeting) and additional ToRs were issued vide letter dated May 27, 2011. Extension of Validity of ToR was granted during 126<sup>th</sup> EAC Meeting dated 19-21<sup>st</sup> Sept. till 27/5/2014. Vide letter dated 29/4/2014 it was requested to extend the validity of ToR by 1 more year. It was decided that since the validity of ToR was already extended once, that is till 27/05/2014, further extension of validity for one more year is not possible. The proponent has to apply afresh to obtain fresh ToRs. 3 years old data can be used for EAI studies in the given circumstances of the case.

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

- (i) Reasons for selecting the present site with details of alternative sites examined earlier and rejected/selected on merits with comparative statement.
- (ii) Describe the project site, geology, topography, climate, transport and connectivity, demographic aspects, socio cultural and economic aspects, villages, settlements and meteorological data.
- (iii) Examine details of land use around 10 km radius of the project site. Analysis should be made based on latest satellite imagery for land use

- with raw images.
- (iv) Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.
- (v) Examine the impact of proposed project on the nearest settlements.
- (vi) Examine baseline environmental quality along with projected incremental load due to the project.
- (vii) Environmental data to be considered in relation to the project development would be (a) land, (b) groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.
- (viii) Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area.
- (ix) Examine the details of the land use break-up for the proposed project.
- (x) Physical model studies should cover both with and without proposed development.
- (xi) What will be the project boundary area and study area for which the above data is to be furnished?
- (xii) Examine and submit details of Surface water quality.
- (xiii) Source of water vis-à-vis waste water to be generated along with treatment facilities to be proposed.
- (xiv) Examine the details of water requirement, use of treated waste water and prepare a water balance chart.
- (xv) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water. Examine details.
- (xvi) Examine soil characteristics and depth of ground water table for rainwater harvesting.
- (xvii) Categorization of area as per Dynamic Ground Water Resource Estimation 2011.
- (xviii) Examine the location of solid waste treatment and disposal sites around the airport to avoid any bird menace.
- (xix) Examine details of solid waste generation treatment and its disposal.
- (xx) Since building construction activities are also included in the various project activities, the water requirement, sewage disposal and treatment, electrical load, energy conservation measures etc. should also be included in the EIA report.
- (xxi) Examine and submit details of use of solar energy and alternative source of energy to reduce the fossil energy consumption.
- (xxii) DG sets are likely to be used during construction and operational phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.
- (xxiii) Examine road/rail connectivity to the project site and impact on the traffic due to the proposed project. Present and future traffic and transport facilities for the region should be analysed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.
- (xxiv) A detailed traffic and transportation study should be made for

- existing and projected passenger and cargo traffic.
- (xxv) Examine the details of transport of materials for construction which should include source and availability.
- (xxvi) Examine the details of National Highways/State Highways/ expressways falling along the corridor and the impact of the development on them.
- (xxvii) The evaluation of impacts should be analyzed depending upon the nature (positive and negative), duration (short term and long term) reversibility, and magnitude (negligible, low, medium, high), etc. of the impacts based the objective assessments.
- (xxviii) Submit a map demarcating HTL / LTL prepared through an authorized agency and superimposing the site plan if the project is falling under CRZ.
- (xxix) Details of Intake/Outfall structures of desalination plant with their configuration, design and construction methodology along with dispersion studies of brine from outfall.
- (xxx) Submit recommendations of the SCZMA regarding the development of Industrial Corridor.
- (xxxi) Examine and submit the details of Noise modeling studies and mitigative measures.
- (xxxii) Examine noise levels present and future with noise abatement measures.
- (xxxiii) Noise pollution has always been a major concern for Airport projects during the operational phase. It is suggested that noise monitoring should be carried out at critical locations at the surrounding areas may be incorporated in environmental monitoring programme during the whole operational phase of the project.
- (xxxiv) Natural and artificial noise barriers may be considered for critical locations.
- (xxxv) A thick green belt should be planned all around the project site to mitigate noise and vibrations to the nearby settlements. The identification of species/plants should be made based on the botanical studies.
- (xxxvi) Landscape plan, green belts and open spaces may be described.
- (xxxvii) Examine the details of afforestation measures indicating land and financial outlay.
- (xxxviii) Identify, predict and assess the environmental and sociological impacts on account of the project.
- (xxxix) A detailed description with costs estimates of CSR should be incorporated in the EIA / EMP report.
- (xl) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
- (xli) Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
- (xlii) R&R details shall be submitted.
- (xliii) The General guidelines as per the Annexure –II to this Minutes shall also be considered for preparation of EIA/EMP.

Public hearing to be conducted after finalization of Additional ToR for the project required under 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 as per the above Terms of Reference and should be submitted to the Ministry in terms of the EIA Notification, 2006.

# 3.2 Environmental Clearance for development of Dholera Special investment Region in Gujarat by M/s Delhi Mumbai Industrial Corridor Development Corporation Limited [F.No.21-20/2011-IA.III]

The Government of India (GoI) intends to establish a Dedicated Freight Corridor (DFC) between Delhi and Mumbai covering a total length of 1483 km and passing through six states. The GoI envisions developing Delhi Mumbai Industrial Corridor (DMIC) project in various phases an influence zone of around 150-200 km on either side of the DFC.

Dholera Special Investment Region (DSIR) is the node proposed in the Gujarat sub region. The project is being developed by Delhi Mumbai Industrial Corridor Development Corporation Limited (DMICDC) with Gujarat Infrastructure Development Board (GIDB) as the nodal agency.

This proposal is to obtain environment clearance as well as CRZ clearance for the project at a master planning level and it is understood that the individual developments within DSIR will obtain individual environmental clearances in accordance with the requirements.

The DSIR lies in the Ahmedabad District and comprises of an area of 920  $\rm km^2$  spread across 22 villages. DSIR is located about 100 km south of Ahmedabad city in Gujarat.

The region largely comprises of rural settings and the master planning envisages development of the region as a mixed land use development comprising of residential, commercial and industrial land uses.

The site touches the Gulf of Khambhat on the eastern side. Its southern boundary associates with administrative boundary of Bhavnagar district. The north and east side boundary is associated with villages of Dholera Taluka.

The State Highway – 6, connecting Ahmedabad to Bhavnagar via Dholera, forms the central spine of the project.

The concept master plan for the proposed DSIR has been designed to develop an urban settlement with industrial and commercial zones and all associated infrastructure facilities. The industrial areas have been planned to have better access to the road and rail links and away from residential areas.

The existing settlements have been conserved in the concept master plan and sufficient area will be left for the expansion of the settlements in the future. CRZ area been designed to develop Tourism & Recreation development, flood mitigation infrastructure, and linear utilities. No landuse development proposed in the forest land and forest diversion proposed only for limited linear utility infrastructure with prior Forest clearance. The catchment of Sukhbhadar, Lilka, Utavali River and the existing water bodies in the area will also be conserved.

About 13.3 % of the total area has been demarcated for residential land use, 12.5 % for industrial land use, 6.2 % for transportation & other zones, 30% for green space, 38 % for CRZ area.

The industrial mix proposed for DSIR shall include clusters comprising of Electronics, High Tech and Emerging Technologies, Pharmaceuticals and Biotechnology, Heavy Engineering, Automobile and Auto Ancillary Industries, General Manufacturing, Metals and Metallurgical Products, Agro and Food Processing, IT/ITES along with Tourism and Education sectors. The proposed project shall be developed in three phases of 10 year each. Phase 1, 2 & 3 shall comprise of urban area of 11,505 Ha, 12,045 Ha and 10,147 Ha respectively.

The water demand for the region has been estimated to be about 950 MLD. The short term (100 MLD) option for sourcing water need is from Pariyej and Kanewal Reservoirs of Mahi based water supply scheme. Medium term water sourcing option (~500 MLD) will make use of treated wastewater from sewage treatment plants under the Ahmadabad Muncipal Corporation and Urban Development Authority and the long term (~950 MLD) option will be to use desalinated sea water (to be set up downstream of Kalpasar project or fresh water from Kalpasar project).

The total wastewater generation from the region has been estimated to be about 652 MLD. The wastewater generated shall be treated in sewage treatment plants (STPs) and common effluent treatment plant (CETPs) proposed within DSIR and shall be recycled for the irrigation of agricultural land, parks and gardens, green spaces, forests and industrial use. Rainwater harvesting will be promoted through Development Control Regulations, for all new constructions in DSIR.

Sukhbhadar, Lilka, Utavali rivers are ephemeral river which pass through DSIR and lead to water logging of area in Monsoon. In order to moderate this river bunding, de-silting and river training are proposed as flood mitigation measures. The power demand for DSIR has been estimated to be 1700 MW and Gujarat Electricity Board (GEB) will supply the same for which proposed gas based power plants will be considered. Options of utilising energy from solar energy, wind power and Municipal Solid Wastes are being worked upon.

The municipal solid waste generation from residential, commercial and institutional areas has been estimated to be 1190.3 T/day, 396.8 T/day and 198.4 T/day respectively with 51.4 T/day of industrial refuse. A waste management system has been designed in compliance with the Municipal Solid Waste

Management Rules, 2000. An area of about 200 ha identified for the Integrated Waste Management Facility (IWMF), which will have - waste collection and storage facility, waste processing facility (segregation, reuse, recycle, recovery of valuables etc.) and waste treatment and disposal facility (waste to energy, creating compost, incineration and landfill).

A well designed network of urban roads (arterial, sub- arterial roads) with LRT/BRT system has been proposed for DSIR. Government has long term plans to develop a six lane accessortrolled highway along SH-6 from Ahmedabad to Bhavnagar via Dholera. In the interim the SH6 is being upgraded to a 4lane dual carriageway road. Dholera Greenfield international airport is proposed at approximate distance of about 15 km north-east of the DSIR near Navagam village. Green belts proposed to be developed on either side of surface water streams and creeks with vegetation/landscape area development.

The land required for DSIR comprises of land partly owned by farmers, government and gamtal land. DSIR does not envisage land acquisition for the project. Land pooling and re adjustment will be done under the Town Panning mechanism under Gujarat Town Planning and Urban Development Act 1976) for DSIR development.

Land pooling and readjustment will be done only for non-settlement lands which do not contain structures. Spatial planning will ensure that no original inhabitant of the region needs to be relocated. The authorities from GIDB presented the authentic development plan which clearly eliminates the forest area from any development and cleared the information provided in earlier maps/places which had been erroneously submitted.

ToR was approved by MoEF on 5-6<sup>th</sup> April 2011(99<sup>th</sup> EAC Meeting) and ToR letter was issued vide letter dated May 4, 2011. Additional ToR was recommended on 11-12<sup>th</sup> May 2011 (100<sup>th</sup> EAC Meeting) and additional ToRs were issued vide letter dated May 27, 2011. Extension of Validity of ToR was granted during 126<sup>th</sup> EAC Meeting dated 19-21<sup>st</sup> Sept. till 26/5/2014. Vide letter dated 29/4/2014 it was requested to extend the validity of ToR by 1 year, however, vide letter dated May 20, 2014 final EIA report was submitted.

The Committee recommended the proposal for Environmental Clearance with the following conditions in the Clearance letter for strict compliance by the project proponent.

- (i) Regarding requirement of clearance from NBWL, the Committee advised Ministry to examine the matter in view of the proposed ESZ Notification.
- (ii) The proposal will require prior clearance of NBWL if the project falls in the ESZ.
- (iii) SPV shall be responsible for the implementation of the project and the compliance of the EC conditions.
- (iv) No activity shall take place in the forest area. A resolution letter shall be submitted to the Ministry by the proponent in this regard.

- (v) No industrial activity should be undertaken in the CRZ area, except the activities which are permissible in the CRZ area under CRZ Notification 2011 after taking due clearance from the concerned authority. The matter related to CRZ issues shall be considered only when the recommendation from the State CZMA is received by the Ministry.
- (vi) Each industrial unit coming up in the industrial area has to seek separate environmental clearance individually after conducting the cumulative environmental impact assessment of the entire industrial area, for which the Environmental Clearance is accorded in terms of the advice of the Ministry to the meeting. (e.g the 19th industrial unit coming up in the industrial area has to conduct the cumulative EIA studies based on environmental impact caused by all 18 industrial units which are already set up in the area including their pollution load generated (solid, liquid, gas) in the entire industrial area.). However, the integration and cumulative assessment for the EIA will be routed through the GIDB/DMICDC or its successor entities and endorsed by them before presentation to the concerned environment clearance authority.
- (vii) Each industrial unit has to submit the layout map superimposed on the same master plan of the industrial area for which the Environmental Clearance is accorded.
- (viii) NOCs should be obtained for the abstraction of water from various sources and submitted to the Ministry before commencement of the work.
- (ix) Buffer of 200 meters should be observed from the forest area if it is existing within the proposed IR.
- (x) Green cover of minimum 33 % should be provided in all plots of the proposed Industrial area development.
- (xi) As per the provision mentioned at Para 7. III. Stage (3) Public Consultation, of EIA Notification 2006, 'all projects or activities located within industrial estates or parks (item 7(c) of the Schedule) approved by the concerned authorities, and which are not disallowed in such approvals' are exempted from the process of Public consultation.
- (xii) CETPs should be set up in a phased manner to treat the waste water generated from units which do not have individual ETPs
- (xiii) CETPs should be installed at appropriate location based on the requirement of the industrial area to treat the industrial waste water in a phased manner.
- (xiv) Efforts should be made to promote Zero Liquid Discharge for the industrial estate
- (xv) Municipal Solid Waste treatment and disposal facilities have to be established as per MSW (M&H) Notification, 2000. There shall be 100% collection and transportation arrangements for the Municipal Solid Waste for the entire industrial area. Wherever required transfer station has to be established to achieve 100% collection and transportation. The treatment and disposal facility should be based on the state of art technology. Each MSW treatment and disposal

- facility shall have scientific landfill site as defined under MSW Notification 2000 for final disposal of rejects. As far as possible the quantity of rejects should be very less.
- (xvi) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water.
- (xvii) As committed an Environment Management & Monitoring Cell should be constituted at the Node/city level SPV who will be responsible to monitor all the environmental parameters regularly
- (xviii) As committed every individual industry should have an Online Self Monitoring System for environmental parameters ( both for air and water) which will be displayed within their premises and will be simultaneously integrated with systems of respective SPCBs;
- (xix) Every industrial unit should submit a half yearly monitoring report to Regional Office of MoEF and MoEF in New Delhi with a copy to the node/city SPV:
- (xx) Permission from MoEF is required for the transfer of Environmental Clearance to the SPV.
- (xxi) Violation of any of the conditions of Environmental Clearance should lead to cancellation of permit/license of the individual industry/ and also may lead to cancellation of Environmental Clearance of the entire Industrial Area
- (xxii) Every individual unit shall comply with the Standards laid down by Central Pollution Control Board (CPCB)/ State Government;
- (xxiii) All emission sources in the Industrial area should be provided with adequate pollution control equipment and stack height as per CPCB / MoEF norms.
- (xxiv) Thick green buffers should be provided on either side of the highways and along the periphery of Industrial areas to reduce spread of dust and particulates.
- (xxv) All boilers or other similar sources should be provided with multicyclones or bag filters as required
- (xxvi) The part of the industrial area identified for hi-tech agriculture should be retained for agricultural purpose.
- (xxvii) Continuous online air quality monitoring should be undertaken by the PP or its successor entities at five vulnerable locations and as per the wind direction and displayed for the awareness and control. The data should be submitted with the compliance report to the SPCB and regional office of MoEF.
- (xxviii) Recycling of waste water should be employed for residential and industrial facilities and zero discharge will be followed within the industrial area.
- (xxix) Rain water should be harvested and recharging of waste water to ground should be carried out using the surface ponding method and also through recharging pit wherever possible after proper treatment.
- (xxx) All industrial operations should have acoustic enclosure and employ noise attenuation measures.
- (xxxi) As committed a well designed MRTS should be proposed wherever possible which will improve the connectivity and reduce load on road

traffic.

- (xxxii) Roads should be planned such that traffic jams do not occur so that air emissions and noise levels from vehicle movement are minimal.
- (xxxiii) As committed primary road network within industrial region should be provided with service lanes, parking areas, cycle paths and pedestrian walkways.
- (xxxiv) All residential areas will be within 500 meters of public transportation.
- (xxxv) All villages within the proposed corridor should be 100% covered with sewerage network followed by a state of art sewage treatment facility with arrangement for Operation and Maintenance of the facility. There should not be any open defecation. The treatment plants should run throughout the year and the effluent should be recycled for industrial/agricultural use.
- (xxxvi) Integrated Hazardous Waste Treatment and Disposal facility including incineration facility shall be established within the proposed Industrial Area.
- (xxxvii) The SPCB should monitor the Environmental Activity in the zone and should conduct regular and surprise checks as it deems fit and necessary;
- (xxxviii) Fool proof water management plan should be prepared.
- (xxxix) Roads networks and intersections with the Highway should be such that there should be a smooth movement of traffic without interruption to the highway traffic.
- (xl) Residential areas should be separated from industries and oriented away from the predominant wind direction
- (xli) As committed all existing villages should be retained and adequate area will be demarcated for the expansion of these villages.
- (xlii) As committed all red and orange category industrial development should be proposed within the dedicated industrial hub and away from the proposed residential areas and existing settlements.
- (xliii) As committed the green category industries should be located along the periphery of industrial area facing residential areas to act as an additional buffer for the polluting industries.
- (xliv) As committed the master plan roads of minimum 60.0 m width should be proposed along with 30.0 m wide green buffer along either side to effectively manage the traffic during the operation phase of the project.
- (xlv) As committed the building and plumbing code shall make dual plumbing mandatory to segregate the grey water and the wastewater at outlet source of generation using two pipe system
- (xlvi) As committed SCADA system should be implemented for monitoring leakages in the water and effluent conveyance system;
- (xlvii) SPV shall organize information forums with industry/commercial owners:
- (xlviii) As committed the existing canal infrastructure, if any, should be retained and the irrigation water shall not be diverted for any other activity other than agriculture;
- (xlix) As committed the management of water supply for integrated water

- supply management (IWSM) should be carried out using an information technology application oriented analysis, design and development.
- (l) The Integrated Water Supply management should include Leak and / or loss detection;
- (li) Optimum scheduling of water supply network operation; and Improved monitoring and control of network.
- (lii) A reliable technical department for maintenance and quality control should be established;
- (liii) As various industries will have a variety of types of industrial effluent, only industrial wastewater of a predefined quality will be permitted to enter the equalization tank of the effluent treatment plant. For any kind of specific treatment, industries will need to treat industrial wastewater in their own captive wastewater treatment facilities and discharge the wastewater of predefined quality into the collection system.
- (liv) Monitoring of ground water resources will be undertaken by GIDB/SPV at periodic intervals to identify any contaminations from leak or spills.
- (lv) The water supply and wastewater lines should be colour coded to differentiate:
- (lvi) A Rain Water Harvesting (RWH) Monitoring Cell should be created which will be responsible for monitoring safe recharge. Areas shall be identified for groundwater recharge and should be delineated;
- (lvii) Roof Top RWH should be made mandatory for all residential, commercial and industrial buildings and shall be monitored by the Cell.
- (lviii) CETPs should be installed at appropriate location based on the requirement of the industrial area to treat the industrial waste water in phased manner.
- (lix) The trees selected should be native to the extent possible with three levels of vegetation covers near industrial area (shrubs and evergreen trees). About 3-6 layers of trees will be maintained along the road.
- (lx) The project should ensure that use of low sulphur fuel (i.e. HSD)or other cleaner fuel in all the combustion systems
- (lxi) All manufacturing operations to be run as a closed system allowing permissible emissions to escape to the atmosphere
- (lxii) Chemical recover system to be installed at all plants to prevent any loss of chemical to atmosphere
- (lxiii) All the fugitive emissions from various sources should be collected through ducts or hoods and treated along with channelized emissions.
- (lxiv) Continuous monitoring equipment in the stack and suitable height of the stacks for appropriate dispersion should be ensured.
- (lxv) Well designed scrubbers will be provided for all point sources emissions to effectively remove effluent gases.
- (lxvi) Nitrogen oxide (NOx ) emissions will be reduced by using low-NOx burners and optimization of fuel usage.
- (lxvii) Preventive maintenance and equipment and materials management so as to minimize opportunities for evaporative losses, and other

releases of potentially toxic chemicals should be adhered to.

- (lxviii) All building construction activities should adopt environmental friendly and energy efficient techniques such as promotion of alternate source of energy, building architecture, recycled material for building construction, energy efficient appliances and lighting etc.
- (lxix) Clearance of Central Ground Water Authority should be obtained for extraction of ground water and recharge of ground water.

# 3.3 Finalization of TOR of development of Pithampur - Dhar- Mhow Investment Region in Madhya Pradesh by M/s Delhi Mumbai Industrial Corridor Development Corporation Limited [F.No.21-16/2011-IA.III]

The Pithampur-Dhar-Mhow Investment Region (PDMIR) is the node proposed in the Madhya Pradesh sub region as part of the DMIC project, being developed by DMICDC. The PDMIR lies in Depalpur, Indore, Mhow tehsils of Indore district and Dhar tehsil of Dhar district and comprises of an area of 372 km² which includes 20.56 km² of existing Pithampur Industrial Area developed by Madhya Pradesh Audyogik Kenda Vikas Nigam (MPAKVN). The IR spread across 75 villages and two Municipal Areas of Betma and Pithampur, including Pithampur Industrial Area (with total population of 127,375). Two reserve Forests, Betma Reserve Forest and Vindhya Reserve Forest are located in the North and South of the delineated region respectively. Gambhir and Chambal Rivers also traverse through PDMIR.

The proposed project shall be developed in three phases ending in 2021, 2031 and 2041. All existing villages are proposed to be retained and adequate area will be demarcated for the expansion of these villages. The Chambal and Gambhir regions have been demarcated to be preserved and developed as groundwater recharge zones.

The total water demand is estimated at about 571 MLD. The water shall be sourced from Narmada River and a proposed intake well near Khalghat village. The water from the intake shall be pumped to the water treatment plant near Gujri village and later after treatment it will be pumped again to the Clearwater reservoir (Balancing reservoir) at Betma Hills. The total sewage generation has been estimated to be about 171.73 MLD. The delineated region has been divided into six sewerage zones and each zone will have one Sewage Treatment Plant (STP) and Tertiary Treatment Plant (TTP). The total capacity of the six sewage treatment plants shall be 175 MLD. About 149 MLD of treated wastewater shall be available for recycling and shall be used to meet the horticulture and non-potable water requirements.

The power demand has been estimated to be 758 MW. Power will be sourced from 1000 MW power plant proposed at Guna as part of the DMIC project.

The municipal solid waste generation has been estimated as 1295 MT/day for the year 2041. A compost facility of about 180 TPD and a landfill in an area of about 53 Ha has been proposed. For hazardous waste management, it is proposed

to use the existing Treatment, Storage and Disposal Facility (TSDF) at Pithampur Industrial Area, Dhar district.

The delineated PDMIR comprises of 75 villages. The "abadi areas" (inhabited) within the delineated PDMIR have been demarcated as 'No Development Zones' and shall be retained. The project shall involve physical resettlement of only isolated households falling outside of abadi areas but within delineated PDMIR. Also, common property resources shall be excluded to the extent possible.

A Project level SPV will be responsible for preparation, Implementation and monitoring of Development Plan, Town Planning Schemes, Development Control Regulations and Building Byelaws. The Project SPV will Construct, support, monitor and facilitate development of Infrastructure. The terms and conditions of the environment clearance will also be implemented by the project level SPV. SPV will form Environment and Social Management Committee which will be responsible for environment protection and social safeguard in association with RO, MOEF and MPPCB.

The terms of reference (TOR) for the project was approved by Expert Appraisal Committee (EAC) of Ministry of Environment and Forests (MoEF) in the 99<sup>th</sup> EAC meeting held on 5<sup>th</sup>- 6<sup>th</sup> April, 2011 and was communicated on 4<sup>th</sup> May 2011. The additional site specific TOR was approved in the  $100^{th}$  EAC Meeting held on  $11^{th}$  –  $12^{th}$  May, 2011 and was communicated on  $27^{th}$  May 2011. Both the TORs were valid upto two years from the date of approval.

Baseline assessment for PDMIR and the study area extending upto 10 kms from the boundary of PDMIR was undertaken, including primary baseline monitoring during December 2011- March 2012. Primary ecological assessment was also carried out in the month of December 2011. As per the requirements of the approved TOR, an outline Disaster Management Plan and outline R&R Plan was prepared. The Draft EIA Report and application for Public Hearing was submitted to Madhya Pradesh Pollution Control Board (MPPCB) on 19th January 2013. Since the public hearing was due to be conducted by MPPCB, extension of validity of TOR was sought by DMICDC. The extension of TOR by one year was granted by the EAC in 126th EAC Meeting held on 19th – 21st Sept 2013.

However, due to the Lok Sabha elections held in the country in the month of May, the public hearing for the project could not be conducted by MPPCB. DMICDC is currently in the process of following up with MPPCB regarding the public hearing and therefore seeks extension of the TOR from the EAC.

ToR was approved by MoEF on 5-6<sup>th</sup> April 2011(99<sup>th</sup> EAC Meeting) and ToR letter was issued vide letter dated May 4, 2011. Additional ToR was recommended on  $11-12^{th}$  May 2011 ( $100^{th}$  EAC Meeting) and additional ToRs were issued vide letter dated May 27, 2011. It was decided that since the validity of ToR was already extended once, that is till 27/05/2014, further extension of validity for one more year is not possible. The proponent has to apply afresh to

obtain fresh ToRs.

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

- (i) Reasons for selecting the present site with details of alternative sites examined earlier and rejected/selected on merits with comparative statement.
- (ii) Describe the project site, geology, topography, climate, transport and connectivity, demographic aspects, socio cultural and economic aspects, villages, settlements and meteorological data.
- (iii) Examine details of land use around 10 km radius of the project site. Analysis should be made based on latest satellite imagery for land use with raw images.
- (iv) Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.
- (v) Examine the impact of proposed project on the nearest settlements.
- (vi) Examine baseline environmental quality along with projected incremental load due to the project.
- (vii) Environmental data to be considered in relation to the project development would be (a) land, (b) groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.
- (viii) Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area.
- (ix) Examine the details of the land use break-up for the proposed project.
- (x) Physical model studies should cover both with and without proposed development.
- (xi) What will be the project boundary area and study area for which the above data is to be furnished?
- (xii) Examine and submit details of Surface water quality.
- (xiii) Source of water vis-à-vis waste water to be generated along with treatment facilities to be proposed.
- (xiv) Examine the details of water requirement, use of treated waste water and prepare a water balance chart.
- (xv) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water. Examine details.
- (xvi) Examine soil characteristics and depth of ground water table for rainwater harvesting.
- (xvii) Categorization of area as per Dynamic Ground Water Resource Estimation 2011.
- (xviii) Examine the location of solid waste treatment and disposal sites around the airport to avoid any bird menace.
- (xix) Examine details of Solid waste generation treatment and its disposal.
- (xx) Since building construction activities are also included in the various project activities, the water requirement, sewage disposal and treatment, electrical load, energy conservation measures etc. should

- also be included in the EIA report.
- (xxi) Examine and submit details of use of solar energy and alternative source of energy to reduce the energy consumption.
- (xxii) DG sets are likely to be used during construction and operational phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.
- (xxiii) Examine road/rail connectivity to the project site and impact on the traffic due to the proposed project. Present and future traffic and transport facilities for the region should be analysed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.
- (xxiv) A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
- (xxv) Examine the details of transport of materials for construction which should include source and availability.
- (xxvi) Examine the details of National Highways/State Highways/ expressways falling along the corridor and the impact of the development on them.
- (xxvii) The evaluation of impacts should be analyzed depending upon the nature (positive and negative), duration (short term and long term) reversibility, and magnitude (negligible, low, medium, high), etc. of the impacts based the objective assessments.
- (xxviii) Submit a map demarcating HTL / LTL prepared through an authorized agency and superimposing the plan if the past project is falling under CRZ.
- (xxix) Submit recommendations of the SCZMA regarding the development of Industrial Corridor.
- (xxx) Examine and submit the details of Noise modeling studies and mitigative measures.
- (xxxi) Examine noise levels present and future with noise abatement measures.
- (xxxii) Noise pollution has always been a major concern for Airport projects during the operational phase. It is suggested that noise monitoring should be carried out at critical locations at the surrounding areas may be incorporated in environmental monitoring programme during the whole operational phase of the project.
- (xxxiii) Natural and artificial noise barriers may be considered for critical locations.
- (xxxiv) A thick green belt should be planned all around the project site to mitigate noise and vibrations to the nearby settlements. The identification of species/plants should be made based on the botanical studies.
- (xxxv) Landscape plan, green belts and open spaces may be described.
- (xxxvi) Examine the details of afforestation measures indicating land and financial outlay.
- (xxxvii) Identify, predict and assess the environmental and sociological impacts on account of the project.
- (xxxviii) A detailed description with costs estimates of CSR should be

incorporated in the EIA / EMP report.

- (xxxix) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
- (xl) Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
- (xli) R&R details shall be submitted.
- (xlii) The General guidelines as per the Annexure –II to this Minutes shall also be considered for preparation of EIA/EMP.

Public hearing to be conducted after finalization of Additional ToR 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 draft EIA/EMP report should be prepared as per the above Terms of Reference and should be submitted to the Ministry as per the EIA Notification, 2006.

# 3.4 Environmental Clearance for development of Manesar - Bawal Investment Region in Haryana by M/s Delhi Mumbai Industrial Corridor Development Corporation Limited [F.No.21-19/2011- IA.III]

The Government of India (GoI) intends to establish a Dedicated Freight Corridor (DFC) between Delhi and Mumbai covering a total length of 1483 km and passing through six states. The GoI envisions developing Delhi Mumbai Industrial Corridor (DMIC) project in various phases in an influence zone of around 150-200 km on either side of the DFC.

Manesar Bawal Investment Region is the node proposed in the Haryana sub region. The project is being developed by Delhi Mumbai Industrial Corridor Development Corporation Limited (DMICDC) with Haryana State Industrial Infrastructure Development Corporation (HSIIDC) as the nodal agency.

This proposal is to obtain environment clearance for the project at a master planning level and it is understood that the individual developments within MBIR will obtain individual environmental clearances as per requirements.

The MBIR lies in the Rewari District and comprises of an area of 402.31 km² which includes 152 km² of area notified under Bawal Draft Development Plan. The MBIR comprises of 40 km 2 of existing urbanized area which also includes Bawal Industrial Township. The rest of the delineated region includes rural hinterland mainly comprising of agricultural lands, village settlements and scrub lands. The MBIR primarily covers the southern portion of Rewari district of Haryana, extending up to Rajasthan Border. The region has been planned as a mixed land use development, comprising of residential, commercial and industrial land uses.

The proposed MBIR is located to the south of Rewari town and to south west of Dharuhera town. The MBIR lies on the southern edge of Haryana bordering Rajasthan and follows the Haryana - Rajasthan state border on all sides except for the northern boundary. The delineated MBIR covers an area of 402.312 km 2 comprising of 138 villages and two towns.

Another DMIC node, Khushkhera-Bhiwadi-Neemrana Investment Region (KBNIR) is planned along the southern boundary of the proposed project. The National Highway – 8 forms the central spine of the project.

The concept master plan for MBIR has been developed considering the existing Bawal Industrial Area as the growth centre. The industries have been concentrated along the DFC corridor and the siting of industries has been done considering the predominant wind direction proposed residential areas and existing settlements. A 350 m wide seamless buffer has been provided between the residential and industrial land uses and a 1 km wide green buffer has been proposed along the Haryana Rajasthan border considering the development of KBNIR.

All existing villages are proposed to be retained and adequate area will be demarcated for the expansion of these villages. No developments have been proposed along the Aravallis and the forest lands including Jhabua R.F and these shall be demarcated as preservation areas. The catchment of Sahibi River and the existing water bodies in the area will also be conserved.

About 28 % of the total area has been demarcated for residential land use, 17 % for industrial land use, 11 % for transportation, 3 % for commercial, 2 % for public/semi-public and 1 % for public utilities. About 32 % of the total area has been earmarked for open spaces and recreation. About 6 % of the total area comprising of forest areas, Aravallis, kikar land, catchment area of Sahibi and existing ponds shall be preserved. The industrial mix proposed for MBIR shall include clusters comprising of engineering, technology, future technology, consumer products and service sectors. The proposed project shall be developed in three phases ending in 2019, 2029 and 2039 and shall comprise of 88 km², 154 km² and 160 km² area.

water demand for the region has been estimated to be about 835 MLD. About 465 MLD of recycled water shall be used and the potable water demand of 370 MLD shall be sourced from the excess flows of Yamuna River. Excess flows of Yamuna shall be tapped either at the Tajewala Headworks or Hathnikund barrage and shall be conveyed to MBIR region using existing and new canal network along with six artificial storage reservoirs. The total wastewater generation from the region has been estimated to be about 620 MLD. The wastewater generated shall be treated up to tertiary level in Sewage Treatment Plants proposed within MBIR and shall be recycled using a city level dual plumbing line. Rainwater harvesting will be made mandatory through Development Control Regulations, for all new constructions in MBIR on plots having an area greater than 300 m 2 in MBIR.

Sahibi River is an ephemeral river which passes through MBIR and has last

experienced floods in the year 1977. In order to moderate the floods, a barrage was constructed in Massani village in the year 1977 for flow moderation and irrigation. At present, the river goes blind after Massani barrage and cannot be traced on ground. As part of Sahibi River basin management, desilting shall be carried out to restore the designed capacity and sub surface dykes along both the banks shall be provided. Ranney well or Jack well shall be constructed to pump water from the Sahibi bed using a pumping station.

The power demand for MBIR has been estimated to be 4900 MVA and will be sourced from a dedicated power plant outside MBIR. It is proposed that renewable energy certificates shall be purchased and solar assisted heating shall be made mandatory for all institutional buildings. Also, the nodal agency for development of MBIR shall enforce the Energy Conservation Building Codes developed by Bureau of Energy Efficiency.

The municipal solid waste generation from the proposed region has been estimated as 1715 MT/day for the year 2039. A waste collection and transportation system has been designed in compliance with the Municipal Solid Waste Management Rules, 2000. As part of waste processing, compost facility of 500 MT/day and Material Recovery Facility have been proposed. A landfill of 350 TPD capacity has also been proposed in an area of 42 Ha. For hazardous waste management, it is proposed to use the existing Treatment, Storage and Disposal Facility (TSDF) at Pali district, Haryana. The biomedical waste and e-waste generated shall be disposed off in compliance with applicable rules.

A well designed network of urban roads (arterial, sub- arterial and collector roads) has been proposed for MBIR. Arterial roads proposed shall be 6/8 lane divided roads with a RoW of 80 m with additional green belt. Sub-arterial and collector roads will be 6 lane and 4 lane roads with a Row of 60 m. Bawal Master Plan Peripheral Road with a RoW of 100 m and a MBIR peripheral road of 60 m has been proposed. In order to encourage public transport, a BRT corridor is proposed along 100 km of the proposed road length. Inter City Bus Fleet along with bus depots have also been planned for the region. The site is also well connected by rail with Rewari Alwar and Rewari Dabla link. The Greenfield alignment of the DFC will also pass through Rewari district. The DFC junction is also proposed in Rewari district with a multi modal logistics hub. A Mass Rapid Transit System (MRTS) is also proposed between Gurgaon and Bawal.

A green belt shall be developed along the periphery of the Manesar Bawal Investment Region to act as a physical demarcation for the planned region. A 350 m wide seamless green buffer has been provided between residential and industrial land uses. Another invement region under DMIC, Khushkhera Bhiwadi Neemrana Investment Region has been conceived in the state of Rajasthan and will be abutting the MBIR. A 1 km green buffer has been provided along the Haryana Rajasthan border. The land required for MBIR comprises of partly of land parcels already in possession of HSIIDC and remaining will be private land to be acquired as per applicable laws. The delineated MBIR comprises of 138 villages and two towns. The "abadi areas" (inhabited) within the delineated MBIR have been demarcated as 'No Development Zones' and shall be retained. The project

shall involve physical resettlement of only isolated households falling outside of abadi areas but within delineated MBIR. Also, common property resources shall be excluded to the extent possible.

The extent of land loss after delineation of adequate land around each village will only be established after the process of acquisition is firmed up. The land acquisition process will happen in phases corresponding the phases of development proposed, hence it will be difficult to establish the number of land losers and titleholders at this stage of the project. The land acquisition for the industrial area shall be done by Town and Planning Country Department. The land for residential developments shall be acquired by HUDA and private parties. Land for public infrastructure shall be acquired by HUDA and HSIIDC. A Resettlement and Rehabilitation entitlement matrix has been developed for the project in accordance with the provisions of the applicable legal requirements. .The compensation amount shall be worked out based on criteria such as prevalent market rates, loss of structures, loss of agricultural land etc.

ToR was approved by MoEF on 5-6<sup>th</sup> April 2011(99<sup>th</sup> EAC Meeting) and ToR letter was issued vide letter dated May 4, 2011. Additional ToR was recommended on 11-12<sup>th</sup> May 2011 (100<sup>th</sup> EAC Meeting) and additional ToRs were issued vide letter dated May 27, 2011. Extension of Validity of ToR was granted during 126<sup>th</sup> EAC Meeting dated 19-21<sup>st</sup> Sept.. Public hearing conducted on 30<sup>th</sup> October 2013 HSIIDC, Bawal (District Rewari). Final EIA report submitted for consideration of EC to MoEF-8<sup>th</sup> March 2014. Matter was considered in the 133<sup>rd</sup> EAC meeting and the Committee recommended to defer the proposal with a request for submission of additional information.

The proponent has submitted the requisite information for the examination of the EAC.

The Committee recommended the proposal for Environmental Clearance with the following conditions in the Clearance letter for strict compliance by the project proponent.

- (i) As committed a 350 m wide seamless buffer should be provided between the residential and industrial land uses and a 1 km wide green buffer should be proposed along the Haryana Rajasthan border considering the development of KBNIR.
- (ii) No developments should take place along the notified areas under Aravallis and the forest lands and these shall be demarcated as preservation areas; if required, requisite permission should be obtained under the Aravalli notification
- (iii) The catchment of Sahibi River and the existing water bodies in the area should be conserved.
- (iv) As committed the Industrial areas should be consolidated within a central location built upon the existing Bawal Industrial area (BIA) to confine the industrial activities within an area with existing similar industries
- (v) As committed the industrial areas should be located in such a way

- that the major cities/towns such as Rewari, Dharuhera and Neemrana are located in the crosswind or upwind directions and will therefore not be subjected to any major impacts from the industrial development.
- (vi) In order to abstract stored raw water from Sahibi basin, with proper storage measures, Ranney well or Jack well should be constructed to pump clear and silt-free water from the bed with proper filtering by using a pumping station. Clearance of Central Ground Water Authority should be obtained for extraction of ground water and recharge of ground water.
- (vii) Permission should be obtained from the irrigation department for the withdrawal of water from river Yamuna.
- (viii) As committed a MRTS should be proposed between Gurgaon and Bawal which will improve the connectivity and reduce load on road traffic.
- (ix) Each industrial unit coming up in the industrial area has to seek separate environmental clearance individually after conducting the cumulative environmental impact assessment of the entire industrial area, for which the Environmental Clearance is accorded in terms of the advice of the Ministry to the meeting. (e.g the 19th industrial unit coming up in the industrial area has to conduct the cumulative EIA studies based on environmental impact caused by all 18 industrial units which are already set up in the area including their pollution load generated (solid, liquid, gas) in the entire industrial area.). However, the integration and cumulative assessment for the EIA will be routed through the DMICDC or its successor entities and endorsed by them before presentation to the concerned environment clearance authority.
- (x) Each industrial unit has to submit the layout map superimposed on the same master plan of the industrial area for which the Environmental Clearance is accorded.
- (xi) NOCs should be obtained for the abstraction of water from various sources and submitted to the Ministry before commencement of the work.
- (xii) Buffer of 200 meters should be observed from the forest area if it is existing within the proposed IR.
- (xiii) Green cover of minimum 33 % should be provided in all plots of the proposed Industrial area development.
- (xiv) As per the provision mentioned at Para 7. III. Stage (3) Public Consultation, of EIA Notification 2006, 'all projects or activities located within industrial estates or parks (item 7(c) of the Schedule) approved by the concerned authorities, and which are not disallowed in such approvals' are exempted from the process of Public consultation.
- (xv) Efforts should be made to promote Zero Liquid Discharge for the industrial estate.
- (xvi) CETPs should be set up in a phased manner to treat the waste water generated from unit which do not have individual ETPs
- (xvii) CETPs should be installed at appropriate location based on the

- requirement of the industrial area to treat the industrial waste water in phased manner.
- (xviii) Municipal Solid Waste treatment and disposal facilities have to be established as per MSW (M&H) Notification, 2000. There shall be 100% collection and transportation arrangements for the Municipal Solid Waste for the entire industrial area. Wherever required transfer station has to be established to achieve 100% collection and transportation. The treatment and disposal facility should be based on the state of art technology. Each MSW treatment and disposal facility shall have scientific landfill site as defined under MSW Notification 2000 for final disposal of rejects. As far as possible the quantity of rejects should be very less.
- (xix) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water.
- (xx) As committed an Environment Management & Monitoring Cell should be constituted at the Node/city level SPV who will be responsible to monitor all the environmental parameters regularly
- (xxi) As committed every individual industry should have an Online Self Monitoring System for environmental parameters ( both for air and water) which will be displayed within their premises and will be simultaneously integrated with systems of respective SPCBs;
- (xxii) Every industrial unit should submit a half yearly monitoring report to Regional Office of MoEF and MoEF in New Delhi with a copy to the node/city SPV:
- (xxiii) Permission from MoEF is required for the transfer of Environmental Clearance to the SPV.
- (xxiv) Violation of any of the conditions of Environmental Clearance should lead to cancellation of permit/license of the individual industry/ and also the cancellation of Environmental Clearance of the entire Industrial Area
- (xxv) Every individual unit shall comply with the Standards laid down by Central Pollution Control Board (CPCB)/ State Government;
- (xxvi) All emission sources in the Industrial should be provided with adequate pollution control equipment and stack height as per CPCB / MoEF norms.
- (xxvii) Thick green buffers should be provided on either side of the highways and along the periphery of Industrial areas to reduce spread of dust and particulates.
- (xxviii) All boilers or other similar sources should be provided with multicyclones or bag filters as required
- (xxix) The part of the industrial area identified for hi-tech agriculture should be retained for agricultural purpose.
- (xxx) Continuous online air quality monitoring should be undertaken by the PP or its successor entities at five vulnerable locations and as per the wind direction and displayed for the awareness and control. The data should be submitted with the compliance report to the SPCB and regional office of MoEF.
- (xxxi) Recycling of waste water should be employed for residential and

- industrial facilities and zero discharge will be followed within the industrial area.
- (xxxii) Rain water should be harvested and recharging of waste water to ground water should be carried out using the surface ponding method and also through recharging pit wherever possible after proper treatment.
- (xxxiii) All industrial operations should have acoustic enclosure and employ noise attenuation measures.
- (xxxiv) As committed a MRTS should be proposed wherever possible which will improve the connectivity and reduce load on road traffic.
- (xxxv) Roads should be planned such that traffic jams not occur and Noise from increased vehicle movement will be reduced.
- (xxxvi) As committed primary road network within industrial region should be provided with service lanes, parking areas, cycle paths and pedestrian walkways.
- (xxxvii) All residential areas will be within 500 meters of public transportation.
- (xxxviii) All villages within the proposed corridor should be 100% covered with sewerage network followed by a state of art sewage treatment facility with arrangement for Operation and Maintenance of the facility. There should not be any open defecation. The treatment plants should run throughout the year and the effluent should be recycled for industrial/agricultural use.
- (xxxix) Integrated Hazardous Waste Treatment and Disposal facility including incineration facility shall be established within the proposed Industrial Area.
- (xl) The SPCB should monitor the Environmental Activity in the zone and should conduct regular and surprise checks as it deems fit and necessary;
- (xli) Fool proof water management plan should be prepared.
- (xlii) Roads networks and intersections with the Highway should be such that there should be a smooth movement of traffic without interruption to the highway traffic.
- (xliii) Residential areas should be separated from industries and oriented away from the predominant wind direction
- (xliv) As committed all existing villages should be retained and adequate area will be demarcated for the expansion of these villages.
- (xlv) As committed all red and orange category industrial development should be proposed within the dedicated industrial hub and away from the proposed residential areas and existing settlements.
- (xlvi) As committed the green category industries should be located along the periphery of industrial area facing residential areas to act as an additional buffer for the polluting industries.
- (xlvii) As committed the master plan roads of minimum 60.0 m width should be proposed along with 30.0 m wide green buffer along either side to effectively manage the traffic during the operation phase of the project.
- (xlviii) As committed the building and plumbing code shall make dual plumbing mandatory to segregate the grey water and the wastewater

- at outlet source of generation using two pipe system
- (xlix) As committed SCADA system should be implemented for monitoring leakages in the water conveyance system;
- (l) SPV shall organise information forums with industry/commercial owners:
- (li) As committed the existing canal infrastructure, if any, should be retained and the irrigation water (Available for about eight days in a month) shall not be diverted for any other activity other than agriculture;
- (lii) As committed the management of water supply for integrated water supply management system (IWSMS) should be done using an information technology application oriented analysis, design and development by the water distribution company;
- (liii) The Integrated Water Supply management should include:
- (liv) Leak and / or loss detection;
- (lv) Optimum scheduling of water supply network operation; and
- (lvi) Improved monitoring and control of network.
- (lvii) A reliable technical department for maintenance and quality control should be established;
- (lviii) As various industries will have a variety of types of industrial effluent, only industrial wastewater of a predefined quality will be permitted to enter the equalization tank of the effluent treatment plant. For any kind of specific treatment, industries will need to treat industrial wastewater in their own captive wastewater treatment facilities and discharge the wastewater of predefined quality into the collection system.
- (lix) Monitoring of ground water resources will be undertaken by HSIIDC/SPV at periodic intervals to identify any contaminations from leak or spills.
- (lx) The water supply and wastewater lines should be colour coded to differentiate:
- (lxi) A Rain Water Harvesting (RWH) Monitoring Cell should be created which will be responsible for monitoring safe recharge. Areas shall be identified for groundwater recharge and should be delineated;
- (lxii) Roof Top RWH should be made mandatory for all residential, commercial and industrial buildings and shall be monitored by the Cell.
- (lxiii) CETPs should be installed at appropriate location based on the requirement of the industrial area to treat the industrial waste water in phased manner.
- (lxiv) The trees selected should be native to the extent possible with three levels of vegetation covers near industrial area (shrubs and evergreen trees). About 3-6 layers of trees will be maintained along the road.
- (lxv) The prevailing wind direction as per long term trends should be observed. The industrial areas should be positioned in such a way that the residential areas are located in the crosswind direction and should therefore not be subject to any major impacts from the industrial development.
- (lxvi) The project should ensure that use of low sulphur fuel (i.e. HSD)or

- other cleaner fuel in all the combustion systems
- (lxvii) All manufacturing operations to be run as a closed system, allowing little or no emissions to escape to the atmosphere
- (lxviii) Chemical recover system to be installed at all plants to prevent any loss of chemical to atmosphere
- (lxix) All the fugitive emissions from various sources should be collected through ducts or hoods and treated along with channelized emissions.
- (lxx) Continuous monitoring equipment in the stack and suitable height of the stacks for appropriate dispersion should be ensured.
- (lxxi) Scrubbers will be provided for all point sources emissions to effectively remove effluent gases.
- (lxxii) Nitrogen oxide (NOx ) emissions will be reduced by using low-NOx burners and optimization of fuel usage.
- (lxxiii) Preventive maintenance and equipment and materials management so as to minimize opportunities for evaporative losses, and other releases of potentially toxic chemicals should be adhered to.
- (lxxiv) All building construction activities should adopt environmental friendly and energy efficient techniques such as promotion of alternate source of energy, building architecture, recycled material for building construction, energy efficient appliances and lighting etc.

#### 3.5 Environmental Clearance for development of Khuskhera- Bhiwadi-Neemrana Investment region in Rajasthan by M/s Delhi Mumbai Industrial Corridor Development Corporation Limited. [F.No.21-18/2011-IA.III

The Government of India (GoI) intends to establish a Dedicated Freight Corridor (DFC) between Delhi and Mumbai covering a total length of 1483 km and passing through six states. The GoI envisions developing Delhi Mumbai Industrial Corridor (DMIC) project in various phases in an influence zone of around 150-200 km on either side of the DFC.

Khushkhera Bhiwadi Neemrana Investment Region (KBNIR) is the node proposed in the Rajasthan sub region. The project is being developed by Delhi Mumbai Industrial Corridor Development Corporation Limited (DMICDC) with Bureau of Investment Promotion (BIP), Government of Rajasthan as the nodal agency for KBNIR.

This proposal is to obtain environment clearance for the project at a master planning level and it is understood that the individual developments within KBNIR will obtain individual environmental clearances as per requirements.

KBNIR has been planned as an expansion of Shahjahanpur Industrial Area and Town. The Investment Region lies in Alwar district and comprises of an area of 165.6 km2 spread across 42 villages. The closest urban centres are Rewari (Haryana) and Bhiwadi (Rajasthan). The region largely comprises of rural settings and the master planning envisages development of the region as a mixed land use development comprising of residential, commercial and industrial land uses.

The region delineated for the KBNIR is located in Behror and Mandawar tehsils of

Alwar district. The north boundary of the Investment Region is located along the Rajasthan- Haryana state border. The western boundary of the site is determined by the Aravalli range of mountains and the Neemrana industrial town. The existing Shahjahanpur industrial area is located at the centre of delineated KBNIR along NH-8.

The Manesar Bawal Investment Region (MBIR), another node being developed under the DMIC project, located within the Rewari district of Haryana adjoins the KBN region of Rajasthan.

The concept master plan for the proposed KBNIR has been designed to develop a Compact City with mixed activities and land uses to minimize travel distances and create a synergetic urban atmosphere. The industrial areas have been planned to have better access to the road and rail links and away from residential areas. The existing settlements have been conserved in the concept master plan and sufficient area will be left for the expansion of the settlements in the future.

A 250m wide river conservation zone is proposed along the Sahibi River. A 500 m 'no build' zone has been demarcated around the NH-8 to reduce the impacts of the transportation corridor. Arterial roads of 80 m and 60 m Right of Way (ROW) have been proposed to effectively manage the traffic during the operation phase of the project.

About 14 % of the total area has been demarcated for residential land use, 17 % for industrial land use, 11 % for transportation, 8 % for knowledge city, 2 % for commercial and 1 % for public utilities. About 5 % of the total area has been earmarked as natural conservation area. High tech agriculture is also proposed in about 9 % of the area and an agriculture zone along the catchment of Sahibi River has been defined.

About 10 % of the total area comprising of forest areas, Aravallis, catchment area of Sahibi and existing ponds shall be preserved. The existing settlements constitute about 5 % of the total area and about 11 % of the KBNIR region has been demarcated for development of abadi area.

The industrial mix proposed for KBNIR shall include knowledge based industries such as chemicals, metal products, electrical equipment's, consumer oriented industries such as textiles and weaving and medium industry clusters with activities such as paper products, rubber and plastic products, glass products and non-metallic minerals, iron and steel, and non-ferrous metals and precious products. The proposed project shall be developed in three phases ending in 2020, 2030 and 2040 and shall comprise of 47.80 km², 44.38 km² and 73.42 km² area.

The water demand for the region has been estimated to be about 380 MLD and shall be sourced from groundwater for the first phase. Subsequent developments shall be taken up only after an assured external supply of water is made available for the region. The Delhi Jal Board has agreed to share 40-50MGD (180-225MLD) of treated water from Okhla Treatment Plant for KBNIR. A Committee on Water

has been constituted by the Prime Minister's Office under the chairmanship of Secretary, Ministry of Water Resources to discuss the modalities for water availability for KBNIR in Rajasthan and the Additional Chief Secretary, Water Resources has expressed his full support to ensure water availability for KBNIR. The wastewater generation from the project is expected to be about 265 MLD and will be treated in sewage/effluent treatment plants. The investment region shall be divided into six drainage zones clubbed into three phases of development. The treated wastewater shall be used for artificial recharge of aquifers using surface ponding. A well planned storm water drainage system has been planned for the Investment Region and an area of 142 acres shall be demarcated for construction of recharge pits.

The peak power requirement for the KBNIR has been estimated to be about 4,404 MW and will be sourced from a dedicated power plant outside KBNIR. It is proposed that renewable energy certificates shall be purchased and solar assisted heating shall be made mandatory for all institutional buildings. Also, the nodal agency for development of KBNIR shall enforce the Energy Conservation Building Codes developed by Bureau of Energy Efficiency. About 170 MW of Solar power shall be developed in the investment region by developing solar plants along NH-8 and rooftops of individual developments.

The average municipal solid waste generation from the proposed region has been estimated as 612 MT/day for the year 2040. A waste collection and transportation system has been designed in compliance with the Municipal Solid Waste Management Rules, 2000. Seven transfer stations have been proposed for the Investment Region. It is proposed that for the KBNIR Static Aerated Pile (ASP) technology shall be adopted starting from 2020 and over a period of 15 years. Compost plants shall be developed in three phases of 200 MT/day each. It is proposed to set up a mulching unit for treatment of horticultural waste. The unit shall comprise of 2 mulching machines/wood chippers of 200 – 500 kg/hr capacity and a vibratory screen of 4 mm of 500 kg/hr.

Four sites have been identified for the treatment and disposal of waste. These include site near railway station in Ajarka village in South East part of KBNIR, in Village Bhanot, in Village Shiryani on the other side of the hill in North West of KBNIR and in Village Googlekota in North West of KBNIR. The biomedical waste and e-waste generated shall be disposed off in compliance with applicable rules. Traffic projections have been carried out for three categories of transport: from the region to the surrounding cities, from the surrounding cities to the region and internal trips. A well designed network of urban roads ( arterial, and urban collector roads) have been proposed for KBNIR. Arterial roads proposed shall be with a RoW of 80 m with additional green belt. A road link shall be provided to link Bhiwadi to Neemrana. Buses, regional buses, city buses and a connection with the Delhi - Alwar RRTS station for inter modal passenger transfers shall be provided. Apart from functions of intermodal passenger transfers, integrated passenger hub would also provide office and commercial spaces for various government agencies and private companies involved in the development of the KBNIR.

A 1 km green buffer has been proposed along the Haryana Rajasthan border as per the MBIR master plan. A green spine of 500 m on either side of NH-8 has been proposed.

The land required for KBNIR comprises of partly of land parcels already in possession of RIICO/BIP and remaining will be private land to be acquired under the Land Acquisition Act, 1894. The delineated KBNIR comprises of 42 villages. The "abadi areas" (inhabited) within the delineated KBNIR have been demarcated as 'No Development Zones' and shall be retained. The project shall involve physical resettlement of only isolated households falling outside of abadi areas but within delineated KBNIR. Also, common property resources shall be excluded to the extent possible.

The first phase of the KBNIR builds on the planned and on-going developments around Shajahanpur and along the NH8. For Phase 1 of the Investment Region, the State Government has issued Section 4 for phase 1 A of the proposed development on 3rd April 2012 for an area of 15.06 sq.kms. Further, Section 5a had been issued. Public hearing was conducted and Land Acquisition Officer (LAO) has submitted the final report to State Government. The State Government has issued Section 6 for 1425.36 hectare of land on 13th March 2013. A Resettlement and Rehabilitation entitlement matrix has been developed for the project in accordance with the provisions of the National Resettlement and Rehabilitation Policy. The compensation amount shall be worked out based on criteria such as prevalent market rates, loss of structures, and loss of agricultural land.

ToR was approved by MoEF on 5-6<sup>th</sup> April 2011(99<sup>th</sup> EAC Meeting) and ToR letter was issued vide letter dated May 4, 2011. Additional ToR was recommended on 11-12<sup>th</sup> May 2011 (100<sup>th</sup> EAC Meeting) and additional ToRs were issued vide letter dated May 27, 2011. Extension of Validity of ToR was granted during 126<sup>th</sup> EAC Meeting dated 19-21<sup>st</sup> Sept. 2013 Public hearing conducted on 5<sup>th</sup> June 2013 at EPIP Neemrana (Distt. Alwar) final EIA report submitted for consideration of EC to MoEF on 8<sup>th</sup> March 2014. Matter was considered in the 133<sup>rd</sup> EAC meeting and the Committee recommended to defer the proposal with a request for submission of additional information.

The proponent has submitted the requisite information for the examination of the EAC.

The Committee recommended the proposal for Environmental Clearance with the following conditions in the Clearance letter for strict compliance by the project proponent:

- (i) As committed water requirement should be met through the excess flow of JLN canal and no ground water will be extracted for industrial use.
- (ii) A 250m wide river conservation zone will be put in place along the Sahibi and Sota Nalla river system. Greenbelt and green buffers should be developed to improve the landscape
- (iii) All components proposed under various phases of the project will be

- located away from the notified areas under Aravallis; if required, requisite permission should be obtained under the Aravalli notification.
- (iv) As committed Hill Conservation plan should be implemented to conserve an area of minimum 50m from the foothills.
- (v) As committed a green spine of 200-500 m on either side of NH-8 should be provided whereas 100 to 200 m buffer zone should be reserved on both sides of the main motorways and traffic arteries.
- (vi) Each industrial unit coming up in the industrial area has to seek separate environmental clearance individually after conducting the cumulative environmental impact assessment of the entire industrial area, for which the Environmental Clearance is accorded in terms of the advice of the Ministry to the meeting. (e.g the 19th industrial unit coming up in the industrial area has to conduct the cumulative EIA studies based on environmental impact caused by all 18 industrial units which are already set up in the area including their pollution load generated (solid, liquid, gas) in the entire industrial area.). However, the integration and cumulative assessment for the EIA will be routed through the DMICDC or its successor entities and endorsed by them before presentation to the concerned environment clearance authority.
- (vii) Each industrial unit has to submit the layout map superimposed on the same master plan of the industrial area for which the Environmental Clearance is accorded.
- (viii) The PP should keep MoEF informed of the outcome of the Committee on water constituted by PMO to ensure that project development proceeds in accordance with the required water balance.
- (ix) NOCs should be obtained for the abstraction of water from various sources and submitted to the Ministry before commencement of the work.
- (x) Buffer of 200 meters should be observed from the forest area if it is existing within the proposed IR.
- (xi) Green cover of minimum 33 % should be provided in all plots of the proposed Industrial area development.
- (xii) As per the provision mentioned at Para 7. III. Stage (3) Public Consultation, of EIA Notification 2006, 'all projects or activities located within industrial estates or parks (item 7(c) of the Schedule) approved by the concerned authorities, and which are not disallowed in such approvals' are exempted from the process of Public consultation.
- (xiii) Efforts should be made to promote Zero Liquid Discharge for the industrial estate
- (xiv) CETPs should be set up in a phased manner to treat the waste water generated from unit which do not have individual ETPs
- (xv) CETPs should be installed at appropriate location based on the requirement of the industrial area to treat the industrial waste water in phased manner.
- (xvi) Municipal Solid Waste treatment and disposal facilities have to be established as per MSW (M&H) Notification, 2000. There shall be

100% collection and transportation arrangements for the Municipal Solid Waste for the entire industrial area. Wherever required transfer station has to be established to achieve 100% collection and transportation. The treatment and disposal facility should be based on the state of art technology. Each MSW treatment and disposal facility shall have scientific landfill site as defined under MSW Notification 2000 for final disposal of rejects. As far as possible the quantity of rejects should be very less.

- (xvii) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water.
- (xviii) As committed an Environment Management & Monitoring Cell should be constituted at the Node/city level SPV who will be responsible to monitor all the environmental parameters regularly
- (xix) As committed every individual industry should have an Online Self Monitoring System for environmental parameters ( both for air and water) which will be displayed within their premises and will be simultaneously integrated with systems of respective SPCBs;
- (xx) Every industrial unit should submit a half yearly monitoring report to Regional Office of MoEF and MoEF in New Delhi with a copy to the node/city SPV;
- (xxi) Permission from MoEF is required for the transfer of Environmental Clearance to the SPV.
- (xxii) Violation of any of the conditions of Environmental Clearance should lead to cancellation of permit/license of the individual industry/ and also the cancellation of Environmental Clearance of the entire Industrial Area
- (xxiii) Every individual unit shall comply with the Standards laid down by Central Pollution Control Board (CPCB)/ State Government;
- (xxiv) All emission sources in the Industrial should be provided with adequate pollution control equipment and stack height as per CPCB / MoEF norms.
- (xxv) Thick green buffers should be provided on either side of the highways and along the periphery of Industrial areas to reduce spread of dust and particulates.
- (xxvi) All boilers or other similar sources should be provided with multicyclones or bag filters as required
- (xxvii) The part of the industrial area identified for hi-tech agriculture should be retained for agricultural purpose.
- (xxviii) Continuous air monitoring should be undertaken at five vulnerable locations and as per the wind direction and displayed for the awareness and control. The data should be submitted with the compliance report.
- (xxix) Recycling of waste water should be employed for residential and industrial facilities and zero discharge will be followed within the industrial area.
- (xxx) Rain water should be harvested and recharging of waste water to ground water should be carried out using the surface ponding method and also through recharging pit wherever possible.

- (xxxi) All industrial operations should have acoustic enclosure and employ noise attenuation measures.
- (xxxii) As committed a MRTS should be proposed wherever possible which will improve the connectivity and reduce load on road traffic.
- (xxxiii) Roads should be planned such that traffic jams not occur and Noise from increased vehicle movement will be reduced.
- (xxxiv) As committed primary road network within industrial region should be provided with service lanes, parking areas, cycle paths and pedestrian walkways.
- (xxxv) All residential areas will be within 500 meters of public transportation.
- (xxxvi) All villages within the proposed corridor should be 100% covered with sewerage network followed by a state of art sewage treatment facility with arrangement for Operation and Maintenance of the facility. There should not be any open defecation. The treatment plants should run throughout the year and the effluent should be recycled for industrial/agricultural use.
- (xxxvii) Integrated Hazardous Waste Treatment and Disposal facility including incineration facility shall be established within the proposed Industrial Area.
- (xxxviii) The SPCB should monitor the Environmental Activity in the zone and should conduct regular and surprise checks as it deems fit and necessary;
- (xxxix) Full proof water management plan should be prepared.
- (xl) Roads networks and intersections with the Highway should be such that there should be a smooth movement of traffic without interruption to the highway traffic.
- (xli) Residential areas should be separated from industries and oriented away from the predominant wind direction
- (xlii) As committed all existing villages should be retained and adequate area will be demarcated for the expansion of these villages.
- (xliii) As committed all red and orange category industrial development should be proposed within the dedicated industrial hub and away from the proposed residential areas and existing settlements.
- (xliv) As committed the green category industries should be located along the periphery of industrial area facing residential areas to act as an additional buffer for the polluting industries.
- (xlv) As committed the master plan roads of minimum 60.0 m width should be proposed along with 30.0 m wide green buffer along either side to effectively manage the traffic during the operation phase of the project.
- (xlvi) As committed the building and plumbing code shall make dual plumbing mandatory to segregate the grey water and the wastewater at outlet source of generation using two pipe system
- (xlvii) As committed SCADA system should be implemented for monitoring leakages in the water conveyance system;
- (xlviii) SPV shall organise information forums with industry/commercial owners:
- (xlix) As committed the existing canal infrastructure, if any, should be

- retained and the irrigation water shall not be diverted for any other activity other than agriculture;
- (l) As committed the management of water supply for integrated water supply management system (IWSMS) should be done using an information technology application oriented analysis, design and development by the water distribution company;
- (li) The Integrated Water Supply management should include:
- (lii) Leak and / or loss detection;
- (liii) Optimum scheduling of water supply network operation; and
- (liv) Improved monitoring and control of network.
- (lv) A reliable technical department for maintenance and quality control should be established;
- (lvi) As various industries will have a variety of types of industrial effluent, only industrial wastewater of a predefined quality will be permitted to enter the equalization tank of the effluent treatment plant. For any kind of specific treatment, industries will need to treat industrial wastewater in their own captive wastewater treatment facilities and discharge the wastewater of predefined quality into the collection system.
- (lvii) Monitoring of ground water resources will be undertaken by DMICDC/BIP/SPV or its successor entity at periodic intervals to identify any contaminations from leak or spills.
- (lviii) The water supply and wastewater lines should be colour coded to differentiate;
- (lix) A Rain Water Harvesting (RWH) Monitoring Cell should be created which will be responsible for monitoring safe recharge. Areas shall be identified for groundwater recharge and should be delineated;
- (lx) Roof Top RWH should be made mandatory for all residential, commercial and industrial buildings and shall be monitored by the Cell.
- (lxi) CETPs should be installed at appropriate location based on the requirement of the industrial area to treat the industrial waste water in phased manner.
- (lxii) The trees selected should be native to the extent possible with three levels of vegetation covers near industrial area (shrubs and evergreen trees). About 3-6 layers of trees will be maintained along the road.
- (lxiii) The prevailing wind direction as per long term trends should be observed. The industrial areas should be positioned in such a way that the residential areas are located in the crosswind direction and should therefore not be subject to any major impacts from the industrial development.
- (lxiv) The project should ensure that use of low sulphur fuel (i.e. HSD)or other cleaner fuel in all the combustion systems
- (lxv) All manufacturing operations to be run as a closed system, allowing little or no emissions to escape to the atmosphere
- (lxvi) Chemical recover system to be installed at all plants to prevent any loss of chemical to atmosphere
- (lxvii) All the fugitive emissions from various sources should be collected through ducts or hoods and treated along with channelized emissions.

- (lxviii) Continuous monitoring equipment in the stack and suitable height of the stacks for appropriate dispersion should be ensured.
- (lxix) Scrubbers will be provided for all point sources emissions to effectively remove effluent gases.
- (lxx) Nitrogen oxide (NOx ) emissions will be reduced by using low-NOx burners and optimization of fuel usage.
- (lxxi) Preventive maintenance and equipment and materials management so as to minimize opportunities for evaporative losses, and other releases of potentially toxic chemicals should be adhered to.
- (lxxii) All building construction activities should adopt environmental friendly and energy efficient techniques such as promotion of alternate source of energy, building architecture, recycled material for building construction, energy efficient appliances and lighting etc.
- (lxxiii) Clearance of Central Ground Water Authority should be obtained for extraction of ground water and recharge of ground water.

# 3.6 CRZ Clearance for Setting up of 18 hole PGA Golf Course and Eco-Tourism Resort in Survery No. 2 to 13 (part) of Tiracol Village in Pernem Taluka of North Goa District by M/s Leading Hotels Ltd.[F.No.11-32/2014-IA.III]

As presented by the Project Proponent, the proposal is for setting up of 18 hole PGA Golf Course and Eco-Tourism Resort in Survery No. 2 to 13 (part) of Tiracol Village in Pernem Taluka of North Goa District. The project is located in North Goa bordering the State of Maharashtra. The Master Plan of the project is being designed for LEED Platinum and consists of a Resort with 140 Standard Villas, 58 Premium Villas and a US PGA standard championship Golf Course spread over a built-up area of around 95,000 sqm. The total development is spread over an area of 9,90,000 sq.m (244.62 acres).

The delineation of HTL/LTL has been undertaken by the Institute of Remote Sensing-Anna University, Chennai. The project falls in Coastal Regulation Zone- III. The land area allocated for Golf between  $0-100\,\mathrm{m}$  (along river) is 31,000 sqm, between  $0-200\,\mathrm{m}$  is 2,10,000 sq.m, between  $200-500\,\mathrm{m}$  is 1,90,000 sqm and beyond 500m is 1,31,500 sqm. The land area allocated for Resort between  $200-500\mathrm{m}$  is 1,50,000 sq.m and beyond 500m is 2,77,500 sqm. According to PP, no sand dunes are present in the site.

The Master Plan including individual buildings have been duly approved by the Town & Country Planning Department. Other relevant State approvals such as Environmental Clearance (EC), Consent to Establish from Goa PCB have been obtained. The Goa Coastal Zone Management Authority (GCZMA) has recommended the project vide letter dated 13.06.2014.

There was a complaint from Goa Foundation which stated that several of the survey numbers are lands covered under the Goa Daman & Diu Agricultural Tenancy Act, 1964. No Land so declared under the Agricultural Tenancy Act can be utilized for any purpose other than agriculture. There is a specific law which prohibits such diversion (Goa Land Use Regulation Act, 1991) and there is a specific judgment of the Bombay High Court on this very aspect dated 27.6.2000.

The Board, by granting the consent order, has violated both the provisions of the Regulation Act as well as the High Court's Judgment. EAC noted that the issue is a State subject, hence should be dealt at the state level. However suggested the PP to submit their response to the Ministry for the record.

After deliberation, the EAC recommended the proposal for grant of CRZ stipulating the following conditions for strict compliance by the Project Proponent:

- (i) All constructions shall be beyond 200 m from HTL of Sea and 100m from HTL of Creek.
- (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) There shall by no ground water drawal in the no development zone of CRZ area. Between 200-500m from HTL, the water can be taped with the approval of the State Ground Water Authority.
- (v) Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach; and no effluent or solid waste shall be discharged on the beach
- (vi) The quality of treated effluents, solid wastes, emissions and noise levels and the like, from the project area must conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.
- (vii) 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;
- (viii) The overall height of construction upto 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);
- (ix) Live fencing and barbed wire fencing with vegetative cover may be provided around private properties subject to the condition that such fencing shall in no way hamper public access to the beach; to allow public access to the beach, at least a gap of 20metres width shall be provided if the width of the plot is more than 500 metres.
- (x) There shall be no extraction of sand, levelling or digging of sandy

- stretches except for structural foundation of building, swimming pool; no flattening of sand dunes shall be carried out.
- (xi) The construction shall be consistent with the surrounding landscape and local architectural style;
- (xii) Installation and operation of DG set if any shall comply with the guidelines of CPCB. The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.
- (xiii) There shall be no man-made beach development.

## 3.7 Finalization of TOR for Development of Offshore Multipurpose Cargo Berth in Mumbai Port by M/s Mumbai Port Trust[F.No.10-16/2014-IA.III]

As presented by the PP, Mumbai Port has three prominent dock systems for handling General Cargo viz. Indira Dock, Victoria Dock and Prince's Dock. Of these, the Prince's and Victoria Docks are being filled for use as back up storage yard for new Offshore Container Terminal (OCT) project. The Indira Dock has limitations due to restriction of entrance lock, restricted water depth in the impounded basin, limited storage spaces, old equipment etc.

In order to handle bigger cargo ships carrying multipurpose cargo which could be beneficial to the port in view of Mumbai's relative proximity to the centres of consumption and production, MbPT under took the project of "Development of Offshore Multipurpose Berths". Cabinet Committee on Economic Affair conveyed approval on 11.02.2014 for executing the project on DBFOT basis.

The salient features of the projects are Two Offshore Berths of total length  $550~m \times 100~mt$ . wide with an alongside depth of -13.5~m CD to cater 60000~DWT ships, Approach Trestle with a length of 1355~m and width of 16~, Capital Dredging for maneuvering area, utilities including IT systems, environmental safe guards, firefighting facilities etc. Estimated capacity 4.5~MTPA. The estimated cost of the project is Rs 696~crore.

As the capacity of the Project is 4.5 MTPA and thus falls under category 'B' projects, MPT submitted an application to State Expert Appraisal Committee (SEAC-I) of Maharashtra. SEAC considered the Project in its 73<sup>rd</sup> meeting held on 21.02.2014. The SEAC-I is of the opinion that this Project is an expansion project and by adding the capacity of existing facilities (9 MTPA), the total cargo handling capacity becomes 13.5 MTPA and therefore the subject Project falls under category "A" projects. Accordingly, MPT has applied for ToR to the Ministry.

## After deliberation, EAC finalized the following additional ToRs for carrying out EIA studies:

(i) Details on the decision of the Ministry of Shipping on decongestion of Mumbai Port vice – versa the proposed developments

- (ii) Likely impact of proposed trestle and berth on circulation pattern within port through hydrodynamic model and estimation of maintenance dredging after construction of proposed facility
- (iii) Details of dredging and disposal of dredge material.
- (iv) Detailed design and construction methodology of trestle/berths for prevailing soil conditions, as proposed structure is located in between existing structures.
- (v) Details of compliance with conditions of EC granted for existing facilities.
- (vi) Details on type of cargo, quantity, handling methods along with spillage/ dust control measures as applicable.
- (vii) Details on traffic study/road connectivity and impact.
- (viii) Likely impact on marine traffic including fishing vessel movement.
- (ix) Map superimposing the facility on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale along with recommendation of MCZMA.
- (x) Details of waste generation, treatment and disposal
- (xi) Submit details of Environmental Management Plan and Environmental Monitoring Plan with parameters and costs.
- (xii) 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.
- (xiii) The General guidelines indicated in Annexure-II to this Minute shall also be considered for preparation of EIA/EMP.

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 in accordance with the 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 should be submitted to the Ministry as provided in the Notification.

## 3.8 Finalization of TOR for expansion of Industrial Area Kuber, in Ranpur Village, Kota District, Rajasthan by M/s RICCO [F.No. 21-2/2014-IA.III]

As presented by the proponent the proposal is for expansion of Industrial Area Kuber at Ranpur Village, District Kota, State Rajasthan by M/s RIICO Ltd., Kota. Item 7 (C), Category A. Since proposed project area is 8 KMS from the National Chambal Ghadiyal Sanctuary. The area of Project is 92.62 Hec. It is proposed to establish General Engineering Industries, Stone Processing Industries, Agro Food Processing Industries, Categry "B" Industries, Steel Re-Rolling Units, Educational Institutes, BUA >20,000Sqm. The power requirement will be 20 MW (JVVNL). The total water requirement will be 1050KLD. The source of water shall be surface water. The total cost of the project is 52.69 Crores.

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

- (i) Reasons for selecting the present site with details of alternative sites examined earlier and rejected/selected on merits with comparative statement.
- (ii) Describe the project site, geology, topography, climate, transport and connectivity, demographic aspects, socio cultural and economic aspects, villages, settlements and meteorological data.
- (iii) Examine details of land use around 10 km radius of the project site. Analysis should be made based on latest satellite imagery for land use with raw images.
- (iv) Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.
- (v) Examine the impact of proposed project on the nearest settlements.
- (vi) Examine baseline environmental quality along with projected incremental load due to the project.
- (vii) Environmental data to be considered in relation to the project development would be (a) land, (b) groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.
- (viii) Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area.
- (ix) Examine the details of the land use break-up for the proposed project.
- (x) Physical model studies should cover both with and without proposed development.
- (xi) What will be the project boundary area and study area for which the above data is to be furnished?
- (xii) Examine and submit details of Surface water quality.
- (xiii) Source of water vis-à-vis waste water to be generated along with treatment facilities to be proposed.
- (xiv) Examine the details of water requirement, use of treated waste water and prepare a water balance chart.
- (xv) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water. Examine details.
- (xvi) Examine soil characteristics and depth of ground water table for rainwater harvesting.
- (xvii) Categorisation of area as per Dynamic Ground Water Resource Estimation 2011.
- (xviii) Examine the location of solid waste treatment and disposal sites around the airport to avoid any bird menace.
- (xix) Examine details of Solid waste generation treatment and its disposal.
- (xx) Since building construction activities are also included in the various project activities, the water requirement, sewage disposal and treatment, electrical load, energy conservation measures etc. should also be included in the EIA report.
- (xxi) Examine and submit details of use of solar energy and alternative

source of energy to reduce the energy consumption.

- (xxii) DG sets are likely to be used during construction and operational phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.
- (xxiii) Examine road/rail connectivity to the project site and impact on the traffic due to the proposed project. Present and future traffic and transport facilities for the region should be analysed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.
- (xxiv) A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
- (xxv) Examine the details of transport of materials for construction which should include source and availability.
- (xxvi) Examine the details of National Highways/State Highways/ expressways falling along the corridor and the impact of the development on them.
- (xxvii) The evaluation of impacts should be analyzed depending upon the nature (positive and negative), duration (short term and long term) reversibility, and magnitude (negligible, low, medium, high), etc. of the impacts based the objective assessments.
- (xxviii) Examine and submit the details of Noise modeling studies and mitigative measures.
- (xxix) Examine noise levels present and future with noise abatement measures.
- (xxx) Noise pollution has always been a major concern for Airport projects during the operational phase. It is suggested that noise monitoring should be carried out at critical locations at the surrounding areas may be incorporated in environmental monitoring programme during the whole operational phase of the project.
- (xxxi) Natural and artificial noise barriers may be considered for critical locations.
- (xxxii) A thick green belt should be planned all around the project site to mitigate noise and vibrations to the nearby settlements. The identification of species/plants should be made based on the botanical studies.
- (xxxiii) Landscape plan, green belts and open spaces may be described.
- (xxxiv) Examine the details of afforestation measures indicating land and financial outlay.
- (xxxv) Identify, predict and assess the environmental and sociological impacts on account of the project.
- (xxxvi) A detailed description with costs estimates of CSR should be incorporated in the EIA / EMP report.
- (xxxvii) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
- (xxxviii) Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.

	<ul> <li>(xxxix) R&amp;R details shall be submitted.</li> <li>(xl) The General guidelines as per the Annexure –II to this Minutes shall also be considered for preparation of EIA/EMP.</li> </ul>
	Public hearing to be conducted after finalization of Additional ToR 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 draft EIA/EMP report should be prepared as per the above Terms of Reference and should be submitted to the Ministry as per the EIA Notification, 2006.
3.9	CRZ Clearance for mining of beach and minerals including mechanized dredge mining at KMML lease block no. III covering an area of 88.119 ha in Kollam District by M/s The Kerala Minerals and Metals Ltd. [F. No. 11-38/2013-IA.III]
3.10	CRZ Clearance for mining of beach and minerals including mechanized dredge mining at KMML lease block no. VII covering an area of 52.499 ha in Karunagappally, Kollam District by M/s The Kerala Minerals and Metals Ltd. [F. No. 11-39/2013- IA.III]
3.11	CRZ Clearance for mining of Heavy Sand Minerals by mechanized dredge mining at KMML lease Block-V in Kollam District, Kerala by M/s The Kerala Minerals and Metals Ltd. [F. No. 11-07/2014- IA.III]
	&
3.12	CRZ Clearance for mining of Heavy Sand Minerals by mechanized dredge mining at KMML lease Block-I in Karunagappally taluk Kollam District, Kerala by M/s The Kerala Minerals and Metals Ltd. [F. No. 11-06/ 2014-IA.III]
	As presented by the Project Proponent, the proposal is for mining of heavy minerals by controlled Beach sand collection, inland mining using Toyo pump and mechanized dredge mining at KMML lease Blocks.
	The Kerala Minerals & Metals Ltd., (KMML), A Government of Kerala undertaking, started in 1972 with an objective of mining & mineral separation in its MS Plant (MSP) and manufacturing of value added products in Titanium Pigment Plant (TP) commissioned in 1984 and Titanium Sponge Plant (TSP) commissioned in 2011, making it the only integrated plant in the world, from mining of Heavy Minerals to Manufacture of Titanium Sponge. Both Titanium Pigment Plant and Titanium Sponge Plant have necessary Environment Clearance.
	For the Mineral Separation Plant, the initial mining lease was granted in 1972. In 1985, a mining lease was executed which was valid upto July 2005. For renewing of mining lease, a G.O. was granted by Govt. of Kerala in the year 2011 for an area of 203.802 ha comprising of four blocks.

The project include beach washing & existing inland mining using TOYO pump mounted on pontoons & proposed mechanized dredge mining in these leases. The mineralogical analysis is based on work done by Australian Mineral Development Laboratories (AMDEL) for KMML in 1977. The entire land is barren and now 90% of the land is in the possession of KMML. Electricity will be available from state Electricity board for the operation of pre-concentrator at a total connected load of 250KW. In Beach wash collection there is no top soil or over burden. The place of worship , burial ground, public works, Canals or other public works will be excluded and also keep 50 meter clearance from the mining area as in the Rule 27(h) of Mineral concession Rules,1960.

No change in water quality is expected because no chemical are added to the water system during dredging. Water from the adjoining canal will be used to form a pond in which the dredge / Toyo pump will be floated, water used in dredge and pre concentrator will be recirculated back to the pond. The radioactive material, Monazite rich tailings from various mineral separation circuits shall be disposed in trenches and topped with Silica rich sand in accordance with the guidelines prescribed by the AERB.

After post mining, reclaimed land would be suitable for tourism development, agriculture and afforestation. However the detailed plans for land utilization will be worked out with the consent from State Government.

The project proponent has proposed mining to a depth of eight meters. The CRZ EAC being a Committee for protection of coastline of the country is really concerned about mining practices which involve excavation, whether manual or mechanical with such depth upto 8 meter, and its impact on the GW and coastline. The PP has indicated that the excavated areas will be backfilled. The Committee is of the view that it should get a clear guideline from the MOEF who may like to consult with the IBM and Atomic Minerals Division. whether such proposals with depth of excavation of such range are to be recommended.

3.13 Environmental Clearance for proposed educational Project "Amity University, Gwalior" at Survey no. 31, 38 to 46, 48 to 51, Village Maharajpura Dang, Tehsil Gwalior, District Gwalior (M.P) by M/s Ritnand Balved Education Foundation.[21-32/2014-IA.III

The Committee noted that the SEIAA, Madhya Pradesh has already been constituted; therefore the Committee is not in a position to appraise the proposal. The Committee advised the Ministry to forward the proposal to the SEIAA, Madhya Pradesh for further necessary action.

3.14 Environmental Clearance for proposed Wipro Fast track Buildings near Gopanapally at SY No. 124 (P), Serilingampalli Mandal, R. R District, Hyderabad (T. G. State) India by M/s Wipro Ltd. [F.No.21-31/2014-IA.III]

The proposal involves "Proposed Fast Track Building" at Gopanpally

Village, Serilingampally Mandal, R.R. District, State Telangana by M/s WIPRO Ltd. The project attracts EIA Notification 2006 under item 8 (A) Category "B". however, since SEAC is not formed, this is to be considered at Central Level. The total plot area is 43,334.68 Sq m (10.70 Acres) and the total proposed Built Up Area is, existing 18188 Sq m and proposed (10102 Sq m). The total Power Requirement is 3000 KVA (TGSPDCL), the power backup is provided by setting up 6 DG Sets of 1010 KVA each. The water requirement is 328KLD. (Fresh 143+ Recycle 185, Municipal Supply). The capacity of STP is 200 KLD. The proposed area under green belt is 14733 Sq. m. (34%). The cost of the project is 35 Crores.

The Committee deferred the proposal and advised the proponent to submit the following information. The proposal shall be further considered once the information is submitted.

- (i) Revised traffic circulation plan should be submitted and the width of the internal roads should be 9.0 meters.
- (ii) Revised parking details with detailed parking plan superimposed on the layout map should be submitted
- (iii) Revised energy conservation plan along with the calculations should be submitted
- (iv) Green belt details like width, length, rows of plants etc should be superimposed on the layout plan and should be submitted.
- 3.15 Environmental Clearance for Park Nav Uday Hospital & Medical College at survey no 26, 32 village Maharajpura Dang, Tehsil & District Gwalior, Madhya Pradesh by M/s Nav Uday Educational & Charitable Society.[F.No.21-30/2014-IA.III

The Committee noted that the SEIAA, Madhya Pradesh has already been constituted; therefore the Committee is not in a position to appraise the proposal. The Committee advised the Ministry to forward the proposal to the SEIAA, Madhya Pradesh for further necessary action.

3.16 Environmental Clearance for construction of Residential Housing Projects at Sy No. 42/4, Kapparda Village, Visakhapatnam by M/s Sree Balaji Nirman & Estates.[F.No.21-35/2014-IA.III]

M/s. Sree Balaji Nirman & Estates is the company based in Visakhapatnam with its Administrative office at # 50-81-36/1, 1st floor, Sree Balajee chambers, Shantipuram, Gurudwara Junction, Visakhapatnam. The project site is located at Birla Junction in Sy.No. 42/4, Kapparada (V), Kancharapalem, Zone –IV, Visakhapatnam.

The proposed project is a construction of residential apartments cover an area of 12,256.67Sq.mts or 3.02Acres of land. The project is covered in EIA notification 2006. The project is a category of 'B' project 8 (a) – 'Building & Construction Projects'. The project involves construction of 209 residential flats in 6 towers and one club house. The towers have Cellar +G+5Upper floors and club house have G + 4Upper floors. The total cost of the project is Rs. 25.0Crores.

The total site area of the project is 3.02Acres and built up area is 37585.2Sq.mts. Green area/Tot lot area is 0.99 acres will be provided. The total parking area in cellar floor is 9851.37 Sq.mts is proposed. Cellar floor for parking will be provided.

The total design population for residential complex is 1045 persons (209 flats x 5 persons/flat). The Water requirement per capita @ 135lpcd is approximately 142.2 KLD (106.65 KLD Fresh water + 35.55KLD Recycled water). 127.98 KLD Sewage @ 90% of the total water consumption will be generated. The sewage generated will be treated in STP of capacity 150 KLD and 35.5 KLD will be recycled for flushing; green belt development and balance treated water willbe send to Municipal Sewer lines which in turn connected to Greater visakapatnam Muncipal Corporation sewage treatment plant. Fresh water supply will be met through GVMC and Bore well.

Rain water harvesting will be undertaken for roof and green belt area about 10nos. of rain water harvesting structures will be provided with in the project area.

Solid waste of about 523 Kg/Day will be generated @ 0.5Kg/Capita/day. A separate area is earmarked for segregation of solid waste in the proposed project and in turn disposed to kapuluppada dumping site.

Total energy requirement of 8660 KW will be provided by APTRANSCO. 1 No. of 250 KVA DG set will be provided for standby use for operating lifts and common area lighting. Energy conservation measures (utilization of solar power)will be implemented for Common area lighting and for combined solar water system.

The Committee recommended the proposal for Environmental Clearance with the following comments in the EC letter for the strict compliance by the proponent.

- (i) All internal roads should be 9 meters.
- (ii) Green belt of 2-3 meters shall be provided all along the periphery of the proposed building.
- (iii) The treated effluent from the STP should be recycled and reused within same premises.
- (iv) The solid waste should be disposed off as per the MSW (M&H) rules 2000. No municipal waste should be disposed off outside the premises.
- (v) Proponent will also obtain NOC for ground water withdrawal from State Ground Water Authority.

(vi)

3.17 Finalization of TOR for proposed Offshore and onshore LPG import facility at Okha, Gujarat. M/s Energy Infrastructure India Limited (EIIL) [ F.No.11-33/2014-IA.III]

As presented by the Project Proponent, the project is an LPG import facility comprising offshore marine facilities with conventional mooring buoys & pipeline to land fall point, pipeline from landfall point to onshore terminal (1 ha) and onshore facilities (Approx 42 ha or 104 acres) with main receiving station, mounded tanks. The project is located in Okha area and onshore facilities in village Arambadha, Tehsil Dwarka, District Jamnagar, Gujarat. The project will be expand its throughput in three phases with Phase-I of upto 250,000 TPA, Phase-II of above 250,000 TPA and Phase-III of 450,000 TPA, whereafter a pipeline is envisaged to be laid from the LPG terminal at Okha to connect with northern India for further distribution.

The project falls under sl. No. 6(b) of EIA Notification 2006. It is a Category 'A' project. The proposed facility area falls under the category **CRZ-II** according to Coastal Regulation Zone Notification of 19.02.1991 by Ministry of Environment and Forest, Government of India and amended upto 3.10.2001. The project lies within 10 km of the Marine National Park & Sanctuary notified by MOEF vide SO 2561(E) dated 22.08.2013- ( 2 km from MNP, Jamnagar).

LPG will be imported in smaller parcels through LPG carriers (of capacity 3000 to 10000 tons dwt). These smaller LPG carriers will be moored to Conventional Mooring Buoys (CBM) at one end and held with anchors at the other to hold them steady in one position while the LPG is off-loaded through a flexible hose connected to a small PLEM (Pipe Line End Manifold) which in turn is connected to the shore installation with the normal steel sub-sea pipeline. Dredging of sand from sea bottom during the construction of sub-sea pipeline will be taking place. In that case, the sand will have to be stored for some time till the pipe is laid and the sand can be reused.

The overland pipeline will be laid on-shore from the LFP (Land Fall Point) to the shore terminal at Okha and connected to three mounded tanks, each of 1400 ton capacity. From these tanks, LPG shall be pumped via a booster station, through a pipeline to be constructed connecting Okha to Jamnagar.

The total power requirement of the LPG shore terminal is estimated at approximately 1500 KVA on 30 minutes maximum demand basis. Two diesel generating (DG) sets (one main and one small capacity) have been envisaged for stand by captive power generation in case of reported short fall of power availability through GEB system. High speed Diesel (HSD) will be required for the DG sets. Two fuel oil storage tanks have been envisaged for storing the HSD. The plant shall require water for make-up (cooling), firewater, plantation and drinking which will be met through a desalination plant based on sea water. The daily requirement of fresh water to be made up would be approximately 17 cum/day.

The Committee deferred the proposal and advised the proponent to submit the following information. The proposal shall be further considered once the information is submitted.

- (i) Details of the alternate sites considered
- (ii) Details of the Pipeline route/ facilities on CRZ map prepared by an authorized agency
- (iii) Details of ESZ and distance from MNP

# 3.18 Finalization of TOR for expansion of existing jetty by setting a new berth at Gulf of Kutch, Jamnagar, Gujarat by M/s Reliance Industries Limited. [F. No. 11-34/2014-IA.III]

As presented by the Project Proponent, M/s Reliance Industries Ltd. (RIL) has established an integrated petroleum refinery cum petrochemical complex along with associated infrastructure and captive marine terminal i.e. Reliance Jamnagar Marine Terminal (RJMT) in Jamnagar Dist, Gujarat. The integrated environment clearances for the above facilities were granted by Ministry of Environment and Forests in 1995. The existing captive marine terminal consists of product jetty & berths, SPMs, etc. The product jetty has 5 liquid berths for evacuation of products from the refinery and petrochemical plants. The captive marine terminal falls within the Sikka port limits under the jurisdiction of Gujarat Maritime Board. It is about 35 kms west of the town of Jamnagar, and is situated in Gulf of Kutch.

The liquid products from the operating plants and future expansions will have to be evacuated through marine route. Since the liquid berths are operating at very high occupancy rate, a need to set up an additional berth for handling/evacuating certain raw materials and products there by bringing down the occupancy level at jetty is felt. This proposed additional berth will be located south east (SE) of the existing product jetty, where adequate draft is available for better vessel navigation there by avoiding dredging. The berth will be designed to handle about 8 MMTPA of liquid products and petrochemicals like HSD, Paraxylene, Benzene, Petrochemical Naphtha, MEG, Acetic acid etc. The Berth will consist of an operating platform of 27X21 m made of concrete deck supported on piles for minimum foot print area. The existing navigational channel will be used for navigation of vessels to proposed berth.

Connecting trestle from berth to existing Knuckle platform (650 mt) will provide space for 6 new pipelines. From knuckle platform these will be connected to existing pipe line network to refinery.

High level of automation is an integral part of terminal operations. Loading arms will be provided with a Powered Emergency Release Coupler (PERC) to avoid spillage. The captive terminal has well equipped oil spill contingency plan in place. The terminal has tugs and pollution control boats equipped with various oil combating equipment like: Oil absorbents pads and pillows, oil spill dispersants, Hi sprint boom, Air pack inflator, rotating brush skimmers OSD spray booms etc. The jetty area is declared as "No waste disposal area". For security and environmental surveillance the terminal is equipped with two dedicated boats. From inception stage, the berth will be fully designed to be safe for both people working at jetty and the marine environment. The baseline data has been collected in 2012-13 by NIO for making comprehensive EIA for RIL projects. NIO

has also a repository of information on Gulf of Kutch since 1994 especially around RIL jetty area due to regular monitoring's as a part of post project monitoring. The same data are proposed to be used for this project.

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

- (i) Details of compliance with the conditions of earlier EC
- (ii) Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale along with the recommendations of the SCZMA.
- (iii) Details of spillage/leak control measures.
- (iv) Likely Impact on Marine National park during construction, transportation of materials etc, especially due to Noise and vibration.
- (v) Structural design and construction methodology, as proposed facility is adjacent to MNP.
- (vi) The route of the vessels during construction phase should be clearly demarcated avoiding the MNP.
- (vii) Impact of dredging operations and disposal of material and its location should be indicated.
- (viii) Seasons of work on the project be indicated in view of sensitivity of the MNP.

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 in 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 final EIA/EMP report after addressing issues raised during Public hearing and be submitted to the Ministry as required in the above Notification.

# 3.19 Finalization of TOR for development of Stretch between Thiruvanmaiyur and Kalpakkam of NW-4 in Tamil Nadu by M/s IWAI [F. No. 11-35/2014-IA.III]

Inland Waterways Authority of India (IWAI) an autonomous and statutory body under the administrative control of Ministry of Shipping came into existence on 27th October 1986 for development and regulation of National Waterways for shipping and navigation. The Authority primarily undertakes projects for development and maintenance of fairway and infrastructure on National Waterways through grant received from Ministry of Shipping.

Government of India has declared Kakinada-Puducherry stretch of canal system along with rivers Godavari and Krishna as National Waterway-4 (**NW-4**) w.e.f. 25<sup>th</sup> November 2008 through Gazette Notification. NW-4 forms a very important and crucial link between east coast of Andhra Pradesh and southern coast of Tamil Nadu & Puducherry. IWAI is responsible for development,

regulation & management of the waterways.

IWAI, now desires to take up the project for developing the stretch between Thiruvanamayur to Kalpakkam in South Buckingham Canal of NW-4, making it suitable for navigation of cargo vessel of maximum 300 tonne and movement of tourist & passenger vessels of reasonable size as well as construction of terminals for loading & unloading of cargo.

The proposed project is located in tidal influenced area of South Buckingham Canal and has an approximate length of 45 km. Three Terminals are proposed to be constructed for cargo handling and their expected capacity is less than 5 MTPA.

As the proposed cargo handling capacity is less than 5 MMTA, we approached SEIAA, Tamil Nadu for approval of ToR for EIA study. The State Authority, has categorized the project under category "A" in view of Guindy National Park Wildlife Sanctuary is located within 10 km from Thiruvanamayur (the starting point of the canal stretch under consideration) and has requested us to re-submit the Application for Form -1 to your office vide their letter no SEIAA-TN/IWAI/F.C. No. 1656/14 dated 29.04.2014.

Cargo Type: Salt, Fish & Marine Produce, Fertilizer and Timber

### **Cargo Volume:**

Traffic (in Million Tonne)							
2014-15	2017-18	2022-23	2027-28	2032-33	2037-38	2042-43	
0.92	1.31	1.91	2.68	3.20	3.83	4.59	

**Vessel Size:** The design vessel size considered is 300 tonne barges. The dimensions of these barges are, length – 40m, width – 9m and depth – 1.6m.

#### **Details of the Proposed Development**

- a) Dredging and excavation work in the canal & bank formation with excavated soil and leveling
- b) Dredging and opening of sea mouth at Muthukadu & Kalpakkam and subsequently maintaining the same
- c) Construction of Terminal at suitable locations for cargo and passenger operation with facilities like covered shed, open storage, truck parking, canteen, electric sub-station, weigh bridge, water supply and firefighting arrangement
- d) Installation of navigational aids
- e) Dismantling & removal of existing bridge at Kelambakkam with less navigational clearance & construction of a new bridge with required navigational clearance as per the standard norms of class-II waterways as the replacement
- a) Dismantling & removal of 3 nos. existing old & abandoned navigational locks at Muthukadu, Kovalam South & Kalpakkam and construction of new

navigational locks of suitable size at these locations

The extent of land required for widening of the canal, development of terminal facilities and construction of navigational locks shall be worked out once the fresh delineation land survey for South Buckingham canal is completed by State PWD (WR).

The total project cost of **Rs. 123.40 Cr** sanctioned by the Competent Authority will be met from budgetary support of Govt. of India.

**400 kW** power supply is to be allocated. Incoming supply voltage from State Electricity Board can be 3.3 kV or 440 Volts depending on the available state supply point voltage. Power supply can be partly supplemented by 100 kW D.G. Set for terminal operations in the event of stoppage of city supply.

Daily water requirement is 10,000 litres out of which potable water demand is **5,000 l/day**.

Areas used by protected, important or sensitive species of flora or fauna

Guindy National Park	<b>2.5 km</b> from the start point
	of the Canal
Nanmangalam Reserved Forest	6.1 km from the Canal
Rerumbakm Reserved Forest	4.4 km
Madurai Ppakkm Reserved Forest	5.8 km
Sonallur Reserved Forest	5.0 km
Kulattur & kayan Reserved Forest	6.3 km
Taiyur RF	5.2 km
Illalurr / Madayattur / Alattur Reserved	2.2 km
Forest	
Kattur Reserved Forest	5.9 km

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

- (i) Submit a copy of feasibility study conducted for the proposed project for the availability of pathway between Thiruvanmiyur to Kalpakkam in view of the existing bridges, road crossings, obstructions etc
- (ii) Hydrodynamic study on waterway along with sea inlets to ensure water availability throughout the year along with proposed draft along different sections of waterway to meet navigation requirement of proposed vessels with their size with full weight
- (iii) Location of the proposed terminal within the waterway on the map. Justification should be provided whether CRZ clearance is also required for the terminals in view of their location within the CRZ limits.
- (iv) List of components should be submitted for which the CRZ clearance is required.

- (v) Study on the availability of draught for the movement of the vessels
- (vi) Requirement of number of bridges, road crossings, obstructions to be dismantled/removed/reconstructed and its impact on the local population as well as on the environment.
- (vii) Describe the project site, geology, topography, climate, transport and connectivity, demographic aspects, socio cultural and economic aspects, villages, settlements and meteorological data.
- (viii) Examine details of land use around 10 km radius of the project site. Analysis should be made based on latest satellite imagery for land use with raw images.
- (ix) Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.
- (x) Examine the impact of proposed project on the nearest settlements.
- (xi) Examine baseline environmental quality along with projected incremental load due to the project.
- (xii) Environmental data to be considered in relation to the project development would be (a) land, (b) groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.
- (xiii) Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area.
- (xiv) Examine the details of the land use break-up for the proposed project.
- (xv) Physical model studies should cover both with and without proposed development.
- (xvi) What will be the project boundary area and study area for which the above data is to be furnished?
- (xvii) Examine and submit details of Surface water quality.
- (xviii) Source of water vis-à-vis waste water to be generated along with treatment facilities to be proposed.
- (xix) Examine the details of water requirement, use of treated waste water and prepare a water balance chart.
- (xx) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water. Examine details.
- (xxi) Examine soil characteristics and depth of ground water table for rainwater harvesting.
- (xxii) Categorization of area as per Dynamic Ground Water Resource Estimation 2011.
- (xxiii) Examine the location of solid waste treatment and disposal sites around the airport to avoid any bird menace.
- (xxiv) Examine details of Solid waste generation treatment and its disposal.
- (xxv) Since building construction activities are also included in the various project activities, the water requirement, sewage disposal and treatment, electrical load, energy conservation measures etc. should also be included in the EIA report.
- (xxvi) Examine and submit details of use of solar energy and alternative source of energy to reduce the energy consumption.
- (xxvii) DG sets are likely to be used during construction and operational

- phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.
- (xxviii) Examine road/rail connectivity to the project site and impact on the traffic due to the proposed project. Present and future traffic and transport facilities for the region should be analysed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.
- (xxix) A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
- (xxx) Examine the details of transport of materials for construction which should include source and availability.
- (xxxi) Examine the details of National Highways/State Highways/ expressways falling along the corridor and the impact of the development on them.
- (xxxii) The evaluation of impacts should be analyzed depending upon the nature (positive and negative), duration (short term and long term) reversibility, and magnitude (negligible, low, medium, high), etc. of the impacts based the objective assessments.
- (xxxiii) Submit a map demarcating HTL / LTL prepared through an authorized agency and superimposing the plan if the past project is falling under CRZ.
- (xxxiv) Submit recommendations of the SCZMA regarding the development of Industrial Corridor.
- (xxxv) Examine and submit the details of Noise modeling studies and mitigative measures.
- (xxxvi) Examine noise levels present and future with noise abatement measures.
- (xxxvii) Noise pollution has always been a major concern for Airport projects during the operational phase. It is suggested that noise monitoring should be carried out at critical locations at the surrounding areas may be incorporated in environmental monitoring programme during the whole operational phase of the project.
- (xxxviii) Natural and artificial noise barriers may be considered for critical locations.
- (xxxix) A thick green belt should be planned all around the project site to mitigate noise and vibrations to the nearby settlements. The identification of species/plants should be made based on the botanical studies.
- (xl) Landscape plan, green belts and open spaces may be described.
- (xli) Examine the details of afforestation measures indicating land and financial outlay.
- (xlii) Identify, predict and assess the environmental and sociological impacts on account of the project.
- (xliii) A detailed description with costs estimates of CSR should be incorporated in the EIA / EMP report.
- (xliv) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.

- (xlv) Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
- (xlvi) R&R details shall be submitted.
- (xlvii) The General guidelines as per the Annexure –II to this Minutes shall also be considered for preparation of EIA/EMP.

Public hearing to be conducted after finalization of Additional ToR 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 draft EIA/EMP report should be prepared as per the above Terms of Reference and should be submitted to the Ministry as per the EIA Notification, 2006.

# 3.20 Environmental Clearance for proposed commercial project of M/s Ashoka Builders, located at sy no. 118 of Moosapet Village, Balanagar Mandal, Ranga Reddy District, Andhra Pradesh by M/s Ashoka Developers & Builders Ltd.[F.No.21-33/2014-IA.III]

Sri. Jaideep Reddy of M/s. Ashoka Builders proposes to develop a Commercial Project at Moosapet, Ranga Reddy District. M/s. Ashoka Builders, is proposing Commercial Project "Ashoka Golden Commercial Complex". The Project is located in survey number 118, Moosapet Village, Balanagar Mandal, Ranga Reddy Dist., which is having a built up area of 60264.09 sq.m. Total Plot area is 2.57 Acres (1.039 Ha). Tot lot is present in 891 m2. The proposed project is construction of Commercial Complex. It is planned and designed as per the regulations and procedures laid down by the Hyderabad Metropolitan Development Authority.

The site is well connected through the NH-9. The nearest railway station is Bharathnagar station at 2.3 km (SE), away from the project site. The nearest airport is Begumpet Airport, at 4.8 km from the project site. 10km radius area is surrounded by following:

- Maisamma Cheruvu-1.35km (S)
- Khaithalapur cheruvu-1.40km (SW)
- Tankbund-7.8km (SE)
- Bon Cheruvu-8.2km (E)
- Gopi Cheruvu 9.5km (W)
- Kothacheruvu 7.3km (NE)
- Kothaguda R.F. 6.5 km (SW)
- Gajularamaram 6.7km (N)

The EAC decided to defer the project since the PP did not attend the meeting.

#### 3.21 Environmental Clearance for development of Integrated facilities within

### existing Kandla Port at Kandla, Gujarat by M/s Kandla Port Trust. [F.No.11-82/2011-IA.III]

As presented by the PP, the proposal is for "Developing Integrated Facilities within existing Kandla Port at Kandla" in the State of Gujarat. The proposed projects involves development of barge jetty of 6.57 MMTPA at Tuna (500mx12m). development of oil jetty to handle liquid cargo and Ship bunkering terminal of 3.39 MMTPA at Old Kandla (300mx15m) and 450mx10m approach, development of barge jetty of 8.57 MMTPA at Khori Creek, Kandla Port (1000m x 12m), up-gradation of barge handling capacity at Bunder Basin at Kandla, providing Railway Line from NH 8A to Tuna Port (12km), multipurpose cargo terminal of 9.08 MMTPA at Tekra off Tuna (600mx80m) Stage-II, construction of Rail Over Bridge at NH-8A near Nakti Bridge (Crossing of NH 8A, 40mx 29m), mechanization of dry cargo handling facilities at Kandla Port (Berth No.7&8), development of ship repair/building facility at Kandla (Construction of floating dock of minimum 150 mtr), development of Container Terminal (1100X54m, T-shaped, capacity 2.2 Million TEU's/ Annum) at Tuna off-Tekra, strengthening of Oil Jetty No. 1 and 2, modification and strengthening of Cargo Berths 1 to 6 at Kandla Port Trust, construction of Port Craft Jetty & Shifting of SNA Section 114.95x12m at Kandla Port. Total estimated capital cost of all the 13 projects is Rs.5350.48 crores.

The total land requirement for all projects will be 171.85 hectares but there is no land acquisition involved as the land is owned by KPT and proposed activities are within the limits of Kandla Port Trust. Water requirement for the project is estimated 19 KLD. The capital dredging will be of 3, 48, 16,993 M3 with maintenance dredging of 59, 90,294 M³ per year.

The ToR was granted by MoEF, New Delhi for integrated EIA of above on  $22^{nd}$  May, 2012. One year base line data was collected from site & surroundings. The draft EIA report was submitted to Gujarat Pollution control board for public hearing which was completed successfully on  $18^{th}$  December, 2013.

PP informed with respect to the complaint of Shri Debi Goenka regarding the commencement of work prior to EC, destruction of mangroves etc, stated that they have not started any work and there are no destruction of mangroves

The Committee deferred the proposal and advised the proponent to submit the following information. The proposal shall be further considered once the information is submitted.

- (i) Submit copy of the recommendations of Gujarat CZMA
- (ii) Submit detailed /proper response on the issues raised during public Hearing
- (iii) Compliance of ToR conditions with legible maps and details
- (iv) Submit the details of compliance with earlier EC conditions

## 3.22 Environmental Clearance for development of Ahmedabad - Dholera six-lane expressway, Gujarat by M/s Gujarat State Road Development Corporation

### Ltd. [F.No.10-109/2011-IA.III]

The EAC decided to defer the project since the Public Hearing for the project was not yet completed.

### 3.23 CRZ Clearance for proposed construction of new Freight Railway Double Line from INPT (MH) to Dadri (UP) by M/s DFCCIL. [F.No.11-46/2013-IA.III]

As presented by the project proponent, the proposal is for proposed construction of new Freight Railway Double Line from JNPT (MH) to Dadri (UP). Over the last 50 years there has been an enormous growth of transport sector. The volume of freight and passenger traffic carried by Indian Railways has increased five and seven folds respectively. The tonnage handled by Indian ports has increased 16 times while the air freight has increased 30 times. The movement of passengers and goods through roads has also increased several times. However, the Indian Railways which are one of the largest railway systems of the world continue to be the backbone of transportation infrastructure in India. The upward economic growth is adding more traffic to the system and creating more congestion. Traffic on Western Corridor is slated to go up from 52 Million Tonnes in 2005-06 to 144 Million Tonnes in 2021-22. Additional transport infrastructure needs to be urgently created along busy routes to facilitate movement of much higher level of freight traffic required to support the nation's growing economy.

The existing trunk routes of Howrah-Delhi in the eastern region and Mumbai-Delhi in the western region are highly saturated, line capacity utilization varying from 115% to 150%. The surging power needs requiring heavy coal movement, booming infrastructure construction and growing international trade has led to the conception of the Dedicated Freight Corridors of Railways. Once completed, the corridors will enable it to improve its customer orientation and meet market needs more effectively by reducing transit time. Due to released capacity on existing route, Indian Railways will be able to run more & faster passenger trains.

Ministry of Railways, Government of India, have planned to construct Dedicated Freight Corridors through SPV named Dedicated Freight Corridor Corporation of India Limited (DFCCIL). Two such corridors have been taken up for construction namely Eastern DFC and Western DFC. These would cover about 2,762 route kms on two corridors, Western Corridor from JNPT (Mumbai) to Dadri and Eastern Corridor from Ludhiana to Dankuni at an approximate cost of Rs. 91,859/-Crore.

The Western route (Mumbai –Delhi route) of Dedicated Freight Corridor consists of double line starting from JNPT terminal yard, near Mumbai, Maharashtra and going up to Dadri, Uttar Pradesh (about 35 km from Delhi, on Delhi- Howrah route). The proposed alignment of Western DFC (WDFC) passes through the states of Maharashtra, Gujarat, Rajasthan, Haryana and Uttar Pradesh. It passes through Thane and Raigarh districts in Maharashtra. The total length of the alignment in Maharashtra is 176.5 kms., consisting of 135.5 km running

parallel to the existing Railway track and 41 km on diverted alignment. To minimize land acquisition, most of the alignment has been kept parallel to the existing railway tracks.

After construction of Dedicated Freight Corridor it will have high impact on developments to either side of DFC Alignment. Project Influence zone covers 14% of area and 17% of population of the country. The project is expected to facilitate growth and employment generation through efficiency in transportation. The Mumbai Delhi Industrial Corridor is planned along the Western DFC.

WDFC is an environment friendly project as the route is fully electrified, there will not be any Railway Crossing gates, minimum land is being acquired by adopting parallel alignment, etc. Apart from the Environmental & Social Impact Assessment Study, a Green House Gas Emission Reduction Analysis has also been conducted for the project which indicated that GHG emissions in "DFC Scenario" would be considerably less than for "No DFC Scenario". The projections for WDFC for 2016-17 are 1.46 million ton CO2 in "DFC Scenario" against 6.42 million ton CO2 in "No DFC Scenario" against 26.86 million ton CO2 in "No DFC Scenario.

For carrying out the above work, approximately 296 Ha of Pvt. Land, 149 ha. Govt. Land including approx. 58 ha Forest land (including Mangroves) is being acquired. MOEF has also granted 'in-principle' approval for diversion of 58.1498 Ha of Forest land under Forest Conservation Act 1980. Hon. Supreme Court of India has also granted permission under Wildlife Protection Act, 1972, to use 8.05 Ha of area of Sanjay Gandhi National Park.

The project was considered by the EAC in October, 2013 and sought additional information viz. CRZ map of 1: 4000 scale on prepared by an authorized agency superimposing with the proposed corridor where it passes the CRZ area, details of mangroves area need to be removed for the activity and compensatory plantation of at least five times.

The details submitted and presented by the PP were examined by the EAC. According to PP, CRZ area total length of alignment in CRZ- 26.60 kms at 15 locations, CRZ-I-19.95 km and CRZ-III- 6.65 kms. Total area in CRZ – 49.3654ha (CRZ-I- 38.153 ha including mangrove areas of 13.362 ha)

MCZMA has recommended the project subject to certain conditions.

The Committee recommended the proposal with the following comments in the EC letter for the strict compliance by the proponent.

- (i) It is noted that 543 mangroves to be removed for the project. PP shall obtain prior permission from High Court for destruction of mangroves.
- (ii) There shall be no disposal of waste/debris in CRZ area
- (iii) The line in CRZ-I shall be constructed on stilt without any affect to mangroves or flow conditions

	(iv) There should not be any impact on mangroves or aquatic life at the time of construction and proponent should devise suitable construction mythologies.					
3.24	Mumbai, Maharashtra by M/s Vodafone South Ltd. [F.No.11-27/2014-IA.III] subject to submission of SCZMA recommendation.					
	The EAC decided to defer the project since the recommendation from the State CZMA has not been received.					
3.25	CRZ Clearance for BBG Submarine Cable System (Cable laying) landing at Santhome Beach, Chennai, Tamil Nadu by M/s Infotel Telecom Ltd. [F.No.11-28/2014-IA.III] subject to submission of SCZMA recommendation.					
	The EAC decided to defer the project since the recommendation from the State CZMA has not been received.					
3.26	CRZ Clearance for proposed pipeline for water supply by laying 1200 mm diameter watermain by constructing 1700 mm diameter micro tunnel at a depth of 10m at plot bearing CS No. 263 across Malad Creek, Mumbai by M/s Municipal Corporation of Greater Mumbai [F.No.11-29/2014-IA.III]					
	As presented by the project proponent, the proposal is for laying 1200 mm diameter water main by constructing 1700 mm diameter micro tunnel at a depth of 10m at plot bearing CS No. 263 across Malad Creek, Mumbai. In order to resolve water short supply issue of Malvani & nearby area of Malad in Mumbai, Municipal Corporation of Greater Mumbai has proposed to lay 1200 mm dia mild steel water main by constructing 1700 mm outer dia RCC pipe by micro tunneling method at 10 m depth without disturbing the existing surface and mangroves across Malad creek, Mumbai. The said area falls under CRZ I & II. According to para 4 ii (d) of CRZ notification 2011, the laying of pipeline, conveyance system etc are permissible activities in CRZ area. Maharashtra Coastal Zone Management Authority has recommended vide letter dated 15.06.2013 to MoEF. The Length of the pipe is 300meters. The Project cost is 4.077Cr .					
	The EAC after deliberation recommended the project for grant of clearance stipulating following conditions for strict compliance by the PP:					
	<ul><li>(i) All the conditions stipulated by the MCZMA shall be complied with.</li><li>(ii) The pipeline will be laid through micro tunneling and hence there shall be no disturbance to mangroves as committed.</li></ul>					
3.27	CRZ Clearance for construction of Major Bridge across Bankot Creek between Kolmandla in Raigad District and Veshvi in ratnagiri District on Revas reddy road MSH-4 by M/s PWD Mahad/Dhruv Consultancy Services Pvt Ltd [F.No. 11-54/2013- IA.III]					
	The proposal was examined by the EAC in its meeting held in June, 2014					

and EAC sought additional information viz. details of existence of marine life along with likely impacts, design details at junction. The details submitted by the PP were examined by the EAC.

The EAC after deliberation recommended the project for grant of clearance stipulating following conditions for strict compliance by the PP:

- (i) All the conditions stipulated by the MCZMA shall be complied with.
- (ii) The pipeline will be laid through micro tunneling and hence there shall be no disturbance to mangroves as committed.
- (iii) PP shall take maximum care to minimize the impact on marine life during construction.

# 3.28 Environmental Clearance for development of International Leather Complex (ILC) at Kothapatnam (V), Kota Mandal, SPS Nellore District, Andhra Pradesh and CRZ clearance for the intake and outfall pipeline by M/s Krishnapatnam International Leather Complex Private Limited [F.No. 21-29/2012-IA.III]

The International Leather Complex (ILC) at SPSR Nellore District, Andhra Pradesh State is proposed to be developed by a Special Purpose Vehicle (SPV) named Krishnapatnam International Leather Complex Private Limited (KPILC) which is jointly promoted by Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) and Leather Industries Development Corporation of Andhra Pradesh (LIDCAP) and both are Government of Andhra Pradesh undertaking organizations. The main objective of the project is promoting planned development of leather industry with inbuilt environmental safeguards.

The proposed site in an area of 536.88 acres is located in Kota Mandal of SPSR Nellore District, Andhra Pradesh State. This area is not covered by any forest or agriculture operations. The project site does not fall under Coastal Regulation Zone (CRZ). The coast line is about 1.7 km from the proposed site. The site is 27 km from Gudur town (wherein N.H 5 and main railway line connecting Chennai and Kolkata are passing) and Krishnapatnam port, a natural port is about 15 km. Chennai Airport is about 170 km to the site which is the nearest international airport and 120 Km from nearest Airport of Tirupati.

The complex is intended for encouraging industries which are involved in operations starting from processing raw hides and skins into finished leather of different types. The complex also facilitates setting up units for value added goods like shoe upper, full shoes, leather garments and leather goods etc.

The International Leather Complex (ILC) will have the capability to process 300 tonnes of hides/skins per day and manufacture of leather products including leather footwear (1.0 to 2.0 lakh pairs of all kind of footwear per day). The project generates employment to nearly 15000 persons. The estimated capital cost for development of ILC is Rs. 226.40 crores.

The total power requirement estimated for the ILC is around 34,700 KVA

and is proposed to be drawn from APTRANSCO. KPILC proposes to draw sea water of 30 MLD to the proposed desalination plant thereby to meet the water requirement of 10.5 MLD. Leather complex will be using the freshwater generated by the desalination plant for construction during construction stage and for its process requirements during operation stage. No ground water is to be used in any phase of the project.

Out of the total water quantity, fresh water of 10.5 MLD will be generated and the remaining 19.5 MLD will be discharged into the sea.

The waste water generated from the proposed leather complex will be around 9.0 MLD which is estimated around 80% of the demand for water. The waste water generated from the individual units will be primarily pre-treated and later sent to CETP for final treatment. The proponent of ILC will ensure that the effluents coming out of the industrial units will be pre-treated prior to discharge at CETP to ensure smooth functioning of the CETP. The treated effluents from CETP will meet marine discharge standards, which initially passes through aquaculture pond and then will be stored in guard pond (with 10 days holding capacity) and will be disposed into the Bay of Bengal through a marine outfall facility. The rejects of desalination plant will be directly discharged into the sea through the marine outfall.

Solid wastes generated from the tanning industries includes hairs, fleshing, various leather trimmings, shaving, etc. and lime sludge from liming pits. The biodegradable waste generated from the industrial area will be sent to biomethanisation plant for power generation within proposed ILC. After utilizing for the by-product recovery, the balance solid waste generation would be initially in the range of about 10 - 15 tons per day and it may go upto 30 tonnes per day. The solid wastes will be disposed into the secured landfill proposed in the complex and then further transport it to an existing TSDF facility as and when demanded.

The planning of the entire complex including layout preparation and development of KPILC will meet all the environmental requirements. The Environmental Management Cell will all also work full time for implementation of various components of EMP, such as the maintenance and operation of pollution control systems, monitoring of pollutants and development of green belt etc.

The Committee recommended the proposal for Environmental Clearance with the following comments in the EC letter for the strict compliance by the proponent.

- (i) The green belt of 15 meters should be provided all around the proposed complex.
- (ii) A Central Chrome recovery unit should be provided within the proposed complex. No individual Chrome recovery units should be provided by any of the leather units.
- (iii) TSDF shall comply with all norms of regulatory authority during construction and operation phase.
- (iv) No chromium should be discharged into the sea. Continuous

- monitoring of the combined effluent should be carried out for all CETP parameters. SPCB shall monitor the same.
- (v) No solid waste should be disposed out of the leather complex.
- 3.29 Extension of Environmental Clearance granted for the development of waste preparation unit of capacity 80 TPD and Common Hazardous Waste Incineration Facility of capacity 10 Million at plot no 223, GIDC, Panoli, Dist Bharuch, Gujarat by M/s Gujarat Enviro Protection and Infrastructure Ltd [F.No. 10-126/2008-IA.III]

The Ministry of Environment and Forests (MOEF), Govt. of India has granted Environmental Clearance (EC) having **File No. 10–126/2008-IA-III** to M/s Gujarat Enviro Protection and Infrastructure Ltd (GEPIL) on 08.06.2009 for the development of (1) Waste Preparation Unit of capacity 80 TPD and (2) Common Hazardous Waste Incineration Facility (CHWIF) of capacity 10 million K.Cal./hour at plot no.223, GIDC, Panoli, Dist. Bharuch, Gujarat.

M/s GEPIL then applied to Gujarat Pollution Control Board (GPCB) on 04.09.2009 for availing Consent to Establish (CTE) permission for setting up Waste Preparation Unit and Common Hazardous wastes Incineration Facility (CHWIF). GPCB granted CTE to M/s GEPIL for only one component of the project namely Waste Preparation Facility on 05.08.2010. GPCB neither granted nor rejected the CTE to second component of the project namely Common Hazardous wastes Incineration Facility (CHWIF) and probably kept the same in abeyance. The CTE was granted partly. Since the CTE was granted for only one component; M/s GEPIL went ahead for development of one component; namely Waste Preparation Unit. Post development of the facility, M/s GEPIL handed over the facility on lease basis to M/s RSPL (Recycling Solutions Private Limited) and then applied for CCA (consolidated consent and authorization to operate) permission from GPCB on 12.04.2013. GPCB granted CCA to M/s RSPL on 13.05.2013. The waste preparation unit is operational since 13.05.2013. M/s GEPIL wants to develop both components of the project as it was granted EC for both the components; however could implement the project partly; as the CTE was granted partly. Due to the non grant of CTE for CHWIF project; it could not be developed. EC was granted on 08.06.2009 and its 5 years validity is ended on 08.06.2014. The PP is keen on developing CHWIF and hopeful for grant of CTE by GPCB and since the EC has been already implemented partly; PP requested to extend the validity of the EC for the further period of 5 years.

The Committee recommended the proposal for extension of validity of Environmental Clearance for a period of 5 years subject to the submission of a credible completion plan within 2 months.

3.30 CRZ Clearance for installation and operate a conveyor belt (30 M) at Survey No.227, 278 Kokmandle village, Ubershet, Taluka Dapli, Distt Ratnagiri by M/s Sun Rise Marine Enterprises [F.No. 11-14/2013-IA.III]

The proposal was examined by the EAC in its meeting held in April, 2014 and EAC sought additional information viz. details of noise generation from the

operation of conveyor and incremental noise due to the project, details of storage along with dust control measures, details of Mangrove areas, cutting/ removal if any. Permission from HC in case of removal of mangroves. The details submitted and presented are examined by the EAC.

According to PP, The size of the Bauxite Ore of 5 mm to 100 mm will be stored at the site. The Ore will be covered with tarpaulins and activities will be limited to non-monsoon seasons only.

The Committee recommended the proposal for CRZ clearance with the following comments in the CRZ clearance letter for the strict compliance by the proponent.

- (i) PP shall provide dust screens and additional green belt all around stock yard.
- (ii) Transportation of ore shall be through covered/ closed trucks only.
- 3.31 Environmental Clearance for widening and improvement of 2 lane to 4/6 lane of NH-17 from Kannur to vengalam in the state of Kerala by M/s NHAI [F.No. 10-37/2010-IA.III]

The EAC deferred the project as PP requested for postponement.

3.32 **Environmental** Clearance for Commercial Complex Kukatpally, Balanagar(Mandal), Ranga Reddy, Andhra **Pradesh** by M/s **PSR** Constructions [F.No.21-26/2014-IA.III]

PSR Constructions is proposing a Commercial Complex at Kukatpally (V), Balanagar (M), Ranga Reddy (D) in Plot no 1 to 8, Survey No 169 & 171. The Kukatpally Municipality, Ranga Reddy (HUDA) has technically approved building plans for construction of Commercial complex, cellar + sub cellar + 5 floors on 5<sup>th</sup> Oct 2005 and obtained Fire & Safety provisional NOC from State Disaster Response & Fire Services Department, Govt of A.P. Due to increase in the demand, PSR Constructions is proposing to add one more floor.

The total land area of the project is  $8000\text{m}^2$  (1.98 acres) and built up area is  $39819\text{m}^2$  with ground coverage of around 55%, roads and pathways of around 34% and greenbelt of around 11% of the total area. The parking area provided in cellar and sub cellar is around  $13354\text{m}^2$  (around 34% of built up area). The proposed project falls in Project activity 8(a) Building and Construction – Covering an area  $\geq 20000\text{m}^2$  and  $150000\text{m}^2$  built up area. The cost of the project is Rs.20 Crores.

Total water required for the project is 87.7 KLD will be sourced from HMWS&SB / bore wells with in project site. The wastewater generated from the proposed project is 72.7 KLD will be treated in septic tank followed by soak pit and the over flow from soak pit will be discharged into public sewers. The municipal solid waste generated 480 kg/day will be segregated for recyclables and the rest is disposed to municipal authorities.

The power required for the project is 1600 kW and will be sourced from APCPDCL (TSSPDCL), for emergency requirement during power failure two DG sets of 600 kW and 400kW are proposed which are provided with stack height meeting MOEF guidelines (24m and 23m). The project provides job opportunities to around 900 persons in various categories.

Mitigation measures are proposed to minimize the adverse impacts if any due to the proposed activity in the form of EMP. The budget proposed for implementation of EMP measures is Rs. 20 Lakhs is capital cost and Rs. 20 Lakhs per annum is recurring cost.

It has been noted by the Committee that the construction up to a level of 5th floor has already been commenced. The PP has applied for EC for the project as PP desires to construct 6th floor on the same building, thereby, crossing the total built-up area beyond 20000 sq mts limit as per EIA Notification 2006. A justification has to be provided along with the documentary evidences, like permission from various local/state authorities that the proponent has initially obtained the permission for construction less than 20,000 sq. mts and the reason why the proponent has to construct the additional floor and whether it is possible for him at this stage to comply with fire fighting and set back requirements.

3.33 Environmental Clearance for development of the Existing Two lanes Carriageway to 4/6 Laning of Karnataka - Kerala Border to Kannur Section (Km 17.200 to Km 148.400) of NH-17 in the State of Kerala by M/s NHAI [F.No.10-47/2012-IA.III]

The EAC examined the project in its meeting held in June, 2012 and suggested to update the EIA and conduct Public hearing. Public hearing was conducted on 13.12.2012 at Kasargod and on 21.12.2012 at Kannur. The major issues raised are land acquisition, compensation etc.

The EAC noted that the proposed alignment passes through CRZ -I(i), (ii) & III in 10 rivers including 0.183 ha mangroves in 6 rivers. The EAC after deliberation decided that Sub- Committee comprising Shri M.L Sharma, Shri Radhakrishnan, Dr. M.V. Ramana Murthy and a representative from MoEF to make site visit and submit a report.

Finalization of ToR for 6 laning of Rajkot (km 185.244) to Bamanbore (km215.600) section of NH-8B and Bamanbore (km182.500) - Samaikhiali (km306.000) Section of NH-8A in the state of Gujarat (km184.700 to km341.477 of New NH-27) by M/s NHAI [F.No.10-18 /2014- IA.III]

As presented by the Project Proponent, the project stretch falls in two districts of Gujarat State namely Rajkot and Kutch. The approximate project length is 156.78 Km The development of the existing project of 4-laning to 6-laning divided carriageway will result in safe and efficient traffic operation and will accommodate the future growth in traffic for the design period. NH -8A and

NH-8B will pass through the Bamanbore, Jodhpar, Wankaner, Morbi and Rajkot towns. The project also traverses through the Protected Social Forestry throughout the project stretch. The existing project stretch is passing through Plain terrain, Rolling terrain and intermittently it passes through Hilly terrain. The project stretch is having densely populated or built up areas in Bamanbore, Wankaner, Morbi and Rajkot towns. Most of the built up areas are having bypasses and new bypasses are proposed wherever required. The project stretch is crossing major rivers such as River Bhadar, River Machhu, and their tributaries. The some of the small rivers and streams are: Khari, Kaila, Niruna, Nara, Matiiweriwali, Rukmavati, Kankavati, Bhukhi etc. As per the Government of Gujarat, Gazette Notification, 16th May 1974 / Vaisakha 26,1896, the Government of Gujarat declared the road side area or roads under PWD/ NHAI of the study districts such as Rajkot and Kutchh, as protected forests. Hence, in the entire stretch of 156.78 Km, part of the existing RoW is falling within the Protected Social Forestry. Length of the Existing Alignment is 153.8 Kms (Approx). The existing carriageway is having 2 X 8.75m with 4.5m median with 4-lane configuration throughout the project stretch. The proposed carriage way is having 2 X 12.75m with 4.5m Median in Six laning and 2 X 8.75m with 4.5m median in Wankaner and Morbi Bypasses.

HTL/LTL map prepared by IRS, Anna University, Chennai. The Gujarat CZMA has recommended the project vide letter dated 24.07.2014. FC diversion for 308.36 ha has obtained vide latter dated 22.09.2003 during 4-lanning stage.

## During the discussions, the Committee finalized the following TORs for further study:

- (i) The Project road passes through Wild Ass Sanctuary from km 272.000 to km 291.000, however, upgradation will be taken only within existing RoW . Necessary permission form NBWL and Supreme Court shall be taken.
- (ii) It is indicated that 3571nos. trees fall within the proposed RoW. Bare minimum trees to be cut. The information about their species and whether it also involves any protected or endangered species be provided. Necessary green belt shall be provided on both sides of the highway with proper central verge and cost provision should be made for regular maintenance.
- (iii) Submit the details of the water bodies along the project road.
- (iv) Explore the possibilities for utilization of fly ash.
- (v) Explore the possibilities of cold mix technology instead of hot mix 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
- (viii) For any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website "http://moef.nic.in/Manual/Highways".

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 in accordance with the 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 be submitted to the Ministry as provided in the Notification.

# 3.35 Finalization of ToR for 6 laning of Ahmedabad - Bamanbore (km12.000 to km 182.500) on NH-8A section (New NH-47 km 0.000 to km 170.700) in the state of Gujarat by M/s NHAI [F.No.10- /2014-IA.III]

As presented by the Project Proponent, the proposed highway project stretch falls in two districts of Gujarat State namely Ahmedabad and Surendranagar. The existing and Design Chainages of project are between Ahmedabad to Bamanbore (Chainage Km. 12.000 to Km. 182.500) on NH-8A Section (Km.0.000 to 170.700 New NH-47 Chainage) in the State of Gujarat.

The total length of the project is approximately 170.700 kms. The widening of the existing project from 4 to 6-laning divided carriageway will result in safe and efficient traffic operation and will accommodate the future growth in traffic. Project road passes through the Ahmedabad, Bavla, Limbdi, and Chotila towns. The project also traverses through Protected Social Forestry throughout the project stretch.

Ahmedabad (Km 12.000) to Bamanbore (Km.182.500) section of NH-8A(Km.0.000 to 170.700 of NH 47). The total length of the project is 170.700 kms. From Km 15.000 to Km 23.000, the project road traverses through Changodhar industrial corridor and it is having six lane configuration. The stretch passes through Ahmedabad, Bavla, Limbdi and Chotila towns. The existing project stretch is passing through Plain and Rolling terrain. The project stretch is having densely populated or built up areas in Ahmedabad, Bavla, Limbdi and Chotila towns. All the built up areas either having already bypasses. In the current proposal one bypass near Chotila is proposed. The project stretch is crossing main rivers such as, River Sabarmati, River Bhagao, and River Machhu, and their tributaries. As per the Government of Gujarat, Gazette Notification, 16th May 1974 / Vaisakha 26, 1896, the Government of Gujarat declared the road side area or roads under PWD/ NHAI of the study districts such as Ahmedabad and Surendranagar, as protected forests. Hence, in the entire stretch of 170.7 km, part of the existing RoW is falling within the Protected Social Forestry. Length of the Existing

Alignment is 170.500 Km. The existing carriageway is having 2 X 8.75m with 1.0m to 4.5m median and having 4-lane configuration throughout the project stretch. The proposed carriage way is having 2 X 12.75m with 4.5m Median for Six laning.

During the discussions, the Committee finalized the following TORs for further study:

- (i) The proposal indicates about 125.9275 ha forest land is to be acquired. Necessary stage –I forestry clearance shall be obtained as per OM dated 31.03.2011 and submitted along with final EIA report.
- (ii) It is indicated that 4000 nos. trees fall within the proposed RoW. Bare minimum trees to be cut. The information about their species and whether it also involves any protected or endangered species be provided. Necessary green belt shall be provided on both sides of the highway with proper central verge and cost provision should be made for regular maintenance.
- (iii) Submit the details of the water bodies along the project road.
- (iv) Explore the possibilities for utilization of fly ash.
- (v) Explore the possibilities of cold mix technology instead of hot mix 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
- (viii) For any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website "http://moef.nic.in/Manual/ Highways".

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 in accordance with the 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 be submitted to the Ministry as provided in the Notification.

3.36 Environmental Clearance for residential project at Survey No. 121 & 124, Komaplly Village, Qutubullapur Mandal, Ranga Reddy District, Telangana by M/s Splendeur Projects Limited, [F. No. 21-25/2014-IA.III]

The inception of Splendeur is founded on two pillars of past and future. While we draw from our past experiences, it's the eye on future that challenges conventional wisdom and creates splendid experiences and builds lifestyles of grandeur.

The proposed project is construction of Apartments along with Amenities. The project site is located at Sy.no: 121 & 124, Kompally Village, Qutubullapur Mandal, Ranga Reddy District., The project will be developed on a 3.5 Acres (1.42 Ha) and Built up area of 58,411.75 sq.m. The proposed project is construction of Apartments, club house with commercial tower. It is planned and designed as per the regulations and procedures laid down by the Hyderabad Metropolitan Development Authority.

The site is well connected through the Patancheru Road NH-9 at 0.25km. The nearest railway station is Railway Station: Bollaram Railway Station-3.5 km (E)away from the project site. The nearest airport is Rajiv Gandhi International Airport - 33 km from the project site. And in 10km radius area surrounded by water bodies- Kotta Cheruvu-1.33km(South West) and Forests - Dulapalle R.F - 2 km (NW),Pochampalli Kalan R.F - 6 km (NW),Gaudavalli R.F - 6.5 km (NW),Suraram P.F - 6.0 km (NW).

In order to assess the likely impacts arising out of the proposed project on the surrounding environment and evaluating means of alleviating the likely negative impacts, if any, from the proposed project, M/s Splendeur projects Ltd, has retained Sl. No. in the QCI/NABET list: 141: Sri Sai Manasa Nature Tech Pvt. Ltd. Consultant, Hyderabad as their environmental consultant in order to assess the likely impacts arising out of the proposed project.

The EAC decided to defer the project since the PP did not attend the meeting.

### 3.37 Model ToRs for Highway Projects in Border States.

- (i) Examine and submit a brief description of the project, project name, nature, size, its importance to the region/state and the country.
- (ii) In case the project involves diversion of forests land, guidelines under OM dated 20.03.2013 may be followed and necessary action taken accordingly.
- (iii) Details of any litigation(s) pending against the project and/or any directions or orders passed by any court of law/any statutory authority against the project to be detailed out.
- (iv) 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.
- (v) Describe various alternatives considered, procedures and criteria adopted for selection of the final alternative with reasons.
- (vi) 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.
- (vii) 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. Landslide, rock fall protection measures to be indicated.
- (viii) 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 high levels flood periodicity at least of last 50 years in the area should be examined.
- (ix) 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.
- (x) 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.
- (xi) The information should be provided about the details of the trees to be cut including their species and whether it also involves any protected or endangered species. Measures taken to reduce the number of the trees to be removed should be explained in detail. Submit the details of compensatory plantation. Explore the possibilities of relocating the existing trees. Animal and wild life crossings to be provided in areas inhabited by wild life.
- (xii) Necessary green belt shall be provided on both sides of the highway with proper central verge and cost provision should be made for regular maintenance.
- (xiii) 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. Noice reduction measures should also be indicated.

- (xiv) Submit details about measures taken for the pedestrian safety and construction of underpasses and foot-over bridges along with flyovers and interchanges. If any.
- (xv) 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). Specific care be also taken to ensure that by passes have a sufficient buffer to prevent unwanted obstructions defying the purpose of the by pass
- (xvi) 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.
- (xvii) Examine and submit the details of sand quarry, borrow area and rehabilitation.
- (xviii) Explore the possibilities of utilizing the debris/ waste materials available in and around the project area.
- (xix) Submit the details on compliance with respect to Research Track Notification of MoRTH
- (xx) Examine and submit the details of sand quarry and borrow area as per OM no.2-30/2012-IA-III dated 18.12.2012 on 'Rationalization of procedure for Environmental Clearance for Highway Projects involving borrow areas for soil and earth" as modified vide OM of even no. dated March 19, 2013.
- (xxi) 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.
- (xxii) The air quality monitoring should be carried out as per the new notification issued on 16<sup>th</sup> November, 2009.
- (xxiii) 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.

- (xxiv) 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.
- (xxv) Also examine and submit the details about the protection to existing habitations from dust, noise, odour etc. during construction stage. IRC guidelines to be followed for traffic safety while passing through the habitat.
- (xxvi) 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.
- (xxvii) 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.
- (xxviii) 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.
- (xxix) Examine and submit details of water quantity required and source of water including water requirement during the construction stage with supporting data and also categorization of ground water based on the CGWB classification.
- (xxx) 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.
- (xxxi) If there will be any change in the drainage pattern after the proposed activity, details of changes shall be examined and submitted.
- (xxxii) 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.

- (xxxiii) 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.
- (xxxiv) Submit the details of road safety, signage, service roads, vehicular under passes, accident prone zone and the mitigation measures.
- (xxxv) IRC guidelines shall be followed for widening & upgradation of road.
- (xxxvi) Submit details of social impact assessment due to the proposed construction of road.
- (xxxvii) 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.
- (xxxviii) 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.
- (xxxix) 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.
- (xl) Details of the properties, houses, businesses religious and social placesetc. activities likely to be effected by land acquisition and their financial loses annually.
- (xli) 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
- (xlii) Submit details of Corporate Social Responsibility. Necessary provisions should be made in the budget.
- (xliii) 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.
- (xliv) Submit environmental management and monitoring plan for all phases of the project viz. construction and operation.
- (xlv) Details of blasting if any, methodology/technique adopted, applicable

- regulations/permissions, timing of blasting, mitigation measures proposed.keeping in view mating season of wild life.
- (xlvi) In case of river/ creek crossing, details of the proposed bridges connecting on either banks, the design and traffic circulation at this junction with simulation studies.
- (xlvii) Details to ensure free flow of water in case the alignment passes through water bodies/river/streams etc.
- (xlviii) In case of bye passes, the details of access control from the nearby habitation/ habitation which may come up after the establishment of road.
- (xlix) Bridge design in eco sensitive area / mountains be examined keeping in view the rock classification hydrology etc.
- (l) In case of alignment passing through coastal zones
  - a) HTL/LTL map prepared by authorized agencies superimposed with alignment and recommendation of Coastal Zone Management Authority
  - b) Details of CRZ-I (I) areas, mangroves required to be removed for the project along with the compensatory afforestation, area and location with budget
  - c) Details of road on stilt in CRZ-I areas, design details to ensure free tidal flow
  - d) Details of Labour camps, machinery location,
- 3.38 Environmental Clearance for proposed Residential Apartments at Sy. No. 42,43,44,45,52, 53,54,55,56,57,58,59,60&61, Ramachandrapuram Village, Ramachandrapuram Mandal, Medak District, Andhra Pradesh by M/s. Sneha BHEL Employees Mutually Aided Cooperative Housing Society Ltd. [F.NO. 21-/2014-IA.III]

Sri. V. Mohan Reddy land owner proposes to develop a Residential Project at Ramchandrapuram, Medak, A.P. in the name of M/s. Sneha BHEL Employees Mutually Aided Co-Operative Housing Society Ltd., endeavour of the project is to provide affordable independent residential houses, for the benefit of the members of M/s. BHEL Employees.

The Project is located in survey number 42,43,44,45,52,53,54,55,56,57,58,59,60 & 61, Ramachandrapuram Village & Mandal, Medak Dist., The project will be developed on a total plot area of 17623.97 sq.m and Built up area of 50816.32 sq.m. The proposed project is construction of Apartments, club house with commercial tower. It is planned and designed as per the regulations and procedures laid down by the Hyderabad Metropolitan Development Authority.

The site is well connected through the Patancheru Road NH-9 at 0.25km.

The nearest railway station is Railway Station: Lingampally at 5.65 km SE station, about 5.4 km away from the project site. The nearest airport is Begumpet Airport, at 18 km from the project site. And in 10km radius area surrounded by Pamla vagu-4.20 km, melle cheruvu -5.20 km ,Gangi kunta vadka -7.3 km, Gopicheruvu-6.06 km.1.3 Sri. V. Mohan Reddy land owner (M/s. Sneha BHEL Employees Mutually Aided Co-Operative Housing Society Ltd.,) Approached Sl. No. in the QCI/NABET list: 141: Sri Sai Manasa Nature Tech Pvt. Ltd. Consultant for the Environmental Clearance Certificate to the proposed project.

The EAC decided to defer the project since the PP did not attend the meeting.

# 3.39 Environmental Clearance for construction of Residential Housing Projects at Sy No. 42/4, Kapparda Village, Visakhapatnam by M/s Visakha Infra Developers LLP.[F.No.21-36/2014- IA.III]

M/s. Visakha Infra Developers LLP is the company based in Visakhapatnam with its Administrative office at D.No: 12-4-6/1, First Floor, Pudimadaka Road, Above IOB Main Branch, Anakapalli, Visakhapatnam District. The project site is located at Sy. No: 712/2A, 2B, 722/5, 724/5A of General Market ward, Anakapalli, Visakhapatnam district.

The proposed project is a construction of residential apartments cover an area of 17156.05Sq.mts or 4.24Acres of land. The project is covered in EIA notification 2006. The project is a category of 'B' project 8 (a) – 'Building & Construction Projects'. The project involves construction of 348 residential flats in 5 Blocks and one Amenities block. The residential blocks have Stilt +G+4Upper floors and Amenities block have G + 3 Upper floors. The total cost of the project is Rs. 25.0Crores.

The total site area of the project is 4.24Acres and built up area of 47165.46Sq.mts. Green area & Tot-lot area over 1.3acres will be provided. The total parking area in stilt floor is 8727.1 Sq.mts is proposed. Stilt floor for parking will be provided.

The total design population for residential complex is 1860 persons (348 flats x 5 persons/flat = 1740 +120 persons in amenities). The Water requirement @ 135lpcd is approximately 240 KLD (145 KLD Fresh water + 95KLD Recycled water). 216.0 KLD Sewage @ 90% of the total water consumption will be generated. The sewage generated will be treated in STP of capacity 250 KLD and 95 KLD will be recycled for flushing; green belt development; HVAC and balance treated waste water will send to Municipal drain and the treated water in turn willbe used for nearby fields. Fresh water supply will be met through GVMC and Bore well.

Rain water harvesting will be undertaken from roof top and 15nos. of rain water harvesting structures will be provided inside the project to tap roof top water.

Solid waste of about 906 Kg/Day will be generated @ 0.5Kg/Capita/day from Residential flats and 0.3 Kg/Capita/day from amenities. A separate area is earmarked for segregation of solid waste in the proposed project.

Total energy requirement of 5206 KW will be provided by APTRANSCO. 1 No. of 400 KVA DG set will be provided for standby use for operating lifts etc. Energy conservation measures will be adopted for common area lighting and solar water systems.

The Committee recommended the proposal for Environmental Clearance with the following comments in the EC letter for the strict compliance by the proponent.

- (i) There should not be any disposal of Solid/Liquid effluent outside the proposed premises.
- (ii) The treated effluent should be recycled and reused 100% within the project premises.
- (iii) All internal roads should be 9 meters.
- (iv) Green belt of 2-3 meters shall be provided all along the periphery of the proposed building.
- (v) The treated effluent from the STP should be recycled and reused within same premises.
- (vi) The solid waste should be disposed off as per the MSW (M&H) rules 2000. No municipal waste should be disposed off outside the premises.

# 3.40 CRZ Clearance for the alteration and additional construction in Silk & Art Silk Mills Research Institute at C.S No. 972 Worli Division at Sasmira Dr. A.B road, G/S ward, Mumbai by M/s Sasmira - the Synthetic & Art Silk mills Research Association (F.No. 11-27/2011-IA.III)

As presented by the project proponent, the proposal is for alteration and additional construction in Silk & Art Silk Mills Research Institute at C, S No. 972 Worli Division at Sasmira Dr. A.B road, G/S ward, Mumbai. "SASMIRA" is a institute of learning Silk and Art Silk mills research running since 1965. The land is allotted for educational building on land bearing C.S No. 972 in Worli Division, Mumbai in year 1963. There are two existing wings out of which one wing shall be demolished. The total plot area is 11,811.17 sqm. The Government of Maharashtra has sanctioned additional FSI as per DCR, 1967 hence the proposed FSI will be 2.0. The proposed built up area will be 20576.73 sqm. The no. of students will be 1500, staff – 250 and no of visitors will be 40 approximately. The total water requirement will be 82 KLD which will be met from Brihan Mumbai Nagar Mahapalika. The wastewater generated will be about 70 KLd which will be treated in STP of 80 KLD capacity. About 26 KLD of the treated wastewater will be used for flushing and gardening and rest will be discharge in to the sewer line.

The project was examined by the EAC in its meeting held in June, 2011 and the EAC sought the HTL/LTL map prepared by an authorised agency on 1:4000 scale superimposed with project layout, revised parking plan, traffic survey and

circulation plan. The committee also observed that the built up area is more than 20,000 sqm, hence attracts the provisions of EIA Notification, 2006. Proponent is advised to obtain Environment Clearance separately from SEIAA, Maharashtra.

The details submitted and presented by the PP were examined by the EAC. After deliberation, the EAC recommended the proposal with the following comments in the CRZ clearance letter for the strict compliance by the proponent.

- (i) All the internal roads shall be 9 m wide
- (ii) Green belt along the compound shall be at least 2 m wide
- (iii) All the construction/ reconstruction shall be in accordance with the provisions of Coastal Regulation Zone Notification, 2011.

# Amendment in CRZ Clearance granted for the construction of Intake facilities for drawl of sea water and discharge of waste water facilities including construction of jetty for 4 X 660 MW Bhavanapadu Thermal Power Project at Srikakulam District, Andhra Pradesh by M/s. East Coast Energy Pvt. Ltd.[F. No. 10-48/2009-IA.III]

East Coast Energy Private Limited (ECEPL) is setting up the 2640MW Bhavanapadu Thermal Power Project at Kakarapalli Village, Santhabommali Mandal, Srikakulam District of Andhra Pradesh. Environment Clearance (EC) for the project has been accorded by the Ministry of Environment & Forests (MoEF) vide Order No. J-13011/36/2008-IA.II(T) dated 09.04.2009 and Amendment order dated 22.09.2011. The Environment and CRZ clearance was issued by MoEF vide Order No. 10-48/2009-IA.III dated 12.07.2012. The Environment and CRZ clearance was issued for construction of intake facilities for drawal of sea water and discharge of waste water facilities, construction of Jetty for handling of coal, fly ash including closed conveyer system and associated facilities.

The Power Project is under implementation in two Phases i.e. Phase I and Phase II of 1320 MW each. Phase I of the Project is under implementation for commissioning by March, 2016. The Jetty for handling of coal, fly ash including closed conveyer system and associated facilities for the project is now proposed to be constructed as part of the Phase-II of the project, thus requiring a revision in the scheme of the marine facilities.

#### **Approved facility:**

Captive jetty along with Sea water intake facility Intake and outfall pipeline along with closed conveyor on Trestle

#### **Proposed facility:**

Onshore pump house in CRZ area, with intake head along with buried pipeline/outfall in the offshore area. No change in the Captive jetty and associated facilities. In view of the change in the scheme for the construction of the Marine facilities for the Project, the following studies were carried out:

a) Addendum to the marine EIA Report carried out by M/s. Indomer Coastal

Hydraulics Pvt. Ltd., Chennai

b) Revised CRZ, HTL & LTL demarcation carried out by Institute of Remote Sensing, Anna University, Chennai The Andhra Pradesh Coastal Zone Management Authority (APCZMA) issued NOC vide letter dated 23.10.2013. The EAC in its 132nd meeting suggested the PP to submit the design details of the intake, pump house and outfall etc along with laying of pipe line. It was also suggested to give details of facilities PP wishes to retain as indicated in EC.

The Committee observed in its 134 meeting held on 19th, 20th and 21st May, 2014 that the design details of the intake structure along with the laying of HDPE pipeline with a provision of man hole for maintenance purpose presented by the proponent was hypothetical and the proponent was not able to justify the design and did not appeared feasible. The Committee suggested the proponent to submit the revised design for Intake structure and the laying of pipeline early.

It has been clarified by the PP that there is no underground welding involved in the project and no manhole proposed for maintenance purpose.

There is no proposal for construction of trussel as mentioned in the original proposal.

The Committee recommended the proposal for amendment in CRZ Clearance with the following conditions in the Clearance letter for strict compliance by the project proponent

- (i) Shall comply with the conditions stipulated by SCZMA.
- (ii) The intake and outfall pipelines shall be buried 2 m below the ground level /sea bed.
- (iii) The effluents shall be discharged through multiple ports at the outfall for proper thermal and salinity dispersion.
- (iv) The disposal shall meet State Pollution Control Board norms.
- (v) 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.
- 3.42 Amendment in Environmental Clearance granted for upgradation and modernization of Nhava Supply Base in village Nhava, Taluka Panvel, District Raigad, Maharashtra by M/s. ONGC [F.No.10-80/2007-IA-III]

PP informed that they had applied for extension in time on 28.12.2012. The EAC suggested the Ministry to verity and inform the status. The project is deferred to the next EAC.

3.43 Environmental and CRZ Clearance for Erosion Control Construction of

experimental submerged dyke off Kadalur periakuppam Pilot study for sustainable shoreline management, Tamil Nadu by M/s Fisheries Department. [F.No.11-30/2014-IA.III]

The coastal stretch of Kadalur Periyakuppam (KPK) is located south of Kalpakkam to the south of Palar River mouth in Cheyyur Taluk, Kancheepuram district, Tamil Nadu. KPK site comprises three fishing villages immediately south of Palar River and north of a creek. A number of fisheries facilities have been developed by the Tamilnadu Fisheries Department along the coastline. The coastline is found to accrete and erode alternately during non-monsoon and monsoon (cyclones) respectively with a net erosion trend. The immediate concern is that the beach is undergoing severe erosion which was aggravated following the 'Thane' (Dec'2011), 'Nilam' cyclones (Oct' 2012) and Madi cyclone (Dec'2013). The Fisheries Dept. approached National Institute of Ocean Technology(NIOT), Chennai for an immediate solution to protect these facilities and villages by devising a long term solution for coastal protection. NIOT has proposed for providing a submerged dyke, parallel to the shore to absorb the wave forces and to minimize the eroding effect after conducting various field measurements and hydrodynamic model studies. A submerged dyke of 3.5m height and 1.76 km total length is proposed. The length of segments shall be 200mts each with gaps of 60mts between the segmented portions. submerged dyke will be laid at 4 metre water depths offshore in submerged condition at a distance of 300m from the HTL. The entire project site is falling beyond CRZ-I on the seaward side. The cost of the project is Rs. 10-12 crores. The project is proposed to be executed by coastal and environmental engineering division, NIOT and is funded by the Ministry of Earth Sciences (MOES), GoI.

The sand for filling the tubes will be taken from sea bed beyond a water depth of 7 m. The sand will be taken from the sea bed surface to a maximum thickness of 1m using a sand dredger pump and will be dumped to sand barge and from there to a hopper. Sea water will be pumped into the hopper in required speed so that the sand slurry formed flows under gravity to the Geosynthetic tubes aligned at the sea bed using Anchor Blocks. The material requirement for the proposed project is estimated as 50,000 (fifty thousand) m³ of sand and 168 numbers of geo-synthetic tubes of 15 m circumference and 25 m in length.

The baseline data has been evaluated against known standards and criteria and have not identified any parameter that violates environmental standards mandated by the MoEF. In general, the data also does not indicate values typically associated with anthropogenic pollution.

All the construction would be carried out from a jack up platform using technical personnel and professional divers. About 15 such personnel would live on the jack up platform itself during the entire construction period. The performance of the dyke will be constantly monitored by NIOT at least for a period of 2 years. If the experimental project is not successful, then the entire geotextile tubes shall be cut and the sand will be redistributed within the system thereby restoring the site to its pre-project status.

The activity is proposed to be carried out on experimental basis to demonstrate the use of environmentally friendly options for sustainable shoreline protection. The experimental dyke shall result in benefit to the fishing community of the three villages of KPK.

Committee recommends the project for Environmental and CRZ clearance construction of submerged dyke in coastal water of Kadalur Periakuppam for coastal protection with following conditions

- (i) All conditions of TNSCZMA shall be strictly complied with.
- (ii) The proposed dyke should not have any impact on northern coast and estuary
- (iii) The borrow areas used for filling geo-tubes should not have any impact on coast
- (iv) The turbidly levels during the construction should be within permissible limits
- **(v)** During construction of dyke, proponent should ensure safety of fishing vessels/fishermen operating the area with suitable markers at dyke location.

# 3.44 CRZ Clearance for installation and operate a conveyor belt (92 M) at Gut No.221, Kokmandle village, Taluka Shrivardhan Distt by M/s Sun Rise Marine Enterprises [F.No. 11- 13/2013-IA.III]

As presented by the proponent, the proposal involves installation and operation of a conveyor belt (92 M) at Gut No.221, Kokmandle village, Taluka Shrivardhan Distt. Raigad on the bank of Savitri river for loading of bauxite on barge so that the bauxite ore can be transported through barge to the existing jetty at Sakhri village from where it will be transported through large barge to the vessel for transport. Presently, the ore is transported to the existing jetty at Dhighi by road of 60 km. The MCZMA has recommended the project vide letter No. CRZ-2012/CR-217/TC-2 dated 18.01.2013.

The proposal was examined by the EAC in April, 2013 and sought details on the route of transport, storage etc on the CRZ map. The details submitted and presented by the PP was examined by the EAC.

The proposed project is for installation & operation of the Conveyor Belt system in village Kolmandale on bank of the Savitri river for Loading of Bauxite ore into barges. The mined out bauxite ore will be transported, stored temporarily near conveyor belt. The stored ore will be loaded by Machine (Loader/Excavator) into Feed Hopper connected to conveyor belt and loaded into the barges of capacity 300 T and transport the same to existing Jetty at 12 nautical miles in Arabian Sea. About 2.5 KLD water will be required & will be sourced from ground water. It was reported by the PP that there are no wild life sanctuaries, tiger reserves, National Parks etc within 10 km radius of lease area. The cost of the project is Rs 28 Lakhs.

The Consent to Establish (CTE) was obtained from Maharashtra Pollution

	12/E-CC-	Board (MPCB) vide consent order No. BO/JD(APC)/EIC No. RD-2397-368 dated 21.08.2012. Permission from Maharashtra Maritime Board as sorted vide letter No. MMB/Planning-2/Sunrise Marine/2813, dated 11.			
	The EAC after deliberation sought the following information:				
	(i)	Details of noise generation from the operation of conveyor and incremental noise due to the project.			
	(ii)	Details of storage along with dust control measures.			
	(iii)	Details of Mangrove areas, cutting/ removal if any. Permission from HC in case of removal of mangroves.			
3.45	Extension of validity of ToR granted for Port at Positra, Gujarat to M/s Port of Positra (F.No. 10-65/2007-IA.III				
	EAC deferred the project and advised the Ministry to examine the integrating the earlier ToR sand inform the , PP not attended the meeting				

Item No. 4.10. Finalization of ToR for construction of standalone ring road/by pass link road around Srinagar City in the State of J&K by NHAI [F.No.10-33/2013-IA.III]

The line "The Committee recommended the proposal with the following comments in the EC letter for the strict compliance by the proponent." Shall be read as "The Committee recommended the proposal with the following additional ToR"

#### **Annexure-I**

- (i) Examine and submit a brief description of the project, project name, nature, size, its importance to the region/state and the country.
- (ii) In case the project involves diversion of forests land, guidelines under OM dated 20.03.2013 may be followed and necessary action taken accordingly.
- (iii) Details of any litigation(s) pending against the project and/or any directions or orders passed by any court of law/any statutory authority against the project to be detailed out.
- (iv) 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.
- (v) Describe various alternatives considered, procedures and criteria adopted for selection of the final alternative with reasons.
- (vi) 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.
- (vii) 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. Landslide, rock fall protection measures to be indicated.
- (viii) 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 high levels flood periodicity at least of last 50 years in the area should be examined.
- (ix) 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.

- (x) 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.
- (xi) The information should be provided about the details of the trees to be cut including their species and whether it also involves any protected or endangered species. Measures taken to reduce the number of the trees to be removed should be explained in detail. Submit the details of compensatory plantation. Explore the possibilities of relocating the existing trees. Animal and wild life crossings to be provided in areas inhabited by wild life.
- (xii) Necessary green belt shall be provided on both sides of the highway with proper central verge and cost provision should be made for regular maintenance.
- (xiii) 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. Noise reduction measures should also be indicated.
- (xiv) Submit details about measures taken for the pedestrian safety and construction of underpasses and foot-over bridges along with flyovers and interchanges. If any.
- (xv) 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). Specific care be also taken to ensure that by passes have a sufficient buffer to prevent unwanted obstructions defying the purpose of the by pass
- (xvi) 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.
- (xvii) Examine and submit the details of sand quarry, borrow area and rehabilitation.
- (xviii) Explore the possibilities of utilizing the debris/ waste materials available in and around the project area.
- (xix) Submit the details on compliance with respect to Research Track Notification of MoRTH.
- (xx) Examine and submit the details of sand quarry and borrow area as per OM no.2-30/2012-IA-III dated 18.12.2012 on 'Rationalization of procedure for Environmental Clearance for Highway Projects involving borrow areas for soil and earth" as modified vide OM of even no. dated March 19, 2013.

- (xxi) 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.
- (xxii) The air quality monitoring should be carried out as per the new notification issued on 16<sup>th</sup> November, 2009.
- (xxiii) 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.
- (xxiv) 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.
- (xxv) Also examine and submit the details about the protection to existing habitations from dust, noise, odour etc. during construction stage. IRC guidelines to be followed for traffic safety while passing through the habitat.
- (xxvi) 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.
- (xxvii) 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.
- (xxviii) 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.
  - (xxix) Examine and submit details of water quantity required and source of water including water requirement during the construction stage with supporting data and also categorization of ground water based on the CGWB classification.
  - (xxx) 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.
- (xxxi) If there will be any change in the drainage pattern after the proposed activity, details of changes shall be examined and submitted.
- (xxxii) 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.
- (xxxiii) 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.
- (xxxiv) Submit the details of road safety, signage, service roads, vehicular under passes, accident prone zone and the mitigation measures.
- (xxxv) IRC guidelines shall be followed for widening & upgradation of road.
- (xxxvi) Submit details of social impact assessment due to the proposed construction of road.
- (xxxvii) 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.
- (xxxviii) 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.
- (xxxix) 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.
  - (xl) Details of the properties, houses, businesses religious and social placesetc. activities likely to be effected by land acquisition and their financial loses annually.
  - (xli) 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
  - (xlii) Submit details of Corporate Social Responsibility. Necessary provisions should be made in the budget.

- (xliii) 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.
- (xliv) Submit environmental management and monitoring plan for all phases of the project viz. construction and operation.
- (xlv) Details of blasting if any, methodology/technique adopted, applicable regulations/permissions, timing of blasting, mitigation measures proposed keeping in view mating season of Wildlife.
- (xlvi) In case of river/ creek crossing, details of the proposed bridges connecting on either banks, the design and traffic circulation at this junction with simulation studies.
- (xlvii) Details to ensure free flow of water in case the alignment passes through water bodies/river/streams etc.
- (xlviii) In case of bye passes, the details of access control from the nearby habitation/habitation which may come up after the establishment of road.
- (xlix) Bridge design in eco sensitive area / mountains be examined keeping in view the rock classification hydrology etc.
- (l) In case of alignment passing through coastal zones
  - a) HTL/LTL map prepared by authorized agencies superimposed with alignment and recommendation of Coastal Zone Management Authority
  - b) Details of CRZ-I (I) areas, mangroves required to be removed for the project along with the compensatory afforestation, area and location with budget.
  - c) Details of road on stilt in CRZ-I areas, design details to ensure free tidal flow.
  - d) Details of Labour camps, machinery location.

### **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 4<sup>th</sup> 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.

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