

Minutes of 191st meeting of Expert Appraisal Committee for Projects related to Infrastructure Development, Industrial estate/parks/complexes/areas, Export Processing Zones, Special Economic Zones, Biotech Parks, Leather Complexes and National Highways projects held on 25th June, 2018 at Indira Paryavaran Bhawan, Ministry of Environment, Forest and Climate Change, Jor Bagh Road, New Delhi

1. Opening remarks of the Chairman

2. Confirmation of the minutes of the 189th meeting held on 7th May, 2018:

The EAC while confirming the minutes of its 189th Meeting held on 7th May, 2018, took note of suggestions of members and recommended for correction therein as under:

Page No.	Item	For	Read as
36	3.7.5	Since, the <u>Construction of road is an area falls within the prohibited categories</u> as per the above ESA, the proposed project may be granted environmental clearance by the Ministry as per provisions contained in the EIA Notification (2006) and subsequent amendments thereto.	Since, the <u>Construction of road does not fall within the prohibited categories</u> as per the above ESA, the proposed project may be granted environmental clearance by the Ministry as per provisions contained in the EIA Notification (2006) and subsequent amendments thereto.

3. Consideration of Proposals

3.1	Development of Hyderabad Pharma City (HPC) near Yacharam, Kandukur and Kadhal Mandal, Ranga Reddy District, Telangana by M/s Telangana State Industrial Infrastructure Corp. Ltd. - Re-consideration for Environmental Clearance [Proposal No. IA/TG/NCP/59781/2016] [F.No.21-5/2016-IA.III]
3.1.1	The project proponent along with the EIA consultant Environment Protection Training and Research Institute (EPTRI), Hyderabad, made a presentation and provided the following information to the Committee: (i) The project involves development of Hyderabad Pharma City (NIMZ) at Kandukur, Yacharam and Kadthal Mandals of Rangareddy District (Telangana). (ii) The proposed project site is located between Latitudes 16°54'1.18"N to 17°04'12.12"N and Longitudes 78°29'55.99"E to 78°39'23.74"E. (iii) The total plot Area of the proposed project site is 78.23 sq. km. The project will be developed in phase wise.

- (iv) Total area of the proposed Hyderabad Pharma City is 19333 acres. 7414 acres of land is already acquired. About 3401.86 ha of project area will be developed in phase 1. No land shall be acquired without consent of the land owner.
- (v) No forest land involved in this project.
- (vi) Land Use Land Cover (LULC) in core zone is given as under:

LULC	Areas in ha	Area in %
Cropped in 2 seasons	1026.69	12.48
Kharif Crop land	1937.23	22.44
Rabi Crop land	6.32	0.07
Agricultural Fallow	3002.47	34.4
Agricultural Plantation	3.78	0.04
Built Up area	6.93	0.08
Barren Rocky/Stony waste	46.41	8.25
Dense scrub land	736.88	13.37
Open scrub land	1151.75	6.76
Waterbodies-Reservoir/Tanks-Seasonal	170.08	2.11

- (vii) The required quantity of water estimated during construction phase is about 2000 KLD, which will be met by RWS&S Department under Mission Bhagiratha scheme.
- (viii) Gross Water Demand is 168.53 MLD (including losses) and Net Water Demand is 143.25 MLD.
- (ix) About 164 TPD of municipal solid waste is estimated to be generated in the project. About 35% of total municipal solid waste of the project will be biodegradable waste. This waste is subjected to series of segregation methods proposed to recover recyclable wastes like paper, plastic, glass, metal, etc., which will be 20-30% of total solid waste. These recyclable wastes shall be processed further before sending to recyclers as RDF or as raw material for other industries. Subsequent to this, organic portion of the solid waste will go through a composting process. Rejects from composting and from segregation section will go to waste to energy furnace unit. Ashes and remaining inert waste like silt shall be sent to landfill facility.
- For disposal and treatment of collected solid wastes, an integrated solid waste treatment facility is proposed with components such as

treatment/stabilization, recycling facility, sanitary and hazardous waste landfill, incinerator and waste to energy facility.

- (x) The power during construction phase would be met from Meerkhanpet 400/220kV receiving station which located is within the HPC site. The total power requirement for the Proposed Hyderabad Pharma City for the ultimate phase is 985 MW.
- (xi) Rain water harvesting within and outside the industrial, residential and other plots are proposed.
- (xii) Shallow recharge pits along with storage tanks are proposed for collection of rain water from roof tops of buildings. Recharge pits proposed are of approximate dimensions of 1m X 1m X1.5m. Storage tanks suggested are of approximate dimensions of 10mX10mX4.5m.
- (xiii) As per the requirement and guidelines, parking facilities will be provided.
- (xiv) Proposed capacity of Solar PV for Ultimate phase would be 435 MW. Solar PV shall be installed at all building's rooftop (Industries, Commercial buildings, Universities, residential buildings rooftop). Solar PV power supply will reduce the HPC peak power demand up to 10% and annual energy savings will be up to 15% of overall HPC energy consumption.

Cogeneration plant proposed in HPC will cater to the optimized use of resources and for reduction in peak energy demand 45,000 TR(cooling) savings by utilizing waste heat for cooling system which in turn results in water savings of about 4.5 MLD and annual energy savings of 262,800 MWhr.
- (xv) There is no eco-sensitive area, National Park. Wildlife Sanctuary, Tiger/Elephant Reserve, Core Zone of Biosphere Reserve, habitat for Migratory birds etc. within the study area around the project site. Total 13 Reserved Forests are situated around the project site. Forest patches are fragmented and mostly degraded. No endemic and endangered faunal species are reported from the project site.
- (xvi) Dominant tree species are *Anogeissus latifolia*, *Boswellia serrata*, *Butea monosperma*, *Diospyros melanoxylon*, *Tectona grandis*, *Lannea coromandelica*, *Terminalia tormentosa*, *Terminalia bellerica*, *Chloroxylon swietenia*, *Dalbergia sisoo*, *Adina cordifolia*, *Cassia fistula*, *Semecarpus anacardium* and *Strychnos potatorum*.
- (xvii) **Cost of the project:** Rs.16784 Crores.
- (xviii) **ToR details:** ToR was granted vide letter No.21-5/2016-IA.III dated 9.12.2016.
- (xix) **Public Hearing:** The public hearing was conducted on October 11, 2017 at Medipally Site, Yacharam (M), Rangareddy District. The major issues raised during the public hearing and responses were:

Sl. No.	Issues raised	Responses of PP
(i)	Land Acquisition issues	Adequate compensation to be paid to farmers.
(ii)	Employment Related	Due process shall be followed for Land acquisition as per State R&R rules.
(iii)	Environmental Aspects	Effective pollution control measures will be maintained and latest technologies will be adopted.
(iv)	Skill development	Steps to be taken to prevent contamination of pollution into tanks. Skill development training will be imparted to the locals and all of them will be considered for employment.

(xx) **Employment potential:** Development of Hyderabad Pharma city will create 5.6 lakh of direct (1.7 lakh) and indirect employment.

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

- Hyderabad Pharma city is an integrated facility being set up with every essential component like treatment facilities, solid waste management, secured landfill, use of natural gas for heating requirement thereby ensuring minimum air pollution, incinerators, testing facilities, online control center to monitor all the environmental parameters both inside the industrial units and at park level, research & development, residential areas, tapping renewal energy, layered development of green, orange, red industries & common facilities to have effective buffering, isolated residential development nearby, etc thereby facilitating sustainable and environment-friendly development.
- The present project is mooted to bring to an end the adverse effects on the environment due to the existing industrial activity which will enable relocation of all the pharmaceutical industries without loosing on the GDP from this sector. It makes possible economy of scale with increased efficiency, incentivizes compliance of environmental regulations by implementing robust monitoring framework. Further it eliminates disadvantages of fragmented development.
- Hyderabad Pharma city will ensure reduced reliance on imports and consequent threat of availability of medicines to needy through domestic manufacturing.

3.1.2

During deliberations in 183rd meeting held on 24th January, 2018, EAC noted following:

- (i) The proposed project is flagship project of the Government of Telangana.
- (ii) National Health Policy 2017 issued by Government of India has special focus on production of Active Pharmaceutical Ingredients (API), and incentivising local manufacturing.
- (iii) No new expansion of existing/establishment of new Pharma units in Hyderabad shall be permitted henceforth, excepting Pharma City. Existing units shall be relocated to Pharma City in a planned phased manner depending upon their present environmental footprint but not exceeding 7 years.
- (iv) Natural Gas shall be used as fuel for Boilers to generate steam as well as for Co-generation power plant which will have negligible impact on surrounding environment.
- (v) Skill development for locals at Government Cost and priority will be given to land losers.
- (vi) Estimated investment in pharmaceutical manufacturing: Rs. 64,000 Crore (Proposed FDI - 30%).
- (vii) Estimated exports: Rs. 58,000 Crore (Current exports - ~Rs. 32600 Crore).
- (viii) 15 m green belt along the periphery and 33% at industrial units with provision of Rs. 80 Crore as mentioned in EMP.
- (ix) 60m buffer all along the reserve forest area as against 15m prescribed in ToR.
- (x) Mandatory CSR activities by industrial units including afforestation and conservation of adjoining Reserved Forest to the extent of 1200 acres.
- (xi) No Extraction of Ground Water. Effective storm water management will be ensured and existing water bodies will be protected and used for storm water storage.
- (xii) Effluents are not discharged on ground or natural water bodies or streams. It is proposed to ensure 100% wastewater treatment, effective Water Recycling and reduction in potable water demand substantially.
- (xiii) The natural drainage in the area will not be disturbed by the project activity by ensuring that the drainage is not obstructed due to construction activity.
- (xiv) Soil binding grass will be used to prevent soil erosion. Silt retention structures will be implemented along the drainage to prevent silting of water bodies.

- (xv) About 10 m buffer along the periphery of water bodies will be used for greenery development for aesthetics and also to protect the boundary and prevent soil erosion.
- (xvi) Regarding groundwater quality, the parameters like PH, Sulphate, Nitrate, and Heavy Metals concentration at all the locations are within the prescribed limits, while TDS, Total Hardness, Calcium, Magnesium, Chloride & Iron concentrations were found exceeding the desirable limits but within the permissible limit for Drinking Water Quality in some of the samples.
- (xvii) Regarding surface water quality, the water quality of all 7 ponds was found within the prescribed limits of IS-2296, Class C (Drinking water source with conventional treatment followed by disinfection), except for alkalinity, BOD and MPN in some of the cases.
- (xviii) Regarding air quality, the values of all the pollutants at the respective locations were within the stipulated standards on all the occasions except for PM10, exceeding the limit on few occasions at 4 locations. This can be attributed mainly to the vehicular pollution in the area.
- (xix) Government of Telangana has granted permission for 142 MLD water through Mission Bhagiratha.
- (xx) It is proposed to retain parts of two settlements (Ganugamarla Tanda and Marrisally) and integrate them with the proposed Pharma City.
- (xxi) Around 40 lacs NTFP (esp fruit bearing) trees shall be planted under green belt development programme which apart from significantly mitigating the air environment due to the operation of the process unit will improve the aesthetic value of the area.
- (xxii) The Ministry has received a few representations by local people regarding Public Hearing and bad effect of proposed project on environment. In this regards, a detailed reply was submitted by the Principal Secretary (Industry & Commerce), Government of Telangana. The Member Secretary, Telangana State Pollution Control Board (TSPCB) submitted detailed point wise clarifications in respect of issues mention in the representations by local people. During deliberation, Shri M. Raghunandan Rao, IAS, Collector & District Magistrate explained the entire process of conducting Public Hearing, which was organised under his Chairmanship on 11th December, 2017 in Medipally village, Yecharam Mandal, Rangareddy district. He also submitted the resolution of Gram Sabha, Medipally village, duly signed by Tahsildar, Yechram Mandal, stating that villagers are willing to give their land to the said project. In view of this, the EAC opined that the public hearing was conducted by TSPCB in accordance with EIA Notification, 2006 as amended from time to time.

3.1.3

After detailed deliberation during 183rd meeting held on 24th January, 2018, the EAC deferred the decision for want of additional information on following points:

- (i) Detailed plan for treatment of effluent that will be generated from bulk drug units as well as formulations units to take care of treatment of Active Pharmaceutical Ingredient (API), which may affect the environment (ground and surface waters and soil when treated effluent is applied). CETP may however take effluent requiring treatment in Multiple Effect Evaporator (MEE) through dedicated pipeline or tankers.
- (ii) As far as ZLD at CETPs is concerned, it may cover formulation units and storm water when contaminated. The bulk drug units should have their own ETP with ZLD due to high volume of effluent generation including requirement of reuse of recovered water.
- (iii) Plan to develop Hazardous waste disposal facility within the proposed Pharma City including pre-processing for disposal through cement plants (co-processing), if feasible.
- (iv) Plan for conserving the existing water bodies (tanks and ponds) and prevention due to contamination of surface and ground water from effluent discharge.
- (v) Natural drainage should be least affected. Plan should be prepared and submitted, which will not alter/interrupt original flow of streams passing through the project site.
- (vi) Ground water quality monitoring with respect to Fluoride in ground water to be studied especially through sampling of dug well samples.
- (vii) Plan for skill development training including suitable employment to locals.
- (viii) Air modelling details to be furnished in tabular form like baseline values, incremental values on prediction due to various activities such as emissions from drugs and pharmaceutical productions, vehicular emission (particularly NO_x and CO) resulting from tanker and truck movements to carry raw material and chemicals. The incremental values due to above activities should be presented for all air quality monitoring stations. Reasons should also be provided for exceeding PM₁₀ and PM_{2.5} for four locations during baseline study.
- (ix) Noise modelling details to be furnished in tabular form like baseline values, incremental values due to prediction and total values at all noise monitoring stations.
- (x) Detailed post project monitoring plan along with fund provision for implementation shall be submitted.
- (xi) Detailed environmental, biodiversity management and water conservation plan with fund provision for implementation shall be submitted.

	<p>(xii) Revised Risk Management study covering handling of chemicals and their storage including Emergency Preparedness Plan (establishment of Emergency Response Centre) should be submitted.</p> <p>(xiii) Baseline information on the status of crops, cropping pattern and their yield in the nearby agricultural land shall be submitted.</p> <p>(xiv) Study on traffic density, prediction of traffic generation, its impacts and mitigation measures are required.</p> <p>(xv) It is proposed to retain parts of two settlements (Ganugamarla Tanda and Marrisally) and integrate them with the proposed Pharma City. In this regard, details to be submitted about safeguard measures proposed to protect the villagers from environmental pollution from the Pharma City.</p>
<p>3.1.4</p>	<p>Additionally, a site visit was made by EAC sub-committee on 8th and 9th March 2018 and report is submitted to the EAC (report was annexed with the minutes of 189th meeting held on 7th May, 2018). After site visit, the proponent was directed to submit the required details as mentioned below:</p> <p>(i) The subcommittee after having brief presentation by project proponent and EIA consultant visited the site and looked into the area map provided for environmental features in the area. After site visit and scrutinisation of all the documents and discussion with the project proponent and other relevant official, the project proponent has requested to provide following information:</p> <p>a) Provide the present status of village wise land acquisition details.</p> <p>b) Provide the zonal development plan for residential township with details of buildings, hospitals and other social infrastructure.</p> <p>c) Provide the pollution loads data of existing bulk drugs and formulation units situated in Hyderabad and that are proposed to be shifted to proposed Pharma city for the purpose of environmental impact assessment.</p> <p>d) Provide the current status of water source for agriculture purposes in the project region including existing groundwater utilization details.</p> <p>(ii) PP was requested Explore the possibility of shifting of Ganugamarlathanda and provide the R&R details including number of structures, compensation as per the prevailing Land Acquisition Act.</p> <p>(iii) Project proponent should revise the master plan of proposed Pharma city based on land under their possession and availability of agricultural land through acquisition in future in Kadthal Mandal.</p> <p>(iv) PP was advised for shifting of location of proposed integrated solid waste management unit away from human habitation and CETP</p>

	<p>within the proposed project site in view of providing clean and safe environment.</p> <p>(v) The reserve forest area is typical landscape of the region with arid feature supporting associated biodiversity. A special conservation plan along with implementation strategy will be necessary for the area</p> <p>(vi) R&R of people surrounding the land and state of art pollution prevention technology is of prime importance of the said project considering the highly polluting nature of the sector. Thus provision of these should be clearly demonstrated.</p>
<p>3.1.5</p>	<p>During 189th meeting held on 7th May, 2018, the proponent presented following information:</p> <p>(i) A detailed analysis of water requirement, waste water generation, estimation of raw material and finished product, emission rate, etc was made for 298 existing industries which were planned to be shifted to Hyderabad Parma City. These figures were used as factors to arrive at total load instead of using theoretical factors based on assumptions. The quantity of High TDS, Low TDS and toxic effluent streams were calculated. Based on these calculations, a detailed treatment plan was developed for HTDS, LTDS and toxic effluents. All primary treatments will be done by individual units to meet inlet standards of CETP before sending the waste-water to CETP. It has been planned to send toxic wastes by tankers while HTDS and LTDS effluents will be conveyed through pipelines.</p> <p>(ii) For the waste-water generated in the entire HPC, 4 CETP have been proposed at critical locations. A meeting was held with the member industries to understand and address the issues related to CETPs and individual ETPs with reference to ZLD. Individual industries including bulk drugs units will be responsible for segregation of waste-water streams and pre-treatment at source to comply with the pre-defined CETP inlet characteristics. It was also told that better monitoring will be possible at a CETP than at several individual ETPs. The infrastructure in terms of laboratory facilities, specialized man power, specialized units etc., is more feasible at CETPs than at individual unit level.</p> <p>(iii) An integrated Solid waste treatment plant site (40.47 hectares / 100 acres) for HPC had been initially selected near the northern boundary of Zone 3 of proposed HPC Site. However, due to proximity of the solid-waste treatment plant to the villages Nakkerta and Nanaknagar, it was suggested by the EAC to shift the facility towards the southern boundary of Zone 3. Accordingly, the solid waste treatment facility has been shifted towards the southern side, which is away from any settlements. Also a greenbelt has been planned around the facility to mitigate any form of pollution.</p> <p>(iv) Hyderabad Pharma City and surroundings primarily consists of first and second order streams and about 22 small static water bodies</p>

(including 6 notified water-bodies), which forms the natural drainage of the area. The static water bodies, except the 6 notified water-bodies are actually depressions, where water collect during monsoon. All the existing water body will be provided with 10m buffer zone in the form of tree plantation for soil and moisture conservation and prevent siltation of the tanks. There will be a guard pond after every installed CETP and the water of the guard pond will be continuously monitored so as to check any contamination. Also guard ponds will be constructed at storm water discharge points and monitoring of downstream ponds will be done continuously.

- (v) The site is divided by a ridge and maximum area is drained towards south and few first order streams are flowing towards north. Most of the natural drainage originating in the site flow outwards towards south.
- (vi) In the northern side first and second order drains flow through Yelimineti Vagu and Chinna Musi River to ultimately join Musi River. The Musi Project is 92km (aerial) from the project site. As the drainage flows from the area where mainly residential and institutional areas are located, there is no risk of contamination to the drainages flowing north. The drainage originating from rest of the project area are also network of first order and second order streams which ultimately flow into the Chinna Pedda Vagu at a distance of around 3.5km South from HPC site. The Chinna Pedda Vagu subsequently joins the Bhimanapalli Vagu and further downstream to Pedda Vagu, which drains to Nagarjuna Sagar, about 82km toward the south-east of the project site.
- (vii) Measures will be taken so that the drainage is not disturbed. Natural Drainage level at inlet and outfall will be maintained with project site planned storm water drainage system so that there is no water-logging. Each industrial unit shall be installing their individual piezometers to check the ground water level and also shall be responsible for continuous monitoring of ground water quality. In addition to that, water monitoring stations will be installed all along the river towards the south to detect any contamination in the downstream of the site.
- (viii) Four samples of ground water were collected from dug wells for analysis of Fluoride. The fluoride content in the dug-well samples were found to be higher (except one location) than the desirable limit as per IS:10500 but within the permissible limit. It needs a mention here that the 8 samples of bore-wells water analyzed shows that they are within the desirable limit for all samples.
- (ix) It has been planned to set up four Skill Training Centres inside the HPC to provide training to the local population in trades required for the project. An amount of Rs 20.0 crores has been allotted for setting up and operation of the Skill Training Centres.

- (x) The computation for predicting the Air Quality due to the project has been made applying ISCST3 of USEPA. Modelling exercise has been performed for 2 different cases:
- (xi) Scenario A: 30 Gas based Boilers + 25 Gas fuelled Co-generation Plant + 1 Waste to Energy Plant + 10 DG sets of 2000 KVA each.
- (xii) Scenario B: 30 Imported Coal based Boilers + 25 Gas fuelled Co-generation Plant + 1 Waste to Energy Plant + 10 DG sets of 2000 KVA each.
- (xiii) For NO₂, in Scenario A, the maximum GLC was calculated to be 32.5 µg/m³ at a distance of around 3.5km in NW direction from the centre of the project site while for scenario B the GLC was 35.0 µg/m³ at the same location. Similarly, for SO₂, the maximum GLC was calculated to be 6.2 µg/m³ at a distance of around 4.0km in NW direction from the centre of the project site while for scenario B, the GLC for SO₂ was 20.0 µg/m³ at the same location.
- (xiv) Infinite Line source model has been run for emission calculation from transportation due to the project. It was observed from the 'with project' and 'without project' scenario, that there will be a marginal increase in the gaseous pollutants due to increased traffic. The highest incremental of 0.57 µg/m³ for SO₂ was predicted while the incremental of 9.31 µg/m³ of HC+NO₂ and 129µg/m³ of CO was also predicted. All the figures were found to be much below the NAAQ standard and thus the impact can be considered to be insignificant.
- (xv) Noise modelling was done considering two sources, viz pumps and compressors. From the modelling it was found that the range of sound level during the operation phase will be from 45.6dB to 74.1dB. As the areas predicted to have higher noise levels are within the project, it will be classified as an industrial area. Thus the noise level will be within the prescribed standard.
- (xvi) A detailed post-project monitoring plan has been drawn up and was submitted. TSIC will have a full-fledged Environment Monitoring Cell with trained personnel to oversee all environment parameters/aspects. This Cell will look after all aspects such as solid waste management, waste water treatment and disposal/recycle, green-belt development, statutory compliance and monitoring. The total annual environment monitoring cost estimated for the project, excluding manpower, is Rs 395 lakhs.
- (xvii) As per the requirement of the EAC, a detailed environmental, biodiversity management and water conservation plan was prepared. The plan gave details of the green belt development plan, water conservation measures, development and conservation of water bodies, rain water harvesting details and methods of conserving the nearby forest. A total capital cost of Rs. 3747.2 crores have been earmarked for activities related to environmental, biodiversity and water management.

- (xviii) A comprehensive risk assessment was done with modelling conducted for chemicals such as Acetone, Ethanol, Ethyl Acetate, Hexane, Iso-Propyl Alcohol, Methanol, Toluene and Di Chloro Methane. Three situations viz Leaking tank, chemical is not burning and forms an evaporating puddle, leaking tank, chemical is burning and forms a pool fire and BLEVE, tank explodes and chemical burns in a fireball were modelled
- (xix) The worst impact was found for Di Chloro Methane, which had impact till 1600m. Mitigation measures such as on-site and off-site disaster management plan, Mock drills have been suggested as part of the Disaster Management Plan.
- (xx) Baseline production data for the last three years were collected from the Agriculture Department to understand the production trend and cropping pattern of the area. The major crops identified in the area includes paddy, jowar, bajra, maize, green gram, black gram, cotton, onion, groundnut and sunflower. A slight reduction in the production level was found in the area during the period.
- (xxi) Traffic volume count survey was conducted in 5 strategic locations. As part of the traffic flow plan, the proposed PCUs were equally distributed in 5 equal sections for estimation of LOS of surrounding roads. It was found that there is a need to widen the external arterial roads, i.e. SH-19 and NH-765 after initiation of the project. However, the internal roads have enough capacity and has been planned to sustain the predicted incremental traffic load. Proper mitigation measures such as disciplined traffic movement, proper maintenance of roads will be done.
- (xxii) The two settlements, Ganugamarla Tanda and Mairipally have been proposed to be shifted outside the boundary of the HPC. During the presentation on 189th meeting when this issue was discussed it was proposed to relocate the two habitations to the residential area of Hyderabad Pharma City where all the required common and social infrastructure will be developed. Further they will be compensated as per the provisions of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 and Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Telangana Amendment) Rules, 2016.
- (xxiii) It has been committed by TSIIC that jobs will be provided to the people as per their eligibility and skill sets. Local people also who have the required qualification and experience, will be provided appropriate jobs. To provide training and improve the employability of the local people who needs additional skill enrichment, Skill Development Centres have been proposed to be set up.

The following information was also presented by the proponent during meeting regarding queries raised by EAC Sub-Committee during Site Visit on 8th and 9th March, 2018:

- (i) A total of 10 villages will be affected by the project. As on date 19,046 acres of land has been filed for requisition while 7424 acres is already under possession. The process of registration is under progress for 30 acres. Also informed that 12.5 Lakhs/acre compensation was paid for patta lands.
- (ii) The total area designated for residential area is 1507 acres, which includes 1141 acres of residential space, 183 acres each for commercial and institutional space. Other than that 1111 acres of land is designated for public and semi-public use, 1042 acres for utilities and 1982 acres for roads and logistic hub. All designing has been done as per the URDPFI Provision standards. The details of the Zonal Development Plan for Residential Township with details of Buildings, Hospitals and other Infrastructure has been submitted.
- (iii) A detailed analysis of water requirement, waste water generation, estimation of raw material and finished product, emission rate, etc. was made for 298 existing industries which were planned to be shifted to Hyderabad Parma City. These figures were used as factors to arrive at total load instead of using theoretical factors based on assumptions. The quantity of High TDS, Low TDS and toxic effluent streams were calculated. The emission data from generators and stacks were also calculated and the details provided.
- (iv) The details of the source of water for agriculture were collected through secondary data from Chief Planning Officer, Rangareddy District. It was found that in all the three Mandals involved in the project, the only source of water for agriculture is deep tube wells.
- (v) It has been planned to shift both villages falling under the project site, viz Gaugamarla Tanda and Maripally and provide R&R compensation as per existing national and state R&R provisions. The total number of displaced and affected families in Gaugamarla Tanda is 148 while it is 136 in Maripally village. As per the provisions of the LARR Act 2013 and LARR Telangana (Amendment) Rules 2016, the estimated cost of R&R for Gaugamarla Tanda is Rs 17,10,72,000 and for Maripally it is Rs.15,75,54,000.
- (vi) Proponent submitted an undertaking that Orange, Green and White category industries only would be proposed for establishment in the Phase-III area of Hyderabad pharmacy and land acquisition for the balance area is under progress
- (vii) An integrated solid waste treatment plant site (40.47 hectares / 100 acres) for HPC had been initially selected near the northern boundary of Zone 3 of proposed HPC Site. However, due to proximity of the solid-waste treatment plant to the villages Nakkerta and Nanaknagar, it was suggested by the EAC to shift the facility towards the southern boundary of Zone 3. Accordingly, the solid waste treatment facility

	<p>has been shifted towards the southern side, which is away from any settlements. Also a greenbelt has been planned around the facility to mitigate any form of pollution.</p> <p>(viii) A conservation plan for protection of the adjacent Reserved Forest has been prepared by TSIIC. Various intervention strategies have been provided for reduction of degradation, creation of fire-lines, removal of invasive species, taking up plantation drives, implementing water and soil conservation measures, etc. The total cost estimated for the above-mentioned interventions amount to Rs 28.22 crores over a period of three years. This cost is in addition to the EMP cost proposed for the project.</p>
<p>3.1.6</p>	<p>The EAC, after detailed deliberations in the 189th meeting held 7th May, 2018, recommended the project for grant of Environmental Clearance, with the following specific conditions in addition to all generic conditions applicable for such projects:</p> <ul style="list-style-type: none"> (i) TSIIC will be responsible for implementation of all EC conditions. (ii) Remaining Land acquisition to be done with the consent of land owners only with suitable compensation. (iii) PP may try to shift the existing settlements from the proposed project. If shifting of existing settlements is not possible, a buffer of 1 km shall be maintained between existing industrial units and existing settlements within pharma city. (iv) 100 m buffer shall be maintained between forest and project development area. (v) 100 m buffer all along the water bodies shall be maintained and water bodies shall be protected against any contamination due to discharge/leakage of effluents. (vi) Annual health survey to be carried out within 5 km of proposed pharma city and remedial measures to be taken for health problems of villagers. (vii) Only natural gas to be used for boilers and methane emission to be monitored regularly. (viii) Regular monitoring of surface water and ground water quality are to be carried out quarterly and report be submitted to concerned regional office, MoEF&CC and SPCB. (ix) No ground water to be used. (x) Online real time air and water quality monitoring system to be established in consultation with the Central/State Pollution Control Board.

- (xi) It should be ensured that the Conservation Plan prepared for protection of Reserved Forests shall be implemented in consultation with the State Forest Department. The total cost estimated for the plan is Rs 28.22 crores over a period of three years. This cost shall be in addition to the EMP cost proposed for the project. A committee comprising of representatives of project proponent, forest department and two nationally recognized NGOs having knowledge in the areas of wildlife and forests be established to oversee the same. Besides this a separate committee will be established to monitor general environment and pollution related matters. Both Committees will meet at least twice a year and report the proceedings to the regional office of MoE&FCC.
- (xii) Piezometers to be constructed in consultation with state ground water department. Quarterly monitoring of ground water levels and quality be carried out and report be submitted to concerned regional office of MoEF&CC/SPCB.
- (xiii) Annual study to be carried out on status of crops and their yield within 5 km area of pharma city and report be submitted to concerned regional office, MoEF&CC.
- (xiv) Job opportunities to be provided to land losers after providing suitable training to them and enhancing their skills as per job requirements for various technical and non-technical positions in Pharma city and industries therein.
- (xv) In Phase-III area only orange, green and white categories of industries to be established.
- (xvi) In consultation with the individual industries and CETP controlling authority/owner, a mechanism to be developed for individual industries particularly Bulk drug and intermediate chemical manufacturing units required to set up their own ETPs including ZLD for better management and reducing load on CETP.
- (xvii) An Emergency response Centre to be established to take care of accidents, chemical spills etc. including that during transportation of chemicals with the arrangement of antidotes and necessary equipment. The trucks/tankers for transportation of chemicals should be equipped with the vehicle tracking system.
- (xviii) Measures for risk mitigation as stipulated in EIA/EMP report (including addendum) should be implemented in letter and spirit.

3.1.7

The State Government of Telangana, vide their D.O. letter No. EMP/TSIIC/09/HPC/2014-15 dated 25th May, 2018, has requested to amend the minutes of 189th meeting of EAC held on 7th May, 2018. The proponent made presentation before the EAC in its 191st meeting held on 25th June, 2018 on the issues as stated in their letter. After detailed deliberations, the EAC recommended for following modifications in the minutes:

Reference Section of MoM	Conditions for Environmental Clearance (as mentioned in 3.6.6 of EAC Minutes of 189 th Meeting held on 7 th May, 2018)	EAC's Recommendation during 191 st meeting of EAC held on 25 th June, 2018.
3.6.6 (ii)	Remaining Land acquisition to be done with the consent of land owners only with suitable compensation.	Remaining Land acquisition to be done with the consent as per "Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013" and as amended by Government of Telangana "RFTLARR (Telangana Amendment) Act 2016."
3.6.6 (iii)	PP may try to shift the existing settlement from the proposed project. If shifting of existing settlement is not possible, a buffer of 1 km shall be maintained between existing industrial units and existing settlements within pharma city.	PP may try to shift the existing settlement from the proposed project. If shifting of existing settlement is not possible, a buffer of 1 km shall be maintained between proposed industrial units and existing settlements within the proposed pharma city site - Typographical correction only.
3.6.6 (iv)	100 m buffer shall be maintained between forest and project development area.	60 m buffer shall be maintained between forest and project development area.
3.6.6 (v)	100 m buffer all along the water bodies shall be maintained and water bodies shall be protected against any contamination due to discharge/leakage of effluents.	100 m green buffer all along the water bodies shall be maintained and water bodies shall be protected against any contamination due to discharge/leakage of effluents.
3.6.6(vii)	Only natural gas to be used for boilers and methane emission to be monitored regularly.	No change.
3.6.6 (xvi)	In consultation with the individual industries and CETP controlling authority/owner, a mechanism to be developed for individual industries particularly bulk drug and intermediate chemical manufacturing units required	A mechanism be developed for individual industries particularly bulk drug and intermediate chemical manufacturing units (having effluent discharge >25 KL/day) for setting up their own ETPs including ZLD for better management and reducing load on CETP. The mechanism be

		to set up their own ETPs including ZLD for better management and reducing load on CETP.	submitted to the MoEF&CC and TSPCB.
<p>In addition, following specific conditions also needs to be included while granting Environmental Clearance.</p> <p>(i) Water bodies within proposed pharma city shall be protected from any contamination.</p> <p>(ii) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018. The detailed report in this regard be submitted to this Ministry and its regional office concerned within 3 months.</p>			
3.2	<p>Development of aviation SEZ and additional facilities at Rajiv Gandhi International Airport at Hyderabad (Andhra Pradesh) by M/s Hyderabad International Airport Ltd. – Further consideration for Amendment of Environmental Clearance</p> <p>[Proposal No. IA/TG/MIS/72152/2010] [F.No.11-1/2010-IA.III]</p>		
3.2.1	<p>During the meeting, the project proponent made a presentation along with EIA Consultant Vimta Labs Limited, Hyderabad and provided the following information to the Committee:</p> <p>(i) The project involves conversion of Aviation SEZ to Multi sector SEZ at Rajiv Gandhi International Airport in Shamshabad, District Rangareddy (Telangana) promoted by M/s Hyderabad International Airport Limited</p> <p>(ii) Justification for selection of the site: GMR Aerospace & Industrial Park layout of 253.85 acres, was established within the airport premises abutting existing airside as the envisaged aviation related activities like MRO, aircraft assembly, etc. mandated airside access to facilitate corresponding processing activities. The said project is an upgradation of the existing sector specific SEZ to Multi sector SEZ to meet the business feasibility and industrial interests received from prospective SEZ customers.</p> <p>(iii) Rajiv Gandhi International airport is serving the metropolis of Hyderabad located at Shamshabad, about 22 km south of Hyderabad. The airport is about 40 km from Secunderabad railway station. 11.6 km PV Narasimha Rao Expressway from Mehdipatnam to Rajendranagar provides dedicated high speed travel to the airport and Nehru outer ring road serves as a controlled access highway.</p> <p>(iv) No additional cost is involved. The project is in developed state as aviation SEZ which is now being converted to Multi sector SEZ. This change is not expected to generate requirement for any new infrastructure creation as relating to newly envisaged activities within SEZ.</p>		

	<p>(v) Whether the project is in Critically Polluted area: No</p> <p>(vi) If the project involves diversion of forest land, extend of the forest land: No.</p> <p>(vii) If the project falls within 10 km of eco- sensitive area, Name of eco-sensitive area and distance from the project site: No.</p> <p>(viii) Domestic water requirement is 672 KLD and the industrial water requirement is 4771 KLD, proposed to be met from the existing water supply. Source: Hyderabad Municipal Water Supply and Sewerage Board (HMWSSB).</p> <p>(ix) Two Sewage Treatment Plants (STP) of 925 KL each capacity are existing to treat the wastewater. For the expansion, STP will be expanded in a modular way. Treated wastewater will be used for greenbelt and flushing activities. The units in the SEZ will have their own effluent treatment plant and will reuse the treated wastewater</p> <p>(x) CETP: All units will be design as per the Zero discharge concept. For Domestic waste water treatment, state-of-the-art STP has been established.</p> <p>(xi) Power requirement for the proposed multi sector SEZ would be 43 MW which will be met from Telangana Power Transmission Corporation Limited (TSTRANSCO). RGIA has commissioned a 5 MW solar power plant for its captive consumption and plans to gradually scale the capacity up to 30 MW,</p> <p>(xii) RWH: GHIAL is harvesting rainwater on large scale within the premises of the airport with a built-up capacity of 0.185 million cubic metre. RGIA has recently initiated the development for development of water storage reservoir (r2), in a extent of about 80Acres, to Conserve the storm water for facilitating sustainable development</p> <p>(xiii) Benefits of the project: GHIAL's SEZ has seen limited growth during lasts 6 years and is presently operating at just 11% occupancy. With the revised sector focus & the business interests received from various related industry segments in the identified sectors, it is perceived that GHIAL would be able to capitalize upon the opportunities in next 3-5 years to make the SEZ fully operational with diverse but coherent industrial units, that will in long run will provide requisite impetus to develop the region as an economic hub of Hyderabad with airport city.</p> <p>(xiv) Employment potential: Project construction is expected to generate more than 16,000 direct employments and double the figure indirect employment, which will span across 5-6 years.</p> <p>(xv) The Aviation SEZ spreads over 253.85 acres of land in Shamsabad, District Rangareddy (Telangana). The land was allocated to GMR Aerospace and Industrial Park, an Aviation sector specific SEZ to promote the export oriented aviation and aerospace related industrial development.</p>
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- (xvi) The Ministry granted environmental clearance to the project vide letter no. F.No. 11-1/2010-IA-III dated 18th June, 2010 for the development of Aviation SEZ and additional facilities at Rajiv Gandhi International Airport, Hyderabad (Erstwhile Andhra Pradesh) by M/s. GMR Hyderabad International Airport Limited.
- (xvii) The Ministry granted Extension of Validity of EC UPTO 17.06.2020, vide letter No. F.No. 11-1/2010-IA.III (pt.) dated 29th August, 2017.
- (xviii) The activities proposed within the SEZ included Training Centres, Designing Aero Components, Maintenance Repair and Overhauling (MRO) Hangars, Assembly Units, Logistics Facility, Technical Support Services etc.
- (xix) The present proposal is for the change of Aviation SEZ to Multi Sector SEZ that will have industrial units/activities relating to aviation for additional business activities such as Pharmaceutical formulation, Gems & Jewellery, electronic & commercial developments, etc. No addition land is required as part of the proposed conversion. Entire development will take place within the approved SEZ area of 253.85 acres. Land has already been in possession and converted to industrial use.

(xx) The new identified sector details are as given below:

Sectors	Activities	EC Status	Category
Aviation & Aerospace	<ul style="list-style-type: none"> • Aircraft maintenance hangars including Engine MRO, Component MRO, and airframe MRO along with administrative building of 1500 sqm, training centers-5 nos each of 2500 sqm built up areas, assembly units, supply chain centers including the incubation center within the proposed SEZ • MRO (Maintenance, Repair & Overhaul) • Components manufacturing, • Testing & calibration 	Approved activities under Current EC	Aviation SEZ. The area of entire SEZ is 253.85 acres. The area is thus less than 500 ha.
Pharmaceutical	Formulations	New Proposed Activity	Formulations are excluded in 5(F) category. Does not

				attract EIA Notification.
	Electronic Hardware and IT/ITeS	Manufacturing, Assembly and Testing facilities	Activities proposed have crossover/Similar functional characteristics relating to clusters under Aviation sector those are approved under current EC	The activity does not fall under any activity listed under EIA Notification. The built up area will be less than 20,000 sqm.
	Mechanical and electrical engineering	Defence Part, electrical & Medical component manufacturing	Activities proposed have crossover/Similar functional characteristics relating to clusters under Aviation sector those are approved under current EC	The activity does not fall under any activity listed under EIA Notification. The built up area will be less than 20,000 sqm.
	Gems & Jewellery	Cutting, polishing and selling precious gemstones and metals such as diamonds, other precious stones, gold, silver and platinum	New Proposed Activity	The activity is not covered in any notified activity under EIA Notification
	Logistics	Trading, Distribution, Warehousing & Value added services such as Packing, Re-Packing, Labelling & minor assembly	Approved activities under Current EC	The built up area is less than 20,000 sqm.
	Commercial	Commercial Building-Office, shopping, banking, retail, showroom Service Apartment, guest houses, hotel, residences, Dormitories	New Proposed Activity, coming up within Non-Processing Zone (NPA)	The built up area will be less than 20,000 sqm.

	Amusement & entertainment Parlours		
Institution	Coaching & Training Facilities	Approved activities under Current EC	The built up area will be less than 20,000 sqm.
Common Use	Incubation Facility	Approved activities under Current EC	The built up area will be less than 20,000 sqm.

(xxi) Proposed SEZ land use is given in the following table:

Sr. No.	Land use	Area (Ac)	Area (Ha)	%	
1	Aerospace components manufacturing, maintenance, repair, testing & calibration	80.00	32.40	31.5%	
2	Pharmaceutical formulations	40.00	16.20	15.8%	
3	Electronic hardware and IT/ITeS	10.00	4.00	3.9%	
4	Mechanical and electrical engineering	10.00	4.00	3.9%	
5	Gems & Jewellery	2.00	0.80	0.8%	
6	Logistics-trading, distribution, warehousing & value added services such as packing, re-packing, labelling & minor assembly	15.00	6.10	5.9%	
7	Institution – training	2.00	0.80	0.8%	
8	NPA commercial spaces for lodging, service apartments, banking, conveyances, conveniences, etc.	22.50	8.70	8.5%	
9	Check Gates - including custom administrative facilities	0.50	0.20	0.2%	
10	Amenities	1.50	0.60	0.6%	
11	Common use - incubation facility	2.50	1.00	1.0%	
12	Open space	Water bodies	10.00	4.00	3.9%
		Green	15.85	6.40	6.2%

		13	Utilities	2.00	0.80	0.8%
		14	Roads	38.00	15.40	15.0%
		15	Heavy vehicle parking	2.00	1.20	1.2%
		Total SEZ Land Area		253.85	102.70	100.0%
	(xxii)	The proponent informed that work order was issued to SACON to carry out Bird Hazard study at project site. The Director SACON informed that completion of Bird Hazard study will take at least six months.				
3.2.2	<p>During 183rd meeting held on 24th January, 2018, EAC observed following:</p> <p>(i) The primary objective of SEZ is to allow commercial activities related to airport only. The committee was of the view not to reconsider the proposed amendment in the present form, which includes the establishment of pharmaceutical formulation units and amusement parks within the proposed multi-product SEZ, considering safety and security aspects.</p> <p>(ii) There are incidences of aircraft accidents due to collision with Birds. Therefore, EAC opined that report of Bird Hazard study is essential for further consideration of proposal.</p> <p>After detailed deliberation, EAC deferred the proposal for want of following information for taking further decision:</p> <p>(i) Bird Hazard study report along with the mitigation plans to be submitted to the Ministry. The ongoing study, which is being carried out by SACON, has to be both spatial and temporal looking into the importance of safety of air traffic movement.</p> <p>(ii) Revised plan of newly identified activities excluding formulation units (Pharmaceutical) and amusement park within proposed multi-product SEZ to be submitted.</p>					
3.2.3	<p>During 189th meeting held on 7th May, 2018, the proponent presented following information:</p> <p>(i) The Bird study by SACON concluded that proposed SEZ activities at Rajiv Gandhi International Airport was not expected to create any potential danger to the aircraft. Proponent will implement all the suggestions and mitigation measures mentioned in SACON report.</p> <p>(ii) The proposal of Amusement Park development at the SEZ has been dropped and will not be considered further.</p> <p>(iii) Revised landuse plan showing layout of proposed site was submitted.</p> <p>(iv) Proposal is to manufacture Tablets, Capsules and Injectables from Active Pharma Ingredients (API), which are obtained from market and Packaging, Warehousing.</p>					

	<ul style="list-style-type: none"> (v) Production of Bulk Drugs or Active Pharma Ingredients (API) are not considered in the proposal and also at the SEZ. (vi) These Final Finished Dosage Forms products are formed by mixing of non-reactive powders/solutions (called drug formulation). (vii) These processes do not have any reactors & chemical reactions, do not generate any heat, emissions and no process waste water and will have a strictest Quality control measures approved by Indian Drug Control Authority, European and US FDA. (viii) Drug formulation is also exempted under 5(f) Category A & B of EIA Notification 2006 schedule (ix) At their Airport cargo terminals, they handle all types of Pharma Products and Goods (71% of total Exports) under stringent IATA, DGCA governed procedures. (x) The Export Oriented Formulation manufacturing is in line with Govt. of India 'Make in India' initiative making our Country competitive w.r.t. countries like China and others. (xi) All necessary systems will be implemented to enable safe, secure and environment friendly operations.
<p>3.2.4</p>	<p>After detailed deliberation EAC during 189th meeting on 7th May, 2018, the EAC sought the following clarifications and deferred the proposal:</p> <ul style="list-style-type: none"> (i) Proponent has proposed for drug formulation on 40 acres of land for 14 therapeutic classes but has not provided quantity of production of tablets, capsules and injectable as well as not provided quantity of material (API and Excipient) to be used and stored. For the purpose of EIA assessment and appraisal PP was asked for providing API Chemicals and other material with quantities that will be handed and stored. Detailed impact assessment, along with the mitigation measures in respect of proposed drug formulation units in the proposed SEZ area needs to be carried out. (ii) Risk assessment is also required to be done for storing of API chemicals, other raw material and chemicals, if any. PP is required to submit Risk Assessment Report for chemicals/raw materials to be used and stored. (iii) Civil Aviation and Disaster Management Authorities are required to look in to safety of airport in light of storage of raw and processed material that is needed for pharma products in the proposed SEZ. (iv) Proponent is required to furnish details about manufacturing/assembly of Defence part, electrical and mechanical components along with quantities and processes. (v) Proponent is also required to submit the coordinates of the project site.

3.2.5

During 191st meeting held on 25th June, 2018, the proponent has submitted the following information:

- (i) The quantity of production (in units) of tablets, capsules and injectable are:
 - Tablets: 3 billion units per annum
 - Capsules: 450 million units per annum
 - Injectable: 18 million units per annum
- (ii) Annual consumption of raw material under 14 therapeutic classes will be 600/kg of tablets & Capsules, 273 kg of injectable and 1100 kg of excipient. The common excipients include Lactose monohydrate, Microcrystalline cellulose, Talc, Citric acid Anhydrous, Pre-gelatinised starch, Icing sugar with starch, Colloidal silicon dioxide, StarCap 1500®, Sesame oil, Glycerol formal, Heavy magnesium oxide, Succinic acid (USP-NF), Microcrystalline wax, Povidone K 30, Magnesium stearate, Heavy magnesium oxide (USP), and L-Arginine Base (USP).
- (iii) Impact on air/water quality, stack emission details and noise level during construction/operation phases along with mitigation measures and post project monitoring plan was presented.
- (iv) As there are no process emission sources, the major sources of air emission from the proposed formulation units will be emergency DG sets, boilers and hot water generator running on Low sulphur HSD and FO. The highest GLC of all the considered pollutants are within the stipulated limits prescribed in National Ambient Air Quality Standard as per model output. Thus, there will not be any considerable effect on ambient air quality due to the proposed project.
- (v) Raw water requirement for formulation units is 428 KLD of which water requirement for functional need is 408 KLD. The water will be sourced from Hyderabad Metropolitan Water Supply and Sewerage Board (HMWS & SB).
- (vi) The risks are not expected to cause any hazard except affecting occupational health and safety, in case the safety measures recommended in MSDS are not followed. Whatever risk may be caused will be from handling and storing of inflammable materials like HSD and FO. In case of rupture of HSD and FO tanks there may be chances of fire and people residing in area up to 55 m from the periphery of fire will be exposed to unacceptable heat radiation and must be evacuated in case of a fire.
- (vii) Any property within an area of 10m from periphery of fire will be damaged in case of fire. With good fire detection and suppression measures including break glass units and fire extinguishers and sprinklers systems infrastructures in place at the formulation units, this risk is minimized to low. Proper training and capacity building of

all employees on fire and risk management will benefit in risk reduction.

- (viii) The employees will be trained in safety and environment protection regulations. Personnel involved in the production will be provided with protective clothing, helmets, goggles, masks, gloves, etc.
- (ix) Entire operations will be carried out under the strict supervision of the trained and highly skilled personnel. Fire detection system, fire hydrant system and necessary fire-fighting facilities like extinguishers, sand buckets, etc., will be provided to meet the on-site emergencies.
- (x) Proper storage of hazardous wastes will be provided as per the guidelines of the inspector of factories & environmental regulations. Disposal of hazardous waste will be done at authorized TSDFs
- (xi) Emergency & Disaster Management Programs are well established considering all types of business units at SEZ & RGIA. Regular Hazard Identification and Risk Assessment will be carried out at all SEZ facilities with mitigation measures.
- (xii) Occupational Health and Safety Management System (OSHAS – 18001) and Environment Management Systems (ISO -14001) will be implemented. Firefighting equipment, Hydrants, Powder / Foam type extinguishers on vehicles and mounted on walls will be kept readily available at all SEZ facilities. Air Emission monitoring of HSD Boiler and Formulation units will be carried out. Compliance to all regulatory & the inspector of factories requirements will be ensured while handling and storing of fuel, drug ingredients, dangerous goods and waste materials.
- (xiii) Regular Training will be conducted all the facility units' staffs on Safety, Environment, Fire and Emergency preparedness.
- (xiv) Defense parts include Camera and imaging systems exclusively used in the defense applications. Specialized camera system products include Short Wave Infrared (SWIR) imaging cameras, MWIR imaging cameras, thermal imaging cameras, low noise CCD/CMOS cameras are designed for ultra-low noise readout
- (xv) Electrical and Mechanical Components Assembly include light engineering works (mechanical and electrical) uses medium to low end technology and components such as Electrical distribution and control equipment, Switch gears, Auto components, and Process control instruments.
- (xvi) High-performance power distribution & control devices include contactors, overload relays, moulded case circuit breakers, earth leakage circuit breakers, push buttons & pilot lights for applications including factory automation, manufacturing applications and building automation.
- (xvii) The Ministry of Civil Aviation has confirmed that there is no security threat to civil aviation directly from the units at SEZ. In addition,

Directorate of Civil Aviation (DGCA) has stated that considering the distance/location of proposed unit, it does not have any impact on the safety of airport operations of GMR Hyderabad International Airport Limited (GHIAL) Airport subject to strict compliance of rule 91 of the aircraft rule 1937. Further, the Bureau of Civil Aviation Security (BCAS) has stated that the SEZ-GHAIL is a segregated and secured area, where this pharma unit is situated. Access is controlled by the RAXA Security. The SEZ-GHAIL is about 2 km away from the passenger terminal of the RGI Airport. There is no security threat to civil aviation directly from the units at SEZ.

(xviii) The State Disaster Response and Fire Service Department, Government of Telangana has issued provisional NOC in favour of M/s Citron Formulations Private Limited, GMR Aviation SEZ, Sy. No. 99/1, Mamidipally Village, Saroornagar Mandal, Ranga Reddy District to be housed within the proposed.

(xix) Geo-coordinate of proposed SEZ:

Latitude	Longitude
17° 14'44.17"N	78° 27'47.02"E
17° 14'43.96"N	78° 27'39.98"E
17° 14'42.41"N	78° 27'47.93"E
17° 14'23.32"N	78° 27'4.18"E
17° 14'15.97"N	78° 27'4.23"E
17° 14'15.64"N	78° 27'58.45"E
17° 14'13.44"N	78° 27'25.10"E
17° 14'13.94"N	78° 27'45.40"E
17° 14'1.99"N	78° 26'59.34"E
17° 14'2.35"N	78° 27'25.26"E

(xx) Point Location of Pharma units within SEZ Area:

Points	Point Location (Latitude / Longitude)
Pharma Unit A	17° 14'32.61"N & 78° 27'41.83"E
Pharma Unit B	17° 14'29.68"N & 78° 27'41.93"E
Pharma Unit C	17° 14'17.21"N & 78° 27'42.42"E
Pharma Unit D	17° 14'25.02"N & 78° 27'32.86"E

<p>3.2.6</p>	<p>The EAC during 191st meeting held on 25th June, 2018, observed the following:</p> <ul style="list-style-type: none"> (i) Necessary NOC and permissions have been obtained from the Ministry of Civil Aviation, Government of India and State Disaster Response and Fire Service Department, Government of Telangana. (ii) Proper storage of hazardous wastes will be provided as per the guidelines of the Inspector of Factories & environmental regulations. Disposal of hazardous waste will be done at authorized TSDFs and as per the Hazardous Waste Management Rules, 2016 (?) (iii) Emergency & Disaster Management Programs and regular Hazard Identification and Risk Assessment will be carried out at all SEZ facilities with mitigation measures. (iv) Occupational Health and Safety Management System (OSHAS-18001) and Environment Management Systems (ISO -14001) will be implemented. 				
<p>3.2.7</p>	<p>The EAC, after detailed deliberations during 191st meeting held on 25th June, 2018, recommended the project for following amendments in the Environmental Clearance granted by this Ministry, vide letter No. 11-1/2010-IA-III dated 18th June, 2010, extended upto 17th June, 2020 vide letter of even no. dated 29th August, 2017, as per the provisions of the Environment Impact Assessment(EIA) Notification, 2006 and subsequent amendments under the Environment (Protection) Act, 1986:</p> <ul style="list-style-type: none"> (i) Existing and newly permitted activities within the multi-product SEZ are as under: <table border="1" data-bbox="363 1234 1390 1637"> <thead> <tr> <th data-bbox="363 1234 906 1395">Activities permitted under Original EC dated 18th June, 2010</th> <th data-bbox="906 1234 1390 1395">New activities recommended by EAC during 191st meeting held on 25th June, 2018</th> </tr> </thead> <tbody> <tr> <td data-bbox="363 1395 906 1637">Training Centres, Designing Aero Components, Maintenance Repair and Overhauling (MRO) Hangars, Assembly Units, Logistics Facility, Technical Support Services etc.</td> <td data-bbox="906 1395 1390 1637">Pharmaceutical formulations; Cutting, polishing and selling precious gemstones and metals; and Commercial Buildings.</td> </tr> </tbody> </table> (ii) No further expansion of any sort for the proposed unit as well as no further request of any new pharma unit (including formulation) within SEZ shall be permitted. (iii) Consent from Government of Telangana be obtained for establishing and operating Pharma units within the proposed SEZ. (iv) Water extraction permission from competent authority be obtained and submitted to the MoEF&CC and to the TSPCB. (v) Possibilities to use clean fuel, preferably Natural Gas be explored. 	Activities permitted under Original EC dated 18 th June, 2010	New activities recommended by EAC during 191 st meeting held on 25 th June, 2018	Training Centres, Designing Aero Components, Maintenance Repair and Overhauling (MRO) Hangars, Assembly Units, Logistics Facility, Technical Support Services etc.	Pharmaceutical formulations; Cutting, polishing and selling precious gemstones and metals; and Commercial Buildings.
Activities permitted under Original EC dated 18 th June, 2010	New activities recommended by EAC during 191 st meeting held on 25 th June, 2018				
Training Centres, Designing Aero Components, Maintenance Repair and Overhauling (MRO) Hangars, Assembly Units, Logistics Facility, Technical Support Services etc.	Pharmaceutical formulations; Cutting, polishing and selling precious gemstones and metals; and Commercial Buildings.				

	<p>(v) Proper storage of hazardous wastes shall be provided as per the guidelines of the Inspector of Factories & environmental regulations. Disposal of hazardous waste will be done at authorized TSDFs and as per the Hazardous Waste Management Rules, 2016 (?)</p> <p>(vi) Regular Hazard Identification and Risk Assessment shall be carried out at all SEZ facilities with mitigation measures.</p> <p>(vii) Occupational Health and Safety Management System (OSHAS-18001) and Environment Management Systems (ISO -14001) shall be implemented.</p> <p>(viii) Precaution of any environmental impact of boiler to be taken care.</p> <p>(ix) Electricity be used in furnace for casting.</p> <p>(x) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The detailed report be submitted to this Ministry and its concerned regional office within 3 months.</p> <p>The EAC also suggested that in view of the proposed industrial activities within aviation SEZ which may have installation of stacks for air emissions, effluent discharge from manufacturing/processing industries as well as storing of chemical and liquid fuels, a guidelines be developed for permitted developmental activities within one km radius of airport area. The guidelines may take into account for safety and security measures. The Guidelines may also consider up to 10 km radius from the airport, the category of industries/activities, which should not be permitted. Such guidelines may be prepared by MoEF&CC through a committee comprising of representatives from concerned departments including Civil Aviation Authority, Disaster Management, Town Planning, nominated members of EAC (Infra) and subject experts.</p>
<p>3.3</p>	<p>Access Controlled Nagpur–Mumbai Expressway (Package-II), Maharashtra by M/s Maharashtra State Road Development Corporation– Further consideration for Environmental Clearance</p> <p>[Proposal No. IA/MH/MIS/59164/2016] [F. No. 10-79/2016-IA-III]</p>
<p>3.3.1</p>	<p>The project proponent made a presentation along with EIA Consultant Global Management and Engineering Consultant International, Jaipur (Rajasthan) and provided the following information to the Committee:</p> <p>(i) The proposal is for the Development of Access Controlled Nagpur-Mumbai Expressway (Package-II) from Village Ashta near Pulgaon to Village Sindhakhedraja located in District Amravati, Washim and Buldhana (Maharashtra).</p> <p>(ii) The project corridor starts from Amravati and traverses through number of 149 villages/towns of 11 Talukas viz. Dhamngaon Rly, Chandur Rly, Nandgaon (Khandeshwar) of Amravati District, Karanja, Mangrulpir, Malegaon, Risod of Washim District and Mekhar, Lonar, Sindkhed Raja, Deulgaon Raja of Buldhana District (Maharashtra).</p>

(iii) The total length is of NMEW Package-II is 257.881 km out of 701 km. The expressway is designed for (3+3) lanes in the initial phase with a provision for widening to (5+5) configuration with paved shoulders. For the proposed road alignment, the Right of Way is 120m.

(iv) The details of land use pattern are:

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

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

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

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

(vii) **Water requirement:**

Construction Phase: Total Water requirement for construction phase will be 2250 KLD. Out of the total water requirement 2000 KLD will be required for construction purpose and 250 KLD will be required for domestic use of workers. The water requirement for domestic purpose will be fulfilled through potable water sources and for construction work water from surface water sources such as ponds, rivers and tanks etc. shall be used with due permission from respective Government Department.

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

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

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

	<p>(viii) Status of Forest and Wildlife Clearances based on the report of Nodal officer of the State and Chief Wildlife Warden Maharashtra.</p> <p>(ix) Status of land acquisition</p> <p>(x) Furnishing of additional information about the issues raised during public hearings and proposed mitigation measures along with fund provision, in tabular form.</p> <p>(xi) The project requires cutting of over 1 lakh trees. Project proponent should furnish detail list of tree species that needs felling along with number of each species and detailed plan for afforestation with 3 times the number plus provision for replacement plantation. The plan should also include the financial requirement for afforestation, its maintenance for at least 5 years and third party audit on annual basis.</p> <p>After detailed deliberations, EAC deferred the proposal for want of additional information as mentioned in preceding para.</p>
<p>3.3.3</p>	<p>During 191st meeting held on 25th June, 2018, the proponent submitted the following information:</p> <p>(i) MSRDC submitted an undertaking wherein it is mentioned that they have entered into an MoU with Wildlife Institute of India (WII), Dehradun for assessment of impacts of the proposed Nagpur-Mumbai Communication Expressway (Maharashtra Samridhi Corridor) on wildlife values and measures recommended to mitigate negative impacts.</p> <p>(ii) An undertaking was submitted regarding engagement of services of competent central/state government institutes for finalisation of tree species to be planted as a third party auditor for plantation programme along proposed Expressway.</p> <p>(iii) The proposed alignment is greenfield and is passing through 79.22% of Agriculture, 13.73% of Barren land and 7.05% of forest land.</p> <p>(iv) MSRDC will publish a separate tender for Avenue plantation along the proposed Expressway with maintenance for next 7 years.</p> <p>(v) No Ground water will be drawn for the proposed project. The secondary data collected from Government of India, Ministry of Water Resources, Central Ground Water Board Report 2013, mentions that in post monsoon season the shallow water levels are observed within the range 6m to 15m along the talukas through which the proposed alignment is passing through. The proposed foundation for construction of Viaducts and bridges including major bridges will be of open foundation wherein the depth of foundation will not be more than 5m.</p> <p>(vi) The length of Package II is 257.881km and area of ROW is 3094.6 Ha. The area of foundation to be laid for Major and Minor bridges in surface water bodies is 12.67 ha. Which is of about 0.4%, Hence the impact if any will be very minimal. In addition to that the ground water recharge pits will be provided at every 500m along the proposed</p>

	<p>Expressway. Depth of Perforated PVC pipe depends upon Ground water table data or minimum 10m to be decided on the site conditions.</p> <p>(vii) District administration of Amravati Washim and Buldhana Districts have accorded the approval to use surface water for the proposed Expressway.</p> <p>(viii) The online Forest proposal of Package II is submitted to Regional Office MoEF&CC, Nagpur by State Government after recommendations of Nodal Officer of Maharashtra.</p> <p>(ix) The Wildlife Clearance Proposals of Katepurna Wildlife Sanctuary and Karanja Sohal Black Buck Sanctuary recommended by Chief Wildlife Warden, Maharashtra are submitted to National Board of Wildlife (NBWL) through State Board of Wildlife (SBWL).</p> <p>(x) Status of Land Acquisition: Total land acquired for the Project as on 21th June 2018:</p> <ul style="list-style-type: none"> • 90.31% in Amravati district • 91.93% in Washim district • 86.11% in Buldhana district <p>(xi) The major issues raised during Public hearing was related to Land Acquisition & Compensation; Felling/cutting trees and Re-plantation; and Effect of Expressway on nearby water bodies.</p> <p>(xii) The list of tree species that needs felling along with number of each species in Marathi and English is provided. A Total Number of 3,41,960 trees will be planted in Proposed ROW (Amravati district-97288 Nos, Washim District-1,15,746 Nos and Buldhana District-1,28,926 Nos) as per Draft NHAI Policy and Median plantation will be as per IRC: SP 21, 2009. Species for Compensatory Plantation along the ROW will be decided in consultation with local Forest Department.</p>
<p>3.3.4</p>	<p>The EAC, after detailed deliberations during 191st meeting held on 25th May, 2018, recommended the project for grant of Environmental Clearance, with the following specific conditions in addition to all generic conditions applicable for such projects:</p> <p>(i) MSRDC is responsible to implement the recommendations based on assessment done as per MoU between them and Wildlife Institute of India for assessment of impact of project on wildlife as mentioned in the undertaking submitted to this Ministry.</p> <p>(ii) A third party auditor be appointed as per undertaking submitted by the MSRDC.</p> <p>(iii) Efforts be made to arrange translocation/transportation of big trees using latest technology available. Efforts to be made especially to translocate large ficus trees.</p> <p>(iv) Trees that will be used for afforestation must have significant number of various ficus species like banyan (<i>Ficus benghalensis</i>), peepal</p>

	<p>(<i>Ficus religiosa</i>), cluster fig (<i>Ficus racemosa</i>) etc. Entire afforestation must be done using only native species.</p> <p>(v) No ground water will be drawn during construction and operation phases of the proposed Expressway.</p> <p>(vi) Abandoned quarries be protected as waterbodies.</p> <p>(vii) Oil & grease trap with de-silting chambers be taken up for the Rain Water harvesting Structures.</p> <p>(viii) Permission to use surface water be obtained from the competent authority.</p> <p>(ix) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The detailed report shall be submitted to this Ministry and its concerned regional office within 3 months.</p>
3.4	<p>Development of Access controlled Nagpur-Mumbai Expressway (NMEW) - Package IV from Kopargaon to Igatpuri (0.00 km to 120.681 km) in Nasik District, Maharashtra by M/s Maharashtra State Road Development Corporation Limited - Environmental Clearance</p> <p>[Proposal No. IA/MH/MIS/53251/2016] [F. No. 10-42/2016-IA.III]</p>
3.4.1	<p>After brief deliberation during its 191st meeting on 25th June, 2018, EAC observed that the proposal comes under Category B, hence suggested for transferring it to SEIAA, Maharashtra for consideration.</p>
3.5	<p>Expansion of notified Multi-product SEZ by adding 1840 ha notified SEZ with existing approved area of 6641.2784 ha. to make it 8481.2784 ha at Mundra by APSEZ- Environmental and CRZ Clearance</p> <p>[Proposal No. IA/GJ/MIS/75351/2018] [F. No. 10-138/2008-IA.III]</p>
3.5.1	<p>The EAC has noted the following:</p> <p>(i) The project proposal was for 8481.2784 ha area for which the proponent has the ownership. The project was considered and recommended by EAC in its 114th meeting for Environmental and CRZ Clearance for Multiproduct SEZ on 8481.2784 ha area on 09.07.2012. However, the Ministry of Commerce and Industries (MoCI) had denotified 1840 ha of land on account of issue related to contiguity. Hence, Environmental Clearance for 6641.2784 ha (8481.2784 – 1840) was issued on 15th July, 2014.</p> <p>(ii) Ministry of Commerce and Industries (MoCI) again notified 1840 ha vide their notification dated 11.12.2015. Therefore, the proponent now wants to add 1840 ha area.</p> <p>(iii) The Proponent requested that the EAC had already recommended for EC on 09.07.2012 for the entire 8481.2784 ha area and that the MoCI</p>

	<p>has now revoked its denotification, the proponent has requested for EC for this notified area.</p> <p>(iv) The EIA and Public hearing were conducted for entire 8481.2784 area.</p> <p>(v) 1840 ha land proposed for the project is notified for development of SEZ by MoCI vide their Notification dated 11.12.2015. All the procedures including preparation of EIA report, Public Hearing, preparation of CRZ maps, obtaining CRZ recommendation were carried out as per the EIA notification 2006, CRZ notification 2011 and their subsequent amendments for the entire area, i.e., 8481.2784 ha.</p> <p>(vi) Facilities like Processing Zones, Non-processing Zones, Warehousing Zones, Road Network (Trunk as well as Internal), Bridges or Culverts over natural drain, Rail Network, IT-Telecommunication Network, Electric Network, Water Supply, Conservation & Drainage Network, Effluent Collection Network and Utilities & Supporting Infrastructure will be developed within the proposed project area.</p> <p>(vii) There is no change in the original project proposal. The present proposal does not require any additional resource consumption, addition of new project component and to expand the capacities of the approved project components</p> <p>(viii) Conservation Action Plans for Kotdi I and II creeks, Baradimata creek, Bocha Island, Navinal and Bocha creeks are in place.</p>
<p>3.5.2</p>	<p>The EAC, after a detailed deliberation, during 191st meeting held on 25th June, 2018, recommended for submission of Environmental Management Plan (EMP) for further consideration. The EAC also recommended for exemption of the Public Hearing in view of the fact the PH has already been held for the entire project area. The Environmental Management Plan EMP may cover following issues:</p> <p>(a) Details of activities already completed and operational, under construction and yet to be taken up with a layout map for 6641.2784 ha area.</p> <p>(b) Activities proposed under expansion (1840 ha) with layout plan.</p> <p>(c) Green belt demarcation with layout maps in existing as well as proposed areas.</p> <p>(d) Ambient air, water, Soil and noise quality monitoring data of exiting area as well as in proposed area.</p> <p>(e) Effluent emission data (flow and concentration) from operational units.</p> <p>(f) Predicted values of air quality with respect to upcoming and proposed units in existing and proposed areas.</p> <p>(g) Marine environment management plan with focus on mudflats and mangroves.</p>

	(h) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1 st May, 2018 for various activities therein.
3.6	Setting up of SEZ for chemicals at Vilayat GIDC in Taluka Vagra, District Bharuch (Gujarat) by M/s Jubilant Infrastructure Ltd.- Amendment of Environmental Clearance [Proposal No. IA/GJ/NCP/759/2007] [F. No. 21-1087/2007-IA.III]
3.6.1	<p>The project proponent made a presentation and provided the following information to the Committee:</p> <ul style="list-style-type: none"> (i) The proposal is for amendment in EC by Jubilant Infrastructure Ltd. and located at Plot no.5, Vilayat GIDC Estate, Tal-Vagra, Dist-Bharuch, Gujarat (ii) Amendment is sought in the EC for - (iii) Permission to SEZ & units within SEZ to send effluent to other common authorized disposal facility outside the SEZ (iv) Permission to use effluent/wastes generated in units within SEZ among different units within SEZ for water conservation. (v) Permission for installation of Tertiary effluent treatment systems including Reverse Osmosis, Multiple effect evaporator and Dryers in SEZ for providing service to its units (vi) Increase in quantity of hazardous waste from 140 MT/day to 200 MT/day considering the by-products as covered under Hazardous & other waste rules 2016. (vii) Sourcing water from Ground water as an additional source of water along with surface water supply by GIDC. (viii) The proposal falls under the category A and schedule 7(c) of EIA Notification 2006 and amendments thereafter (ix) Ministry has issued EC earlier vide F. No. 21-1087/2007-IA.III for setting up SEZ for Synthetic Organic Chemicals (Category-5f) from MoEF, New Delhi on 03/07/2008. The Environmental clearance was further amended on 03.11.2011 for increase in resource consumption and effluent discharge. Further, EC was amended to include manufacturing of Technical Grade Pesticide and Pesticide Specific Intermediates, covered under item 5(b) to make it multi sector chemical SEZ on 31.03.2017. (x) Existing land area is 265 Acres and no additional land is required for proposed amendment. (xi) Industry has already developed greenbelt in an area of 13%. (xii) The proposed amendment does not require addition cost. (xiii) Eco-Sensitive Zone / National Park / Wild Life Sanctuary in 10 km radius area: None.

- (xiv) **Details of Forest land involved, if any:** Nil.
- (xv) **Water requirement:** No additional water consumption. 10000 KLD water demand will be met from Narmada River, as supplied by GIDC & from ground water source approved by CGWA.
- (xvi) **Waste water generation, treatment and disposal:**
- (xvii) No change in effluent generation quantity.
- (xviii) Effluent disposal through treatment in CETP of SEZ and deep sea disposal through facility of GPCB
- (xix) SEZ & units within SEZ shall send the primary treated effluent to either the common effluent treatment facility installed by SEZ operator for treatment and discharge to deep sea disposal or to any other GPCB authorized common treatment and disposal facility outside the SEZ
- (xx) SEZ & units within SEZ may discharge the effluents as in (i) or Use the effluent / wastes generated by units within SEZ among other units within SEZ for water conservation.
- (xxi) SEZ would install Tertiary effluent treatment systems including Reverse Osmosis, Multiple effect evaporator and Dryers in SEZ for providing service to its units
- (xxii) **Municipal solid waste generated disposal facility:** Solid waste generation does not change from the earlier EC; however, hazardous waste generation shall be increased from 140 MT/day to 200 MT/day considering the by-products as covered under Hazardous and Other Waste Management Rules 2016.
- (xxiii) **Power requirement and source:** No additional power requirement. Electricity is available from existing grid of Dakshin Gujarat Vij Company Ltd. and through captive power generation by SEZ. The SEZ presently has grid power supply and 15 MW (5x3) CNG based Captive power plant.
- (xxiv) **Proposed energy saving measures:** We are certified for ISO 50000 Energy Management System. Energy audits are also carried out for implementation of all possible energy saving measures.
- (xxv) **Ground Water Approval:** CGWA NOC obtained dated 28/05/2018.
- (xxvi) **Rain Water Harvesting:** 2000 sqm area of non-process zone is covered.
- (xxvii) **Investment cost:** No additional cost
- (xxviii) **ToR details:** Not Applicable; proposal is for EC amendment for change in conditions of EC. EC was granted vide F. No. 21-1087/2007-IA.III 3rd July, 2008, which was later amended on 3rd November, 2011 and 31st March, 2017.
- (xxix) **Public Hearing:** Not applicable as the current proposal is for EC amendment for change in conditions of EC. Public Hearing for the

	<p>proposed project was conducted on 20thSeptember 2007 while granting earlier EC of 03/07/2008.</p> <p>(xxx) Employment potential: Additional Manpower not envisaged</p> <p>(xxxii) Benefits of the project: Benefits of the EC amendment are –</p> <p>(xxxii) By amendment of effluent disposal condition for disposal to outside authorized agencies and use of effluent within units of SEZ; continuity of SEZ operations will be ensured as currently GIDC deep sea disposal pipeline has been posing challenges due to scaling and there is a plan for upgrading the pipeline.</p> <p>(xxxiii) Water security of SEZ by additionally sourcing water from ground water and NOC from CGWA is obtained.</p> <p>(xxxiv) Increase in recycling of effluent through tertiary treatment system including Reverse Osmosis, Multiple Effect Evaporator and Dryers in SEZ.</p> <p>(xxxv) Court case, if any: No Court case pending.</p>
<p>3.6.2</p>	<p>The EAC noted during 191st meeting held on 25thJune, 2018 that:</p> <p>(i) The proponent has brought out several options for treatment and management of effluent. But there is no concrete proposal for consideration.</p> <p>(ii) The proponent requested for permission to send effluent to other common authorized disposal facility outside the SEZ as the common discharge pipeline for disposal to sea is not yet functional.</p> <p>(iii) Proponent has also requested for the following:</p> <p>(a) Permission to use effluent/wastes generated in units within SEZ among different units within SEZ for water conservation.</p> <p>(b) Permission for installation of Tertiary effluent treatment systems including Reverse Osmosis, Multiple effect evaporator and Dryers in SEZ for providing service to its units</p> <p>(c) Increase in quantity of hazardous waste from 140 MT/day to 200 MT/day considering the by-products as covered under Hazardous & other waste rules 2016.</p> <p>(d) Sourcing water from Ground water as an additional source of water along with surface water supply by GIDC.</p> <p>(iv) Proponent requires immediate relief to dispose 80 KLD industrial effluent from Unit-1 and Unit-2 of Jubilant Life Sciences Ltd., Vilayat, Bharuch.</p> <p>After the meeting, proponent has submitted following documents:</p> <ul style="list-style-type: none"> • Temporary permission of Gujarat Pollution Control Board (GPCB) to dispose/treat 40 KLD of concentrated waste water (industrial effluent) of Unit-1 and 40 KLD of High COD/High TDS effluent (industrial effluent) of Unit-2 of Jubilant Life Sciences Ltd., Vilayat, Bharuch to

	<p>ZLD-CETP of M/s Ankleshwar Cleaner Process Technology Centre Limited (ACPTCL).</p> <ul style="list-style-type: none"> Letter from ACPTCL confirming the acceptance of effluent up to 100 KLD from Jubilant Infrastructure Limited.
3.6.3	<p>The EAC, after detailed deliberations during 191st meeting held on 25th June, 2018, did not agree to proponent's proposal for several options for treatment and management of effluent. Subsequently, EAC verified the information furnished by the proponent and deferred the proposal for want of following additional information for further consideration:</p> <ol style="list-style-type: none"> Capacity Adequacy Report, Consent Status, Installed and Present Capacity of ACPTCL. Letter from the concerned authority responsible for operation and maintenance of the 'Common Pipeline for Discharge' into deep sea. Certificate from Member Secretary, GSPCB in respect of proposal for transport / treatment of waste to some other Treatment Facility. Certified compliance report of earlier EC conditions from concerned Regional Office of the Ministry. <p>In view of above, EAC deferred the proposal for want of above information.</p>
3.7	<p>Development of Mega Leather Park at Village Senapurabpara near Ramaipur District, Kanpur Nagar District, Uttar Pradesh by M/s Uttar Pradesh State Industrial Development Corp. Ltd. (UPSIDC) - Terms of Reference</p> <p>[Proposal No. IA/UP/NCP/75228/2018] [F.No.21-43/2018-IA.III]</p>
3.7.1	<p>The proponent did not submit necessary documents, hence the proposal was deferred by the EAC.</p>
3.8	<p>Development of Industrial Estate 'Dindi Chemical and Pharma Park' for Synthetic Organic chemicals at Sy. No. 87-96,123 -132, 250 - 275, 289, 291,299, 400-404, 428, 433, 443 - 480, 798 - 805, 807 - 816, 823 - 825, 830, 865 - 871,875 - 877, 1007 – 1051, Dindi village, Nizampatnam mandal, Guntur district, Andhra Pradesh by M/s Sireen Drugs Pvt. Ltd.– Terms of Reference</p> <p>[Proposal No. IA/AP/NCP/73368/2018] [F.No.21-44/2018-IA.III]</p>
3.8.1	<p>The same proposal was granted EC vide this Ministry's letter No 21-1083/2007-IA.III dated 23rd June, 2008, which was further extended vide letter 18th January, 2013. The EC was expired on 22nd June, 2018.</p> <p>The proponent informed that project could not be completed due to obstruction in acquiring land for the project. Realising these facts, EAC suggested the project proponent to bring details of land acquisition so that proposal could be considered for issuing ToR.</p>

	The EAC therefore <i>deferred</i> the proposal.
3.9	Development of Satellite Town Ring Road (STRR) Phase-I newly declared National Highway NH-948A from Dobbaspete to Ramanagara (km 0.000 to km 82.200) 82.20 km in Bengaluru, Karnataka by M/s National Highways Authority of India - Terms of Reference [Proposal No. IA/TN/MIS/75227/2018] [F. No. 10-33/2018-IA.III]
3.9.1	<p>The project proponent made a presentation along with EIA Consultant M/s Louis Berger Consulting Private Limited and provided the following information to the Committee:</p> <p>(i) The Satellite Town Ring Road (STRR) of Bangalore (Newly declared NH 948A) is proposed 6 lane highway having a total length of 179.969 Km in the states Karnataka and Tamil Nadu. The Project will be taken in 3 Phases viz,</p> <p>(a) Phase-I (From Ch. 0+00 to Ch. 82+200) in the state of Karnataka.</p> <p>(b) Phase-II (From Ch. 82+200 to Ch. 138+000), in the state of Karnataka and Tamil Nadu.</p> <p>(c) Phase-III (From Ch. 138+000 to Ch. 179+969) in the state of Tamil Nadu.</p> <p>(ii) This application is for the proposed Phase-I of STRR. The total length of the Phase I is 82.2 km. The project stretch falls in the state of Karnataka.</p> <p>(iii) The Proposed Phase-I starts at design Ch. 0+00 near Oblapura village at Neelmangala Taluk of Bangalore Rural district and ends at Ch. 82+200 at cross point of SH-3, Km 52.700 near Kailancha village at Ramanagara taluk in Ramanagara district.</p> <p>(iv) It passes through two districts of Karnataka viz. Bangalore Rural (From Design Ch. 0+00 to 19+500) and Ramanagara (From Design Ch. 19+500 to 82+200). The proposed road starts at Ch.0.000 (Km 121.225 of NH-207) and intersects at Ch.9+500 (NH4/48 – existing Km 50.550), Ch. 30+364 (NH-75/48 – existing Km 42.230), Ch. 44+500 (SH-85 Existing Km 47.112) and Ch.70+250 (NH-275 Existing Km. 318.130) and Ch. 82+200 (SH-3 existing Km 52.700). The proposed road near Ramanagara shall integrate with the proposed bypasses envisaged by NHAI on NH-275/948 for seamless traffic flow.</p> <p>(v) There are 22 Major Settlements along the alignment, namely, Manne, Tettekere, Nijagal, Kempohalli, Maddenahalli, Lakkuru, Agalakuppa, Hosapalya, Banawadi, Goruru, Gudemaranahalli, Handpost, Gudemaranahalli, Byalakere, Magadi, Hanchikuppe, Atimgere, Gungarahalli, Melahalli, Basavanapura, Rampura Doddi, Ramanagara, Kunagal.</p>

- (vi) The proposed right of way for the Greenfield alignment is considered as 70m, throughout the corridor.
- (vii) The ending point of STRR phase-I will further be integrated with STRR Phase-II.
- (viii) The original STRR of the Government of Karnataka was taken and modified by NHA under Bharatmala program, which was concurred by the State Government vide their letter nO.PWD-518/CNH/2017 dated 27.10.2010.
- (ix) The proposed land acquisition for the alignment is approx. total 785.5 ha.
- (x) The proposed road will have 2 nos. of Major Bridges, 5 nos. of Minor Bridges, 144 nos. of Culverts, 3 nos. of ROB's, 27 nos. of Vehicular Underpasses, 4 nos. of Interchnages1 no. of Flyover.
- (xi) Safety measures will be provided as per NHA Safety Manual and IRC: SP 88, safety measures and MoRTH guidelines in this regard.
- (xii) The detail of water body around the proposed project is as follows: River Arkavathy is crossing the project alignment at two locations (i.e. at Design Ch. 64+480 and Ch. 78+380), further the alignment is crossing few minor streams.
- (xiii) As per initial assessment, it is anticipated that on an average about 150 to 200 trees are likely to be affected per km. The detailed assessment of actual trees to be affected (tree inventories) on the finalized alignment will be undertaken during detailed EIA Study and the preparation of Forest Clearance proposals as per FC (Act) 1980, and the subsequent amendments thereafter.
- (xiv) Efforts will be made to minimize trees loss by restricting tree cutting within formation width. Avenue plantation shall be carried out as per IRCSP:21:2009 on available ROW apart from statutory requirements.
- (xv) Material requirement are aggregate (27.19 Lak Cum), Bitumen (0.44 Lakh Ton.), Earth (124.99 Lakh Cum.), Sand (9.30 Lakh Cum), Steel (0.57 Tonnes), Cement (2.30 Lakh Ton.).
- (xvi) Jindal Thermal Power Company (12.5km) and KPCL Thermal Power plant (33km) falls within 300km of the proposed project alignment and fly ash will be used in the project depending upon their availability as per existing fly ash notification.
- (xvii) **Proposal:** Consultancy Services for preparation of DPR for Development of Economic Corridors, Inner Corridors, Feeder Routes and Coastal Roads to Improve the Efficiency of Freight Movement in India - Lot 3/Andhra Pradesh, Karnataka, Goa & Kerala /Package 1. The corridor proposed with 70m right-of-way consists of divided 6lanes carriageway starts from Design Ch. 0+00 near Oblapura village at Nelamangala Taluk of Bangalore Rural district and ends at Design Ch. 82+200 at cross point of SH-3 (Existing Ch. 52+700) near

	<p>to Kailancha village in Ramanagara district in the state of Karnataka. The proposed alignment is a newly declared National Highway-948A.</p> <p>(xviii) Land use of the site and around the site up to 10 km radius: Proposed project is a greenfield project. Agricultural (84%), Barren (14%), other revenue/forestland (2%) will be converted for infrastructure propose. The major land use of STRR Phase-1 includes cultivation land and rest includes barren land.</p> <p>(xix) Justification for selection of the site: For proposed 6 lane STRR as per IRC and MoRTH applicable guidelines, the following realignment is studied. The original STRR alignment was studied by the Karnataka State government however, the project shelved due to paucity of funds with the State government. The project got transferred to NHAI for further studies and implementing the Project.</p> <p>(xx) Whether the project is in Critically Polluted area: Not Applicable.</p> <p>(xxi) If the project involves diversion of forest land, extend of the forest land: No.</p> <p>(xxii) If the project falls within 10 km of eco- sensitive area, Name of eco- sensitive area and distance from the project site: The proposed road location falls approx. 1.2 Km away from Ramadevarabetta Vulture Sanctuary and approximately 200m away from its notified ESZ. (Annexure- location map & ESZ gazette notification).</p> <p>(xxiii) Water requirement, source, status of clearance: Water will be required mainly during construction period. About 250 Kl/day, water will be consumed during peak construction period for the project. Surface Water (Approx. 70%) and Ground Water (30%) shall be utilized for construction works.</p> <p>Source: The detail shall be provided in EIA</p> <p>Status of Clearance: NoC will be obtained Prior to Construction.</p> <p>(xxiv) (xxix) Connectivity to the site: The proposed road starts at Km 0 (NH-207– Km 131.255) and intersects at 9+500 (NH4/48 –Km 50.550), 30+364 (NH-75/48–Km 42.230), 44+500 (SH-85 –Km 47.112) and 70+250 (NH-275 Ch. 318.130) and 82+200 (SH-3–Km 52+700). The proposed road near Ramanagara shall integrate with the proposed bypasses envisaged by NHAI on NH-275 to ease the traffic congestion.</p> <p>(xxv) Terrain, level with respect to MSL, requirement of filling if any: Terrain is Plain / Rolling with elevation ranges from 665 to 951 MSL. Overburden will be generated during excavation for alignment and at borrow areas. It is proposed to reuse these materials for construction of embankment, rehabilitation of borrow areas and other allied sites and or filling of low lying/ disfigured wasteland.</p> <p>(xxvi) Tree cutting, types, numbers, girth size etc: As per initial assessment, it is anticipated that on an average about 150 to 200</p>
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	<p>trees are likely to be affected per km. The detailed assessment of actual trees to be affected (tree inventories) on the finalized alignment will be undertaken during detailed EIA Study and the preparation of Forest Clearance proposals as per FC (Act) 1980, and the subsequent amendments thereafter.</p> <p>(Common trees includes <i>Eucalyptus</i>, <i>Azadirachta indica</i>, <i>Acacia catechu</i>, <i>Ficus</i>, <i>Tamarindus indica</i>)</p> <p>Efforts will be made to minimize the trees loss by restricting tree cutting within formation width. Avenue plantation shall be carried out as per IRC SP: 21:2009 on available ROW apart from statutory requirements. Required tree cutting will be done after obtaining requisite permission from competent authority. In order to minimize the impact of tree cutting, compensatory plantation shall be undertaken.</p> <p>(xxvii) Rehabilitation involved if any: All the temporary sites used for construction activities will be rehabilitated properly before handing over back to the land owner.</p> <p>The solid waste generated due to construction and allied activities will be reused for rehabilitation of borrow area / quarries sites, campsite and in temporary diversions and slopes.</p> <p>(xxviii) Water bodies, diversion if any: River Arkavathy crossing the alignment at 2 locations (at Design Ch. 64+480 and Ch. 78+380) and few minor streams crossing alignment.</p> <p>(xxix) Court cases if any: No.</p> <p>(xxx) Investment/Cost of the project (in crore): INR 2600 Crore(Appox.)</p> <p>(xxxi) Employment potential: This Road project will improve the economic and social welfare of those using the road or served by it. Ultimately it will create jobs by increasing access to markets, education and health services etc.</p> <p>(xxxii) Benefits of the project: This project aims to improve connectivity particularly on economic corridors, border areas and to remote areas with an aim of rapid and safe movement of cargo to boost exports. International trade considered as a key aspect in this scheme and northeastern states have given special focus.</p>
<p>3.9.2</p>	<p>After detailed deliberation during 191st meeting on 25th June, 2018, EAC observed that the proposed stretch is highly sensitive from ecological point of view. Therefore, EAC recommended for a site visit by a sub-committee of the EAC before the proposal is considered further.</p>

3.10	<p>Development of Satellite Town Ring Road (STRR) Phase-II newly declared National Highway NH-948A from Ramanagara to Belagondapalli (km 82.200 to km 138.000) 55.80 km in District Ramanagara and Bangalore Urban, Karnataka and District Krishnagiri, Tamil Nadu by M/s National Highways Authority of India - Terms of Reference</p> <p>[Proposal No. IA/KA/MIS/75235/2018] [F. No. 10-34/2018-IA.III]</p>
3.10.1	<p>The project proponent made a presentation along with EIA Consultant M/s Louis Berger Consulting Private Limited and provided the following information to the Committee:</p> <p>(i) The Satellite Town Ring Road (STRR) of Bangalore (Newly declared NH 948A) is proposed 6 lane highway having a total length of 179.969 Km in the states Karnataka and Tamil Nadu. The Project will be taken in 3 Phases viz.,</p> <ul style="list-style-type: none"> • Phase-I (From Ch. 0+00 to Ch. 82+200) in the state of Karnataka. • Phase-II (From Ch. 82+200 to Ch. 138+000), in the state of Karnataka and Tamil Nadu. • Phase-III (From Ch. 138 + 000 to Ch. 179+969) in the state of Tamil Nadu. <p>(ii) This application is for the proposed Phase-II of STRR which starts at Ch. 82+200 at Cross point of SH-3-(Km 52.700) near Kailancha Village in Ramanagara taluk in Ramanagara district (Karnataka) and ends at Ch. 138+000 in Denkanikottai of Krishnagiri District at Karnataka/TN Border.</p> <p>(iii) The Land use pattern within 10 km on either side of project area is predominantly agricultural followed by forests and barren area. The proposed road traverses approx. 4.684 Km through Bannerghatta National Park (BNP). An elevated corridor is proposed through Bannerghatta National Park. Viaduct section would start from Design Ch. 113+350 to Design Ch. 119+980 (Total length - 6.63 km).</p> <p>(iv) There are 16 Major Settlements along the alignment, namely, Chikkenahalli, Anajawadi, Chikka Madhawadi, Alisab Doddi, Aralalusandra, Varager Halli, Chathra, Dodda, Maralawadi, Banavasi, Maniyambal, Indalavadi, Thimmasandra, Vanakanahalli, Menasiganahalli, Muttur.</p> <p>(v) The proposed right of way for the Greenfield alignment is considered as 70m throughout the corridor. The proposed ROW is considered as 28.5m in Bannerghatta National Park.</p> <p>(vi) The original STRR of Government of Karnataka was taken and modified by NHAI under Bharatmal Program, which was concurred by the state government vide letter No.PWD/518/CNH/2017 dated 27.10.2017 and Government of Tamil Nadu vide letter No.14787/HV1/2017-2 dated 24.1.2018.</p>

- (vii) The proposed land acquisition for the alignment is approx. 472.4 ha
- (viii) The proposed road will have 2 nos. of Major Bridges, 5 nos. of Minor Bridges, 98 nos. of Culverts, 12 nos. of Vehicular Underpasses, 2 nos. of Interchanges.
- (ix) Safety measures shall be provided as per NHA Safety Manual and IRC: SP 88, IRC:SP:55 and MoRTH guidelines in this regard.
- (x) The details of water body around the proposed project is as follows: River Akravati crossing at Ch.90+280 and River Suvarnamukhi crossing at 92+980. Dry stream crossing at design Chainage (Ch.90+300), Canal at (Ch.105+150), Canal at (Ch. 105+400), Canal at (Ch.105+700), Canal at (Ch.106+200), Canal at (Ch.106+400), Nalla dry at (Ch.107+800), Nalla dry at (Ch.118+300).
- (xi) As per initial assessment, it is anticipated that on an average about 150 to 200 trees are likely to be affected per km. The detailed assessment of actual trees to be affected (tree inventories) on the finalized alignment will be undertaken during detailed EIA Study and the preparation of Forest Clearance proposals as per FC (Act) 1980, and the subsequent amendments thereafter.
- (xii) Efforts will be made to minimize the trees loss by restricting tree cutting with information width. Avenue plantation shall be carried out as per IRCSP:21:2009 on available ROW apart from statutory requirements.
- (xiii) Materials requirement are aggregate (18.46 Lakh Cum), Bitumen (0.30 Lakh Ton.), Earth (84.85 Lakh Cum.) Sand (6.31 Lakh Cum), Steel (0.57Tonnes) and Cement (1.56 Lakh ton).
- (xiv) Jindal Thermal Power Company (24.18 km) and KPCL Thermal Power plant (27.2 km) falls within 30 km of the proposed project alignment and fly ash will be used in the project depending upon their availability as per existing fly as notification.
- (xviii) **Land use of the site and around the site up to 10 km radius:** Proposed project is a greenfield project. Agricultural (70%), Forest (19 %), other Barren/revenue land (11%) will be converted for infrastructure propose. The major land use of STRR Phase-II is cultivation land and rest includes barren land.
- (xix) **Justification for selection of the site:** For proposed 6 lane STRR as per IRC and MoRTH applicable guidelines, the following realignment is studied.
- The original STRR alignment was studied by the Karnataka State government however, the project shelved due to paucity of funds with the State government. The project got transferred to NHA for further studies and implementing the Project
 - Transfer letter from PWD to NHA is attached as Annexure III a. The detailed map of the alignment is enclosed as Annexure – III b.
- (xx) **Project brief: nature of proposal (new/ expansion,) total area- land use, project components, connectivity to the site etc:** A new

STRR Phase-II has been proposed to improve the connectivity in order to cater the needs of growing population along the fringe areas of Bangalore. The proposed road having PROW of 70 m falls in Kanakpura and Anekal (Karnataka), Denakanikottai (Tamil Nadu)

Technical feature (Salient feature of the project) is attached as Annexure III c

Near location: Kanakapura town (13 km), Anekal town (3 Km), Hosur (15 km), Anekal Railway Station (6 km), Hosur Aerodrom (approx. 7 km).

(xxii) **Cost of the project:** INR 1764 Cr.

(xxiii) **Whether the project is in Critically Polluted area:** Not Applicable.

(xxiv) **If the project involves diversion of forest land, extend of the forest land:** No.

(xxv) **If the project falls within 10 km of eco- sensitive area, Name of eco- sensitive area and distance from the project site:** The proposed road falls within the 10km ESZ of Bannerghatta National Park and is also passing through it for a length of 4.68 km.

(xxvi) **Water requirement, source, status of clearance:** Water will be required mainly during construction period. About 170Kl/day water will be consumed during peak construction period for the project. Surface Water (Approx. 70%) and Ground Water (30%) shall be utilized for construction works. Source: The detail shall be provided in EIA.

Status of Clearance: NoC will be obtained from Ground Water Authority prior to construction.

(xxvii) **Connectivity to the site:** The proposed project road is connected through the following National Highways NH 209 and majority of State Highways SH 3.

(xxviii) **Terrain, level with respect to MSL, requirement of filling if any:** Terrain is Plain / Rolling with elevation ranges from 650 m to 960 m amsl.

Overburden will be generated during excavation for alignment and at borrow areas. It is proposed to reuse these materials for construction of embankment, rehabilitation of borrow areas and other allied sites and or filling of low lying/ disfigured wasteland.

(xxix) **Tree cutting, types, numbers, girth size etc.:** As per initial assessment, it is anticipated that on an average about 150 to 200 trees are likely to be affected per km. The detailed assessment of actual trees to be affected (tree inventories) on the finalized alignment will be undertaken during detailed EIA Study and the preparation of Forest Clearance proposals as per FC (Act) 1980, and the subsequent amendments thereafter.

	<p>(Common trees includes <i>Eucalyptus</i>, <i>Azadirachta indica</i>, <i>Acacia catechu</i> <i>Ficus Tamarindus indica</i>) Details/Numbers of trees will be assessed during detailed assessment.</p> <p>Efforts will be made to minimize the trees loss by restricting tree cutting within formation width. Avenue plantation shall be carried out as per IRC SP: 21:2009 on available ROW apart from statutory requirements. Required tree cutting will be done after obtaining requisite permission from competent authority. In order to minimize the impact of tree cutting, compensatory plantation shall be undertaken.</p> <p>(xxx) Rehabilitation involved if any: All the temporary sites used for construction activities will be rehabilitated properly before handing over back to the landowner.</p> <p>The solid waste generated due to construction and allied activities will be reused for rehabilitation of borrow area / quarries sites, campsite and in temporary diversions and slopes.</p> <p>(xxxii) Water bodies, diversion if any: River Akravati crossing at Ch.90+280 and River Suvarnamukhi crossing at 92+980. Minor streams crossing the alignment are Dry stream (Ch.90+300), Canal (Ch.105+150), Canal (Ch.105+400), Canal (Ch.105+700), Canal (Ch.106+200), Canal (Ch.106+400), Nalla (Dry) (Ch.107+800), Nalla (Dry) (Ch.118+300).</p> <p>(xxxiii) Court cases if any: No.</p> <p>(xxxiv) Investment/Cost of the project (in crore): INR 1764Cr. (Approx.)</p> <p>(xxxv) Employment potential: This Road project will improve the economic and social welfare of those using the road or served by it. Ultimately it will create jobs by increasing access to markets, education and health services etc.</p> <p>(xxxvi) Benefits of the project: The proposed project aims to improve connectivity particularly on economic corridors, border areas and to remote areas with an aim of rapid and safe movement of cargo to boost exports. International trade considered as a key aspect in this scheme and north-eastern states have given special focus.</p>
<p>3.10.2</p>	<p>After detailed deliberation during 191st meeting on 25th June, 2018, EAC observed that the proposed stretch is highly sensitive from ecological point of view. Therefore, EAC recommended for a site visit by a sub-committee of the EAC before the proposal is considered further.</p>

3.11	<p>Development of Satellite Town Ring Road (STRR) Phase-III newly declared National Highway NH-948A from Belagondapalli to Tamil Nadu / Karnataka Border (km 138.000 to km 179.969) 41.969 km in District Krishnagiri, Tamil Nadu by M/s National Highways Authority of India - Terms of Reference</p> <p>[Proposal No. IA/TN/MIS/75239/2018] [F. No. 10-35/2018-IA.III]</p>
3.11.1	<p>The project proponent made a presentation along with EIA Consultant M/s Louis Berger Consulting Private Limited and provided the following information to the Committee:</p> <p>(i) The Satellite Town Ring Road (STRR) of Bangalore (Newly declared NH 948A) is proposed 6 lane highway having a total length of 179.969 Km in the states Karnataka and Tamil Nadu. The Project will be taken in 3 Phases viz,</p> <ul style="list-style-type: none"> • Phase-I (From Ch. 0+00 to Ch. 82+200) in the state of Karnataka. • Phase-II (From Ch. 82+200 to Ch. 138+000), in the state of Karnataka and Tamil Nadu. • Phase-III (From Ch. 138+000 to Ch. 179+969) in the state of Tamil Nadu <p>(ii) This proposal is for the Proposed Phase-III, which starts from Ch. 138+000 near at KNT/TN border and ends at Ch. 179+769 at TN/ Karnataka Border. It passes through one district of Tamil Nadu viz. Krishnagiri. The end point of STRR phase-III will be at Karnataka/Tamil Nadu State border near Deeviripalli village of Hosur Taluk (Krishnagiri District).</p> <p>(iii) The Land use pattern within 10 km on either side of project area is predominantly agricultural followed by built up area and barren area. The proposed road location is falling 15 Km away from Bannerghatta National Park's ESZ.</p> <p>(iv) Hosur is an automobile industry town located in the vicinity of about 7 km away from Karnataka state border. This city generates huge amount of traffic and currently experiencing massive traffic congestions. The STRR Phase-III is designed for inclusion of Ring Road of Hosur town, Automobile Hub of Tamil Nadu and Connecting with the proposed KITCO alignment.</p> <p>(v) There are 16 Major Settlements along the alignment, namely Kappakollu, Payarakanahalli, S. Mudugandanahally, Golisandram, Thorapalli Agraharam, Kothur, Perandapalli, Kadirapalli, Alur, Dasapalle, Payarkuttalai, Nandimangalam, Attur, B. Mudaganahalli, Kadiriganadinna, Sampangere.</p> <p>(vi) It is a Greenfield project and the proposed right of way (RoW) is kept as 70 m.</p>

- (vii) The original STRR of Government of Karnataka was taken and modified by NHAI under Bharatmal Program, which was concurred by the state government vide letter No.PWD/518/CNH/2017 dated 27.10.2017 and Government of Tamil Nadu vide letter No.14787/HV1/2017-2 dated 24.1.2018.
- (viii) The proposed land acquisition for the proposed alignment is approx. 526.02ha.
- (ix) The proposed road will have 1 Major Bridge, 5 nos. of Minor Bridges, 73 nos. of Culverts, 9 nos. of Vehicular Underpasses, 5 nos. of Interchanges.
- (x) Safety measures shall be provided as per NHAI Safety Manual and IRC: SP 88, IRC:SP:55 and MoRTH guidelines in this regard.
- (xi) The detail of water body around the proposed project is as follows: River Poniyar crossing at (Design Ch. 158+500) and 7 streams crossing the alignment.
- (xii) Efforts will be made to minimize the trees loss by restricting tree cutting within formation width. Avenue plantation shall be carried out as per IRCSP:21:2009 on available ROW apart from statutory requirements.
- (xiii) Materials requirement are aggregate (13.88 Lak Cum), Bitumen (0.22 Lakh Tonnes.), Earth (63.82 Lakh Cum.), Sand (4.75 Lakh Cum), Steel (0.29 Tonnes), and Cement (1.17 Lakh ton).
- (xiv) KPCL Thermal Power plant (18.65 km) and Jindal Thermal Power Company (35.49 km) falls within 300km of the proposed project alignment and fly ash will be used in the project depending upon their availability as per existing fly ash notification.
- (xv) **Land use of the site and around the site up to 10 km radius:** Proposed project is a greenfield project. Agricultural (77%), Barren (22%), other revenue/forest land (1%) will be converted for infrastructure propose. The major land use of STRR Phase-III of cultivation land and rest includes barren land
- (xvi) **Justification for selection of the site:** For proposed 6 lane STRR as per IRC and MoRTH applicable guidelines, the following realignment is studied. The original STRR alignment was studied by the Karnataka State government however, the project shelved due to paucity of funds with the State government. The project got transferred to NHAI for further studies and implementing the Project
- (xvii) **Cost of the project:** INR 1327Cr. (Approx.).
- (xviii) **Whether the project is in Critically Polluted area:** Not Applicable.
- (xix) **If the project involves diversion of forest land, extend of the**

forest land: No.

(xx) **If the project falls within 10 km of eco- sensitive area, Name of eco- sensitive area and distance from the project site:** The proposed road location is not falling within 10 km of Eco-sensitive area.

(xxi) **Water requirement, source, status of clearance:** Water will be required mainly during construction period. About 130 KI/day water will be consumed during peak construction period for the project. Surface Water (Approx. 70%) and Ground Water (30%) shall be utilized for construction works. Source: The detail shall be provided in EIA.

Status of Clearance: NoC will be obtained from Ground Water Authority prior to construction.

(xxii) **Connectivity to the site:** The proposed project road is connected through the following National Highways NH 75 (Hassan road), and majority of State Highways SH 85, & SH 35.

(xxiii) **Terrain, level with respect to MSL, requirement of filling if any:** Terrain is Plain / Rolling with elevation ranges from 828 m to 945 m amsl.

Overburden will be generated during excavation for alignment and at borrow areas. It is proposed to reuse these materials for construction of embankment, rehabilitation of borrow areas and other allied sites and or filling of low lying/disfigured wasteland.

(xxvi) **Tree cutting, types, numbers, girth size etc:** As per initial assessment, it is anticipated that on an average about 150 to 200 trees are likely to be affected per km. The detailed assessment of actual trees to be affected (tree inventory) on the finalized alignment will be undertaken during detailed EIA Study and preparation of Forest Clearance proposals as per FC (Act) 1980, and the subsequent amendments thereafter.

(Common trees includes Eucalyptus, *Azadirachta indica*, *Acacia catechu*, Ficus, *Tamarindus indica*).

Efforts will be made to minimize the trees loss by restricting tree cutting within formation width. Avenue plantation shall be carried out as per IRC SP: 21:2009 on available ROW apart from statutory requirements. Required tree cutting will be done after obtaining requisite permission from competent authority. In order to minimize the impact of tree cutting, compensatory plantation shall be undertaken.

(xxvii) **Rehabilitation involved if any:** All the temporary sites used for construction activities will be rehabilitated properly before handing over back to the land owner.

	<p>The solid waste generated due to construction and allied activities will be reused for rehabilitation of borrow area / quarries sites, campsite and in temporary diversions and slopes.</p> <p>(xxviii) Water bodies, diversion if any if any: Ponnaiyar River (Ch. 158+500) and 7 streams crossing the alignment.</p> <p>(xxix) Court cases, if any: No.</p> <p>(xxx) Investment/Cost of the project (in crore): INR1327 Cr. (Approx.)</p> <p>(xxxix) Employment potential: This Road projects will improve the economic and social welfare of those using the road or served by it. Ultimately it will create jobs by increasing access to markets, education and health services etc.</p> <p>(xxxii) Benefits of the project: The proposed project aims to improve connectivity particularly on economic.</p>
3.11.2	<p>The EAC, after detailed deliberations during 191st meeting held on 25th June, 2018, recommended the project for grant of ToR, with the following specific ToRs in addition to Standard ToR applicable for such projects:</p> <p>(i) Cumulative Impact Assessment to be carried out along packages-I, II and III.</p> <p>(ii) Water bodies along proposed alignment needs to be surveyed for their conservation and sustainability.</p>
3.12	<p>Development of Access controlled Nagpur-Mumbai Expressway (NMEW) - Package V from Taranganpada Village, Igatpuri Taluka, Nashik District (CH 623.379 km) to Amane Village, Bhiwandi Taluka, Thane District (CH 701.362 km) (Total Length 78 km) in Maharashtra by Maharashtra State Road Development Corporation Limited – Environmental Clearance.</p> <p>[Proposal No. IA/MH/MIS/61955/2017] [File No. 10-3/2017-IA-III]</p>
3.12.1	<p>The project proponent made a presentation along with EIA Consultant M/s Louis Berger Consulting Private Limited and provided the following information to the Committee:</p> <p>(i) The Nagpur Mumbai Expressway (NMEW) will be developed as a high-density corridor establishing high-speed connectivity between Nagpur and Mumbai. As a first step in this direction the Government of Maharashtra has decided to develop and strengthen the linkages and connectivity of major cities of state with Mumbai, the state capital. Exploring the viability of one such connectivity between Nagpur and Mumbai, which includes links with and through Shivmadka – Wardha– Karanja – Aurangabad – Sinnar – Bhiwandi along with link from Karanja – Loni – Nagzari corridor. The entire length of the proposed expressway is about 701 km.</p> <p>(ii) The project road section of NMEW Package V starting from Taranganpada Village, Igatpuri Taluka, Nashik District (CH 623.379</p>

	<p>km) to Amane Village, Bhiwandi Taluka, Thane District (CH 701.362 km).</p> <p>(iii) The total length of the project is 78 km. The proposed alignment passes through 48 villages. The vehicles are expected to reach an average speed of 150 km per hour on it. The project intends to develop 6 lane expressways with paved shoulders in the state of Maharashtra.</p> <p>(iv) The proposed ROW is 120 m as per requirements. The ROW is inclusive of service/Connector roads wherever required. The recommended minimum Right of Way in Plain/Rolling terrain for expressways is 120 m.</p> <p>(v) Major Bridges 0 Nos; Minor Bridges 3Nos. ROB 1 Nos; There are total 6 Vehicle under Passes (VUPs), Pedestrian under passes (PUP) and Cattle underpasses total 10, 26 Vehicle Over Passes (VOP), 1 Fly Over and Wildlife mitigation structures have been proposed.</p> <p>(vi) Provision of Public facilities like, Emergency telephones @ every 5km, Parking and truck stops, Auto services centre, Ambulance and towing facilities, Quick Response Vehicle (QRV), Rest areas at every 50 km, Fuel filling station and food plaza & restaurants, shops, police stations other wayside amenities include Truck terminus, bus bays, Median plantation/landscaping, Bridge- beautification, street lighting and digitized signage, solar street lighting at interchanges and Wi-Fi access, traffic surveillance and enforcement and CCTV for monitor throughout the project length.</p> <p>(vii) Major interchanges are proposed.</p> <p>(viii) In proposed project, three tier roadside plantations will be done as per National Green Highway Policy.</p> <p>(ix) Details of water requirement & its source will be given in EIA.</p> <p>(x) Quantity of borrow materials, sand and aggregates proposed to be used for the project will be given in EIA.</p> <p>(xi) During construction, 50,000MT/km cement will be required on the basis of broad view. A part of cement can be replaced by good quality fly ash to the extent of 10-30%. Quantity of flyash can be obtain from thermal power plant (Dirk India Private Limited Plant) which is located at Eklahare in Nashik is about 70 km from proposed road at Chainage 565.000.</p> <p>(xii) The public hearing was conducted on 24th January 2018 at Village Igatpuri, Taluka Igatpuri. For Nashik District (9 km) and on 7th December, 2017 at village Vashala, Taluka Shahapur for Thane District (69 km).</p> <p>(xiii) The estimated civil cost of the project is approximately Rs. 5365 Cr.</p> <p>(xiv) Land use of the site and around the site up to 10 km radius: The land use pattern on either side of 10 Km of the project road is</p>
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predominantly agricultural, Protected Forest, Reserve forest, and Restored Private Forest area.

- (xv) **Whether the project is in Critically Polluted area:** No.
- (xvi) **If the project involves diversion of forest land, extent of the forest land:** 383.8535 Ha of Reserved Forest area.
- (xvii) **If the project falls within 10 km of eco- sensitive area, Name of eco- sensitive area and distance from the project site:** The alignment is passing through default Eco-sensitive zone of Tansa Wildlife Sanctuary. The distance is 1.47 km from the sanctuary boundary. Kalsubai Harichandragad Wildlife Sanctuary Boundary: 6.60 km (Nearest ESZ boundary from the alignment is 3.80 km)
- (xviii) **Water requirement, source, status of clearance:** The total water requirement for project is 1643.84 m³/day (inclusive of domestic requirements).
- (xix) **Connectivity to the site:**
- (xx) **Terrain, level with respect to MSL, requirement of filling if any:**
- (xxiv) **Tree cutting, types, numbers, girth size etc:**






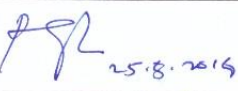

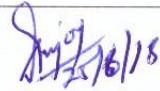
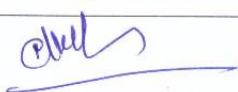

Area	Trees to be cut
Non-Forest Area	32341

- (xxi) **Rehabilitation involved if any:** The estimated land requirement of about 10,000 ha for developing the 701 km of expressway will be met through Land Pooling/Land Procurement through a prevailing laws and guidelines issued by government instead of traditional land acquisition method. It is first project being set up by Land Pooling/Land Procurement through a prevailing laws and guidelines issued by government instead of traditional land acquisition method. The proposed land acquisition is 908.0038 ha which includes 383.8535 ha of forest land.
- (xxvi) **Water bodies, diversion if any if any:** The proposed project will cross Bhatsa River, at CH 636+695 to 636+960, Ch639+210 to Ch 639+245 in village Vashala Bk and at ch 670+910 to ch 670+945 in Kasagaon village.
- (xxvii) **Court cases, if any:** No.
- (xxviii) **Investment/Cost of the project (in crore):** Rs.5365 Crores.
- (xxix) **Employment potential:** During the construction phase of the project which is likely to be completed within 36 months, manpower will be needed to take the part in various project activities. About 8000 persons per day, which includes, skilled, semi-skilled and unskilled labourers, will likely to get work. In the post construction phase, it is expected that the project will provide social benefits to about 800 people in terms of direct employment by way of better commercial and industrial development of the area.

	<p>(xxx) Benefits of the project: Implementation of the project is expected to yield the following benefits:</p> <ul style="list-style-type: none"> • Currently the routes which are available for this connectivity are under heavy pressure. The Government aims at providing improved connectivity among major commercially important cities of Maharashtra by providing a road project with World Class Standards, projecting as a dream project of the Government. • The proposed project connects Nagpur (the second capital of Maharashtra) to Mumbai (the capital of Maharashtra). Establishment of Prosperity Corridor which will result in economic prospects of population residing in the state of Maharashtra, through which the alignment will pass through; • To develop new industrial/educational/ commercial/tourism nodes in vicinity of expressway at a regular interval of 40-50 km; • To develop a model highway which would be environmentally safe and cater to the needs of people without encroaching on their resources; • Overall, the project aims to plant 1million trees of suitable native species along the alignment; • To ensure fragmentation of the ecosystems is kept at minimal by planning the development under the expert supervision of wildlife scientists; • To attain an average speed of 150 km per hour. • To reduce the travel time from Nashik to Thane from 3 hours to 1 hr 30 min for a distance of 150 km; • Krushi Samruddhi Kendra (new towns), comprising agro-based industries, commercial hubs and residential area with all basic amenities proposed to be developed at the intersection of the expressway and national or state highways.
<p>3.12.2</p>	<p>The EAC after detailed deliberation during 191st meeting held on 25th June, 2018, noted the following:</p> <ul style="list-style-type: none"> (i) The Nagpur Mumbai Expressway will cut down distance/travel time between Nagpur and Mumbai (ii) The estimated land requirement of about 10,000 ha for developing the 701 km of expressway will be met through Land Pooling/Land Procurement through a prevailing laws and guidelines issued by government instead of traditional land acquisition method. (iii) It is first project being set up by Land Pooling/Land Procurement through a prevailing laws and guidelines issued by government instead of traditional land acquisition method.

	<ul style="list-style-type: none"> (iv) The MSRDC has entered into MoU with WII for assessment of impact of project on wildlife and has planned to appoint third party auditor for plantation avenues. (v) No Ground water will be drawn for the Proposed Project. The ground water recharge pits will be provided at every 500m along the proposed Expressway. (vi) Letter for permission of water is received in District Collector office, Nashik. (vii) The major issues raised related to Public hearing were addressed by the proponent as per rules and regulation. (viii) Three tier roadside plantations will be done as per National Green Highway Policy.
<p>3.12.3</p>	<p>The EAC, after detailed deliberations during 191st meeting held on 25th June, 2018, recommended the project for grant of Environmental Clearance, with the following specific conditions in addition to all generic conditions applicable for such projects:</p> <ul style="list-style-type: none"> (i) MSRDC is responsible to implement the recommendations based on assessment done as per MoU between them and Wildlife Institute of India for assessment of impact of project on wildlife, as mentioned in the undertaking submitted to this Ministry. (ii) A third party auditor for avenue plantation be appointed as per undertaking submitted by the MSRDC. (iii) Efforts be made to arrange translocation/transportation of big trees using latest technology available. Efforts to be made especially to translocate large ficus trees. (iv) Trees that will be used for afforestation must have significant number of various ficus species like banyan (<i>Ficus benghalensis</i>), peepal (<i>Ficus religiosa</i>), cluster fig (<i>Ficus racemosa</i>) etc. Entire afforestation must be done using only native species. (v) No ground water will be drawn during construction and operation phases of the proposed Expressway. (vi) Abandoned quarries be protected as waterbodies. (vii) Oil & grease trap with de-silting chambers be taken up for the Rain Water harvesting Structures. (viii) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The detailed report shall be submitted to this Ministry and its concerned regional office within 3 months.

List of the Members attended 191 meeting of Expert Appraisal Committee for Projects related to Infrastructure Development, Industrial Estate and Miscellaneous projects held on 25th June 2018 and approved the above minutes.

Sl. No.	Name of the EAC member	Role/Designation	Signature
1.	Dr. Deepak Arun Apte, Director, Bombay Natural History Society (BNHS), Mumbai	Chairman	
2.	Dr. V.K. Jain, Professor of Chemistry, School of Sciences, Gujarat University, Ahmedabad	Member	
3.	Dr. M.V. Ramana Murthy, Project Director, NIOT Campus, Pallikarai, Chennai	Member	
4.	Shri T.P Singh, Advisor, MEITY, New Delhi	Member	
5.	Dr. N.K. Verma, Former AD, CPCB, New Delhi	Member	
6.	Dr. Manoranjan Hota, Former Adviser, MoEF&CC, New Delhi	Member	
7.	Dr. Anil Kumar Singh, IFS (Retd), Ex PCCF Assam, Tower F, Float No. 103 Grand Ajnara Heritage, Sector 74, Noida, UP	Member	
8.	Dr. Mohan Singh Panwar, Associate Professor, Garhwal University, Uttarakhand.	Member	
9.	Shri Narendra Surana, Managing Director, Bhagyanagar India Limited and Surana Telecom. and Power Limited, Hyderabad	Member	
10.	Shri Prabhakar Singh, Special DG, CPWD, Delhi Region, Nirman Bhawan, New Delhi (Building Construction Sector)	Member	 25.8.2018
11.	Dr. Anuradha Shukla, Central Road Research Institute (CRRI), Mathura Road, New Delhi	Member	
12.	Dr. D. Chakraborty, Scientist MoWR, RD & GR, New Delhi	Member	 25/6/18
13.	Shri N.K. Gupta, Member (EAC), Scientist E & In-charge (ESS), Central Pollution Control Board,	Member	
14.	Smt. Bindu Manghat, Director Survey of India New Delhi	Member	
15.	Shri Raghu Kumar Kodali, Director/Scientist-F, IA-III Division, MoEF&CC	Member Secretary (Infra-1 EAC)	
16.	Dr. Ashish Kumar, Joint Director, Ministry of Environment, Forest and Climate Change,	Special invitee	