

Minutes of 227th 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 to be held on 28th November, 2019

1. Opening remarks of the Chairman
2. Confirmation of the minutes of the 225th meeting held on 22nd October, 2019 at Indira Paryavaran Bhawan, Jor bagh Road, New Delhi.
3. Consideration of Proposals:

3.1	<p>Development of proposed Mandal Becharji special Investment Region (MBSIR) (Cluster A &B) at near villages Mandal and Becharji, District Ahmedabad and Mehsana (for Cluster-A) and near villages Ughroj, nu Paru and Ukardin of Mandal Talika and villages Bhangapura and Shihor of Detorj-Rampura Taluka, district Ahmedabad (for Cluster-B) in the State of Gujarat by M/s Mandal Becharji Special Investment Region Development Authority - Environmental Clearance</p> <p>[Proposal No. IA/GJ/NCP/126054/2018] [F.No. 21-75/2018-IA-III] (75764)</p>
3.1.1	<p>The project proponent along with the EIA consultant M/s ABC Techno Labs India Private Limited- Environmental clearance made a presentation and provided the following information before the Committee:</p> <p>(i) Proposal: Development of proposed Mandal Becharji Special Investment Region at Villages Mandal and Becharji, District Ahmedabad and Mehsana, Gujarat by M/s Mandal Becharji Special Investment Region Development Authority. Cluster A (Area-50.60 Sq.km):-Village: Hansal Becharaji and Sitapur, Tal.:Mandal, Dist.: Ahmedabad & Village: Chandanki, Tal.: Bechraji, Dist.: Mehasana, Gujarat. Cluster B(Area-51.50 Sq.km):-Near villages Ughroj, Ughrojniparu and Ukardi, Taluka-Mandal and Villages- Bhagapura and Shihor, Taluka-Detroj-Rampura, District-Ahmedabad, Gujarat.</p> <p>(ii) Location:</p> <p>Cluster A: 23°27'27.48"N Latitude and 71°59'59.61"E longitude. Cluster B: 23°20'46.14"N Latitude and 72° 5'29.59"E longitude.</p> <p>(iii) Land Use: Total land area (102.10 sq. km.)</p> <p>Total Land Area (Ha.)- Total land area is 102.10 sq. km.</p> <p>(iv) Only B category industries to be established in the proposed SIR. The following sectors have been identified:</p>

	<ul style="list-style-type: none"> • Automobile Industry • Auto-component Vendor Park consisting <ul style="list-style-type: none"> ✓ Heavy Engineering ✓ Light Engineering including Metal & Alloy product ✓ Electronics ✓ Service & Ancillary ✓ Non Polluting Industries including Information Technology • Logistics <p>Further based on the key stakeholder suggestions and reference to the National Manufacturing Zone Policy, following sectors have also been included:</p> <ul style="list-style-type: none"> • Precision Engineering • Wind Power equipment manufacturing • Solar Power equipment manufacturing • Emerging sector in Automobile Sector viz. Electronic Systems Design and Manufacturing (ESDM). <p>(v) Water requirement, source, status of clearance: The raw water shall be withdrawn from Branch Canals of Narmada Main Canal subject to approval of SSNNL Dept., Government of Gujarat. The total water demand would be 269 MLD and fresh water demand is 161 MLD.</p> <p>For Cluster A -The Narmada Main Canal of Sardar Sarovar Narmada Nigam Limited (SSNNL) passes around 14 km away from the North Eastern part of the proposed MBSIR area (i.e. from Kadi to Chanasma town). The Zinzuwada Branch Canal off taking from Narmada Main Canal at Ch. 301.28m. The branch canal is used for supply of water for irrigation to Becharaji, Mandal, Dasada, Detroj & Mehsana Taluka command area.</p> <p>For Cluster B- The Narmada Main Canal of Sardar Sarovar Narmada Nigam Limited (SSNNL) passes around 15 km away from the North Eastern part of the proposed MBSIR area (i.e. from Kadi to Chanasma town). The Kharaghoda Branch Canal off taking from Narmada Main Canal at Ch. 292.398m.</p> <p>The branch canal is used for supply of water for irrigation to Becharaji, Mandal, Dasada, Detroj & Mehsana Taluka command area 161 MLD capacity conventional WTP will be constructed at Canal for Phase-1 as and when required. The type of treatment process usually depends on the quality of raw water required quality after treatment.</p> <p>(vi) Waste water quantity, Waste water generation treatment and disposal, treatment capacity, detail: Total 4 STPs (capacity of 15, 20, 32 and 10 MLD) and 2 CETP (capacity of 26 and 8 MLD) are proposed for</p>
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	<p>effluent treatment within project premises of cluster A. Total 2 STPs (capacity of 31 and 26 10 MLD) and 1 CETP (capacity of 9.25 MLD) are proposed for effluent treatment within project premises of cluster B.</p> <p>(vii) Municipal Solid Waste Generated Disposal and Facility: Municipal solid waste collection, tipping, transportation, treatment, reprocessing, materials and energy recovery and sanitary land filling will be developed in phases in the SIR in a distributed fashion.</p> <p>(viii) Power requirement and source: The power demand projection, it is estimated that approximately 300 MW power is required for industrial purpose whereas about 110 MW power is planned to be required for residential purpose. The source of power for the proposed project is from Gujarat energy transmission company (GETCO).</p> <p>(ix) Rain Water Harvesting: Rain water harvesting structure will be integrated part of storm water management.</p> <p>(x) ToR Details: The application for the scoping of the said project has been submitted to the Ministry of Environment, Forest and Climate Change (MoEF&CC), New Delhi. Presentation for the scoping of the project Terms of Reference (TOR) approval for EIA study was held on 15th October 2018. MoEF&CC has issued the TOR for the EIA study on 8th February 2019.</p> <p>(xi) Whether the project is in Critically Polluted area: No.</p> <p>(xii) National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area: No.</p> <p>(xiii) Number of trees to be cut: Total 14,00 trees to be cut for the project and plantation of 70,000 tree (native species) shall be done.</p> <p>(xiv) If the project involves diversion of forest land, extend of the forest land: Cluster A: (a) Chandrora Reserve Forest ≈ 8.2 Km. (b) NNW Suraj Reserve Forest ≈ 6.85 Km, NNW. Cluster B : Nil within 10 km radius.</p> <p>(xv) Court cases, if any: No.</p> <p>(xvi) If the project is for EC under EIA Notification, 2006: Yes. The Ministry granted Tor vide letter no. 21-75/2018-IA.III dated 8th February, 2019.</p> <p>(xvii) Investment/Cost of the project: Rs. 7,231 Crores.</p> <p>(xviii) Employment: Total Manpower 304500.</p> <p>(xix) Benefits of the project: Proposed development of Canara Industrial Area.</p> <ul style="list-style-type: none"> • More employment opportunities will be generated.
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- There will be positive impacts on the socio economic status of the surrounding areas.
- Physical infrastructure development such as improvement to roads, UGD lines, street lights etc., will take place.

(xx) **Public Hearing: Cluster A (For part of Ahmedabad District) :** Conducted on 23.06.2019 at community hall, thakor vas, vill: Sitapur, Ta: Mandal, Dist: Ahmedabad, Gujarat.

Cluster A (For part of Mehsana District) : Conducted on **01.10.2019** at main chowk of chandanki village, near Mahakali temple, vill: Chandanki, Ta: Becharaji, Dist: Mehsana, Gujarat.

Cluster B (For Ahmedabad district only) : Conducted on 12.10.2019 at near Gram panchayat Office, vill: Gitapur, Ta: Detroj Rampura, Dist: Ahmedabad, Gujarat.

Cluster A Cluster A(For part of Ahmedabad District):-

S. No.	Issue raised	Reply by project proponent
1.	Regarding setting up of automobile companies and chemical companies.	MBSIRDA is committed not to establish any chemical company. It is also mentioned in ToR of EIA that there is 85-90% demand of automobile industry and 10% demand of solar energy in this region.so there is no possibility of establishing chemical company.
2.	Cutting of the trees and plantation	Five times more trees will be planted against the cut down trees, he further clarified that 40,000 trees will be planted against 8,000 cut down trees. Mr. Pragnesh Doshi replied that the trees will be planted on the divider.
3.	Regarding deduction of new bore well.	Compensation will be given to whatever structure falls under deduction after valuation.

Cluster A(For part of Mehsana District):-

S. No.	Issue raised	Reply by project proponent
1.	Cutting of 400-500 trees at the periphery of our village.	So we request you to prepare a plan for the same. Villagers will co-operate for the same. We have already planted 250 trees, which you can see beside us.

	Cluster B (For Ahmedabad district only)		
	S. No.	Issue raised	Reply by project proponent
	1.	Regarding CSR activities and associated expenditure.	Total Rs. 19.84 Crore is allotted for CSR activities as shown in the presentation towards sanitation, health development, agriculture development, infrastructure development and skill development, education etc.
	2.	Plan for treatment and disposal of industrial wastewater and domestic wastewater to be generated from SIR.	Domestic wastewater will be treated in sewage treatment plant and it will be reuse again and industrial wastewater will be treated in the proposed CETP as per the norms of GPCB and
	3.	Regarding community facilities and employment opportunities for the local people	As far issue of employment is concerned, many industries will be established. Industrial area is also defined in which necessary roads will be constructed, water arrangements will be done, local offices will be established and many more needs will arise in industries and norms shall be set in such a way that local people will get benefit of the same. Due to upcoming SIR,
3.1.2	<p>The EAC after detailed deliberations during 227th meeting on 28th November, 2019, observed the following:</p> <p>(i) Principal Approval has been given for providing water to Mandal Becharaji Special Investment Region (MBSIR) vide files of the Chairman (W.S.) dated 30.11.2019, Zinzuwada Branch Canal based A – 3 Water Supply Scheme Dabhsar Headworks 2.00 MLD. Additionally, water also provided to Mandal Becharaji Special Investment Region (MBSIR) phasewise as per the future demand, as and when required by MBSIRDA as per Government norms. Permission letter from competent authority was not submitted by the proponent.</p> <p>(ii) Submitted the copy of Town Planning Act of Gujarat.</p> <p>(iii) Proponent has mentioned that no development shall be done around water bodies and they will maintain buffer of (i) 150 m from the boundary of river bank where there is no river embankment, (ii) 30 m from an embankment of a river and (iii) 18 m from the nalah, canal, talav, lake or any other water body.</p>		

	<p>(iv) Areas where a water course passes through a low lying land without any well-defined bank or channel, the MBSIRDA may restrict or direct the water courses to an alignment and cross section determined by the authority.</p> <p>(v) Submitted an undertaking duly signed by the Deputy Collection, MBSIRDA that railway connectivity from Cluster A and Cluster B will be finalized with the standards of Railways and with the guidance of Gujarat Rail Infrastructure Development Corporation limited (G-RIDE).</p> <p>(vi) Proponent has submitted locations of STP/CETP on map.</p> <p>(vii) 5 MLD firefighting water demand for Cluster A, as mentioned in Water Balance Chart, may not be required all the time so it would be used for the gardening and other domestic purposes.</p> <p>(viii) Proponent has mentioned that they have obtained the approval for use of Survey no. 1473, 1474 & 1475 land to Nagarpalika for disposal of Solid waste collected from Mandal Becharaji SIR area. However, proponent has not submitted any certificate or MoU in this regard.</p> <p>(ix) Provided CER fund allocation of Rs. 44.15 crores for cluster A and 27.84 Crores for cluster B. It should cover Nal sarovar also. It does not cover Toilet & water distribution, as Gujarat state has Toilet facilities for all villages in surrounding MBSIR area.</p> <p>(x) Submitted the shape file for plantation planning and implementation.</p> <p>(xi) Furnished the location details of Land fill site near Viramgam.</p> <p>(xii) Submitted undertaking that no groundwater will be used for this project.</p> <p>(xiii) Submitted Revised Air Quality Modelling for all predicted air pollution source such as Construction activities, Vehicular Movement, Industrial developments etc.</p> <p>(xiv) Furnished Data on Fluoride concentration in Ground water along with the possible reasons for variation.</p>
3.1.3	<p>The EAC, after detailed deliberation during its 227th meeting on 28th November, 2019, recommended the project for grant of Environmental Clearance, with the following specific conditions in addition to all standard conditions applicable for such projects and also submission of following documents to Ministry:</p> <p>(i) This Environmental Clearance is subject to outcome of court cases pending against the project proponent at Hon'ble Supreme Court of India / High Court / other Courts, if any.</p>

	<p>(ii) All the mitigation measures to reduce pollution as mentioned in EIA/EMP report shall be implemented in toto.</p> <p>(iii) MoU with TSDF for hazardous waste disposal shall be submitted to the concerned Regional Office of MoEF&CC within 6 months of the grant of EC to this project.</p> <p>(iv) Proponent shall not allow to establish any category A industry (as per EIA Notification, 2006) within the proposed Special Investment Region.</p> <p>(v) Proponent shall prepare and implement a Wetland Conservation Plan for Nal Sarovar with special focus on migratory birds with the help of Forest and Wildlife Department, Govt. of Gujarat. The above plan along with detailed financial allocation shall be submitted to the Regional Officer of MoEF&CC within 6 months. There should be third party monitoring on implementation of approved plan for wetland conservation for Nal Sarovar. The aforesaid funds to be provided to the Wildlife Division of Gujarat state within 6 months for implementation of wetland conservation plan. This is other than Corporate Responsibility (CER) fund.</p> <p>(vi) No ground water to be extracted and used for the project. Approval/permission of concerned authority shall be obtained before drawing surface water. State Pollution Control Board (SPCB) concerned shall not issue Consent to operate (CTO) till the project proponent obtains such permission.</p> <p>(vii) Provision shall be made to recharge the ground water and construct rainwater harvesting structures for augmentation of ground water levels.</p> <p>(viii) Proponent shall prepare a report on detailed hydrological study which includes abstraction of ground water, water budgeting, recharging of ground water and construction of rainwater harvesting structures for augmentation of ground water levels. This report shall be submitted to the concerned regional office of this Ministry within the three (3) months of grant of environmental clearance.</p> <p>(ix) Proponent shall maintain buffer of (i) 150 m from the boundary of river bank where there is no river embankment, (ii) 30 m from an embankment of a river (iii) 100 m around lakes and (iv) 30 m around the nalah, canal, talav, or any other water body.</p> <p>(x) Proponent shall ensure the development of railway connectivity from Cluster A and Cluster B.</p> <p>(xi) Minimum 33% of total project area shall be maintained as green belt.</p>
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1	Forest Land	148.46
2	Private Land	481.07
3	Government Land	88.484
	Total	718.014

Forest Land (Ha.)- About 148.46 ha of forest land shall be diverted for the project.

Total Area required for the project - About 718.014 ha

- (iv) Land acquisition activities are carried out with 100m RoW by keeping in mind for development of green belt / avenue plantation and future expansion of the project from 8 lane to 12 lane as per IRC guidelines. Land acquisition is in final stage.
- (v) The standard lane width of the Project Corridor will be 3.750 m, 3.0 m wide paved shoulder and 2.0 m earthen shoulder. (3.750 x 4m lane + 3m Paved Shoulder + 2m Earthen Shoulder = 20 m).
- (vi) The median width has been kept at 22.0 m to accommodate future expansion.
- (vii) 5 Major bridges, 15 Minor bridges, 2 VUP, 7 LVUP, 25 SVUP, 3 interchange, 1 tunnel and culverts are proposed along the project stretch for free passage to locals and to avoid any impact on local hydrology.
- (viii) Road side drains shall be provided all along the highway as per IRC guidelines.
- (ix) Detailed study on Noise and vibration has been conducted by CRRI-CSIR. Floating chamber as suggested by CRRI-CSIR has been proposed in the Tunnel location.
- (x) **Water requirement, source, status of clearance:** About 3447030 KL to be arranged from surface water sources. The permission / clearance shall be obtained by the Contractor (if any).
- (xi) **Waste water quantity, Waste water generation treatment and disposal, treatment capacity, detail:** - Sewage from labour camp shall be routed to septic tanks / soak pits or bio-toilets. The waste water other than sewage shall be utilized for greenbelt development and dust suppression.
- (xii) **Municipal Solid Waste Generated Disposal and Facility:** About 140 tonnes / annum Municipal Solid Waste shall be generated by the workers. It will be collected and disposed of in environmentally acceptable ways.

	<ul style="list-style-type: none"> • Dark grey bin for non-recyclable waste • Green bin for food/ compostable garden waste • Blue bin for paper waste
(viii)	Recyclable waste would be re-used or disposed-off. Garden waste & compostable waste would be composted. Other non-recyclable waste would be disposed of through municipalities.
(xiii)	Hazardous Waste Management: Spent oil as may generate by the DG sets will be carefully stored in HDPE drums in order to avoid spillage and will be sold to government approved vendors.
(xiv)	Power requirement and source: Power requirement shall be managed by the State Electricity Board and DG sets.
(xv)	Details of water bodies, impact on drainage, if any: The proposed project passes through Takli river, 5 ponds, and other irrigation channels & local nallah. However, the highway will not intersect the water bodies' directly as elevated structures are proposed on the above water bodies.
(xvi)	Rain Water Harvesting: Rainwater harvesting structures shall be provided at regular intervals (500 mtrs) for collection of rainwater.
(ix)	Details of tree cutting: Approximately 1905 nos. of trees are proposed to be cut for the project. Compensatory afforestation will be undertaken as per requisite norms.
(x)	Green belt development: Greenbelt development will be carried out in the median and along both side of the highway as per IRC SP-21:2009 and Green Highway Policy 2015. About 89,438 trees will be planted.
(xi)	ToR Details: ToR was granted vide F. No. 10-76/2018-IA.III dated 18 th April, 2019.
(xii)	Whether the project is in Critically Polluted area: No
(xiii)	National Park/ Wild Life Sanctuary in 10 km radius area: Proposed alignment is passing through Mukundra National Park / Mukundra Hills Tiger Reserve / Darrah Wildlife Sanctuary. Proposal for wildlife clearance is under process with State Govt. (Proposal no. FP/RA/ROAD/3771/2019 dated 2 nd January, 2019).
(xiv)	Eco-Sensitive Zone in 10 km radius area: Proposed project is passing through Mukundra Hills National Park / Mukundra Tiger Reserve / Darrah Wildlife Sanctuary.
(xv)	If the project involves diversion of forest land, extend of the forest land: Yes. The proposal for diversion of 148.467 ha forest land

	<p>is under process with State Govt. (Proposal No. FP/RJ/ROAD/36597/2018 dated 17th October, 2018).</p> <p>(xvi) Court cases, if any: No, submitted an undertaking in this regard.</p> <p>(xvii) Investment/Cost of the project: The total civil cost of the project is about INR 2323.42 crores.</p> <p>(xviii) Employment: About 2050 manpower during construction and about 150 nos. of manpower during operation phase (including Permanent and Temporary).</p> <p>(xix) Benefits of the project: The Project is a part of the proposed 8-lane access-controlled Greenfield Delhi-Mumbai highway corridor (~1,335 km) interlinking different State & National highways while connecting Delhi to Mumbai. The Project is planned as high-speed corridor which provides high speed connectivity between states of North India and States of West & South India, more importantly giving a reliable access to the country's prominent economic and social hubs like Mumbai, Delhi, Vadodara, Jaipur and Kota etc.</p> <p>Community will accrue the benefit from proposed development project by way of improvement in the physical infrastructure; social infrastructure; development of economy; reduced pollution, vehicle maintenance, fuel saving; employment potential and other tangible benefits. In general Project will have following benefits at national and regional level:</p> <ul style="list-style-type: none"> • High-speed connectivity and access: The projected corridor is a proposed 8-lane, access controlled highway. This will avoid traffic congestion and speed-up the freight movement. It is expected that overall, the proposed Delhi-Mumbai corridor will reduce the travel time between the two economic hubs by half. • Aiding economic growth: The seamless connectivity will provide better access to vehicles as a link to the National Highways. The Project will reduce travel time and provide boost to trade and commerce linked to the regions connected through this highway. • Growth of backward areas: The biggest strength of the alignment is that it plans to cover backward districts of Rajasthan. As a result of connectivity and access to other parts of the country, these backward areas will be aided to integrate with other part of India. Further, freight and passenger traffic on the highway will help promoting ancillary economy of these regions. • Decongestion of existing National and State Highways: The proposed corridor will take away traffic pressures from existing SH and NH passing through various cities. Also, long distance traffic
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	<p>will shift to the proposed highway, thereby reducing traffic and congestion on the existing NH and SH for regional and local usage.</p> <ul style="list-style-type: none"> • Usage shift: Long-distance traffic will shift from existing National Highways to the proposed highway, resulting in lesser congestion leading to higher fuel savings and reduced travel time on these highways. • Improved safety: Due to access control, the Roadway & Travel Safety of the traffic connecting the cities will be enhanced as there will be minimum distractions & conflict zones. • Support to industry: Different types of industries like Manufacturing, Tourism, warehouse facilities, etc. along the proposed corridor will be facilitated in their business operation and reachability. <p>(xx) Public Hearing: Public hearing was conducted on 4th September, 2019 at Kota district. Major issues raised by the public were relevant to land acquisition and compensation, which were replied by the ADM that Compensation shall be provided to the affected person on basis of the prescribed rules of NH Act, 1956 and RFCTLARR-2013.</p> <p>(xxi) The Chief Wildlife Warden vide order no. 6196-6200 dated 30th March, 2019 has constituted a Committee of wildlife expert to examine the alternative options for the alignment and suggest the suitable mitigations measures to protect and conserve the wildlife. The Committee submitted report vide letter no 1310 dated 10th May, 2019, wherein it is recommended for design/adoption of structures in wildlife/forest area.</p> <p>(xxii) The proposed CER fund allocation is Rs. 11.306 crores.</p> <p>(xxiii) Cost of EMP is 15.766 crores.</p>
3.2.2	<p>The EAC after detailed deliberations during 227th meeting on 28th November, 2019, observed the following:</p> <p>(i) The proposed alignment is one of three packages of the Delhi-Vadodara Expressway. Other two packages were also presented and discussed subsequently in the meeting. However, the entire Delhi-Vadodara Expressway is a part of Delhi – Mumbai Expressway.</p> <p>(ii) A Committee constituted vide order dated 3rd January, 2019, under chairmanship of Shri R.K. Goyal, APCCF, Government of Rajasthan, has pointed out important mitigation measures to protect and conserve wildlife and tiger populations in the region.</p>

	<p>(iii) The proposal involves the diversion of 148.46 ha of forest land. Application is under process.</p> <p>(iv) The proposal involves construction of underground tunnel, which will take around 2 years. Tunnel will be located between 27m and 140m below the ground surface. Subsidence study was carried out at the project site, however, provision for detailed groundwater monitoring was not done. Hydrogeological studies need enhancement and Geophysical studies on either side of the tunnel are essential to decipher the aquifer distribution in the tunnel alignment.</p> <p>(v) Since, the proposed alignment passes through protected areas and tiger reserve, mitigation measures as recommended by the Site Visit Committee under Chairmanship of APCCF, Government of Rajasthan, are crucial. Application for wildlife Clearance is under process.</p> <p>(vi) Provided the activities wise fund provision for CER as per Ministry's OM dated 1st May, 2018, there is discrepancy in calculation. As per provisions total CER amount should be 19.6171 Crores (computed on slab basis for total budget of Rs. 2323.42 crores).</p> <p>(vii) Land acquisition activities are carried out with 100m RoW by keeping in mind for development of green belt / avenue plantation and future expansion of the project from 8 lane to 12 lane as per IRC guidelines. Land acquisition is in final stage.</p>
3.2.3	<p>The EAC, after detailed deliberation during its 227th meeting on 28th November, 2019, recommended the project for grant of Environmental Clearance, with the following specific conditions in addition to all standard conditions applicable for such projects:</p> <p>(i) This Environmental Clearance is subject to outcome of court cases pending against the project proponent at Hon'ble Supreme Court of India / High Court / other Courts, if any.</p> <p>(ii) Proponent shall monitor the groundwater levels and also conduct hydrogeological studies.</p> <p>(iii) Geophysical studies shall be done by reputed institution on either side of the tunnel to decipher the aquifer distribution in the tunnel alignment.</p> <p>(iv) Since, the tunnel of the proposed alignment is passing under Mukundra National Park, the proponent is required to obtain Wildlife Clearance under Wildlife (Protection) Act, 1972.</p>

	<p>(v) Since, the tunnel of the proposed alignment is passing under Mukundra Hills Tiger Reserve, proponent shall require to obtain NoC from National Tiger Conservation Authority.</p> <p>(vi) The recommendations of Site Visit Committee under chairmanship of the APCCF, Government of Rajasthan, as mentioned in the Committee's report dated 10th May, 2019, shall be implemented in toto.</p> <p>(vii) The recommendations of Cumulative Impact Assessment studies for all the packages shall be provided (to the concerned Regional Office of the MoEF&CC) along with application for last package of proposed Highway along with the monitoring reports submitted time to time.</p> <p>(viii) Detailed plan of expenditure with implementation schedule to address issues raised during Public Hearing shall be prepared and submitted to the Regional Office of this Ministry within three months. The proponent shall adhere the strict compliance of above plan to utilize funds.</p> <p>(ix) No Ground water shall be extracted and used. Approval/permission of concerned authority shall be obtained before drawing surface water from canal or any other sources. State Pollution Control Board (SPCB) concerned shall not issue Consent to operate (CTO) till the project proponent obtains such permission(s).</p> <p>(x) The proponent shall obtain permission from the competent authorities for tree felling along the proposed alignment.</p> <p>(xi) Proponent shall plant 89438 trees on either side along with the shrub plantation and grass carpeting in median of the proposed alignment. A comprehensive plan for afforestation using native species shall be provided as per the IRC Guidelines on Landscaping and Tree Plantation (2009). Effort should be made to plant local fruit trees and Ficus species on both sides of the alignment.</p> <p>(xii) Subsidence monitoring shall be carried out regularly at tunnel portion to study the impact on Mukundra Tiger Reserve.</p> <p>(xiii) All the precautionary measures, restrictions and guidelines issued by the wildlife authorities shall be followed while tunnel construction is carried out. The local wildlife authorities shall be consulted to avoid any disturbance in the movement of wild animals.</p> <p>(xiv) Rain water harvesting pit shall be at least 3 - 5 m above the highest ground water table. Provisions shall be made for oil and grease removal from surface runoff. Rainwater harvesting structures shall be provided near the disposal point of the side drains as prescribed by CGWB guidelines.</p>
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	<p>(xv) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 1st May, 2018, and proposed by the project proponent, an amount of Rs. 19.6171 crores (computed on slab basis for total budget of Rs. 2323.42 crores) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as support to Panchayats/local government, schools w.r.t. sanitation, health and hygiene, construction of public toilets in the surrounding villages, medical camps, rainwater harvesting, Installation of street lights in nearby villages as per requirement, rejuvenation and creation of water ponds, augmentation of drinking water facilities and provision of solid waste facilities viz. vermicompost and safe drainage of waste water in consultation with concerned Panchayats. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as a project and be monitored. The monitoring report shall be submitted to this Ministry's Regional Office concerned as a part of half yearly compliance report, and to the concerned authorities including District Collector. It should be posted on the website of the project proponent.</p> <p>(xvi) The RoW shall not exceed 70m at any point of the proposed 8-lane alignment, except for the junction improvement at the intersections of the other roads. Standardisation of ROW for plain land and forest land to be defined and to be remain constant for all the packages.</p> <p>(xvii) The proponent has proposed diversion of 148.467 ha for forest land by considering RoW of 100m. But, RoW to be reduced from 100m to 70m, hence, the proponent shall have to reduce the area under diversion of forest land, accordingly.</p> <p>(xviii) The proponent shall obtain the Forest Clearance for diversion of forest land as mentioned above, as required under the Forest (Conservation) Act, 1980. Project proponent shall submit an undertaking that work on non-forestry land may only be executed upto such point (to be selected by the user agency) on either side of forest land if it is explicitly certified by the user agency that in case approval under the Forest (Conservation) Act, 1980, for diversion of forest land is declined, it is technically feasible to execute the project along an alternate alignment without involving diversion of forest land. Details of all such stretches along with alternate alignment identified to bypass the forest land should be explicitly provided in the proposal seeking approval under the Forest (Conservation) Act, 1980 and the EIA Notification, 2006.</p> <p>(xix) Commencement of work in non-forest land will not confer any right on the user agency with regard to grant of approval under the Forest (Conservation) Act, 1980.</p>
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3.3	<p>Development of 8-lane (Greenfield Highway) from after Chambal River near durjanpura village (Ch. 349.000) to Banda Hera village (Ch. 392.800) section of NH-148 N (length 43.8 km) in the state of Rajasthan by M/s National Highways Authority of India - Environmental clearance [Proposal No. IA/RJ/NCP/118931/2018] [F.No. 10-67/2018-IA.III]</p>												
	<p>The project proponent along with the EIA consultant M/s Feedback Infra Private Limited - Environmental clearance made a presentation and provided the following information before the Committee:</p> <p>(i) Proposal: Development of 8 lane (Greenfield highway) from Durjanpura village (Ch. 349.000) to near Banda Hera village (Ch. 392.800) Section of NH-148 N (Total length 43.8 Km) Under BHARATMALA PARIYOJANA Lot-4/Pkg-4 in district Kota, Rajasthan as a part of Delhi-Vadodara Highway (NH 148N), which starts from NH-248A near Sohna in the state of Haryana and ends at NH-48 near Dodka (Vadodara).</p> <p>(ii) Location: Durjanpura village ((25°28'20.34"N, 76°12'41.81"E)) to near Banda Hera village (25°06'24.16"N, 76°03'26.03"E) in the State of Rajasthan by M/s National Highways Authority of India.</p> <p>(iii) Land Use Patterns:</p> <table><tr><th>S. No.</th><th>Category</th><th>Area in Sq. m.</th></tr><tr><td>1</td><td>Private Land</td><td>428.03</td></tr><tr><td>2</td><td>Government Land</td><td>85.54</td></tr><tr><td></td><td>Total</td><td>513.57</td></tr></table> <p>Total Area required for the project - About 513.57 ha</p> <p>(iv) Land acquisition activities are carried out with 100m RoW by keeping in mind for development of green belt / avenue plantation and future expansion of the project from 8 lane to 12 lane as per IRC guidelines.</p> <p>(v) The standard lane width of the Project Corridor will be 3.750 m, 3.0 m wide paved shoulder and 2.0 m earthen shoulder. (3.750 x 4m lane + 3m Paved Shoulder + 2m Earthen Shoulder = 20 m)</p> <p>(vi) The median width has been kept at 22.0 m to accommodate future expansion</p> <p>(vii) 8 Major bridges, 29 Minor bridges, 5 VUP, 6 LVUP, 10 SVUP and 3 interchanges and culverts are proposed along the project stretch for free passage to locals and to avoid any impact on local hydrology.</p> <p>(viii) Road side drains shall be provided all along the highway to ensure proper road drainage.</p>	S. No.	Category	Area in Sq. m.	1	Private Land	428.03	2	Government Land	85.54		Total	513.57
S. No.	Category	Area in Sq. m.											
1	Private Land	428.03											
2	Government Land	85.54											
	Total	513.57											

	<p>(ix) Water requirement, source, status of clearance: About 2826072 KL during construction phase to be arranged from surface water sources.</p> <p>(iv) Waste water quantity, treatment capacity, detail:- Sewage from labour camp will be routed to septic tanks / soak pits or bio-toilets. The waste water other than sewage will be utilized for greenbelt development and dust suppression.</p> <p>(v) Hazardous and Solid Waste Management: Municipal Solid Waste shall be generated by the workers. It will be collected and disposed of in environmentally acceptable ways.</p> <ul style="list-style-type: none"> • Dark grey bin for non-recyclable waste • Green bin for food/ compostable garden waste • Blue bin for paper waste <p>Recyclable waste would be re-used or disposed-off. Garden waste & compostable waste would be composted. Other non-recyclable waste would be disposed of through municipalities.</p> <p>(vi) Power requirement: Power requirement shall be managed by the State Electricity Board and DG sets.</p> <p>(vii) Details of water bodies, impact on drainage, if any: The proposed project passes through 24 canal/local streams and one pond and other irrigation channels & local nallah. However, the highway shall not intersect the water bodies' directly as elevated structures are proposed on the above water bodies.</p> <p>(viii) Rain Water Harvesting: Rainwater harvesting structures shall be provided at regular intervals (500 mtrs) for collection of rainwater,</p> <p>(ix) Details of tree cutting: About 433 nos. of trees are proposed to be cut for the project. Compensatory afforestation will be undertaken as per requisite norms.</p> <p>(x) Green belt development: Greenbelt development shall be carried out in the median and along both side of the highway as per IRC SP-21:2009. About 65700 trees shall be planted.</p> <p>(xi) Whether the project is in Critically Polluted area: No</p> <p>(xii) National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area: The proposed alignment is falling within ESZ area of National Chambal Sanctuary.</p> <p>(xiii) If the project involves diversion of forest land, extend of the forest land: no</p>
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	<p>(xiv) Court cases, if any: No</p> <p>(xv) Date of ToR: ToR was granted vide F. No. 10-67/2018-IA.III dated 26th March, 2019.</p> <p>(xvi) Investment/Cost of the project: The total civil cost of the project is about INR 1827.31 crore.</p> <p>(xvii) Employment: About 550 manpower during construction and about 50 nos. of manpower during operation phase (including Permanent and Temporary)</p> <p>(xviii) Benefits of the project: The Project is a part of the proposed 8-lane access-controlled Greenfield Delhi-Mumbai highway corridor (~1,335 km) interlinking different State & National highways while connecting Delhi to Mumbai. The Project is planned as high-speed corridor which provides high speed connectivity between states of North India and States of West & South India, more importantly giving a reliable access to the country's prominent economic and social hubs like Mumbai, Delhi, Vadodara, Jaipur and Kota etc.</p> <p>Community will accrue the benefit from proposed development project by way of improvement in the physical infrastructure; social infrastructure; development of economy; reduced pollution, vehicle maintenance, fuel saving; employment potential and other tangible benefits. In general Project will have following benefits at national and regional level:</p> <ul style="list-style-type: none"> • High-speed connectivity and access: The projected corridor is a proposed 8-lane, access controlled highway. This will avoid traffic congestion and speed-up the freight movement. It is expected that overall, the proposed Delhi-Mumbai corridor will reduce the travel time between the two economic hubs by half. • Aiding economic growth: The seamless connectivity will provide better access to vehicles as a link to the National Highways. The Project will reduce travel time and provide boost to trade and commerce linked to the regions connected through this highway. • Growth of backward areas: The biggest strength of the alignment is that it plans to cover backward districts of Rajasthan. As a result of connectivity and access to other parts of the country, these backward areas will be aided to integrate with other part of India. Further, freight and passenger traffic on the highway will help promoting ancillary economy of these regions. • Decongestion of existing National and State Highways: The proposed corridor will take away traffic pressures from existing SH and NH passing through various cities. Also, longdistance traffic
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	<p>will shift to the proposed highway, thereby reducing traffic and congestion on the existing NH and SH for regional and local usage.</p> <ul style="list-style-type: none"> • Usage shift: Long-distance traffic will shift from existing National Highways to the proposed highway, resulting in lesser congestion leading to higher fuel savings and reduced travel time on these highways. • Improved safety: Due to access control, the Roadway & Travel Safety of the traffic connecting the cities will be enhanced as there will be minimum distractions & conflict zones. • Support to industry: Different types of industries like Manufacturing, Tourism, warehouse facilities, etc. along the proposed corridor will be facilitated in their business operation and reachability. <p>(xix) Public Hearing: - 28th August, 2019 at Kota, district. Major issues raised by the public were relevant to land acquisition and compensation, which were replied by the ADM that Compensation shall be provided to the affected person on basis of the prescribed rules of NH Act,1956 and RFCTLARR-2013.</p> <p>(xx) The Chief Wildlife Warden vide order no. 6196-6200 dated 30.03.2019 has constituted a Committee of wildlife expert to examine the alternative options for the alignment and suggest the suitable mitigations measures to protect and conserve the wildlife. The Committee submitted their report vide letter no 1310 dated 10th May, 2019, wherein it is recommended for design/adoption of structures in wildlife/forest area.</p> <p>(xxi) The proposed CER fund allocation is Rs. 11.54 crores.</p> <p>(xxii) Cost of EMP is 9.14 crores.</p>
3.3.2	<p>The EAC after detailed deliberations during 227th meeting on 28th November, 2019, observed the following:</p> <p>(i) The proposed alignment is one of three packages of the Delhi-Vadodara Expressway. Other two packages were also presented and discussed in the meeting. However, the entire Delhi -Vadodara Expressway is a part of Delhi - Mumbai Expressway.</p> <p>(ii) A Committee constituted vide order dated 3rd January, 2019, under chairmanship of Shri R.K. Goyal, APCCF, Government of Rajasthan, has pointed out important mitigation measures to protect and conserve wildlife and tiger populations in the region.</p> <p>(iii) Proposal does not involve diversion of forest land. However, it passes through area located within the 10 km from National Chambal</p>

	<p>Sanctuary, of which final ESZ Notification is yet to be published by this Ministry. In view of this, the mitigation measures as recommended by the Site Visit Committee under the Chairmanship of APCCF, Government of Rajasthan are crucial.</p> <p>(iv) Provided the activities wise fund provision for CER as per Ministry's OM dated 1st May, 2018, there is discrepancy in calculation. As per provisions total CER amount should be 19.6171 Crores (computed on slab basis for total budget of Rs. 2323.42 crores).</p> <p>(v) Land acquisition activities are carried out with 100m RoW by keeping in mind for development of green belt / avenue plantation and future expansion of the project from 8 lane to 12 lane as per IRC guidelines.</p>
3.3.3	<p>The EAC, after detailed deliberation during its 227th meeting on 28th November, 2019, recommended the project for grant of Environmental Clearance, with the following specific conditions in addition to all standard conditions applicable for such projects:</p> <p>(i) This Environmental Clearance is subject to outcome of court cases pending against the project proponent at Hon'ble Supreme Court of India / High Court / other Courts, if any.</p> <p>(ii) Since, the proposed alignment passes through area located within the 10 km from National Chambal Sanctuary (final ESZ Notification is yet to be published by this Ministry), following recommendations of Site Visit Committee under chairmanship of the APCCF, Government of Rajasthan, as mentioned in the Committee's report dated 10th May, 2019, shall be implemented in toto.</p> <p>(iii) The recommendations of Cumulative Impact Assessment studies for all the packages shall be provided (to the concerned Regional Office of the MoEF&CC) along with application for last package of proposed Highway along with the monitoring reports submitted time to time.</p> <p>(iv) Detailed plan of expenditure with implementation schedule to address issues raised during Public Hearing shall be prepared and submitted to the Regional Office of this Ministry within three months. The proponent shall adhere the strict compliance of above plan to utilize funds.</p> <p>(v) No Ground water shall extracted and be used. Approval/permission of concerned authority shall be obtained before drawing surface water from canal or any other sources. State Pollution Control Board (SPCB) concerned shall not issue Consent to operate (CTO) till the project proponent obtains such permission(s).</p>

	<p>(vi) The proponent shall obtain permission from the competent authorities for tree felling along the proposed alignment.</p> <p>(vii) Proponent shall plant 65700 trees on either side along with the shrub plantation and grass carpeting in median of the proposed alignment. A comprehensive plan for afforestation using native species shall be provided as per the IRC Guidelines on Landscaping and Tree Plantation (2009). Effort should be made to plant local fruit trees and Ficus species on both sides of the alignment.</p> <p>(viii) Rain water harvesting pit shall be at least 3 - 5 m above the highest ground water table. Provisions shall be made for oil and grease removal from surface runoff. Rainwater harvesting structures shall be provided near the disposal point of the side drains as prescribed by CGWB guidelines.</p> <p>(ix) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 1st May, 2018, and proposed by the project proponent, an amount of Rs. 9.18652 crores (computed on slab basis for total budget of Rs. 1827.31 crores) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as support to Panchayats/local government, schools w.r.t. sanitation, health and hygiene, construction of public toilets in the surrounding villages, medical camps, rainwater harvesting, Installation of street lights in nearby villages as per requirement, rejuvenation and creation of water ponds, augmentation of drinking water facilities and provision of solid waste facilities viz. vermicompost and safe drainage of waste water in consultation with concerned Panchayats. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as a project and be monitored. The monitoring report shall be submitted to this Ministry's Regional Office concerned as a part of half yearly compliance report, and to the concerned authorities including District Collector. It should be posted on the website of the project proponent.</p> <p>(x) The RoW shall not exceed 70m at any point of the proposed 8-lane alignment, except for the junction improvement at the intersections of the other roads. Standardisation of ROW for plain land and forest land to be defined and to be remain constant for all the packages.</p>
3.4	<p>Development of 8- lane (Greenfield Highway) from Etawa (Ch. 284.000 km) to after Chambal River near Durjanpura Village (Ch. 349.000 km) Section of NH-148 N (length 65.0 km) in the state of Rajasthan M/s National Highways Authority of India - Environmental Clearance [Proposal No. IA/RJ/NCP/122295/2018] [F.No. 10-66/2018-IA.III]</p>

3.4.1 The project proponent along with the EIA consultant M/s Feedback Infra Private Limited - Environmental clearance made a presentation and provided the following information before the Committee:

- (i) **Proposal:** Development of 8 lane (Greenfield Highway) from Itawa village (Ch. 284.000) to after Chambal River near Durjanpura village at (Ch. 349.000) Section of NH-148 N (Total length 65.0 Km), Under BHARATMALA PARIYOJANA Lot-4/Pkg-4 in the State of Rajasthan as a part of Delhi-Vadodara Highway (NH 148N), which starts from NH-248A near Sohna in the state of Haryana and ends at NH-48 near Dodka (Vadodara).
- (ii) **Location:** Itawa village (26°01'57.36"N, 76°15'42.35"E) and Chambal river near Durjanpura village (25°28'20.34"N, 76°12'41.81"E) in the State of Rajasthan.
- (iii) **Land Use Patterns:** Agricultural, Barren and Forest Land.

S. No.	Category	Area in Sq. m.
1	Forest Land	17.398
2	Private Land	535.635
3	Government Land	159.126
	Total	712.159

Total land required for the Project (Ha.) - About 712.159 Ha.

Forest land diversion involved: About 17.398 ha

- (iv) Land acquisition activities are carried out with 100m RoW by keeping in mind for development of green belt / avenue plantation and future expansion of the project from 8 lane to 12 lane as per IRC guidelines. Land acquisition is in final stage.
- (v) The standard lane width of the Project Corridor will be 3.750 m, 3.0 m wide paved shoulder and 2.0 m earthen shoulder. (3.750 x 4m lane + 3m Paved Shoulder + 2m Earthen Shoulder = 20 m)
- (vi) The median width has been kept at 22.0 m to accommodate future expansion
- (vii) 10 Major bridges, 26 Minor bridges, 4 Flyovers, 3 VUPs, 14 LVUPs, 20 SVUPs and 2 interchanges are proposed along the project stretch for free passage to locals and to avoid any impact on local hydrology.
- (viii) Road side drains shall be provided all along the highway to ensure proper road drainage.
- (ix) **Water requirement, source, status of clearance:** About 3395 ML during construction phase to be arranged from surface water sources.

	<p>(x) Waste water quantity, treatment capacity, detail: - Sewage from labour camp shall be routed to septic tanks / soak pits or bio-toilets. The waste water other than sewage shall be utilized for greenbelt development and dust suppression.</p> <p>(xi) Hazardous & Solid Waste Management: Approximately 82 tonnes / annum of Municipal Solid Waste shall be generated by the workers. It will be collected and disposed of in environmentally acceptable ways.</p> <p>a. Dark grey bin for non-recyclable waste</p> <p>b. Green bin for food/ compostable garden waste</p> <p>c. Blue bin for paper waste</p> <p>Recyclable waste would be re-used or disposed-off. Garden waste & compostable waste would be composted. Other non-recyclable waste would be disposed of through municipalities.</p> <p>(xii) Power requirement: Power requirement shall be managed by the State Electricity Board and DG sets.</p> <p>(xiii) Details of water bodies, impact on drainage, if any: The proposed project passes through Chambal & Mej Rivers, 5 ponds, Chakan Dam and other irrigation channels. However, the highway shall not intersect the water bodies' directly as elevated structures are proposed on the above water bodies.</p> <p>(xiv) Rain Water Harvesting: Rainwater harvesting structures shall be provided at regular intervals (500 mtrs) for collection of rainwater,</p> <p>(xv) Details of tree cutting: Approximately 3935 nos. of trees are proposed to be cut for the project. Compensatory afforestation shall be undertaken as per requisite norms.</p> <p>(xvi) Green belt development: Greenbelt development shall be carried out in the median and along both side of the highway as per IRC SP-21:2009. About 97500 trees preferably local varieties like Mango, Neem, Sheesham, Babul, Peepal <i>etc.</i> shall be planted.</p> <p>(xvii) Whether the project is in Critically Polluted area: No</p> <p>(xviii) National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area: National Chambal Sanctuary and Ranthambore Tiger Reserve. Proposal for wildlife clearance is under process with State Govt. (Proposal no. FP/RA/ROAD/4719/2019 dated 4th January, 2019).</p> <p>(xxiv) If the project involves diversion of forest land, extend of the forest land: about haYes. Yes. The proposal for diversion of 17.398 ha forest land is under process with State Govt. (Proposal No. FP/RJ/ROAD/36605/2018 dated 18th October, 2018).</p>
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	<p>(xix) Court cases, if any: No.</p> <p>(xx) Date of ToR:- ToR was granted vide F. No. 10-66/2018-IA.III dated 18th April, 2019</p> <p>(xxi) Investment/Cost of the project: The total civil cost of the project is about INR 1643.03 Cr.</p> <p>(xxii) Employment: About 1950 manpower during construction and about 450 nos. of manpower during operation phase (including Permanent and Temporary).</p> <p>(xxiii) Benefits of the project: The Project is a part of the proposed 8-lane access-controlled Greenfield Delhi-Mumbai highway corridor (~1,335 km) interlinking different State & National highways while connecting Delhi to Mumbai. The Project is planned as high-speed corridor which provides high speed connectivity between states of North India and States of West & South India, more importantly giving a reliable access to the country's prominent economic and social hubs like Mumbai, Delhi, Vadodara, Jaipur and Kota etc.</p> <p>Community will accrue the benefit from proposed development project by way of improvement in the physical infrastructure; social infrastructure; development of economy; reduced pollution, vehicle maintenance, fuel saving; employment potential and other tangible benefits. In general Project will have following benefits at national and regional level:</p> <p>(xxiv) High-speed connectivity and access: The projected corridor is a proposed 8-lane, access controlled highway. This will avoid traffic congestion and speed-up the freight movement. It is expected that overall, the proposed Delhi-Mumbai corridor will reduce the travel time between the two economic hubs by half.</p> <p>(xxv) Aiding economic growth: The seamless connectivity will provide better access to vehicles as a link to the National Highways. The Project will reduce travel time and provide boost to trade and commerce linked to the regions connected through this highway.</p> <p>(xxvi) Growth of backward areas: The biggest strength of the alignment is that it plans to cover backward districts of Rajasthan. As a result of connectivity and access to other parts of the country, these backward areas will be aided to integrate with other part of India. Further, freight and passenger traffic on the highway will help promoting ancillary economy of these regions.</p> <p>(xxvii) Decongestion of existing National and State Highways: The proposed corridor will take away traffic pressures from existing SH and NH passing through various cities. Also, longdistance traffic will</p>
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	<p>shift to the proposed highway, thereby reducing traffic and congestion on the existing NH and SH for regional and local usage.</p> <p>(xxviii) Usage shift: Long-distance traffic will shift from existing National Highways to the proposed highway, resulting in lesser congestion leading to higher fuel savings and reduced travel time on these highways.</p> <p>(xxix) Improved safety: Due to access control, the Roadway & Travel Safety of the traffic connecting the cities will be enhanced as there will be minimum distractions & conflict zones.</p> <p>(xxx) Support to industry: Different types of industries like Manufacturing, Tourism, warehouse facilities, etc. along the proposed corridor will be facilitated in their business operation and reachability.</p> <p>(xxxi) Public Hearing: 6th, 9th, 11th and 12th September, 2019 at Kota, Bundi, Sawai Madhopur and Tonk districts, respectively.</p> <p>Major issues raised by the public were relevant to land acquisition and compensation, which were replied by the ADM that Compensation shall be provided to the affected person on basis of the prescribed rules of state government. The rates of the structure shall be decided by the PWD officials.</p> <p>(xxiii) The Chief Wildlife Warden vide order no. 6196-6200 dated 30.03.2019 has constituted a Committee of wildlife expert to examine the alternative options for the alignment and suggest the suitable mitigations measures to protect and conserve the wildlife. The Committee submitted their report vide letter no 1310 dated 10th May, 2019, wherein it is recommended for design/adoption of structures in wildlife/forest area.</p> <p>(xxiv) The proposed CER fund allocation is Rs. 8.22 crores.</p> <p>(xxv) Cost of EMP is 16.563 crores.</p>
3.4.2	<p>The EAC after detailed deliberations during 227th meeting on 28th November, 2019, observed the following:</p> <p>(i) The proposed alignment is one of three packages of the Delhi-Vadodara Expressway. Other two packages were also presented and discussed subsequently in the meeting. However, the entire Delhi-Vadodara Expressway is a part of Delhi – Mumbai Expressway.</p> <p>(ii) A Committee constituted vide order dated 3rd January, 2019, under chairmanship of Shri R.K. Goyal, APCCF, Government of Rajasthan, has pointed out important mitigation measures to protect and conserve wildlife and tiger populations in the region.</p>

	<p>(iii) The proposal involves the diversion of 17.398 ha of forest land. Application is under process.</p> <p>(iv) The proposal involves underground tunnel for safe movement of wildlife in the Ranthambore Corridor. Subsidence study was carried out at the project site, however, provision for detailed groundwater monitoring was not done. Hydrogeological studies need enhancement and Geophysical studies on either side of the tunnel are essential to decipher the aquifer distribution in the tunnel alignment.</p> <p>(v) Since, the proposed alignment passes through protected areas and tiger reserve, mitigation measures as recommended by the Site Visit Committee under Chairmanship of APCCF, Government of Rajasthan, are crucial. Application for wildlife Clearance is under process.</p> <p>(vi) Provided the activities wise fund provision for CER as per Ministry's OM dated 1st May, 2018, there is discrepancy in calculation. As per provisions total CER amount should be 16.21521 Crores (computed on slab basis for total budget of Rs. 1643.03 crores).</p> <p>(vii) Land acquisition activities are carried out with 100m RoW by keeping in mind for development of green belt / avenue plantation and future expansion of the project from 8 lane to 12 lane as per IRC guidelines.</p>
3.4.3	<p>The EAC, after detailed deliberation during its 227th meeting on 28th November, 2019, recommended the project for grant of Environmental Clearance, with the following specific conditions in addition to all standard conditions applicable for such projects:</p> <p>(i) This Environmental Clearance is subject to outcome of court cases pending against the project proponent at Hon'ble Supreme Court of India / High Court / other Courts, if any.</p> <p>(ii) Proponent shall make provisions for details monitoring of the groundwater and conduct hydrogeological studies</p> <p>(iii) Geophysical studies shall be done by reputed institution on either side of the tunnel to decipher the aquifer distribution in the tunnel alignment.</p> <p>(iv) No pillars shall be built within Chambal river bed.</p> <p>(v) Since, the proposed alignment is passing through National Chambal Sanctuary, the proponent is required to obtain Wildlife Clearance under Wildlife (Protection) Act, 1972.</p>

	<p>(vi) Since, the tunnel of the proposed alignment is passing under the corridor of Ranthambore Tiger Reserve, proponent shall require to obtain NoC from National Tiger Conservation Authority.</p> <p>(vii) The recommendations of Site Visit Committee under chairmanship of the APCCF, Government of Rajasthan, as mentioned in the Committee's report dated 10th May, 2019, shall be implemented in toto.</p> <p>(viii) The recommendations of Cumulative Impact Assessment studies for all the packages shall be provided (to the concerned Regional Office of the MoEF&CC) along with application for last package of proposed Highway along with the monitoring reports submitted time to time.</p> <p>(ix) Detailed plan of expenditure with implementation schedule to address issues raised during Public Hearing shall be prepared and submitted to the Regional Office of this Ministry within three months. The proponent shall adhere the strict compliance of above plan to utilize funds.</p> <p>(x) No Ground water shall be used. Approval/permission of concerned authority shall be obtained before drawing surface water from canal or any other sources. State Pollution Control Board (SPCB) concerned shall not issue Consent to operate (CTO) till the project proponent obtains such permission(s).</p> <p>(xi) The proponent shall obtain permission from the competent authorities for tree felling along the proposed alignment.</p> <p>(xii) Proponent shall plant 97500 trees on either side along with the shrub plantation and grass carpeting in median of the proposed alignment. A comprehensive plan for afforestation using native species shall be provided as per the IRC Guidelines on Landscaping and Tree Plantation (2009). Effort should be made to plant local fruit trees and Ficus species on both sides of the alignment.</p> <p>(xiii) Rain water harvesting pit shall be at least 3 - 5 m above the highest ground water table. Provisions shall be made for oil and grease removal from surface runoff. Rainwater harvesting structures shall be provided near the disposal point of the side drains as prescribed by CGWB guidelines.</p> <p>(xiv) Prepare and implement the conservation plan for strengthening of the wildlife corridor in consultation with the Chief Wildlife Warden including appropriate fund allocation.</p> <p>(xv) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 1st May, 2018, and proposed by the project proponent, an amount of Rs. 16.21521 crores (computed on slab basis for total</p>
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	<p>budget of Rs. 1643.03 crores) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as support to Panchayats/local government, schools w.r.t. sanitation, health and hygiene, construction of public toilets in the surrounding villages, medical camps, rainwater harvesting, Installation of street lights in nearby villages as per requirement, rejuvenation and creation of water ponds, augmentation of drinking water facilities and provision of solid waste facilities viz. vermicompost and safe drainage of waste water in consultation with concerned Panchayats. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as a project and be monitored. The monitoring report shall be submitted to this Ministry's Regional Office concerned as a part of half yearly compliance report, and to the concerned authorities including District Collector. It should be posted on the website of the project proponent.</p> <p>(xvi) The RoW shall not exceed 70m at any point of the proposed 8-lane alignment, except for the junction improvement at the intersections of the other roads. Standardisation of ROW for plain land and forest land to be defined and to be remain constant for all the packages.</p> <p>(xvii) The proponent has proposed diversion of 17.398 ha for forest land by considering RoW of 100m. But, RoW to be reduced from 100m to 70m, hence, the proponent shall have to reduce the area under diversion of forest land, accordingly.</p> <p>(xviii) The proponent shall obtain the Forest Clearance for diversion of forest land as mentioned above, as required under the Forest (Conservation) Act, 1980. Project proponent shall submit an undertaking that work on non-forestry land may only be executed upto such point (to be selected by the user agency) on either side of forest land if it is explicitly certified by the user agency that in case approval under the Forest (Conservation) Act, 1980, for diversion of forest land is declined, it is technically feasible to execute the project along an alternate alignment without involving diversion of forest land. Details of all such stretches along with alternate alignment identified to bypass the forest land should be explicitly provided in the proposal seeking approval under the Forest (Conservation) Act, 1980 and the EIA Notification, 2006.</p> <p>(xix) Commencement of work in non-forest land will not confer any right on the user agency with regard to grant of approval under the Forest (Conservation) Act, 1980.</p>
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3.5	<p>Development of Hyderabad Pharma City (HPC) near Yacharam, Kandukur and Kadthal Mandai, Ranga Reddy District, Telangana by Ms Telangana State Industrial Infrastructure Corp. Ltd. - Amendment in environmental Clearance</p> <p>[Proposal No. IA/TG/NCP/59781/2016] [F. No. 21-5/2016-IA.III]</p>									
3.5.1	<p>During 227th EAC meeting held on 28th November, 2019, the project proponent along with the EIA consultant M/s EPTRI, Hyderabad, made a presentation and provided the following additional information regarding project:</p> <p>(i) The Ministry granted EC to the project vide letter no. 21-5/2016-IA.III dated 6th September, 2019, wherein along with certain specific conditions were stipulated. However, the proponent has requested to amend following two conditions:</p> <table><tr><th>S.No.</th><th>Original EC Conditions</th><th>Amendments Sought</th></tr><tr><td>i.</td><td>Only natural gas to be used for boilers and methane emission to be monitored regularly.</td><td>Usage of imported coal as secondary fuel source besides natural gas. Emission models using imported coal were presented and found to be in the permissible range.</td></tr><tr><td>ii.</td><td>A mechanism be developed for individual industries particularly bulk drug and intermediate chemical manufacturing units (having effluent discharge >25 KLD) for setting up their own ETPs including ZLD for better management and reducing load on CETP. The mechanism be submitted to the MoEF&CC and TSPCB.</td><td>Permitting the industries to send their effluent >25 KLD also to CETP.</td></tr></table> <p>(ii) Proponent has stated that the Government of Telangana / Telangana State Industrial Infrastructure Corporation (TSIIC) Limited has been making efforts to get Natural Gas allocation for the project.</p> <p>(iii) Also made representation to Ministry of Petroleum and Natural Gas, Government of India requesting for priority allocation of Natural Gas. However, availability of Natural Gas in the country as on date is extremely limited causing delay in implementation of the project.</p> <p>(iv) Scenario of emissions with imported coal as an alternative option was presented in the EIA report submitted to MoEF&CC and ambient air quality parameters are well within the prescribed limits of NAAQ Standards.</p>	S.No.	Original EC Conditions	Amendments Sought	i.	Only natural gas to be used for boilers and methane emission to be monitored regularly.	Usage of imported coal as secondary fuel source besides natural gas. Emission models using imported coal were presented and found to be in the permissible range.	ii.	A mechanism be developed for individual industries particularly bulk drug and intermediate chemical manufacturing units (having effluent discharge >25 KLD) for setting up their own ETPs including ZLD for better management and reducing load on CETP. The mechanism be submitted to the MoEF&CC and TSPCB.	Permitting the industries to send their effluent >25 KLD also to CETP.
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	<p>(v) The project consists of 4 CETPs with capacities (Zone- 2 22.6 MLD, Zone -3 20.37 MLD, Zone 4 - 9.25 MLD, Zone 5 & 6 -13.94 MLD in addition to a STP of capacity 53.96 MLD).</p> <p>(vi) CETP has the advantages of economy of scale, better treatment systems, efficiency of operations than individual ETPs operations.</p> <p>(vii) Monitoring will be effective at centralized CETP compared to multiple individual ETPs.</p> <p>(viii) Economy of Scale is achieved with a centralized ETP. Fuel consumption for a centralized ETPs is about 45% less as compared to multiple individual units. Therefore, a centralized CETP will help in an overall emission load reduction and minimizing the carbon footprint.</p> <p>(ix) Commercial viability and efficiency increase with CETP, thereby ensuring higher standards of compliance.</p> <p>(x) Variation in the characteristics and flow of waste water from small scale industry affects the operations of the CETP. Permitting waste water from all the industries will help in efficient operation.</p> <p>(xi) The neutralization and equalization of heterogeneous waste makes its treatment techno-commercially viable.</p> <p>(xii) Effective recirculation and reutilization at a centralized level compared to multiple industries level which ensures ZLD.</p> <p>(xiii) Individual industries will be responsible for segregation of waste-water streams and pre-treatment at source to comply with the CETP inlet characteristics.</p> <p>(xiv) Sludge management is better with CETP than individual ETPs.</p> <p>(xv) Industries and industry associations also have been requesting for permitting them to utilize CETPs given the techno commercial viability.</p> <p>(xvi) Hence, the above mentioned specific conditions may be amended to permit all Industries to send the effluents to CETP after duly meeting the pre-defined inlet discharge standard as prescribed by State PCB/CPCB.</p> <p>(xvii) Furnished a written submission duly signed by the Principal Secretary of the State Government that the Government of Telangana/ Telangana State Industrial Infrastructure Corporation (TSIIC) Limited has made concerted efforts regarding the procurement of Natural Gas for the Hyderabad Pharma City Project. In view of the limited availability and non-reliable supply for Natural Gas, it was requested to consider and allow imported coal also as fuel. Government of Telangana and the project proponent TSIIC would undertake all the mitigation measures as proposed in the EIA and the presentation</p>
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	before EAC. As per written submission, it is also mentioned that the project proponent would also try to completely reuse the fly-ash produced from the use of imported coal.										
3.5.3	After detailed discussion during 227 th EAC meeting on 28 th October, 2019, the EAC has recommended to amendment the above mentioned original EC conditions as under:										
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	All other conditions mentioned in the letter dated 6 th September, 2018 shall remain unchanged.										

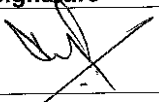
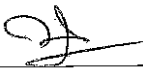
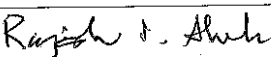


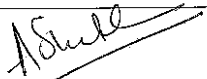
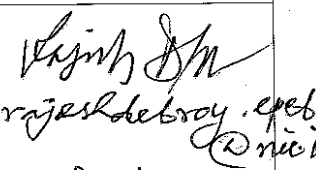


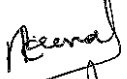
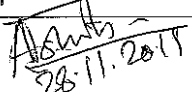
3.6	<p>Development of Economic Corridors, Inter-corridors and feeder routes and Coastal road primarily to improve the efficiency of freight movement in India (Lot-3/Odisha & Jharkhand/Package-2) Raipur (Ch. 123.210 km) - Vishakhapatnam (Ch. 363.320 km) in Odisha state under Bharatmala Pariyojana by M/s National Highways authority of India (NHAI) - Terms of Reference</p> <p>[Proposal No. IA/OR/MIS/117910/2019] [F.No. 10-55/2019-IA.III]</p>
3.6.1	<p>The project proponent along with the EIA consultant M/s YONGMA Engineering Co. Ltd. JV With Arkitechno Consultants(I) Pvt. Ltd. made a presentation and provided the following information before the Committee:</p> <ul style="list-style-type: none"> (i) Proposal: Development of Economic Corridors, Inter-corridors and feeder routes and Coastal road primarily to improve the efficiency of freight movement in India under Bharatmala Pariyojna Lot-3/Odisha & Jharkhand/Package-2, (From Ch.123.210-Ch.363.320). (ii) Location: This project is long stretch of road of 240.110 km i.e. starting from Dhanara village in Nabarangpur district and continuing upto Tumbigura village of Koraput district, Odisha. The geocoordinates are 20°01'37.21"N 81°52'04.29"E 18°29'23.95"N 83°05'54.77"E. (iii) Land Use Details: <ul style="list-style-type: none"> Forest Land (Ha.) - 507.53 ha Pvt. Land (Ha.) - 900.2848 ha Government Land (Ha.) - 282.1615 ha Total (Ha.) - 1689.97 ha (iv) Tunnel-1: From Ch. 337.650 to Ch. 340.800 Total Length – 3.150 Km (v) Tunnel-2: From Ch. 344.750 to Ch. 347.300 Total Length – 2.550 Km (vi) Water requirement, source, status of clearance: The total water demand of the project is 7984154 KL. Surface Water/Ground Water Surface Water/Ground Water. (vii) Municipal Solid Waste Management: The approximate quantity of wastes to be generated from the project is 1000 Kg per day. As per CPHEEO Norms, 500 grams of solid wastes are generated per unit employee/worker. (viii) Power requirement: 1000 kVA which shall be managed from State Electricity Boards. (ix) Details of water bodies, impact on drainage, if any: Bridges will be constructed.

	<p>(x) Details of tree cutting: The alignment will involve cutting of around 1,26,883 nos. of trees.</p> <p>(xi) National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area: No, Sitanadi Wild Life Sanctuary boundary is 10.5 Km from stating point of proposed road i.e. Ch. 123.210 km of the proposed road project.</p> <p>(xii) If the project involves diversion of forest land, extend of the forest land: Total 507.53 ha of Forest Land is involved in Proposed Project; The Forest Clearance is under Process.</p> <p>(xiii) Court cases, if any: Not applicable</p> <p>(xiv) Investment/Cost of the project: Rs. 8092.4 Crores</p> <p>(xv) Employment: 2000 nos.</p> <p>(xvi) Benefits of the project:</p> <ul style="list-style-type: none"> • Better connectivity to economic, social and political hubs of Odisha. • Fast and safe connectivity resulting in savings in fuel, travel time and total transportation cost. • Better approach to medical & educational services. • Faster transportation of perishable goods like fruits, vegetables, dairy products and marketing of agricultural products. • Development of local agriculture and handicrafts. • Opening up of opportunities for new occupations and trade on the route. • Indirect and direct employment opportunity to people from all skilled, semi-skilled and unskilled streams.
3.6.2	<p>After detailed discussion during 227th meeting on 28th November, 2019, the EAC observed that proposed alignment passes through dense forest cover and would lead to fragmentation of valuable forests. EAC suggested to entirely redesign the proposed alignments as discussed during the meeting after detailed site investigation from biodiversity point of view. All the packages of proposed alignment (in same stretch) should be applied simultaneously.</p> <p>In view of above, the EAC deferred the proposal.</p>
3.7	<p>Development of Industrial Estate at Rai, Sector 38 (Phase-II) and 39, District Sonapat (Haryana) by M/s Haryana State Industrial and</p>

	Infrastructure Development Corporation Ltd. (HSIIDC)- Terms of Reference [Proposal No IA/HR/NCP/125097/2019] [F.No. 21-80/2019-IA.III]
3.7.1	The project proponent did not attend 225 th EAC meeting held on 28 th October, 2019.
3.8	Framing of sector specific guidelines to be prescribed in critically polluted areas to de-link the process of grant of Environmental Clearance from the Comprehensive Environmental Pollution Index (CEPI) score - Finalisation of Draft Guidelines prepared by sub-committee constituted by EAC during its 217th meeting held on 27th June, 2019.
3.8.1	<p>Ministry, vide its OM dated 12th June, 2019, has decided to de-link the process of grant of environmental clearance from the Comprehensive Environmental Pollution Index (CEPI) score and directed the Central Pollution Control Board (CPCB) to propose the additional safeguards to be prescribed for the projects/activities proposed in the Critically Polluted Areas (CPAs). CBCP has provided following safeguards that will be prescribed on case to case basis by the sectoral EACs.</p> <ul style="list-style-type: none"> • Project proponent should provide the best available pollution control technology so as to ensure that there is no adverse effect on environment. • Expert Appraisal Committee may further consider prescribing the stringent emission/effluent norms for the projects proposed in such areas. • The industries should be advised to use green/clean fuel in place of conventional fossil fuel. • The industries should be directed for reuse/recycle of effluent by implementing advanced technology such as ZLD. • The industries should be advised to utilise the domestic wastewater either in the process or for development of green belt. • The industries should be encouraged to use green/clean technologies in the manufacturing process to reduce waste generation. • Fugitive emission control mechanism should be implemented effectively within the industry including providing concrete/asphaltic road to minimise dust pollution. • Adequate Green belt development should be made for reduction of air pollutants in and around the CPAs.

	<ul style="list-style-type: none"> Views of concerned SPCBs/PCCs may be sought based on the local conditions. Such projects may be asked to allocate more budget towards Corporate Social Responsibility (CSR) fund for remedial works within the core and impact zones of the CPAs. The industries may be advised to use phosphate free detergent/eco-friendly cleaning agents for flood and machineries washing. <p>It was also desired that these safeguards be referred to the concerned sectoral EACs in their next meetings for detailed discussion regarding framing of sector specific guidelines for the appraisal of projects located within the CPAs. Thereafter, the sector specific guidelines will be forwarded to IA Policy for further necessary action.</p>
3.8.2	In view of above, the Member Secretary, CPCB was requested to nominate an officer from CPCB to participate in the meeting and contribute for framing of sector specific guidelines as mentioned above. However, nobody from CPCB attended the meeting.
3.8.3	<p>EAC after detailed deliberation in its 217th meeting held on 27th June, 2019, has decided to constitute a sub-committee for the purpose, comprising following members:</p> <ul style="list-style-type: none"> (i) Shri N.K. Verma, Member EAC (Infra-1) – Chairman (ii) Dr. V.K. Jain, Member EAC (Infra-1) – Member (iii) Dr. D. Chakraborty, Member EAC (Infra-1) – Member
3.8.4	This Ministry has issued an OM No. 22-23/2018-IA.III (Pt.) dated 31 st October, 2019, which shall be applicable for proposals of projects in critically polluted areas. Hence, EAC will appraise the proposals of projects in critically, polluted areas as per provisions contained in the said OM dated 31 st October, 2019.
3.9	<p>Any other items with the permission of Chair</p> <p>Development of 8-lane SPUR Starting from km 26.582 of Vadodara - Mumbai Expressway Main Alignment (Design Chainage km. 0+000 of SPUR) and terminating at proposed junction with the Multi-Modal Corridor of MMRDA (Design Chainage of SPUR km. 79.783) in the state of Maharashtra (Total Length is 79.783 km) by M/s National Highway Authority of India - Consideration of site visit report regarding.</p>
3.9.1	The site visit report of the sub-committee of EAC regarding above mentioned project was discussed and approved in the 227 th EAC meeting held on 28 th November, 2019 (Annexure).

List of the Members attended 227th meeting of Expert Appraisal Committee for Projects related to Infrastructure Development, Industrial Estate and Miscellaneous projects held on 28th November, 2019 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 Rajesh I Shah, Navjeevan, Ahmedabad - 380 014 (Gujarat)	Member	
5	Dr. N.K. Verma, Former AD, CPCB, New Delhi	Member	
6	Dr. Manoranjan Hota Former Advisor/Scientist-G, MoEF&CC	Member	
7	Dr. Anil Kumar Singh, IFS (Retd), Ex PCCF Assam, Tower F, Float No. 103 Grand Anjara Heritage, Sector 74, Noida, UP	Member	
8	Shri Prabhakar Singh, DG, CPWD, Delhi.	Member	
9	Shri Narendra Surana, Managing Director, Bhagyanagar India Limited and Surana Telecom. and Power Limited, Hyderabad	Member	
10	Dr. Mohan Singh Panwar, Associate Professor, H.N.B Garhwal Central University, Srinagar,	Member	
11	Dr. Anuradha Shukla, Central Road Research Institute (CRRI), Mathura Road, New Delhi	Member	
12	Shri R Debroy, Member (EAC), Scientist E & In-charge (ESS), Central Pollution Control Board, Parivesh Bahwan, CBD-Cum office Complex, East Arjun Nagar, Delhi-110032	Member	 Rajesh Debroy, epet @ nici
13	Dr. D. Chakraborty, Scientist MoWR, RD & GR, New Delhi	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	Shri Ashish Kumar, Joint Director, IA-III, MoEF&CC	Special Invitee	 28.11.2019

Site visit report and recommendation of Sub –committee of EAC on the following projects in the State of Maharashtra by National Highway Authority of India

Some Parts of following Project alignment were visited by the Sub-committee:

Development of 8-lane SPUR Starting from km 26.582 of Vadodara - Mumbai Expressway Main Alignment (Design Chainage km. 0+000 of SPUR) and terminating at proposed junction with the Multi-Modal Corridor of MMRDA (Design Chainage of SPUR km. 79.783) in the state of Maharashtra (Total Length is 79.783 km) by M/s National Highway Authority of India

Background

Proposal No. IA/MH/MIS/110764/2019 was discussed in 220th Meeting of EAC held on 26.07.2019

EAC, while deliberating the above proposals, suggested to carry out site inspection to ascertain the proposed alignment of spur and its impact on the environment. It was suggested to include a traffic engineering expert from Central Road Research Institute (CRRI) for the proposed site visit.

Site Visit

Sub-committee of EAC, MoEF&CC comprising of following members was constituted for the site visit. The sub-committee visited the proposed site from 13th-15st November 2019 and also interacted on the matter with field officials of Thane territorial and wild life divisions of Thane and Mumbai of Forest department, Maharashtra along with project proponent team and EIA consultant.

The names of the members of sub-committee and officials of Maharashtra State Forest department, project proponent and EIA consultant team present during the site visit are given below:

Sub Committee of EAC, MoEF&CC

1	Dr. Anil Kumar Singh, IFS (Retd.), Ex. PCCF Assam	Chairman
2	Dr. Anuradha Shukla Central Road Research Institute (CRRI), Mathura Road, New Delhi	Member
3	Dr. D. Chakraborty, Scientist MoWR, RD & GR, New Delhi	Member
4	Dr E. Madhu Traffic Engineer ,CRRI	Member (Traffic Expert from CRRI)
5	Raghu Kumar Kodali, Director/Scientist-F, IA Director, MoEF&CC	Member Secretary,

Maharashtra State Forest Department officials:

1.Mr. Pramod Thakar	R.F.O., Badlapur
2.Mr. Rajesh Sadke	AG. DCF (WL), Thane
3.Mr. Bhagwan Sanap	R.F.O. (WL), Mumbai
4.Mr. S. D. Valvi	R.F.O., Karjat
5.Mr. N. D. Rathod	R.F.O., Matheran
6.Mr. C. S. Maurya	Wildlife Division, Thane
7.Mr. Daneshwar Sonawara	R. F. O., Panvel
8.Mr. Pramod Thakar	R.F.O., Badlapur
9.Mr. Nitin Khulape	Bid Guard, Badlapur
10.Mr. Srikant Raut	Round Officer, Wangi
11.Mr. Dilip Tonde	R.F.O.,Tungareshwar WLS
12.Mr. Dahibaw Kar	A.C.F Sanjay Gandhi National Park

National Highway Authority of India Officials:

1. Dr. B. Mukhopadhyay, GM (Environment), NHAI, New Delhi
2. Mr. M T Attarde, Project Director,PIU Thane, NHAI
3. Mr. Shivaji Pawar, DGM (T), PIU Thane, NHAI

DPR/EIA Consultant team (M/s ICT Pvt. Ltd.)

1. Mr. Subhajit Mitra Environment Specialis
2. Mr. B. K. Swain Highway Engineer

Observations:

A.The Dr. D Chakraborty, Scientist MoWR, RD & GR, New Delhi has put his observations which are as below:

1. The proposed tunnel alignment from Badlapur to Morbe having a span of 4.4 Km. need detailed scientific studies. Before ascertaining the alignment and depth of the tunnel, the project proponent must take up detailed Geophysical surveys to understand the sub-surface disposition of formations including fractures and weathered pattern of the rock formations.
2. It is preferred to take up resistivity profiling/ VES or advanced geophysical studies on the either side of the tunnel to decipher the fracture pattern and weathered portion. The foot hills of both sides of the proposed tunnel have high possibility of weathered rocks having good repository of ground water that need to be taken care for tunnel alignment.
3. The study should also ensure that the proposed tunnel does not obstruct any major source of ground water which deprives availability of desired ground

water in the down gradient side. All precautions to be taken to avoid any interference to sub-surface ground water flow.

4. The project proponent should take up detailed aquifer study at various depths and its impact of ambient ground water regime due to construction of spur especially in the eco-sensitive zone. A specialized hydrogeological and hydrological study is essential to address this issue.
5. Proponent shall ensure that a detailed Project Report for construction of the proposed alignment includes all the 1st and 2nd order streams passing through spur alignment and should be provided with necessary culverts. The span of the culverts must be at least 20% excess of the total width of the drainage crossing.
6. Proponent shall take all efforts to avoid any pillars on the river beds while constructing bridges. Project proponent has to provide detailed micro-watershed map indicating the details of proposed culverts and bridges.
7. GIS map of the 10 Km. radius zone as per the spur alignment Toposheet with its interpretation on hydrology, rock type, lineaments, fractures, vegetation cover, etc. need to be prepared with sustainability index for each parameter for taking spur alignment construction.

B. As per the decision of the committee the Expert Members of CRRI related to traffic density etc. thoroughly discussed the matter in field with PIU and consultant. After the visit and ground situation, they suggested that:

1. Master plan of the area as developed by the Government of Maharashtra, shall be submitted for perusal and study.
2. In TOR following points may be included:
 - Detailed traffic planning studies with complete design, drawings and traffic circulation plans (Taking into consideration integration with SPUR and other state roads etc.) should be conducted. Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.
 - They should be vetted by some national organization having expertise in the above field
 - Road safety audit by any third party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety.

C. Additional Observations:

1. The alignment of SPUR of the road submitted before the committee passes through highly dense forest before tunnel starts. The local field officials of the

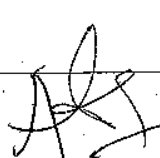
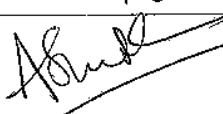
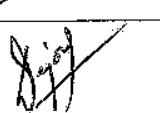
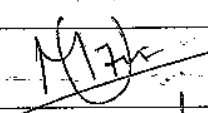
Forest Department informed that the continuous patch of the forest and the range of the hills. It was informed that the whole area is witnessed free movements of wild animals including leopard. The mature trees species are Mahua, Dhak and many more other trees species.

2. The field officials of the Thane Territorial and Wildlife Divisions were directed to produce the major tree species list with average diameter and height to the PIU, so as to transmit the same to the visiting Committee to include it in the report.
3. Along the alignment of the spur a permanent stream of water is also flowing and these forest are catchment area of the permanent source of water for the wild animals and also are being utilized by the local farmer for irrigation purposes.
4. The catchment area is very valuable. It needs conservation without disturbance from the present status so that the area containing forest provide adequate shelter and water to wild animals and also meeting the needs of the paddy farmers and their cattle.
5. Before tunnels starts a huge area having many valuable tree species, which may be protected by providing a provision to have an elevated road so that it remains above the canopy of the trees. The provision of elevated road not only ecologically sustains water resources of the area, livelihood of the farmers and undisturbed habitat use by the wildlife on sustainable basis.
6. During discussions, the PIU informed to the Sub-committee that Government has developed a Master Plan for the whole area to address the communication, transportation network, habitation with facilities, municipal services, etc. Team wanted to see master plan so that the input may be taken from the plan for improvement of alignment of spur, if any. It is essential to view the plan so that in future there should not be any problem in implementation of Master Plan as well as purpose of alignment of the spur to meet the traffic requirements as predicted. The Master Plan has not been submitted by the PIU for the perusal of the Sub-committee.
7. The ecological and bio-geological data from field officials are required for proper design and development of the spur and elevated road as per technological feasibility.
8. Wildlife conservation plan to be prepared with approval of Chief wildlife warden Separately for Matheran ESA and Tungreshwar WLS as schedule -1 species are existing within 10 km radius of the project.

The Sub-committee view that the observations of the committee members must be complied. Hence, PP advised to submit the all the information related to the above observations (A, B&C) mentioned by the sub committee to the Ministry for further consideration of the project by EAC.

The following Members of sub-committee of EAC(Infra-1) of MoEF&CC visited the following project from 13.11.2019 to 15.11.2019 and also submitted site inspection report.

Development of 8-lane SPUR Starting from Km 26.582 of Vadodara - Mumbai Expressway Main Alignment (Design Chainage km. 0+000 of SPUR) and terminating at proposed junction with the Multi-Modal Corridor of MMRDA (Design Chainage of SPUR km. 79.783) in the state of Maharashtra (Total Length is 79.783 km) by M/s National Highway Authority of India.

Sl. No.	Name of committee Member	Role/Designation	Signature
1	Dr. Anil Kumar Singh, IFS Retd), Member, EAC(Infra-1)	Chairman	
2	Dr. Anuradha Sukla, Member, EAC (Infra 1)	Member	
3	Dr. D. Chakraborty Member, EAC (Infra 1)	Member	
4	Dr E. Madhu Special Invitee	Member, Traffic Expert from GRII	
5	Shri Raghu Kumar Kodali, Director/Scientist-F, IA-III Division, MoEF&CC	Member Secretary (Infra-1 EAC)	