206th Minutes of 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 24-25 January, 2019

1. Opening remarks of the Chairman

2. Confirmation of the minutes of the 204th meeting held on 17th December, 2018 at Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi

3. Consideration of Proposals:

3.1	Setting up of Kolhar Industrial Area Phase-II at Village Kolhar, Taluk Bidar, District Taluk, Karnataka by M/s Karnataka Industrial Areas Development Board - **Further consideration for Environmental Clearance** [Proposal No. IA/KA/NCP/**65436**/2014] [F.No. 21-6/2014-IA.III]
3.1.1	During the meeting, the project proponent made a presentation along with EIA consultant M/s. Bhagavathi Ana Labs Pvt. Ltd., Hyderabad and provided following information to the Committee: (i) The project is for development of Kolhar Industrial Area Phase – II at Kolhar Village, Bidar Taluka, Bidar District, Karnataka by Karnataka Industrial Area Development Board (KIADB). (ii) The total Area of the proposed project site is 600 acres (242.81 ha). Industrial as well as Commercial plots are planned to be developed. Category A Type Industries will not be allowed. Allotment would be made on specific condition of "Zero Discharge". Provision for CETP, Rain water Harvesting, Solid waste Disposal Ground, Dense plantation, etc. (iii) The major development would be Industrial Area with Plots based on Size of Industry planned to be developed. The industrial plots would be distributed based on the following Sizes, i.e., 0.00-0.49 acres, 0.5-0.99 Acres, 1.0-1.99 Acres, 2.0-2.99 Acres, 3.0-3.99 Acres, 4.0-4.99 Acres, 5.0- 5.99 Acres, 10.0-10.99 acres, Civic amenities, Commercial, Public utility, Residential and Solid waste disposal. KIADB proposes to develop the Green belt in 33% Area within the project site as Green Area. Besides, individual industries will also develop green area in their own plot as per KSPCB Consent Conditions. (iv) The proposed Industrial Area Development will be established in an area of 242.8 Hectares (600Acres).

Land use of the Project Area

S. No.	Description	Land in Acres	Percentage %
1	Industrial Plots	345.67	57.63

2	Commercial	3.78	0.63
3	Amenities	9.4	1.56
4	Parks Open Spaces, Buffer zone	155.22	25.87
5	Parking	19.78	3.29
6	Roads	66.14	11.02
Total		**599.99**	**100**

(v) Water requirement: Construction phase: The water requirement for the proposed project is approximately 50 KLD including domestic water requirements for 700 workers (45 lpcd per worker) and dust suppression during the construction phase based on construction activity requirement. The water requirement during this phase will be met from the ground water sources and drinking water at construction sites will be provided by KIADB.

Operation phase: The water requirement of individual industries during operation phase will be met by groundwater abstraction or any other external source on their own. The water during the operation phase will not be supplied by KIADB. However, based on the data collected from KIADB of its operational industrial areas, the water requirement in the proposed project during operation phase will be envisaged based on the standard practices of water requirement per acres as 1 MLD for Kolhar Industrial Area Development Project.

Already existing water supply system with 4 bore wells is available and 2 new no's are proposed

(vi) **Waste water generation:** 1.2MLD of CETP is designed for handling waste water generated.

(vii) **Municipal solid waste:** Domestic Waste collection system will be collected and dumped at specified location within the site. Twin bins system will be adopted for segregation of wastes at source. Recyclable wastes will be sold off to authorized vendors. Bio-degradables will be treated on-site through Organic Waste Converter and the compost will be used as manure.

(viii) **Investment/Cost:** Cost of the project (development of industrial area) is Rs. 210 Crore.

(ix) **Benefits of the project:** Site Specific Industrial Development project for the Industrial Area are Engineering, Pharmaceutical, Food Manufacturing and Chemical Industries in India is growing rapidity. With an emphasis on exports, major expansion programmes, strong marketing and sales network, cost effective processes and developing valuable process engineering skills have recorded an unprecedented growth in the recent past. Fierce Competition is also one of the major factors contributing to the market trends. The contribution of the industry to the ex-chequer will help the nation at large and improve the socio-economic conditions of the local area. The

	project helps in increasing its contribution to the overall development of the area as well as the Country's share in the international business. (x) **Trees cutting:** 10 Trees, Rocky area. (xi) **Employment potential:** About 4500-5000 people will get employment. (xii) **Court cases, if any:** No. (xiii) **ToR details:** The ToR was accorded to the project by the Ministry vide letter No.21- 6/2014-IA.III dated 19th June, 2015. (xiv) **Public Hearing:** 08/3/2017 at Plot No. 298 P1, Kolhar Industrial Area, Bidar for Proposed Kolhar Industrial Area Phase-II (242.8 Hectares) and 1.2 MLD Common Effluent Treatment Plant (CETP) in Kolhar Village, Bidar Taluk & District, Karnataka by Karnataka Industrial Area Development Board.
3.1.2	During the deliberation in the 174th EAC meeting held on 9th August, 2017, the Committee noted the following: (i) The proposal is for the grant of EC to the development of Kolhar Industrial Area Phase- II at Kolhar Village, Bidar Taluka, Bidar District, Karnataka by Karnataka Industrial Area Development Board (KIADB) on an area of 241.81 ha. (ii) KIDB proposed to establish only Category B industries with multi products with estimated project cost of 210 crores. (iii) There is no clarity about source of water as there was mention of Manjeera River, Karinja dam and Bore-well. The amount of water to be drawn from each source need to clearly depicted along with the requisite permissions from concerned authorities. (iv) Actual water requirement is mentioned as 2.7 MLD, but they have proposed to draw 9 MLD water, which is to be examined and rationalised. (v) Four Bore-wells are drilled and two proposed. Permission from State Ground Water Department is necessary for withdrawal of ground water. Develop ground water rejuvenation plan for the region from competent agency and provide appropriate financial mechanism to implement the same. (vi) There exists an Air Force Station at the distance of 200 m. NOC need to be obtained from the concerned authorities. (vii) Detailed Wildlife Conservation Plan covering at least winter and monsoon season (in soft copies to all members and a hard copy to the Ministry for record) needs to be provided. The plan should be prepared from reputed institutions like Wildlife Institute of India, Forest Research Institute, Salim Ali Centre for Ornithology & Natural History, other government institutions/universities.

	(viii) Study on Traffic density, its impacts and mitigation measures are required (ix) Detailed drainage plan to protect the nallahs flowing through project site and also to the Bellur Lake adjacent to the project site are required. (x) Activity wise cost involved both capital as well as recurring cost for the activities related to Corporate Social Responsibility as per the provisions of the Companies Act 2013. (xi) Activity wise cost involved both capital as well as recurring cost for Environmental Management Plan and Environmental Monitoring Plan (xii) Power requirement and source of power. (xiii) Rain Water Harvesting details and water conservation measures. (xiv) Parking facility details.
3.1.3	After thorough examination of documents submitted and the presentation made before the EAC during its 206th meeting held on 24.01.2018, the EAC observed following: (i) The proposed area to be developed is 599.99 acres (242.81 ha) and entire land belongs to KIADB; (ii) Type of industries proposed: Engineering, Pharmaceutical, Food Manufacturing and Chemical Industries; (iii) KIADB proposes to establish only Category 'B' industries inside the Industrial Area (iv) KIADB proposes to develop the Green belt in 17% of area within the project site. Besides, each industry will contribute 33% of its area towards the develop of green area in their own plot as per KSPCB Consent Conditions; (v) No ground water will be used in proposed Industrial area and existing Bore wells will be used for monitoring purpose only. (vi) The proposed project is 200m away from Air Force Station and no NoCis obtained from concerned authority. (vii) Clearance for water requirement for the project has not been obtained from the concerned authority. (viii) Traffic density study to be done in consultation with CRRI. (ix) Proponent has to take up detailed studies of the micro-watershed and drainage analysis and its impact on the ambient surface and ground water regime. (x) Revised CER details to be submitted as per the OM dated 01.05.2018. (xi) Impact of ground water and surface water due to existing units to be carried out.

3.1.4	Based on detailed deliberations during its 206th meeting on 24-25January, 2019, the above said proposal is ***deferred*** for want of information as mentioned in point no (v) to (xi) in preceding para. EAC also observed that in the proposed industrial area Bellur lake is existing and air force station is within 200 m from proposed industrial area, therefore, it is recommended to conduct a site visit by a sub-committee of the EAC to ascertain the ground truth of the project viability before the proposal is considered further.
3.2	Development of Industrial Growth Centre (Industrial Estate) at Saha, Phase-II, Ambala, Haryana by M/s Haryana State Industrial and Infrastructure Development Corporation Ltd. – **Further consideration for extension of Terms of Reference** [Proposal No. IA/HR/NCP/**76611**/2013] [F. No. 21-3/2013-IA.III]
3.2.1	The project proponent along with the EIA consultant M/s Grass Roots Research and Creation India Private Limited made a presentation and provided the following information to the Committee: (i) The proposed project is for the 'Development of Industrial Growth Centre Saha, at Phase-II, Ambala, Haryana' by M/s Haryana State Industrial and Infrastructure Development Corporation Ltd. Total area of the proposed Phase 2 of the project is 250.94 acre (101.55 ha). (ii) **Justification for selection of the site**: The proposed Site has been acquired on the basis of its connectivity to the major cities through the National Highway and the State Highway no 31. The Site does not fall under any biological sensitive areas such as forest, wild life sanctuaries, ecologically sensitive areas, water reserves etc. The land has been declared for Industrial land use and the same has been demarcated in the proposed master plan being developed for this region. (iii) **Rain Water Harvesting:** Provision of storm water drain has been made for the project. The surface water drains/storm water drainage scheme has been divided into two heads- • Collection system • Disposal system Effective drainage increases the life of the road, Proper camber, slope properly constructed kerb channel and then placing of road gullies at proper spacing can help in collection of surface water effectively. It has been proposed to construct Storm Water Disposal works at the Tail End of the Storm Water Line from where it will be pumped into Drain by installing pumping station of adequate capacity. Storm water drainage system is proposed to cater for rainfall intensity @ 5.00 mm/hr. The storm water drainage system is proposed to be of NP2, NP3 & NP4 RCC pipe of size

varying from 300 mm to 1400 mm diameter.

(iv) **Rehabilitation involved, if any:** Approximately 1500-2000 persons are likely to be affected on account of acquisition of land in Saha (Phase-II). Government of Haryana has formulated a policy vide notification dated 9th November, 10 for rehabilitation and resettlement of land owners and oustees which will be followed for the project.

(v) **Terrain, level with respect of MSL, requirement of filling if any:** No.

(vi) **Tree cutting, types, numbers, girth size etc.:** No.

(vii) **Total water requirement and its source:** Water requirement, source, status of clearance – Total water requirement will be 10 MLD (Phase-I &Phase-II), Source of the water will be ground & Prior approval from CGWA is pending.

(viii) **Waste water generation, treatment and disposal:** Waste water generated will be treated in CETP and treated water will be used for the horticulture purpose etc.

(ix) **Water bodies, diversion if any:** No.

(x) **Whether the project is in Critically Polluted area:** No.

(xi) **Municipal solid waste generated disposal facility:** The total municipal(domestic) solid waste would be collected in environmentally sound manner and sent to sanitary landfills after segregations of recycled materials.

(xii) **Hazardous wastes (as per Hazardous Waste Management Rules):** The hazardous wastes along with other wastes in the project will be used oil from DG sets, which is classified as per The Hazardous Waste Category 5.1 as per The Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008. Used oil from DG sets will be stored in HDPE drums in isolated covered facility. This used oil will be sold to authorized recyclers. Suitable care will be taken so that spills/leaks of used oil from storage.

(xiii) **National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area:** No Wildlife Sanctuary within 15 km Buffer Zone of the project site.

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

(xv) **Investment/Cost of the project:** INR 194.55 Crore.

(xvi) **Benefits of the project:** The project aims at development of growth centre phase II at Saha, which would help in creation state-of-the-art industrial infrastructure in the district. The project will facilitate in creation of employment opportunities both direct & indirect for local population. The project will help in the urban development by creating all essential amenities and hence the projects will hence immense benefits for social up liftment. The project also aims at development of better landscaping in the vicinity as well as creation of

	green belt in the area which would eventually help in the improvement of visual and aesthetic quality of the area. With the implementation of the project, other utilities would also be created like development of road network, sewerage network, augmentation of water supply system & waste water treatment, solid waste collection facility, educational and health facilities etc. in nutshell, project aims at amelioration of the socio-economy of the areas as well as providing basic amenities to people. (xvii) **Employment potential:** 2000. (xviii) **If any court case pending for violation of the environmental laws:** Yes. Following 10 court cases are undergoing 1. Deepak Aggarwal and Others CWP NO. 1048/08 2. Aditya Kumar CWP NO. 19199/08 3. Ramesh Chand and Others CWP NO. 19428/08 4. Kuldip Singh CWP. NO 13232/07 5. Puran Singh CWP NO. 10754/08 6. Puran Singh and Others CWP NO. 13019/07 7. Mohan Singh CWP NO. 19253/08 8. Dr. Madan Mohan Dutta CWP NO. 6029/08 9. Sonia CWP NO. 108/09 10. Sudesh and Others CWP NO. 13/08
3.2.2	After thorough examination of documents submitted and the presentation made before the EAC during its 197th meeting, the EAC observed following: (i) Information provided in Form-1 and other documents is very sketchy and contradictory. Forms-1 indicates that there are 10 ongoing court cases, however, in documents submitted by the EIA consultation suggest that no court case is pending. (ii) Almost nil or vague information is given in respect of landuse of project site & its 10 km radius, water sources, waste water generation, its treatment, solid/hazardous waste management etc. (iii) The first phase of the project was implemented in 2002, hence EC under EIA Notification, 2006 is not applicable. The present proposal is for Phase 2 of the project, which covers 250.94 acres (101.55 ha) and houses industrial units related to Food & Beverages, Automobile Parts, Electrical & Electronics, Agro-products, Scientific equipments, Garments beside Commercial, Residential and Institutional buildings. (iv) Public hearing of the project was conducted on 12th April, 2018 after expiry of ToR. Application for extension of ToR was filed on 27th August, 2018.
3.2.3	In view of above, the EAC, after a detailed deliberation during 197th meeting held on 17 September, 2018, *deferred* the proposal for want of following information for further consideration:

(i) Revised Form-1 in all respect and detailed information in respect of land use of project site & its 10 km radius, water sources, waste water generation, its treatment, solid/hazardous waste management etc.

(ii) Provide detailed description and present status of all the court cases.

(iii) List of proposed industries category wise (A and B as per EIA Notification, 2006) along with the layout map.

3.2.4 After thorough examination of documents submitted and the presentation made before the EAC during its 206th meeting held on 24th January ,2019, the EAC observed following:

(i) Land use details of the project is given below:

Sl. No.	**Description**	**Area (acre)**
1.	Total site area (under Phase-II)	250.94
2.	Area to be planned later	4.25
3.	Net planned area	246.69
	Land Use:	
1.	**Industrial**	**73.40**
	Area under Industrial Plots	73.40
2	**Residential**	**46.84**
(a)	Area under Residential plots	7.50
(b)	Area reserved for housing	22.04
(c)	Area reserved for Workers housing	13.37
(d)	Area reserved for HSIIDC campus & staff housing	3.93
3.	**Commercial**	**22.27**
	Area reserved for Commercial use	22.27
4	**Institutional**	**8.70**
(a)	Area reserved for Institutional use	4.37
(b)	Area for Sr. Secondary School	4.08
(c)	Area for Nursery School	0.25
5.	**Utilities**	**83.84**
(a)	Area reserved for Public Buildings	8.72
(b)	Area reserved for Public Utilities	3.05
(c)	Area reserved for Fire Station	1.95
(d)	Green Belts and Roads	70.12
6.	**Amenities**	**3.50**
(a)	Area for Club & Community Centre	2
(b)	Area reserved for Dispensary	1.50
7.	**Area reserved for R&R Policy & Informal Sector**	**8.14**
	Total Planned Area (Phase-II)	**246.69**

(ii) Total ground water requirement is to be 10 MLD and 4 MLD waste water will be used for horticulture.

	(iii) Total 47.35 MT/day solid waste is to be generated in proposed industrial area. (iv) Total 15 nos. of court cases are pending against the project before Hon'ble Supreme Court of India and Punjab & Hon'ble Haryana High Court. (v) The area of Industrial Estate, Saha Phase-II is 101.55 ha (250.94 acres) and it will house following types of industries: a. Commercial, Residential and Institutional and Buildings (Category B as per EIA Notification, 2006) b. CETP (Category B as per EIA Notification, 2006) c. Food & Beverages Industries d. Automobiles Parts Industries e. Agro Industries f. Electronic & Electrical Industries g. Scientific Equipments Industries h. R&D Centre i. Printing and Assembly j. Readymade Garments Industries
3.2.5	The EAC after detailed deliberation, **recommended the project for extension of the validity of ToR dated 26th March, 2015 for a period of one year upto 25th March, 2019** with all the terms and conditions stipulated in the ToR letter dated **26th March, 2015** and also with the following specific conditions as mentioned below: (i) The demand for ground water is huge and the proponent has to take up detailed study to establish the sustainability of ground water due to huge daily demand of ground water. Explore the possibility of other sources of water for proposed project. (ii) Proponent to submit the justification of such huge ground water demand. (iii) The area is over-exploited and the NOC for such huge ground water demand from CGWA is question. (iv) Proponent to submit a detailed map showing the land under litigation and its effect to the project, if the cases are not cleared. (v) This ToR validity extension is subjected to outcome of ongoing legal proceedings against the project before Hon'ble Supreme Court of India and Hon'ble Punjab & Haryana High Court.
3.3	'Development of Mega Industrial Park' at Kopparthy, Tadigotal, Yadavapuram, Tholaganganapalli, Ambavaram & Rampathadu Villages of Chintakomma Dinne, Vallur & Pendlimarr in YSR Kadapa, Andhra Pradesh by M/s Andhra Pradesh Industrial Infrastructure Corporation Ltd - **Environmental Clearance** [Proposal No. IA/AP/NCP/**40091**/2016] [F. No. 21-1/2016-IA.III]
3.3.1	The project proponent has **requested to defer the proposal**.
3.4	Development of 4-laning of Balaghat-Gondia Section of NH-543 from km 0.000 to km 48.070 (Package-IA and IB) in the State of Madhya Pradesh and Maharashtra by M/s National Highways Authority of India - **Terms of Reference**

	[Proposal No. IA/MP/MIS/90109/2018] [F. No. 10-1/2019-IA.III]
3.4.1	The project proponent along with the EIA consultant M/s Intercontinental Consultants and Technocrats Pvt. Ltd., New Delhi, made a presentation and provided the following information to the Committee: (i) The proposal involves Development of 4 laning of Balaghat - Gondia Section of NH 543 from km 0.000 to km 48.070 under Bharatmala Pariyojana ((Lot-1 / Madhya Pradesh / Package -6). Length of the existing stretch is about 41.55 Km and length of proposed project road is 48.070 km; out of which 29.700 km stretch is in the State of Madhya Pradesh (Package-1A) and 18.370 km is in the State of Maharashtra (Package-1B) (ii) **Location:** The proposed project road originates from it's junction with SH-26 at Behrai village of Balaghat district of Madhya Pradesh and ends at GondiaKhurd village of Gondia District of Maharashtra. The proposed alignment is passing through 4 Tehsils (Lalbarra, Waraseoni, Balaghat & Kirnapur) & 21 villages of Balaghat district of Madhya Pradesh and 1 Tehsil (Gondia) & 13 villages of Gondia district of Maharashtra. (iii) **Land use of the site and around the site up to 10 km radius:** Predominant land use pattern of the site and around the site up to 10 km radius is agricultural followed by residential & commercial, mix land use and forest. (iv) **Land Acquisition and Proposed RoW:** Total land to be acquired for the proposed project is 305.636 ha out of which 268.98 ha is private land and 36.656 ha is government land. The existing RoW varies between 25 m to 30 m and Proposed ROW shall be 70 meter in general. At location of junctions, bus bays, truck lay bye, toll plaza, VUP / Flyovers and interchange, extra land to be provided in addition to above mentioned ROW as per the actual design requirement. (v) **Justification for selection of the site:** The project starts from the congested area of Balaghat town and passes through major settlement areas such as Rajegaon, Rawanwadi and Vijaynagar. The existing geometries of these areas are not conforming to IRC standard of 4 laning. Improvement / widening of the existing road as per IRC codal provision will involve large scale demolition of structures. Hence to avoid above hindrances for improvement to 4 lane standards, bypasses have been proposed. Various options were analyzed for the proposed bypasses and comparison has been drawn based on Technical, Environmental and Social Considerations (details provided in analysis of alternatives). Considering the need to minimize land acquisition in majority section eccentric widening has been adopted. (vi) **Total water requirement and its source:** Total water requirement for 24 months of construction period is 1,202,000 KL (1,647 KLD). It would be

sourced from surface (40%) and ground water (60%). The required permission will be obtained by the Contractor prior to construction as per law.

(vii) **Waste water generation, treatment and disposal:**

(viii) **Water bodies, diversion if any:** The proposed alignment is crossing Wain Ganga River at design Ch. 11+350, Ghisarri River at Ch. 25+250, Bagh River at Ch. 29+700 and a stream at Ch. 41+980. There are no ponds along the side of the project road.

(ix) **CETP:** Not Applicable.

(x) **Terrain, level with respect to MSL, requirement of filling if any:** The alignment is passing through plain terrain with elevation ranges from 280m to 320m AMSL.

(xi) **Utilization of Fly Ash:** There are three Thermal Power Plants (TPPs) within 300 km of the proposed project road. Fly ash from the above mentioned TPPs will be utilized for construction of road embankment as per IRC Guidelines (IRC:SP:58-2001). Quantity of fly ash requirement is 1,204,766.00 cum for the stretch located in Mahdya Pradesh (Km 0+000 to 29+600) and 698,419.00 cum for the stretch located in Maharashtra (km 29+600 to Km 48+070).

(xii) **Tree cutting, types, numbers, girth size etc.:** Tentative Number of Trees to be felled along existing Road is given below:

Design Chainage	Package	Girth Size wise Number of Trees					Major Species
		30 to 60 cm	60 to 90 cm	90 to 180 cm	>180 cm	Total	
Km 0+000 to 29+700 (MP Section)	1A	1177	454	295	205	2131	*Shorearobusta*; *Tectonagrandis*; *Ficusreligiosa*; *Dalbergialatifolia*; *Mangiferaindica*; *Azadirachtaindica*; *Syzygiumcumini* etc.
Km 29+700 to 48+070 (MH Section)	1B	809	326	165	126	1426	
Grand Total		**1986**	**780**	**460**	**331**	**3,557**	

Actual numbers of government and private trees are to be felled can be ascertained after completion of Joint Measurement Survey (JMS) with appropriate authorities. The details will be provided in the EIA Report.

(xiii) **Rehabilitation involved if any:** Initial enumeration reveals an impact on approx. 205 properties (Private, Religious, Community and Government). Actual details will be provided in the EIA Report.

(xiv) **Whether the project is in Critically Polluted area:** No.

(xv) **Municipal solid waste generated disposal facility:**

(xvi) **National Park/ Wild Life Sanctuary in 10 km radius area & Eco-**

Sensitive Zone in 10 km radius area: There is no national park, wildlife sanctuary, biosphere reserved, eco-sensitive area etc. within 10 km radius of the proposed project road.

(xvii) **If the project involves diversion of forest land, extend of the forest land:** Total length of forest along the proposed project road is 2.259 km (0.444 km in Madhya Pradesh and 1.815 km in Maharashtra). Total Forest land required to be diverted for the proposed project is approx. 10.1389 ha, out of which 1.8596 ha is located in Balaghat District of Madhya Pradesh and 8.2793 ha land is located in Gondia district of Maharashtra.

Package	State	District	Forest Division	Approx. Area to be diverted (Ha)	Type of Forest
Package 1A	Madhya Pradesh	Balaghat	South Balaghat (T)	1.9093	Reserved & Protected
Package 1B	Maharashtra	Gondia	Gondia (Nagpur)	8.9797	Zupdi Jungle

Forest diversion proposal of Package-1A vide proposal no. FP/MP/ROAD/37874/2018 has been uploaded on 26 Dec 2018 and Package-1B vide proposal no, FP/MH/ROAD/37982/2018 has been uploaded on 31 Dec 2018. Both the proposals are under examination with the State Government.

(xviii) **Investment/Cost of the project:** INR 1,099.22 Crore.

(xix) **Benefits of the project:** Proposed project will Improved road network benefiting the local people; reduce the travel time, distance as well as transportation cost; boost socio-economic and tourism development along the project road; income of vulnerable and poor people will be increased; increase possibility of employment of semi-skilled and unskilled people living along the project road and its adjoining villages during the construction and operational period; will provide better driving conditions and road safety.

(xx) **Employment potential:** Approx. 320 during construction phase of 24 months and approx. 60 during operation phase.

(xxi) **If any court case pending for violation of the environmental laws:** No.

3.4.2 The proposal was considered in the 206th EAC meeting held on 24-25 January, 2019. The EAC after detailed deliberation **recommended the project for grant of Terms of Reference (ToR)**, and for preparation of EIA/EMP report with public consultations subject to compliance of all conditions as notified in the standard ToR applicable for such projects and specific conditions, as mentioned below:

(i) Cumulative Impact Assessment study to be carried out for entire length of proposed alignment including any other alignment in this stretch.

(ii) Certificate is to be obtained from Chief Wildlife Warden that the proposed

	alignment is not passing through any Wildlife Corridor/Sanctuary/National Park/Any Tiger Reserve. (iii) Carry out detailed traffic study to assess inflow of traffic from adjoining areas like airport/urban cities. (iv) Study to be carried out on Acoustic and Light Proofing measures considering the Wildlife Institute of India manual and other studies by the reputed institutes on the matter. The study shall be carried by the qualified professionals, scientists from any national institute having requisite experience to conduct such study (v) Explore the possibility of alternative alignment as suggested by EAC. (vi) Source of water availability to be ascertained for construction and domestic need. Necessary permissions to be obtained from State Authority/CGWA, if any. (vii) Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers. (viii) Provide compilation of road kill data on existing roads (national and state highways) in the vicinity of the proposed project. (ix) Provide measures to avoid road kills of wildlife by the way of road kill management plan. (x) The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. (xi) A comprehensive plan for afforestation including minimum three times plantation by native species be provided. (xii) The fund provisions provided for CER, the expenditure details as per the plan shall be submitted.
3.5	Rehabilitation and Upgradation of National Highway-565 from km 133.922 to km 154.900 (length 20.978 km) of Guntur and Prakasam Districts in the state of Andhra Pradesh by M/s Roads and Building Department, Government of Andhra Pradesh- **Terms of Reference** [Proposal No. IA/AP/MIS/**89644**/2018] [F. No. 10-2/2019-IA.III]
3.5.1	The project proponent along with the EIA Consultant M/s Satra Infrastructure Management Services Pvt. Ltd., made a presentation and provided following information to the Committee: (i) The proposed proposal is for Rehabilitation and Up-gradation of NH-565 from KM 133.922 to 154.900 to two lanes with paved shoulder in the State of Andhra Pradesh under NHDP IV. Total Length of the proposed project is

	20.978 Km. (ii) **Location:** It starts near Davupally and ends near Mallapalem Junction village. It passes through Guntur and Prakasam districts in the state of Andhra Pradesh. (iii) **Land use of the site and around the site up to 10 km radius:** The proposed alignment majorly comprises of forest and settlement area with patches of agriculture. (iv) **Land Acquisition and Proposed RoW:** Approx. 54.00 (Revenue + Forest) ha of land is required for the proposed road. The existing road is of single lane with 3.5m BT width. Hence, the proposed project is to 2-lane with paved shoulder of 10m BT width. (v) **Justification for selection of the site:** The existing road between Davupally to Mallapalem Junction is a narrow BT road and has been declared as National Highway. The road mainly passes through (1) Mutukuru Reserve Forest & (2) Markapur Reserve Forest under Markapur WLM Division. About 8.278 Km is under Mutukuru RF and 9.800 Km is under Markapur RF. These stretches are a part and parcel of NH-565 and needs to be widened to National Highway Standards. Now-a-days, there is a significant increase in the traffic- flow along the stretch. There is no alternative route for the road stretch. This road after completion will provide good connectivity between the Guntur & Prakasam Districts of Andhra Pradesh, and also newly formed Telangana State. (vi) **Total water requirement and its source:** A total of 250 KLD water shall be required during construction phase, which will be sourced through tankers from surface water bodies after necessary approvals. (vii) **Water bodies, diversion if any:** Not Applicable. (viii) **CETP:** Not Applicable. (ix) **Terrain, level with respect to MSL, requirement of filling if any:** Plain & Rolling Terrain with Max MSL (250m) and Min MSL (350m). (x) **Tree cutting, types, numbers, girth size etc.:** 1322 no. of trees to be affected. (xi) **Rehabilitation involved if any:** 42 Persons. (xii) **Whether the project is in Critically Polluted area:** No. (xiii) **Municipal solid waste generated disposal facility:** Municipal solid waste shall be generated from the labour camps. The solid waste will be collected & disposed suitably in compost pit and / or transported in covered trucks at

	approved municipal disposal sites through contractors. (xiv) **National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area:** Project falls within 10 km of Nagarjunasagar- Srisailam tiger Reserve Buffer Zone. The project road is 2.5 Km from NSTR zone (xv) **If the project involves diversion of forest land, extend of the forest land:** Yes, 54.00 Ha of Forest land will be involved. (xvi) **Investment/Cost of the project:** INR 191.707 Crore. (xvii) **Benefits of the project:** Due to this project, there will be a significant reduction in travel time through the RF. The traffic congestion and accident issues will be eliminated. Significant savings in fuel will be realized contributing to lesser pollution and green footprint, thereby significantly boosting the productivity. (xviii) **Employment potential:** Approximately 300 employees will be working directly/indirectly in the project during entire construction /operation and maintenance period. (xix) **If any court case pending for violation of the environmental laws:** No.
3.5.2	The proposal was considered in the 206th EAC meeting held on 24-25 January, 2019. The EAC after detailed deliberation **recommended the project for grant of Terms of Reference (ToR)**, and for preparation of EIA/EMP report with public consultations subject to compliance of all conditions as notified in the standard ToR applicable for such projects and specific conditions, as mentioned below: (i) The proposed road considered for rehabilitation and upgradation is parallel to Nagarjunasagar-Srisailam Tiger Reserve. Certificate from Chief Wildlife Warden is to be obtained on probable locations/sighting places through which tiger crosses to another side mentioning chainage along the proposed alignment. (ii) Traffic density study along with Cumulative Impact Assessment Study to be carried out. (iii) Explore the possibility of reducing the forest land involvement in this project. (iv) Submit the detailed justification for the proposed alignment width and also the change in alignment width options with 18m, 25m and 30m along with environmental point of view and. cost benefit analysis (v) Submit the details of tree cutting along the proposed alignment. (vi) NOC for water for construction to be obtained. (vii) Wild Life clearance to be obtained. (viii) Permission from National Tiger Conservation Authority to be obtained. (ix) Source of water availability to be ascertained for construction and domestic need. Necessary permissions to be obtained from State Authority/CGWA, if any. (x) Rain water harvesting structures to be constructed at the either sides of the road

	with special precaution of oil filters and de-silting chambers. (xi) Provide compilation of road kill data on existing roads (national and state highways) in the vicinity of the proposed project. (xii) Provide mitigative measures to avoid road kills of wildlife along with the plan. (xiii) The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. (xiv) A comprehensive plan for afforestation including minimum three times plantation by native species be provided. (xv) Impact of proposed upgradation on movement of wildlife must be considered in the impact assessment study. (xvi) The fund provisions provided for CER, the expenditure details as per the plan shall be submitted.
3.6	Development of 6-Lane Access Control Bhopal-Indore greenfield Expressway (length 146.88 km) in the State of Madhya Pradesh by M/s Madhya Pradesh Road Development Corporation **- Terms of Reference** [Proposal No. IA/MP/MIS/**82627**/2018] [F. No. 10-3/2019-IA.III]
3.6.1	The project proponent along with the EIA Consultant M/s Feedback Infra Pvt. Ltd., Gurugram, made a presentation and provided following information to the Committee: (i) Bhopal – Indore 6 lane Greenfield Expressway, the proposed expressway starts near Itaya Kalan Village on Bhopal Bypass at NH-12 and terminates at NH-59A near Karnawad Village. Geographical Coordinates of start and end point are 23°3'52.68"N, 77°32'26.96"E to22°42'58.32"N, 76°13'44.42"E to Indore. The total length of proposed expressway is approx.146.880 km, in the state of Madhya Pradesh by M/s Madhya Pradesh Road Development Corporation Limited (MPRDC). (ii) **Location:** The proposed project is traverse through Raisen, Bhopal, Sehore and Dewas district in the state of Madhya Pradesh. The proposed project alignment shall start from Bhopal bypass at NH-12 at Itaya Kalan (23°3'52.68"N, 77°32'26.96"E) and traverses entirely through plain / rolling terrain and ends near Karnawad village at NH-59A (22°42'58.32"N, 76°13'44.42") in the district of Indore, Madhya Pradesh State. (iii) **Land use planning:** Land use of the site and around the site up to 10 km radius: Agricultural, barren, habitation and forest areas. (iv) **Justification for selection of the site:** Four alignment options (3 Greenfield and one existing) were analyzed for the project and comparison has been drawn based on Techno-commercial characteristics (details provided in analysis of alternatives). Major technical aspects for comparative analysis were environment, social and design concepts. Efforts were made to avoid the forest, wildlife and settlement areas to the maximum extent

	possibilities. (v) **Total water requirement and its source:** Water requirement, source, status of clearance: 87,32,402 KL water shall be required during the construction phase of the project which shall be arranged from tanker supply. (vi) **Municipal waste:**1850.0 kg / day (approx.) during construction phase. (vii) **Water bodies diversion, if any**: If the project involves diversion of forest land, extend of the forest land: The proposed stretch passes through 25 water bodies (rivers, canals and ponds). Suitable structure like bridges, culvert, etc. is proposed to mitigate the project associated impact. (viii) **Tree cutting, types, numbers, girth size etc:** The alignment will require cutting of approximately 21146 nos. of trees. (ix) **Rehabilitation involved if any:** The details of structures to be rehabilitated or resettled shall be provided in the EIA report. (x) **Whether the project is in Critically Polluted area:** No (xi) **If the project falls within 10 km of eco- sensitive area, Name of eco-sensitive area and distance from the project site**: National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area: Ratapani Wildlife Sanctuary is about 1.3 km (xii) **Investment/Cost of the project:** INR 3158.83 Crore (xiii) **Employment potential:**3700 (during construction phase of 3 years) (xiv) **Benefits of the project:** The project will provide a better connectivity to Raisen, Bhopal, Sehore and Dewas district in the state of Madhya Pradesh. It will gear up the economic growth of the region by providing time optimised reach to the wide market of Bhopal and Indore. The project will provide direct employment during construction phase; and also, temporary indirect employment for Vendors, suppliers, electricians, plumbers and other allied industries and permanent indirect employment during the operations phase. The implementation will result in employment generation for cleaners, guards, local vendors, kiosk operators, drivers, doctors etc. (xv) **If any court case pending for violation of the environmental laws:** No.
3.6.2	The proposal was considered in the 206th EAC meeting held on 24-25 January, 2019. The EAC after detailed deliberation **recommended the project for grant of Terms of Reference (ToR)**, and for preparation of EIA/EMP report with public consultations subject to compliance of all conditions as notified in the standard ToR applicable for such projects and specific conditions, as mentioned below: (i) Carry out detailed traffic study to assess inflow of traffic from adjoining areas like airport/urban cities.

	(ii) Study to be carried out on Acoustic and Light Proofing measures considering the Wildlife Institute of India manual and other studies by the reputed institutes on the matter. The study shall be carried by the qualified professionals, scientists from any national institute having requisite experience to conduct such study (iii) Certificate from the Chief Wildlife Warden confirming that the proposed alignment is 1.3 km distance from Ratnapani Wildlife sanctuary. (iv) Explore the possibility of reduction of forest land involvement in the proposed alignment. (v) Source of water availability to be ascertained for construction and domestic need. Necessary permissions to be obtained from State Authority/CGWA, if any. (vi) Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers. (vii) Provide compilation of road kill data on existing roads (national and state highways) in the vicinity of the proposed project. (viii) Provide measures to avoid road kills of wildlife by the way of road kill management plan. (ix) The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. (x) A comprehensive plan for afforestation including minimum three-time plantation by native species be provided. (xi) The fund provisions provided for CER, the expenditure details as per the plan shall be submitted.
3.7	Development of 4-laning of Chitrakoot-Kothi Section of NH-135BG start at Village Chakla Rajrani, District Chitrakoot, Uttar Pradesh (km 0.000) and ends at Village Nayagaon, District Satna, Madhya Pradesh (km 55.000) by M/s National Highways Authority of India **- Terms of Reference** [Proposal No. IA/MP/MIS/**87756**/2018] [F. No. 10-4/2019-IA.III]
3.7.1	The project proponent along with the EIA consultant M/s Intercontinental Consultants and Technocrats Pvt. Ltd., New Delhi, made a presentation and provided the following information to the Committee: (i) The proposal involves Development of 4 laning of Chitrakoot - Kothi Section of NH 135BG from km 0.000 to km 55.000(Package-I) under Bharatmala Pariyojana ((Lot-1 / Madhya Pradesh / Package -6). Length of the existing stretch is about 56.587 Km and length of proposed project road is 55.0 km; out of which 8.680 km stretch is in the State of Uttar Pradesh and 46.320 km is in the State of Madhya Pradesh. (ii) **Location:** The proposed project road originates from the existing NH-35 (old NH-76) at Chakla Rajrani village of Chitrakoot district (Km. 0+000) in the

		State of Uttar Pradesh and ends at Nayagaon village of Satna District (Km. 55+000) in the State of Madhya Pradesh. The proposed alignment is passing through 1 Tehsil (Karvi) & 14 villages of Chitrakoot district of Uttar Pradesh and 3 Tehsils (Majhgawan, Birsinghpur, Raghuraj Nagar) & 20 villages of Satna district of Madhya Pradesh. (iii) **Land use of the site and around the site up to 10 km radius:** Predominant land use pattern of the site and around the site up to 10 km radius is agricultural followed by forest, residential, commercial, barren land, water body etc. (iv) **Land Acquisition and Proposed RoW:** Total land to be acquired for the proposed project is 268.834 ha out of which 196.47 ha is private land and 72.364 ha is government land. The existing RoW varies between 25 m to 30 m and Proposed ROW shall be 70 meter in general outside forest area and in forest area, a minimum 32m and maximum 40m RoW has been adopted. At location of junctions, bus bays, truck lay bye, toll plaza, VUP / Flyovers and interchange, extra land to be provided in addition to above mentioned ROW as per the actual design requirement. (v) **Justification for selection of the site:** Chitrakoot is a famous religious place and during religious festival, it was observed that, the congestion situation is serious. Traffic movement along the existing road is very critical. Due to presence of market and religious structures along existing road, widening along existing road will involve large scale demolition and will create social unrest. Hence to avoid these hindrances, a bypass has been proposed at Chitrakoot. Near village Pindra, within a short stretch of 3.5 km (existing km 28+500 to Km 32+000), there are 8 substandard horizontal curves having radius of 75m, 100m and 180m and habitation are along the existing road with building line clearance of 31m. Improvement along existing road including curve improvement will involve demolition of structures. Hence a small realignment of 3.35 km has been proposed. At Km 32+500 (design Km 31+300) the alignment crosses Mandakini river and traverses in Uttar Pradesh for a length of 1 km. Due to presence of habitation and the river is running parallel to the existing road. The existing horizontal radiuses are about 60 and 160m between Km 32+600 to Km 34+450(existing). Improvement along existing is not feasible on right side. Hence to avoid such constraints realignment of about 1.6 length km has been proposed. Various options were analysed for the proposed bypasses and comparison has been drawn based on Technical, Environmental and Social Considerations (details provided in analysis of alternatives). Considering the need to minimize land acquisition in majority section eccentric widening has been adopted. (vi) **Total water requirement and its source:** Total water requirement for 24 months of construction period is 13,75,000 KL (1,883 KLD). It would be sourced from surface (40%) and ground water (60%). The required

permission will be obtained by the Contractor prior to construction as per law.

(vii) **Waste water generation, treatment and disposal:**

(viii) **Water bodies, diversion if any:** The proposed alignment is crossing Bagdhara Nala at Ch. 22+800, Paisuni River at Ch. 32+000 and Thadi Pather Nala at Ch. 53+450.

(ix) **CETP:** Not Applicable.

(x) **Terrain, level with respect to MSL, requirement of filling if any:** The alignment is passing through plain and undulating terrain with elevation ranges from 140m to 400m AMSL.

(xi) **Utilization of Fly Ash:** There are three Thermal Power Plants (TPPs) within 300 km of the proposed project road. Fly ash from the above mentioned TPPs will be utilized for construction of road embankment as per IRC Guidelines (IRC:SP:58-2001). Quantity of fly ash requirement in Package-I is 1,251,134.00 cum.

(xii) **Tree cutting, types, numbers, girth size etc.:** Tentative Number of Trees to be felled along existing Road is given below:

Design Chainage	Package	Girth Size wise Number of Trees					Major Species
		30 to 60 cm	60 to 90 cm	90 to 180 cm	>180 cm	Total	
0+000 to 55+000	I	2686	224	119	55	3,084	*Shorearobusta*; *Tectonagrandis*;*Ficusreligiosa*; *Dalbergialatifolia*; *Mangiferaindica*; *Azadirachtaindica*; *Syzygiumcumini* etc.
Grand Total		**2686**	**224**	**119**	**55**	**3,084**	

Actual numbers of government and private trees are to be felled can be ascertained after completion of Joint Measurement Survey (JMS) with appropriate authorities. The details will be provided in the EIA Report.

(xiii) **Rehabilitation involved if any:** Initial enumeration reveals an impact on approx. 155 properties (Private, Religious, Community and Government). Actual details will be provided in the EIA Report.

(xiv) **Whether the project is in Critically Polluted area:** No.

(xv) **Municipal solid waste generated disposal facility:**

(xvi) **National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area:** Ranipur Wildlife Sanctuary is located on the left side of the project road and nearest distance of the Sanctuary from the road is 1.239 km at Ch. 36+550. The proposed project road is located outside the ESZ of the Ranipur Wildlife Sanctuary as per MoEFCC Notification [S.O. 3573(E)] dated 9th November 2017 (extent of ESZ is 1 km all around the

boundary of the Raniput Wildlife Sanctuary). Nearest distance of the ESZ boundary from the design center line is 199 m at Ch. 36+550.

(xvii) **If the project involves diversion of forest land, extend of the forest land:** Total length of forest along the proposed project road is 23.069 km. Total Forest land required to be diverted for the proposed project is 91.9260 ha, out of which 2.0935 ha is located in Chitrakoot District of Uttar Pradesh and 89.8325 ha land is located in Satna district of Madhya Pradesh.

Package	State	District	Forest Division	Approx. Area to be diverted (Ha)	Type of Forest
Package 1A	Uttar Pradesh	Chitrakoot	Chitrakoot (Karvi)	2.0935	Road side Protected Forest
Package 1B	Madhya Pradesh	Satna	Satna(T)	89.8325	Reserved / Protected Forest

Forest diversion proposal of Package-1A vide proposal no. FP/UP/ROAD/36810/2018 has been uploaded on 30thOctober, 2018 and Package-1B vide proposal no, FP/MP/ROAD/36727/2018 has been uploaded on 25thOctober, 2018. Both the proposals are under examination with State Government.

(xviii) **Investment/Cost of the project:** INR 1,026.54 Crore.

(xix) **Benefits of the project:** Proposed project will Improved road network benefiting the local people& tourist; reduce the travel time, distance as well as transportation cost; boost socio-economic and tourism development along the project road; income of vulnerable and poor people will be increased; increase possibility of employment of semi-skilled and unskilled people living along the project road and its adjoining villages during the construction and operational period; will provide better driving conditions and road safety

(xx) **Employment potential:** Approx. 320 during construction phase of 24 months and approx. 60 during operation phase.

(xxi) **If any court case pending for violation of the environmental laws:** No.

3.7.2 The proposal was considered in the 206th EAC meeting held on 24-25 January, 2019. The EAC after detailed deliberation **recommended the project for grant of Terms of Reference (ToR)**, and for preparation of EIA/EMP report with public consultations subject to compliance of all conditions as notified in the standard ToR applicable for such projects and specific conditions, as mentioned below:

(i) Impact of proposed upgradation on movement of wildlife should be considered in the impact assessment study. The impact assessment should be carried out in 3 phases:

- Before starting rehabilitation and upgradation work

	• During rehabilitation and upgradation work • After rehabilitation and upgradation. (ii) Study to be carried out on Acoustic and Light Proofing measures considering the Wildlife Institute of India manual and other studies by the reputed institutes on the matter. The study shall be carried by the qualified professionals, scientists from any national institute having requisite experience to conduct such study (iii) Certificate from the Chief Wildlife Warden confirming that the proposed alignment is 1.239 km distance from ESZ of Ranipur Wildlife sanctuary. (iv) Source of water availability to be ascertained for construction and domestic need. Necessary permissions to be obtained from State Authority/CGWA, if any. (v) Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers. (vi) Provide compilation of road kill data on existing roads (national and state highways) in the vicinity of the proposed project. (vii) Provide measures to avoid road kills of wildlife by the way of road kill management plan. (viii) The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. (ix) A comprehensive plan for afforestation including minimum three times plantation by native species be provided. (x) The fund provisions provided for CER, the expenditure details as per the plan shall be submitted.
3.8	Development of new proposed National Highway NH-754K greenfield alignment Sanchore - Santalpur section (Economic Corridor-3) starting from Vantdau in Banaskantha district to Ranmalpura in Patan district in the State of Gujarat (approx. 124.6 km) by M/s National Highways Authority of India (NHAI) **– Further consideration of Terms of Reference** [Proposal No. IA/GJ/MIS/**75732**/2018] [F. No. 10-60/2018-IA.III]
3.8.1	The project proponent along with the EIA consultant M/s Amaltas Enviro Industrial Consultant LLP, New Delhi made a presentation and provided the following information to the Committee: (i) The proposal involves Development of new NH-754K Greenfield alignment from Sanchore to Santalpur road section (Ch. 6+000 to 129+636) (EC-3 starting from Vantdau, in Banaskantha district to Ranmalpura in Patan district, approx. 124.6km) by M/s National Highways Authority of India (NHAI) in the

	state of Gujarat. (ii) **Location:** The proposed project is traverse through Banaskantha and Patan district in the state of Gujarat. The project passes through major 39 villages (approx.). (iii) **Proposed RoW:** 70m. (iv) **Land use of the site and around the site up to 10 km radius:** The general landuse pattern is agriculture followed by residential and commercial. (v) **Total water requirement and its source:** The source of water shall be assessed during detailed study. (vi) **Waste water generation, treatment and disposal:** Mobile toilets with package STP will be provided for the workers in construction phase. Toilets and STPs shall be provided in the amenities area during the operation phase. Details will be furnished in EIA report. (vii) **Water bodies, diversion if any:** There are no rivers crossing the route, but there are 3 major canals which are crossing the proposed alignment at chainage 93+500near Kilana Village, 112+100 near Patanka village and at 123+700 near Kalyanpura village. (viii) **If the project involves diversion of forest land, extend of the forest land:** No. (ix) **Tree cutting, types, numbers, girth size etc.:** The alignment will require cutting of approximately 797no. of trees (including forest area). Detailed assessment shall be made during detailed study. (x) **Whether the project is in Critically Polluted area:** No. (xi) **Municipal solid waste generated disposal facility:** Total 137.5 kg/day of municipal waste is expected to be generated during construction considering 550labours. During operation phase, the municipal solid waste generated from the 42amenities proposed along the alignment. Waste management during construction and operational phase shall be done as per Solid Waste Management Rules, 2016. (xii) **National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area:** The proposed project neither passes through any Sanctuary/National Park nor falls within 10 km boundary of the Protected Area under Wildlife Protection Act. (xiii) **If, the project involves diversion of forest land, extend of the forest land:** The alignment also passes through Reserved forest area, i.e., Jamvada Reserves Forest near Jamvada village, Patanka Reserved Forest near Patanka Village and Madhutra Reserved Forest near Santalpur village. Total forest area to be diverted shall be approximately 39.9 Ha. (xiv) **Investment/Cost of the project:** INR 2000 Crore (approximately) (xv) **Benefits of the project**: The entire region will be benefitted from the Project, while the project area will gain through economic development and increased access to markets and social services. (xvi) **Employment potential:** Approx. 550 labours shall be employed per day

	generating 1,10,000 man-days of employment. (xvii) **If, any court case pending for violation of the environmental laws:** No
3.8.2	The proponent along with the EIA consultant made presentation before EAC during its 195thmeeting held on 30-31 August, 2018. The observations of EAC are as under: (i) The presentation does not cover all the aspects desired for examination of the proposal for grant of ToR. (ii) There is discrepancy in the figures mentioned in length of the proposed alignment. (iii) Proponent is required to revise the proposal as well as Form-1 in tune with the notification related to proposed highway issued by the MoRT&H.
3.8.3	Based on detailed deliberations during its 195th meeting on 30-31 August, 2018, the proposal for 'Development of new proposed National Highway NH-754K greenfield alignment Sanchore - Santalpur section (Economic Corridor-3) starting from Vantdau in Banaskantha district to Ranmalpura in Patan district in the State of Gujarat' is deferred for reasons mentioned in preceding para. EAC observed that the proposed stretch is important form ecological and environmental point of view. Therefore, it is recommended to conduct a site visit by a sub-committee of the EAC before the proposal is considered further.
3.8.4	The proposal was considered in the 206th EAC meeting held on 24-25 January, 2019. The EAC after detailed deliberation **recommended the project for grant of Terms of Reference (ToR)**, and for preparation of EIA/EMP report with public consultations subject to compliance of all conditions as notified in the standard ToR applicable for such projects and specific conditions, as mentioned below: (i) A comprehensive study is thus required to understand the impact of the proposed alignment on the salt pans, water birds and water draining patterns and changes that can occur especially during rains and flood times. (ii) A detailed map of Wild Ass distribution and their movement along the proposed alignment and crossover sites needs to be prepared (iii) A certificate to be obtained from Chief Wild Life Warden, Government of Gujarat about feasibility of the alignment passing through only sanctuary for Wild Ass conservation in the country. It should also be ascertained that the proposed alignment is not bifurcating the Wild Ass Sanctuary affecting movement of Wild Ass. If necessary an alternate alignment needs to be explored. (iv) A certificate to be obtained from Chief Wild Life Warden, Govt. of Gujarat that the proposed alignment is not passing through ESZ area of Wild Ass Sanctuary. (v) Carry out detailed traffic study to assess inflow of traffic from adjoining areas like airport/urban cities. (vi) Study to be carried out on Acoustic and Light Proofing measures considering the Wildlife Institute of India manual and other studies by the reputed institutes on the matter. The study shall be carried by the qualified professionals,

	scientists from any national institute having requisite experience to conduct such study (vii) Source of water availability to be ascertained for construction and domestic need. Necessary permissions to be obtained from State Authority/CGWA, if any. (viii) Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers. (ix) Provide compilation of road kill data on existing roads (national and state highways) in the vicinity of the proposed project. (x) Provide measures to avoid road kills of wildlife by the way of road kill management plan. (xi) The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. (xii) A comprehensive plan for afforestation including minimum three times plantation by native species be provided. (xiii) The fund provisions provided for CER, the expenditure details as per the plan shall be submitted.
3.9	Construction of 8-lane Sohna-Ferozepur Jhirka Expressway of length 79.5 km from Dhunela at NH -248A, village Sohna to Haryana-Rajasthan-Border, near Ferozepur Jhirka, District Nuh, Haryana by M/s National Highways Authority of India **- Environmental Clearance** [Proposal No. IA/HR/NCP/91195/2018] [F. No. 10-52/2018-IA.III]
3.9.1	The project proponent along with the EIA consultant M/s Enviro Infra Solutions Pvt. Ltd., GZB, made a presentation and provided the following information to the Committee: (i) The proposal involves construction of Eight Lane Expressway from Sohna to Ferozepur Jhirka in the state of Haryana. The proposed highway project has been envisaged through an area which shall have the advantage of simultaneous development as well as shall result in a shorter distance to travel. The length of the proposed alignment is approx. 78.8 km. (ii) **Location:** The proposed project road starts at Dhunela/Alipur at Gurugram-Alwar Road (NH-248A) and ends at Haryana-Rajasthan Border Kolgaon village Ch. 78+800 near Ferozepur Jhirka in Nuh district in state of Haryana (iii) **Land Acquisition and Proposed RoW:** Total Land Acquisition is 883.99 Ha (Private Land: 852.99 Ha, Government Land: 10.31 Ha and Forest Land: 20.68 Ha) and RoW is 100m. (iv) **Land use details within 10 Km:** The existing land use around the

		proposed expressway primarily comprises of agricultural land both under private and government ownership, land for cattle grazing, village settlements and village ponds/canals. The proposed alignment passes mostly through uninhabited area avoiding village establishments. The agriculture practiced is mostly multicrop due to the network of canals and main crops grown in the area are Wheat, jowar, bajra etc. The major habitations along the expressway corridor are Sohna, Nuh, Garhi Bazidpur, Abheypur, Lakhubas, Zakhopur, Alipur, Udaka, Bhirawati, Rampur, Karamchandpur, Jaisinghpur, Kailinger, Taj Pur, Bhupawli, Jajuka, Naurangabad, Mandkola, Ribbar, Khan Mohammadpur, Khuspuri, Sukhpuri, Umri, Kaligoan, Doha, Ghata Shamshabad, Shahmirbas, Bahadri, Dunghran Shahzadpur, Pondri, Chandaka, Mirka, Lakaka, Mehluka, Akbarpur Natol. (v) **Justification for selection of the site:** The environmental impact assessment is conducted in accordance with the requirement of the MoEF&CC norms and guidelines. Environment Impact Assessment Decision Supporting System (EIADSS) is used to identify the appropriate alignment of the project. The proposed alignment was selected based on which have less impact on environmental and social component (vi) **Total water requirement and its source:** The peak water requirement is 7300 KLD during construction stage and will be extracted from local surface water resources i.e. from nearby canals (vii) **Details of water bodies, diversion if any:** There are 14 Canals, 03 Nalas, 02 nalas / unlined canals and 04 Ponds falling within the proposed RoW of alignment. (viii) **Rain water harvesting:** Rainwater harvesting shall be proposed as per IRC-SP-58 and Rs. 1.03 Crores provided in budget for the same. (ix) **Terrain, level with respect to MSL, requirement of filling if any:** The proposed alignment does not pass through any low lying areas. (x) **Utilization of Fly Ash:** Badarpur Thermal Power Station, Badarpur (30 km), NTPC Dadri Thermal Power station (60 km) and Panipat Thermal Power Station, Panipat (125 km) are falling within 300 km of proposed project alignment. Fly ash will be used minimum 30 % of the earth work as per Government policy. (xi) **Tree cutting, types, numbers, girth size etc.:** Approx. 4732 no. of trees are likely to be felled. At least, thrice numbers of trees for each tree to be cut will be planted as a part of compensatory afforestation. Green belt development along proposed expressway. Plantation of about 47,280 trees (three row plantations on either sides of the proposed expressway) proposed. Shrub plantation and grass carpeting in median is also

proposed. The common trees/species along the alignment were *Azadirachtaindica* (neem), *Acacia nilotica* (Desi Bawal), *Prosopisjuliflora* (Babool), *Eucalyptus globulus* (Nilgiri), *Phyllanthusemblica* (Amla), *Cassia fistula* (Amaltas) etc.

(xii) **Green belt development (20 % of construction projects and 33 % for others)**: Green belt development will be done as per IRC SP 21:2009/MoRTH Code/Guidelines. Plantation of about 47,280 trees (three row plantations along either sides of proposed highway) has been proposed. Shrub plantation and grass carpeting in median is also proposed.

(xiii) **Whether the project is in Critically Polluted area:** No.

(xiv) **National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area:** The proposed alignment does not pass through any Wildlife Sanctuary/National Park and Eco-Sensitive Zone.

(xv) **If the project involves diversion of forest land, extend of the forest land:** Yes, 20.68 ha of forest land involved in the project. The proposal for forest clearance is yet to be applied with MoEF&CC.

(xvi) **CRZ area, if any:** The project does not pass through any CRZ area.

(xvii) **ToR details:** ToR was issued vide letter No. 10-52/2018-IA.III dated 12th September, 2018.

(xviii) **Public Hearing:** The Public Hearing was conducted at three locations, the details are:

17th December, 2018 in District Nuh, Haryana
27th December, 2018 in District Palwal, Haryana,
28th December, 2018 in District Gurugram, Haryana,

The major issues raised during the public hearing were related to compensation of land and their payment on the name of landlord or leaseholders.

S.No	Issue Raised	Response of PP
1	The land is on lease by farmers. They have done proper registry on stamp. They have paid the money to landlord but the land is still on the name of landlord. How will farmers get the compensation of money that they have paid to	Submit application to DRO and NHAI with proper documents to hold the payment for specific property.

	landlord	
2	The land dispute case has been filed in the court and under process. How will the compensation be awarded to the parties	Submit application to DRO Office with proper documents related to case.
3	How will NHAI compensate for open tube wells within the path of highway	An inspection will be done on the site by Patwaris of that village and all measurements will be done based on which proper compensation will be awarded to the farmers.
4	How much compensation will be paid for the land.	Compensation will be paid after consultation with DRO and separate meeting will be done with all villagers and officers.
5	Land will divide into two parts due to highway. How will water cross the proposed road for irrigation purpose and what will happen to passage to fields.	Box culverts are being provided for the movement of pedestrians and vehicles. Pipes are being provided to cross the water from one side to other for irrigation purposes.

(xix) **Investment/Cost of the project:** INR 2960 Crore.

(xx) **Employment:** During the construction of the road project around 200 persons would be employed temporarily for a period of 3 years. However due to construction of toll plazas approx. 50 persons will be employed on permanent basis. Preference will be given to local people for employment.

(xxi) **Benefits of the project:** The proposed highway is a part of an exclusive transport corridor from North-South Corridor and is being planned between Sohna to Ferozepur Jhirka by the Government of India. The proposed highway project with new alignment has been envisaged through an area which shall have the advantage of simultaneous development as well as shall result in a shorter distance to travel. The junctions with existing road will be planned in the form of interchanges and flyover to ensure uninterrupted flow of traffic.

(xxii) **Details of R&R plan**: Total PAFS are 10855 in terms of Land Acquisition & Structures. Total number of structures to be affected is 145. The compensation amount for the acquisition of land and structures will be determined by the competent Authority appointed under NH Act 1956. Resettlement Action Plan (RAP) including Land Acquisition Budget is **Rs.**

2329.5 Crores

(xxiii) **If any court case pending for violation of the environmental laws:** No.

3.9.2 The proponent along with the EIA consultant made presentation and informed before EAC during its 206th meeting held on 24-25 January, 2019. The observations of EAC are as under:

(i) The cumulative impact assessment of Sohna to Vadodara section to be done after completion of details study of entire stretch of Sohna to Vadodara.

(ii) There are 14 Canals, 03 Nalas, 02 nala/unlined canals and 04 Ponds falling within the proposed RoW of alignment. There is no river crossing along the proposed alignment. The details of water body to be affected within the RoW of proposed alignment are as under:

Sl. No.	Types of Water bodies	Chainage	Area (Sqm)	Mitigation measures
1.	POND	20+900	5046	Over bridge is provided over the pond
2.	POND	34+900	1550	Pond embankment protection with boulder pitching is provided, and major part will come under avenue plantation.
3.	POND	44+500	1100	Pond embankment protection with boulder pitching is provided.
4.	POND	45+600	3354	Pond embankment protection with boulder pitching is provided, and major part will come under avenue plantation.
		Total	**11050**	

(iii) The project is implementing under the Bharatmala Pariyojana as per MoRTH guidelines/direction. The land acquisition is at the final stage of proposed ROW 100m keeping in mind future development as well as development of Green Belt, landscaping and aesthetics. The construction is likely to be done within the stipulated ROW of 70m except under unavoidable circumstances like technical viability, topography and junction improvement at the intersections of other roads.

(iv) The proposed project does not pass through any notified National Park or Wild Life Sanctuary. The Certificate from Principal Chief Conservator of Forests & Chief Wildlife Warden ,Haryana was submitted The fund allocated for Corporate Environmental Responsibility (CER) is Rs. 14.87 Crore.

(v) The cost of environmental protection measures is estimated Rs. 15.19 crores.

3.9.3 The EAC, after detailed deliberations during 206th meeting held on 24-25 January, 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: **specific conditions** (i) The proposed conservation plan shall be implemented in a phased manner with a total cost of Rs 29.60 Crore within a period of Ten years in consultation with the Chief Conservator of Forests(Wildlife),Gurugram. (ii) Permission shall be obtained from Competent Authority, before drawing of water from irrigation canal for project activities. The State Pollution Control Board shall not issue Consent to Operate till the project proponent obtains such permission. (iii) The fund provisions provided for CER i.e. Rs. 14.87 Crores, the expenditure details as per the plan shall be submitted to the concerned Regional Office of the Ministry. (iv) 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.
Day 2: Friday, 25th January, 2019-01-22 **Time: 12:30 PM** **(Brahmaputra Conference Hall, 1st Floor, Vayu Wing)**	
4.1	Construction of 2/4 laning with paved shoulder NH configuration starts at Gopalpur Port, District Ganjam and ends at Ratnapur (length 240.122 km) in the State of Odisha by M/s National Highways Authority of India **- Terms of Reference** [Proposal No. IA/OR/MIS/**86510**/2018] [F. No. 10-5/2019-IA.III]
4.1.1	The project proponent along with the EIA consultant M/s Enviro Infra Solutions Pvt. Ltd., GZB, made a presentation and provided the following information to the Committee: (i) The proposal involves Development of new highway 516-A starts from its junction with NH-516 near Gopalpur Port and terminates at its junction with NH-316 near Satpada in the State of Odisha. The second part of the new highway 316-A starts from its junction with NH-316 near Konark connecting Ratanpur, Satabhaya, Dhamra, Basudevpur, Talapada, Chandipur, Chandaneswar in state of Odisha and terminating at Digha in the State of West Bengal. The present project stretch starts at Gopalpur port in Ganjam district and passes through Satapada, Konark, Astarang, Naugaon, Paradip Port and ends at Ratanpur. The length of the proposed alignment is approx. 240.122 km. (ii) **Location:** The project stretch starts at Gopalpur in Ganjam district and passes through Satapada, Konark, Astarang, Naugaon, Paradip Port and ends at Ratanpur. The length of the proposed alignment is approx. 240.122 km.

(iii) **Land use of the site and around the site up to 10 km radius**: The Land use pattern on 10 km on either side of the project road was analysed and is found to be predominately agriculture followed by fallow, wastelands, wetlands, saltpans, estuaries, rivers, forest and few habitations.

(iv) **Land Acquisition and Proposed RoW:** The land acquisition for the proposed alignment is approximately 996.25 ha out of which 33.6 ha is forest land. The proposed RoW of the project is 45 m.

(v) **Justification for selection of the site:** Three alternative alignments have been considered, option (i) on the left hand side of the proposed alignment, option (ii) Proposed alignment and option (iii) on the right hand side of the proposed alignment. The final alignment option (ii) is fixed as its length is less than other options, it is a Greenfield alignment, hence ease of construction, construction cost is also less as compared to alternative-1 and 3. However the alignments criss cross each other at various locations.

The proposed alignment has been selected due to the following reasons:

- Minimum disturbance to the habitations area.
- Avoiding of forest to the maximum possible extent.
- Better connectivity to ports.
- Overall economic development of the areas.
- Reduction in fuel consumption due to better geometrics and straight alignment leading to lesser pollution.

(vi) **Total water requirement and its source**: It is estimated that the proposed project will need around 3000 KLD which will be met through surface water sources and ground water proposed to be used only for camp site for transient period after obtaining the necessary from permissions from competent authority.

(vii) **Waste water generation, treatment and disposal:** Waste water shall be generated by workers which shall be treated in septic tanks.

(viii) **Water bodies, diversion if any:** There are 13 stream crossings namely Rushikulya River, Chilika Lake, Kushabhadra River, Kadua River, Prachi Nadi, Baradianadi, Borwan Nadi, Saunlia Nadi, Harhua Nadi, Gobari River, NuaNai River, Devi River and Mahanadi River.

(ix) **CETP:**

I. **Type of effluent, Quantity, effluent conveyance system from the member units to CETP –** Not Applicable.

II. **Treatment and usage of treated sewage -** Not Applicable.

(x) **Tree cutting, types, numbers, girth size etc**.: The alignment will involve cutting of around 24596 trees.

	(xi) **Rehabilitation involved if any:** The Project requires approx. 996.25 Ha. approx. land. Total 1410 no. of structures are coming in the proposed RoW. The land will be acquired as per procedure laid down in RFCT LARR Act, 2013. (xii) **Whether the project is in Critically Polluted area:** No. (xiii) **Municipal solid waste generated disposal facility:**250 kg/day (approx.) during construction phase and 30 kg/day (approx.) during operation phase. (xiv) **National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area**: Not applicable. (xv) **If the project involves diversion of forest land, extend of the forest land:** Yes, Forest area is identified along the alignment of area 33.6 Ha. The proposal for forest clearance is yet to be applied with MoEF&CC. (xvi) **Investment/Cost of the project:** INR 2196.49 Cr. (approx.) (xvii) **Benefits of the project:** The proposed project starts at Gopalpur in Ganjam district and passes through Satapada, Konark, Astarang, Naugaon, Paradip Port and ends at Ratanpur in the state of Orissa by the Government of India. The proposed highway with new alignment has been envisaged through an area which shall have the advantage of simultaneous development as well as shall result in a shorter distance to travel. The junctions with existing road will be planned in the form of interchanges and flyover to ensure uninterrupted flow of traffic diversion. The proposed road would act as the prime artery for the economic flow to this region. It will enhance economic development, provide employment opportunities to locals, strengthen tourist development, ensure road safety, and provide better transportation facilities and other facilities such as way side amenities. Vehicle operating cost will also be reduced due to improved road quality. The compensatory plantation and road side plantation shall further improve the air quality of the region. (xviii) **Employment potential:** During the construction of the road project around 500 persons would be employed temporarily for a period of 2.5 years. However due to construction of toll plazas approx. 60 persons will be employed on permanent basis. Preference will be given to local people for employment. (xix) **If any court case pending for violation of the environmental laws:** No.
4.1.1	*During deliberations of the 206th EAC meeting held on 25.01.2019,* EAC *noted that the proposed road starts near Bhitarkanika Wildlife sanctuary and further divides Balukhand Konark WLS and Chilika (Nalaban)Wildlife Sanctuary and Important Bird Area and it is winter home for millions of migratory birds from the Arctic and sub-Arctic*

	regions during their onward and return migration along the East Coast. Balukhand Konark WLS is a nesting site for Olive Ridley Sea Turtles. The pillers will have grave consequences on flow regime of 13 rivers and floodplains that it will pass through/over namely Rushikulya River, Chilika Lake, Kushabhadra River, Kadua River, Prachi Nadi, Baradianadi, Borwan Nadi, Saunlia Nadi, Harhua Nadi, Gobari River, NuaNai River, Devi River and Mahanadi River. Rushikulya and Devi River mouths are home to over million nesting olive ridley turtles. *As the* proposed alignment is passing through a number of Ecological Sensitive Areas as well as critical wildlife and wetland areas, hence, the EAC **out rightly rejected** the proposed alignment. The Proponent should explore the possibilities to find alternate alignment that is far away and to the west and beyond Chilika WLS of the current alignment to avoid disturbance to the wildlife especially water birds in Chilika Lake, Bhterkanika National Park and Olive Ridley Turtle Nesting sites in Balukhand Konark WLS for further consideration of ToR.
4.2	Construction of new link NH-133B (Ch. km.0.000) starts at proposed Sahibganj Bypass and meet at Ch.200.870 of NH-33 (old NH-80) (Design Chainage 1.800 of NH 133B) and ends at Ch.25.240 of NH-131A at Junction of NH-131A & NH-133B (Design Chainage 15.885 of NH-133B) including construction of 4-lane Ganga Bridge in the states of Bihar and Jharkhand **- Environmental Clearance** [Proposal No. IA/BR/NCP/**89734**/2018] [F. No. 10-62/2018-IA.III]
4.2.1	The project proponent along with the EIA Consultant M/s Aarvi Associates Architect, Engineers and Consultants Private Limited, made a presentation and provided following information to the Committee: (i) The proposal involves Construction of new link National Highway 133B (Design Chainage km. 0.000) starts at proposed Sahibganj Bypass and meet at Ch. 200.870 of NH-80 (new name NH-33) (Design Chainage 1.800 of NH 133B) and ends at Ch. 25.240 of NH-131A at Junction of NH-131A & NH-133B (Design Chainage 15.885 of NH-133B) including construction of 4-lane Ganga Bridge in the states of Bihar and Jharkhand. The length of the proposed road is 15.885 km. (ii) **Location:** Sahibganj, Sahibganj District, Jharkhand State and Manihari, Katihar district, Bihar. (iii) **Land Acquisition and Proposed RoW:** The proposed land acquisition for the proposed alignment is approx. 59.34 ha (Agriculture: 34 Ha, Waste/Barren: 5.34 & Grazing/community land: 20Ha). The proposed RoW

	is 60 m. (iv) **Land use of the site and around the site up to 10 km radius:** Cultivated and barren fields. (v) **Justification for selection of the site:** The environmental impact assessment is conducted in accordance with the requirement of the MoEF&CC norms and guidelines. Environment Impact Assessment Decision Supporting System (EIADSS) is used to identify the appropriate alignment of the project. (vi) **Total water requirement and its source:** Total requirement of water for the construction is estimated 4,40,617 Kl. During operation stage about 1KL of is anticipated. (vii) **Waste water generation, treatment and disposal:**0.8 KL, Treatment using bio-toilets during operation phase of the project. (viii) **Municipal solid waste generated disposal facility:** Surplus earth/ Construction & Demolition waste generation quantify of 646174 Cum is anticipated in the project and the same will be disposed at identified low lying areas in the project. (ix) **Rain Water Harvesting:** 40 nos. of Recharge pits are proposed in the project along the Right of Way. The budget provision of Rs 2.67 crores has been provided. (x) **Types of wastes, sources, collection, treatment, waste generation and disposal:** Sewage generating temporarily from labour camps will be discharged into septic tanks with soak pit facility. The solid wastes mainly of earth materials generated out of construction activities will be reused for rehabilitation of borrow area/quarry sites, camp sites and in temporary diversions and slopes. The municipal solid wastes generated in construction & workers camp will be disposed off to the nearest identified location of disposal/landfill sites of local authority with payments in environmentally acceptable manner. For sewerage disposal, septic tanks with soak pits will be provided at campsites. Salvage material/demolition wastes will be reused to the possible extent in embankments, shoulders, slopes, approach roads and temporary camp sites. Unused waste will be dumped in earmarked dump yard as per applicable guidelines. (xi) **Water bodies, diversion if any:** River Ganga is the major water body present in the core and study area. (xii) **Tree cutting, types, numbers, girth size etc.:** Prepare an action plan for about 36 nos. of trees to be felled in the project stretch. Proposed avenue and median plantation in the project are 15303 nos. (xiii) **Rehabilitation involved if any**: No rehabilitation is required for the proposed project. (xiv) **Whether the project is in Critically Polluted area:** No.

(xv) **National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area:** The project neither passes through any National park/ Wildlife Sanctuary/ Conservation reserve etc., nor falls within 10 km boundary of any Protected Area under Wildlife Protection Act 1972.

(xvi) **If the project involves diversion of forest land, extend of the forest land:** The proposed project does not involve diversion of any forest land.

(xvii) **ToR details:** The Ministry issued vide letter No. 10-62/2018-IA.III dated 08th October, 2018.

(xviii) **Public Hearing:** Since the project is falling under two districts and two states, the Public Hearing was conducted at two locations. The details of the Public Hearings are:

1. 10th November, 2018: The Public Hearing was conducted at Manihari, Katihar District, Bihar.
2. 20th November, 2018: Ambadiha village, Mandro Tehsil, Katihar District, Jharkhand:

The major issues raised during the public hearing and the response of PP are:

Major Issues raised	Response of PP
Asked for the information regarding present land value and amount to be given for resettlement and rehabilitation.	Project director said to contact DLO for related information.
Asked for the information regarding steps will be taken by government for the control of noise pollution and air pollution?	It was informed by the consultant that Noise pollution will control by planting 15303 trees in three rows. Water will be sprinkled three times in a day during construction period for control of air pollution. During operation the decrease in traffic congestion in the region will further reduce air pollution.
What is the solution of drainage system, connection of village roads with bridge and problem of cattle movement due to bridge construction?	The consultant replied that the provisions for the same are considered in design. The provision of Cattle underpasses also made in the project for

	their free movement without hindrance. Provision for Minor bridges and guide bund are also made in the project for the free flow natural water drainage system in the river Ganga.
What are the provisions made for soil erosion during floods?	Provision of stone pitching and guide bunds have been given in the design as informed by consultant.
What provisions are made for the connection of proposed bridge with other small roads and road going from Narayanpur to Azampur.	Consultant said that the provisions are made for connection between small village roads.
Proper safety should be given during the construction of bridge. In bridge construction while making any committee, villagers should also be appointed as member of committee. The water should be sprinkled, and trees should be planted in RoW of road. Also, the land compensation should be given.	This bridge will be constructed as per IRC guidelines. Based on the ability of the local people PD, NHAI will ensure their participation. There is a provision of sprinkling of water and tree plantation in the project.

(xix) **R&R Plan:** The proposed project has 648nos., of Project Affected Persons (PAPs) i.e., Sahibganj:383 nos & Manihari: 265nos. with a total area requirement of 59.34 ha. and no Project Affected Families were reported in the project. About 98% of the land acquisition is already completed in the project and an amount of Rs. 49.22 Crores budgetary provision is made in the Project.

(xx) **Investment/Cost of the project:** INR 2,598 Crore.

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

- **Social:** There will be improvements in economic growth of the surrounding areas due to establishment of more shops, industries, institutions, MNCs and other organizations. Improvement in economic and social welfare of nearby people. Increase in access to markets, jobs,

	education and health services. ➢ **Environmental:** Three rows of avenue plantations are proposed on both side of the road at most of the sections as per IRC SP 21, 2009. Avenue plants proposed in the region are *Albizzia lebeck, Albizzia proeera, Butea monosperma, Bauhinia variegata, Cassia fistula, Cassia siamea, Toona ciliata , Chikrassia tabularis, Calistemo nlanceolatus, Dalbergia sissoo, Emblica officinalis, Ficus sp, Gravellea robusta, Hardwickia pinnata, Lagerstroemia, thorii, Lagerstroemea floriginea, Morusalba, Mangifera indica, Ptero sp*. Considerable reduction in Air emission due to reduction of travel distance of 160 Kms. ➢ **Financial:** The proposed project stretch across river Ganga will reduce travel distance from approx. 180 km to approx. 15 km and it will enhance the traffic and goods transport to northern and north-eastern region. It will also provide connectivity between Jharkhand State and Bihar State. Project road will reduce transportation cost for both freight and passengers and increase in road safety. (xxii) **Employment potential:** (a) Permanent -During Construction: 300 nos. of person (b) Permanent -During Operation: 25 nos. of person (c) Temporary - During Construction: 2650 nos. of person (d) Temporary - During Operation: 25 nos. of person (e) Total Manpower: 3000 nos. of person (xxiii) **If any court case pending for violation of the environmental laws**: No court cases are present for the present proposed project.
4.2.2	The proponent along with the EIA consultant made presentation and informed before EAC during its 206th meeting held on 24-25 January, 2019. The observations of EAC are as under: (i) NoC was obtained from National Mission for Clean Ganga (NMCG) The minimum navigation height of 10m considered in the design of the bridge duly studying the comprehensive Hydrological studies in the project area. All the vents of the proposed bridge have a minimum clear span of 100m. The obstruction due to the piers causes negligible afflux of only 5mm. Thus, it can be assured that the flow pattern of the river will not be affected by the construction of this bridge for minimum navigation height of 10 m considered in the design of the bridge and all the vents of the proposed bridge have a minimum clear span of 100m (ii) There are no water bodies are falling within the Right of Way (RoW) of the alignment except, crossing of River Ganga. The only pond is located towards the LHS of the RoW near Sriram Chauki Village (Chainage Km. 0.800) at a distance of 350m in the project. The construction camp suggested near

	Sahibganj, which is about 1.0 Km away from this pond. The muck generation of 6,46,174 cum in the project shall be disposed in identified low lying areas i.e., Karni, Daminbhitu, Gobind nagar and Balva Ghati falling within 5 Kms of the study area. NoC was obtained Office of the Principal Chief Conservator of Forests, Bihar (Wildlife wing): (iii) The NOCs obtained from Additional Principal Chief Conservator of Forest – cum- Chief Wildlife Warden, Bihar, and Principal Chief Conservator of Forest, Jharkhand. Gangetic Dolphin Conservation Plan, which has been prepared in consultation with concerned forests officials & Bhagalpur University Expert. An amount of Rs.147.7 lakhs budgetary provision is also made in the EMP towards this aspect (iv) The social indicators developed for understanding the socio-economic profile of the project study area considered are i.e., economic growth, literacy rate, employment rate, fertility rate, health expenditure, income rates and standard of living. Duly considering the same an amount of Rs. 13.0 Crores provision is made towards the Corporate Environmental Responsibility (CER) to address the above social indicators aspects in the project. (v) NoC was granted from Inland Waterways Authority of India Construction of the River Ganga Bridge: (vi) The cost of environmental protection measures is estimated Rs. 22.2397 crores
	The EAC, after detailed deliberations during 206th meeting held on 24-25 January, 2019, **recommended the project for grant of Environmental Clearance**, with the following **specific conditions** in addition to all standard conditions applicable for such projects: **specific conditions** (i) Construction should be in dry season not in flood seasons (ii) The minimum navigation height of 10 m considered in the design of the bridge and all the vents of the proposed bridge have a minimum clear span of 100m and all NoC granted conditions by National Mission for Clean Ganga should be followed. (iii) NoC granted conditions by Inland Waterways Authority of India for Construction of the River Ganga Bridge should be followed. (iv) Gangetic Dolphin Conservation Plan along with protection measures should be implemented in consultation with Principal Chief Conservator of Forest (Wild Life), Government of Bihar with a fund provision of Rs. 147.70 lakhs and report shall be submitted to the concerned Regional Office of the Ministry. (v) Conservation plan to be prepared for smooth coated Otter in consultation with

	Principal Chief Conservator of Forest (Wild Life), Govt. of Bihar (vi) Permission shall be obtained from Competent Authority, before drawing of water from surface source for project activities. The State Pollution Control Board shall not issue Consent to Operate till the project proponent obtains such permission. (vii) The fund provisions provided for CER i.e. Rs. 13.00 Crores, the expenditure details shall be submitted to the concerned Regional Office of the Ministry. (viii) Soil erosion control measures to be taken during flood season.
4.3	Construction of New 4-lane NH-152D from Gangheri to Narnaul in District Mahendragarh, Haryana by M/s National Highways Authority of India**- Environmental Clearance** [Proposal No. IA/HR/NCP/**91009**/2018] [F. No. 10-48/2018-IA.III]
4.3.1	The project proponent along with the EIA consultant M/s Enviro Infra Solutions Pvt. Ltd. made a presentation and provided the following information to the Committee: (i) The proposal involves Construction of new 4 lane National Highway (NH152D) from Gangheri to Narnaul in the state of Haryana, under Bharatmala Pariyojana (Lot-6/Package-6). project highway starts at Gangheri (Ch-0+000) at New NH-152 (Old NH-65) (a village near Kurukshetra) and ends at Narnaul Bypass near Haryana-Rajasthan Border and passes through eight districts of Haryana i.e. Kurukshetra, Kaithal, Karnal, Jind, Rohtak, Bhiwani, CharkhiDadri, and Mahendergarh. The proposed highway project has been envisaged through an area which shall have the advantage of simultaneous development as well as shall result in a shorter distance to travel. The length of the proposed alignment is approx. 230 km. (ii) **Location:** The proposed project road starts at Gangheri (Ch-0+000) at New NH-152 (Old NH-65) (a village near Kurukshetra) and ends at Narnaul Bypass near Haryana-Rajasthan Border. The length of the proposed alignment is 230 km, which lies in Southern region of Haryana. (iii) **Land use of the site and around the site up to 10 km radius: –** The Land use pattern on 10 km on either side of the project road was analysed and is found to be predominately agriculture followed by fallow, wastelands, forest and few habitations. (iv) **Land Acquisition and Proposed RoW:** The land acquisition for the proposed alignment is approximately 1950.5 ha out of which 58.54 ha is forest land. The proposed RoW of the project is 70 m. (v) **Justification for selection of the site:** Three alternative alignments have been considered: i. Widening of Gangheri-Proposed Narnaul Bypass with proposed

bypasses at major districts/towns.

ii. The proposed alignment provides connectivity to Ambala and Rohtak, but passes through a lot of major built-up areas.

iii. Construction of New Four Lane national Highway (NH-152D) from Gangheri, District - Kurukshetra to Narnaul, District - Mahendergarh in the state of Haryana.

Keeping in view having less effect on Environmental and Social components, alignment (iii) has been fixed and it seems most feasible as the length is less as compared to the other Options. Also it provides better alternative from Pehowa – Rohtak - Narnaul. It will also cater away the traffic of NH-1 on itself.

The proposed alignment has been selected due to the following reasons:

- Minimum disturbance to the habitations area.
- Avoiding of forest to the maximum possible extent.
- Better connectivity.
- Overall economic development of the areas.
- Reduction in fuel consumption due to better geometrics and straight alignment leading to lesser pollution.

(vi) **Total water requirement and its source**: The peak water requirement is 15500 KLD during construction stage and will be extracted from local surface water resources i.e. from nearby canals. The work will be executed through contractor and will be furnished at EC compliance stage.

(vii) **Waste water generation, treatment and disposal:** Waste water shall be generated by workers which shall be treated in septic tanks.

(viii) **Water bodies, diversion if any:** 69 canals, 12 drains and water logged area will be impacted due to the proposed highway.

(ix) **Rain water harvesting:** Rainwater harvesting shall be proposed as per IRC-SP-58. The budget provision of Rs 2.67 crores has been provided.

(x) **Terrain, level with respect to MSL, requirement of filling if any:** The proposed alignment does not pass through any low lying areas.

(xi) **Utilization of Fly Ash:** Fly ash is available from Rajiv Gandhi Thermal Power Station, Khedar, Hissar (1200 MW) and Panipat Thermal Power Station (920 MW) power plant which are close to the proposed project and is located within 300 km. The 2788064 m^3 amount of fly ash will be used for the construction of the proposed project.

(xii) **Tree cutting, types, numbers, girth size etc.:** The alignment will involve cutting of around 3002 trees.

(xiii) **Green belt development (20% of construction projects and 33 % for others)**: Green belt development will be done as per IRC SP 21:2009 /MoRTH Code/Guidelines. Plantation of about 1,36,200 trees (three row plantations along proposed highway) has been proposed. Shrub plantation and grass carpeting in median is also proposed.

(xiv) **Rehabilitation involved, if any:** The Project requires approx. 1950.5 ha approx. land. Total 416 nos. of structures are coming in the proposed RoW. The land will be acquired as per procedure laid down in RFCT LARR Act, 2013.

(xv) **Whether the project is in Critically Polluted area:** No.

(xvi) **Municipal solid waste generated disposal facility:**600 kg/day (approx.) during construction phase and 100 kg/day (approx.) during operation phase.

(xvii) **National Park/ Wild Life Sanctuary in 10 km radius area & Eco-Sensitive Zone in 10 km radius area:** Not applicable.

(xviii) **If the project involves diversion of forest land, extend of the forest land:** Yes, Forest area is identified along the alignment of area 58.54 Ha. The proposal for forest clearance is yet to be applied with MoEF&CC.

(xix) **ToR details:** The Ministry issued ToR vide letter No. 10-48/2015-IA.III dated 12th September, 2018.

(xx) **Public Hearing:** The details of public hearing are as under:

(a) 10th December, 2018 in District Jind, Haryana
(b) 11th December, 2018 in District Kaithal, Haryana
(c) 12th December, 2018 at Assandh, District Karnal, Haryana
(d) 12th December, 2018 at District Kurukshetra, Haryana
(e) 12th December, 2018 at Narnaul, District Mohindergarh, Haryana
(f) 14th December, 2018 at Maham, District Rohtak, Haryana
(g) 14th December, 2018 at District Charkhi Dadri, Haryana
(h) 14th December, 2018 in District Bhiwani, Haryana

The major issues raised during the public hearing and the response of PP are:

S. No.	Question	Reply
1.	What measure will be taken to control Noise pollution & vehicle movement during construction?	The movement of vehicles will be managed and noise barriers will be provided.
2.	How will NHAI compensate for Open tube wells within the part of highways?	An inspection will be done on site by patwaris of that village and all the measurements will be done on the basis of which proper compensation will be awarded to farmers.
3.	What method will be adopted for electricity connection of tube wells?	The fresh estimate will be prepared by electricity department and cost will be

		paid by farmers.
4.	How much no. of trees to be cut & planted?	2975 nos. of trees be cut and 136200 nos. of plants be planted
5.	My land will divide into two parts due to highway, How will water cross the proposed road for irrigation purpose and what will happen to passage to fields?	Box Culverts are being provided for the movement of pedestrians and vehicles. Pipes are being provided to cross the water from one side to other fir irrigation purposes.
6.	Land dispute case has been filed in the court and under process. How will the compensation be awarded to the parties?	Submit the application to DRO official with proper documents related to case.
7.	There is dispute of land between two parties. How will the land and its compensation be awarded? How much compensation will be given to farmers?	File a case for partition in court with proper legal documents and follow the procedures. The rate of compensation will be decided by Govt. Officials keeping farmers welfare in mind.
8.	Whether the passages will be provided to reach villages and what provisions will be made to clear the rain water?	Passages will be provided to reach the villages. Total 177 Nos. of underpass will be provided and provision will be made to drain out the rain water from the underpass.
9.	What compensation will be paid?	Compensation will be paid after consultation with district revenue officer.
10.	During this construction my irrigation tube well electrical problem will occur, then what will be the solution in this regard?	300mm diahume pipe will be provided for crossing such type of electrical wire as per prescribed provision.
11.	What resolutions does the government have for the rehabilitation and employment of the villagers whose land are coming under the project?	The villagers whose lands are coming under the project will get fair compensation and with the money of this compensation they can establish new business. There is no planning for employment by the department but it can be discussed also.
12.	Will service lane be made along with road?	Where ever underpass has been given, there is provision of service lane for connectivity.
13.	What measure will be taken to control dust pollution during construction?	The vehicles will be covered and water sprinkling will be done.

(xxi) **Investment/Cost of the project:** INR 5108 Cr. (approx.)

(xxii) **Benefits of the project:** The proposed highway is a part of an exclusive transport corridor from North-South Corridor and is being planned between Gangheri to Narnaul by the Government of India. The proposed highway project with new alignment has been envisaged through an area which shall have the advantage of simultaneous development as well as shall result in a shorter distance to travel. The junctions with existing road will be planned in the form of interchanges and flyover to ensure uninterrupted flow of traffic. The proposed project will decongest the traffic at NH-1 and NH44.

(xxiii) **Employment potential:** During the construction of the road project around 1500 persons would be employed temporarily for a period of 3 years. However due to construction of toll plazas approx. 120 persons will be employed on permanent basis. Preference will be given to local people for employment.

(xxiv) **If any court case pending for violation of the environmental laws:** No.

4.3.2 The proponent along with the EIA consultant made presentation and informed before EAC during its 206th meeting held on 24-25 January, 2019. The observations of EAC are as under:

(i) This is a stand-alone project and all related impacts have been covered. Hence Cumulative Impact Assessment was not carried out to this project.

(ii) There are 69 canals, 09 drains, 2 water logged area and one treated water reservoir of Sewage Treatment plant are falling along the alignment.

S.No.	Chainage	Name of Reach	Size (Ha)	Mitigation measures
1.	127+500	Water Logged Area	0.0765	Over Bridge is provided over the water logged area
2.	166+500	Treated water reservoir of Sewage Treatment plant, Charkhi Dadri	0.9354	Over Bridge is provided over the water logged area
3.	198+500	Water Logged Area (Very minor impact)	0.0001	Pond embankment protection with boulder pitching is provided, and major part will come under avenue plantation

(iii) The proposed highway is passing through 69 irrigation canals. The entire water will be abstracted from irrigation canal after getting appropriate permission from competent authority.

(iv) Submitted certificate from Chief wildlife warden that the proposed alignment is 3.5 km away from ESZ of Chhilchhila lake wildlife sanctuary

(v) The fund allocated for Corporate Environmental Responsibility (CER) is Rs. 26.10 Crore.

	(vi) The cost of environmental protection measures is estimated Rs. 40.00 crores
4.3.3	The EAC, after detailed deliberations during 206th meeting held on 24-25 January, 2019, **recommended the project for grant of Environmental Clearance**, with the following **specific conditions** in addition to all standard conditions applicable for such projects: **<u>specific conditions</u>** (i) Proper mitigation plan to be implemented over the impact of existing water bodies as suggested in EIA/EMP.Fly over to be constructed to avoid impact on water bodies. (ii) Permission shall be obtained from Competent Authority, before drawing of water from irrigation canal for project activities. The State Pollution Control Board shall not issue Consent to Operate till the project proponent obtains such permission. (iii) The fund provisions provided for CER i.e. Rs. 26.10 Crore, the expenditure details report shall be submitted to the concerned Regional Office of the Ministry.
4.4	Construction of 8-lane Expressway from Dhabla village, District Mandsaur to Kandarwas village, District Ratlam from Ch. 0.000 to 150.000 km in the state of Madhya Pradesh under Bharatmala Pariyojana by M/s National Highways Authority of India **- Environmental Clearance** [Proposal No. IA/MP/NCP/**91704**/2018] [F. No. 10-54/2018-IA.III]
4.4.1	*During deliberations, the EAC noted that the project related documents namely, EIA/EMP reports, were not circulated to the Committee members in advance for their perusal. The Committee took a serious note of the same and **deferred the** proposal to the next EAC meeting.*
4.5	**Any other item with the permission of Chair.** Site visit report and recommendation of Sub –committee of EAC on the following projects in the State of Rajasthan by National Highway Authority of India is enclosed as **Annexure.**

S. No.	Name of Project proposals
1	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 (Total Length 65.000 Km), under Bharatmala Pariyojana Lot-4/Pkg-4 in the State of Rajasthan
2	Development of 8 lane (Greenfield Highway) after Chambal River near Durjanpura village at (Ch. 349.000 Km) to Banda Hera village (Ch. 392.800 Km) Section of NH-148 N (Total length 43.8Km), Under BHARATMALA PRIYOJANA Lot-4/Pkg-4 in the State of Rajasthan.

		3	Development 8 lane (Greenfield Highway) from of Banda Hera (Ch. 392.800 Km) to Moondiya (Ch. 452.625 Km) Section of NH-148 N (Total length 59.625 Km), Under BHARATMALA PRIYOJANA Lot-4/Pkg-4 in the State of Rajasthan.	

List of the Members attended 206th meeting of Expert Appraisal Committee for Projects related to Infrastructure Development, Industrial Estate and Miscellaneous projects held on 24-25 January, 2019 and approved the above minutes.

Sl. No.	Name of the EAC member	Role/Designation	Signature
1.	Dr. Deepak ArunApte, Director, Bombay Natural History Society (BNHS), Mumbai	Chairman	
2.	Dr. V.K. Jain, Professor of Chemistry, School of Sciences, Gujarat University, Ahmedabad	Member	
3.	Dr. M.V. Ramana Murthy, Project Director, NIOT Campus, Pallikarai, Chennai	Member	
4.	Shri T.P Singh, Advisor, MEITY, New Delhi	Member	
5.	Dr. N.K. Verma, Former AD, CPCB, New Delhi	Member	
6.	Dr.ManoranjanHota Former Advisor/Scientist-G, MoEF&CC	Member	
7.	Dr. Anil Kumar Singh, IFS (Retd), Ex PCCF Assam, Tower F, Float No. 103 Grand Ajnara Heritage, Sector 74, Noida, UP	Member	
8.	Shri Prabhakar Singh, Special 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 Garhwarl Central University, Srinagar,	Member	24.01.2019
11.	Dr.Anuradha Shukla, Central Road Research Institute (CRRI), Mathura Road, New Delhi	Member	
12.	Shri N.K. Gupta, Member (EAC), Scientist E & In-charge (ESS), Central Pollution Control Board,	Member	
13.	Dr. D. Chakraborty, Scientist MoWR, RD & GR, New Delhi	Member	
14.	Smt. BinduManghat,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	Member	

Annexure

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

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

S. No.	Name of Project proposals
1	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 (Total Length 65.000 Km), under Bharatmala Pariyojana Lot-4/Pkg-4 in the State of Rajasthan
2	Development of 8 lane (Greenfield Highway) after Chambal River near Durjanpura village at (Ch. 349.000 Km) to Banda Hera village (Ch. 392.800 Km) Section of NH-148 N (Total length 43.8Km), Under BHARATMALA PRIYOJANA Lot-4/Pkg-4 in the State of Rajasthan.
3	Development 8 lane (Greenfield Highway) from of Banda Hera (Ch. 392.800 Km) to Moondiya (Ch. 452.625 Km) Section of NH-148 N (Total length 59.625 Km), Under BHARATMALA PRIYOJANA Lot-4/Pkg-4 in the State of Rajasthan.

2.0 Background

Proposals IA/RJ/MIS/76177/2018 and IA/RJ/MIS/75411/2018 were discussed in the 197th Meeting of EAC held on 17.09.2018, and, proposal IA/RJ/MIS/75490/2018 was discussed in 201st Meeting of EAC held on 01.11.2018.

EAC, while deliberating the above proposals, observed that the proposed alignments are important from the view of landscape, Biodiversity and Wild Life and ecosystem. The proposed alignments are fragmenting the landscape and animal corridors which are already critical habitate. It is passing through National Chambal sanctuary, Darrah Wildlife Sanctuary, Mukunadara National park, Mukundra Hills tiger reserve and the corridor of Ranthambore Tiger Reserve. Therefore, committee decided to conduct a site visit by a sub-committee of the EAC before the proposals are considered for ToR.

3.0 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 18th-21st December, 2018 and also interacted on the matter with State Forest department, Rajasthan along with project proponent team and EIA consultant.

The names of the members of sub-committee and officials of Rajasthan 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. Deepak Arun Apte, Director, Bombay Natural History Society (BNHS), Mumbai	Chairman EAC
2	Dr. Raghukumar Kodali, Director/Scientist-F, IA Director, MoEFCC	Member Secretary, EAC
3	Dr. Anil Kumar Singh, IFS (Retd.), Ex. PCCF Assam	Member EAC
4	Dr. Anuradha Shukla Central Road Research Institute (CRRI), Mathura Road, New Delhi	Member EAC
5	Dr. D. Chakraborty, Scientist MoWR, RD & GR, New Delhi	Member EAC

Rajasthan State Forest Department officials:

1. Deepak Choudhary, ACF Mukundra Hills Tiger Reserve, Kota
2. Sanjiv G. Gautam, RFO Rawta Ranage, Mukundra Hills Tiger Reserve, Kota
3. Prahlad Meena, Forester Rawta Ranage, Mukundra Hills Tiger Reserve, Kota

National Highway Authority of India Officials:

1. Dr. B. Mukhopadhyay GM (Environment), NHAI, New Delhi
2. Mr. Arif Muhammad Khan, GM cum Project Director, NHAI-PIU, Sawai Madhopur
3. Mr. Varinder Kumar, GM cum Project Director, NHAI-PIU, Kota

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

1. Dr. Raj Kumar Singh, General Manager (Environment)
2. Mr. Arijit Choudhary, Deputy General Manager (Environment)
3. Mr. Navneet Kumar, Assistant Manager (Environment)
4. Mr. Keyur Patel, Highway Design Engineer

Observations

1. The sub-committee visited the Ranthambore Tiger Reserve (RTR) corridor and the villages located adjacent to the proposed alignment
2. Representatives of Wildlife Divisions stated the wildlife movement near Km 310+000 (near Serganj) to Km 332+000 (near Lakheri village) in Ranthambore Tiger Reserve (RTR).
3. DPR Consultant apprised that the proposed alignment is passing through the revenue land near Ranthambore Tiger Reserve. At Serganj location, the distance of nearest forest area from proposed alignment is about 0.3 km and 1.0 km in Left and Right side respectively. The villagers saw the movement of big cats in the corridor passing through agricultural fields and villages.
4. The Sub-Committee visited the National Chambal Sanctuary, where the proposed alignment crossing the Chambal River.
5. Subcommittee also visited Papida Protected forest of the village panchayat.
6. The sub-committee visited the Mukundra Hills Tiger Reserve (MHTR) / Darrah Wildlife Sanctuary area and villages located adjacent to proposed alignment.

7. DPR consultant apprised that 2 tunnels and 1 Viaduct are proposed to mitigate the project impacts in Mukundra tiger Reserve.
8.

After completing the site visit, a meeting was organized with the State Forest Department. A meeting was convened under the Chairmanship of Principal Chief Conservator of Forest & Chief Wildlife Warden, Rajasthan at Jaipur on 21.12.2018 at Aranya Bhawan. Sub Committee of EAC, MoEF&CC, field Officials of MTR and officials from NHAI & DPR/EIA Consultants alongwith Chief Enginner, Jaipur NHAI attended the meeting.

DPR Consultant made detailed presentation and briefed about salient features of the proposed projects like land use pattern; ecological features like Wildlife habitats, Tiger Corridor comes in the line of alignment and mitigation proposal for conservation of forest and Wildlife, as well as geometry of proposed green field corridor along with safety aspects.

1. The Chief Wildlife Warden (CWLW), Rajasthan stated that in Rajasthan in this forest type only this landscape is available to support Tiger conservation. This landscape is already fragmented by the railway line and existing State Roads having huge number of vehicle movement. He informed that recently Tiger has been relocated to Mukundra Hills TR and they are watching the movement of their territory. Again the proposed alignment passing through the Ranthambore Tiger Corridor and Mukundra Tiger Reserve will fragment the only available landscape as corridor for Tiger habitat and movement in the State and consequently expose to heavy man-animal conflict. The Chief Wildlife Warden (CWLW), Rajasthan thus was not in favour of the proposed alignment and suggested NHAI to provide with an alignment that by-passes Ranthambhore and Mukundra TR.

2. CWLW through video conference talked to field official of RTR and they informed that they have not given any consent to such alignment. He also discussed about recorded evidence of the tiger movement in Ranthambore Tiger Reserve at various locations in the proposed alignment. He asked the consultant and NHAI officials to visit his GIS lab at Aranya Bhawan, Jaipur so as to provide various details in layers to finalise the alignment by avoiding important tiger habitation areas. He requested NHAI for detailed exploration of alternative route / alignment options to avoid Ranthambore Tiger Reserve.

4.0 Recommendations of the sub-committee

Proposal No. 1

1. Since the current alignment is not advisable, Committee advised PP to take follow up actions as per the discussion and direction of the Chief Wildlife Warden (CWLW), Rajasthan to explore the alternative alignment for the Tiger Reserves before further consideration by EAC for issue of ToR.
2. The possible options at other vulnerable locations, mitigation measures like elevated / Tunnel structures may be discussed with CWLW and alignment should be marked on map in consonance with the map of GIS lab of the Forest Department as advised by CWLW.
3. Submission of certificate from Chief wildlife warden for authentication of distance from proposed alignment to Ranthambore National Park and Sawai Madhopur Wildlife Sanctuary respectively.
4. Clearance from NTCA to be obtained for proposed new alignment.

5. Pillers on the proposed bridge on the river Chambal including its flood plains at Ch. 349.00 Km should be avoided so as to ensure the uninterrupted flow of river water and movement of aquatic animals and other terrestrial wild life.The viability of this alignment needs to be verified since this part of the alignment is continuation from the previous section passing through the corridor of Ranthambhore and Mukundra TR which in turn is not advisable and suggested for realignment.

6.

Proposal No. 2

1. All the stretches passing through the water bodies in the entire stretch of the corridor, necessary measures to be taken for not erecting any pillars at the entire area of the water bodies spread.
2. An authentication certificate from Chief Wildlife Warden, Rajasthan should be produced to ascertain the distance from proposed alignment to Chambal Wildlife Sanctuary.
3. Wildlife clearance to be obtained for proposed alignment
4. Necessary Permission from State Forest Department, Rajashthan is required as per the Act related to protected Forest as the proposed alignment is passing through Papid Protected Forest.

Proposal No. 3

The viability of this alignment needs to be verified since this part of the alignment is continuation from the previous section passing through the corridor of Ranthambhore which in turn is not advisable and suggested for realignment. In case if this alignment been considered by the CWW, Rajasthan following recommendations are provided.

1. EAC Sub-Committee was of the view that Viaduct within the valley section of Darrah wildlife sanctuary / MHTR would not be beneficial in view of habitate requirements in this landscape by variety of large and small animals and avifauna. Between the Ch. 412 to 427 Km. passing through Mukundra National park and Mukundra Hills Tiger Reserve, it has been decided during the site visit that the entire stretch shall be through underground tunnel only and starting 500 m on either side of the sanctuary. The depth of RL is to be minimum 30 meters below the surface RL and shall not intersect any surface with the entire stretch of the Tiger Reserve. Necessary drilling for ascertaining the rock type and its properties can be made at either side of the Reserve and at the valley portions with least disturbance to flora and fauna obtaining necessary permissions from competent authorities. If required, Resistivity Imaging along with available advance technology can also be undertaken

2. Permission from NTCA to be obtained for proposed alignment

3. The proposed Alignment is passing through critical Tiger habitate landscape therefore Wildlife clearance is primarily required to be obtained.

4. Subsidence study to be carried out to know about the impacts on Mukundra National park and Mukundra Hills Tiger Reserve due to Underground tunneling.

5. Noise and vibration study and its mitigation plan to be carried out to assess the impact on the Mukundra National park and Mukundra Hills Tiger Reserve in general comprising of minimum one season and not less than 3 months.

6. Study on impact of proposed project on underground water flow and aquifers for minimum one season and not less than 3 months.

The following Members of sub-committee of EAC(Infra-1) of MoEF&CC visited the following projects from 18.12.2018 to 21.12.2018 and also submitted site inspection report.

1. Development of 8 lane (Greenfield Highway) from Etawa (Ch. 284.000 Km) to after Chamabal River near Durjanpura Village (Ch. 349.000 Km) Section of NH-148 N (Total Length 65.000 Km), under Bharatmala Pariyojana Lot-4/Pkg-4 in the state of Rajasthan by M/s National Highways Authority of India (NHAI).

2. Development of 8 lane (Greenfield Highway) after Chambal River near Durjanpura village at (Ch. 349.000 Km) to Banda Hera village (Ch. 392.800 Km) Section of NH-148 N (Total length 43.8Km), Under BHARATMALA PRIYOJANA Lot-4/Pkg-4 in the state of Rajasthan by M/s National Highways Authority of India (NHAI).

3. Development 8 lane (Greenfield Highway) from of Banda Hera (Ch. 392.800 Km) to Moondiya (Ch. 452.625 Km) Section of NH-148 N (Total length 59.625 Km), Under BHARATMALA PRIYOJANA Lot-4/Pkg-4 in the state of Rajasthan by M/s National Highways Authority of India (NHAI).

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