

**Minutes of the 289<sup>th</sup> meeting of Expert Appraisal Committee held on 17<sup>th</sup>-18<sup>th</sup> February, 2022 through Video Conferencing for the projects related to Infrastructure Development, all Ship breaking yards including ship breaking units 7(b); Industrial Estate/Parks/Complexes/Areas, Export Processing Zones, Special Economic Zones, Biotech Parks, Leather Complexes 7(c); Ports, harbors, breakwaters, dredging 7(e) and National Highways 7(f)**

---

The 289<sup>th</sup> Meeting of Expert Appraisal Committee (EAC) of Infra-1 (IA-III) was held through Video Conferencing at the Ministry of Environment, Forest & Climate Change (MoEF&CC), Indira Paryavaran Bhavan, New Delhi during **17<sup>th</sup>-18<sup>th</sup> February, 2022** under the Chairmanship of Dr. Deepak Arun Apte. A list of participants is annexed as **Annexure-A**.

## **1. OPENING REMARKS OF THE CHAIRMAN**

At the outset, Dr. Deepak Arun Apte, Chairman, EAC welcomed the Members of the EAC and requested Shri Amardeep Raju, the Member Secretary of the EAC to initiate the proceedings of the meeting with a brief account of the activities undertaken by the Ministry under Infra-1 Division.

## **2. CONFIRMATION OF THE MINUTES OF THE LAST MEETING**

The Committee confirmed the Minutes of 286<sup>th</sup> EAC meeting held on 18<sup>th</sup>– 19<sup>th</sup> January, 2022.

## **AGENDA WISE CONSIDERATION OF PROPOSALS:**

Agenda wise details of proposals discussed and decided in the meeting are as following:

### **Agenda No.3.1**

**Development of ‘Integrated Urban Regeneration and water Transport System (IURWTS)’ in Kochi, Kerala by M/s Kochi Metro Rail Limited – Environmental and CRZ Clearance.**

**[Proposal No. IA/KL/MIS/144314/2020 and File No. 10-23/2020-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in /EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.1.1. The abovementioned proposal was placed before the EAC in its 289<sup>th</sup> meeting during 17<sup>th</sup> - 18<sup>th</sup> February, 2022. The project proponent along with the EIA Consultant M/s WAPCOS Limited and general consultant M/s ANTEA NEDERLAND B V – ANTEA INDIA JV made a presentation through Video Conferencing and provided the following information: -

3.1.2. The proposed project envisages the development of the Edappally Canal (11.23 km), Thevara – Perandoor Canal (9.88 km), Chilavanoor Canal (11.15 km), Thevara Canal (1.405 km) and Market Canal (0.664 km) in Kochi. The overall objective was to improve inland Transport in the canal systems and have an intermodal connectivity with an integration of the Rail Metro and Water Metro. As a part of the project the activities like Cleaning of Canals, De-silting & Cutting, Bank Protection, Reconstruction of Cross Structures and Foot Over Bridges, Sanitary Sewer Line & STPs, Sanitation Facilities, Jetties and Infrastructure Development will be carried out. The Geo-coordinates of project site is N9°56'36" to N10°2'40", E 76°16'25", E 76°20'6".

3.1.3. TOR was granted vide letter No.10-23/2020-IA-III dated 13.05.2020 during the 50<sup>th</sup> EAC (Infra-2) meeting held on 22<sup>nd</sup> to 24<sup>th</sup> April, 2020.

3.1.4. The proposed project falls under 7 (e) Ports, Harbour, Cat –A as per EIA notification 2006, and its subsequent amendments. Total Project Cost is ₹1528.27 Cr.

3.1.5. Total proposed land area is 41 Ha. The land required for these projects falls within periphery of the canal. The land belongs to the Government as well as private holders.

3.1.6. Land use /Land cover of project site

Sl. No.	Landuse/Landcover	Area (Ha)	Area (%)
1	Vegetation	1	2.00
2	Water/River	35	85.50
3	Built up area/Settlement	5	12.50
<b>Total</b>		41	100.00

3.1.7. Landuse/Landcover around 10 km radius of project site (1 km in case of Highway projects)

S. No.	Landuse/Landcover	Area (ha)	Area (%)
1	Vegetation	27969	40.85
2	Water/River	18775	27.42
3	Aquaculture	1152	1.68
4	Agricultural Land	391	0.57
5	Mangrove	1213	1.77
6	Built up area/Settlement	18969	27.70
<b>Total</b>		68469	100.00

3.1.8. Water Bodies & impact on Drainage: The major work is in the canals and side of Canals. At present, all the canals are polluted with domestic sewage and silt. By cleaning the same, the canals shall be rejuvenated and shall be used for navigation. The project will not affect the natural drainage in the area.

3.1.9. Water requirements: The total water required during operation phase for passengers and staff expected as 225.0 KLD. The source of water is Kerala Water Authority. Construction Water: 1 MLD from wells and surface water sources. Water required during construction phase will also be met through private water tankers. No Ground water extraction is proposed.

3.1.10. The public hearing for Integrated Urban Regeneration and Water Transport System (IURWTS) project was conducted by Regional office of Kerala State Pollution Control Board (KSPCB), Ernakulam on 16.03.2021 at the Collectorate conference hall, Kakkanad, Dist. Ernakulum.

3.1.11. The boundary of ESZ of the Mangalavanam Bird sanctuary is around 670 m away from the nearest project location.

3.1.12. Waste Management:

- Boats do not have any toilets nor use fresh water for any purpose, other than engine cooling water.
- There is no storage of water, cafeteria/ Restaurant or food service provided on board which would generate waste.
- Domestic effluents in the jetties will be treated in the septic tanks with bio-digesters at the same site itself.
- Total sewage from the catchments of the 5 canals will be collected and treated in 4 STPs
- Bins shall be provided at appropriate locations in the terminals to collect the Primary waste storage in segregated manner.
- Waste would be collected by the municipal employees, from each terminal, deploying suitably sized waste trucks. Frequency of collection shall depend on the terminal size. However, the waste shall be collected at least once per day.

3.1.13. STP details: Four new Sewage Treatment Plants (STPs) of total 31 MLD is proposed to be constructed to treat the waste water entering into canals.

S. No	STP location	Proposed STP
1	Elamkulam STP - Chilavanoor & TP south	10 MLD
2	Vennala STP - Edappally south	10 MLD
3	Muttar STP-Edappally north	7 MLD
4	Perandoor STP - TP north	4 MLD
	Total MLD	31 LD

3.1.14. Tree cutting and Green belt development: As part of the project around 5,000 trees will be cut for the project activities. As part of the afforestation program, 10 times the trees cut will be planted. As per the estimate around 22,000 trees will be planted along the canal, around the project facilities such as jetties, STPs and Canal Oriented Development areas. This will contribute to the afforestation program required for this project. Green belt will be developed around the four STP sites, 30 Jetties, Areas of Canal Oriented Development in Edappally Canal and all available places on the banks of canals after widening and laying the sewer lines.

3.1.15. Energy conservation measures with estimated saving: Solar plant of 200 KW capacity will be made as part of the project.

3.1.16. Rain Water Harvesting: Rain water harvesting system is proposed in 4 STP locations of 10KL capacity.

3.1.17. CRZ mapping for the proposed project has been done through Institute of Remote

Sensing (IRS) Anna University, Chennai, an agency authorized by MoEFCC. CRZ Recommendation from KCZMA Obtained on 28.01.2022. The CRZ details are as follows:

CRZ category	Proposed Cross Structures Bridge/ Foot Bridge	Jetty	Deepening & Widening	Sewer Line Laying Area	STP	Canal Beau-tification/ Walkway
Total Area in Sq.m						
Edapally Canal						
CRZ IB	15.80			1,104.70		283.60
CRZ II	204.10	5,070.50	1,975.90	15,461.90	7,304.60	42,730.00
CRZ IVB	914.00	119.40	579.50	8,404.60		10,977.90
Non CRZ	3,813.80	13,538.90	32,039.10	24,846.00	21967.3	14,778.60
Chilavannor Canal						
CRZ IB	401.90	884.20	34.8	1642.8	1035.4	
CRZ II	668.70	775.90	8762.9	18601.4	18317.1	
CRZ IVB	971.50		4703.5	5944.7		
Non CRZ	1,014.80	2,338.40	57865.8	28668.4	10456.4	
Thevara Perandoor Canal (TP Canal)						
CRZ IB			1.90	16.3		
CRZ II	337.40	1,929.30	1,925.90	13902	3921.5	
CRZ IVB	719.20	143.50	1,736.10	6005.3	116.1	
Non CRZ	1,979.70	3,269.40	32,197.40	175312		
Thevara Canal						
CRZ IB	135.1			586.7		
CRZ II	716.2	240.9		10814.2		
CRZ IVB	394.5	26.6		2695.3		
Non CRZ	433.6	193.9		35.8		
Market Canal						
CRZ IB	638.2					472.1
CRZ II	152.2					1400.2
CRZ IVB						25.3

3.1.18. Foreshore facilities: As per the navigation standards of IWAI, for a canal influenced by tidal level fluctuations a minimum navigation requirement depth is to be maintained all throughout the year. To fulfil the depth requirement, the criteria as per standard guidelines for small canals was followed. A depth of 1.2 m below the low water level (LWL) of +0.3m MSL is estimated and the deepening quantity estimated accordingly. Total quantity estimated from deepening is 4,54,013 m<sup>3</sup> and from widening is 2,41,401 m<sup>3</sup>, totaling to 6,95,414m<sup>3</sup>. Out of the total quantity estimated 20 percent is proposed to be used for canal embankment, landscape works and remaining conveyed to land filling sites. Quantity of the material to be conveyed for disposal is 4,29,681 m<sup>3</sup>. The Rest of the soil from the canals shall be disposed in the landfill site of M/s Kerala Enviro Infrastructure Ltd (KEIL), is operating “Common Treatment, Storage and Disposal Facilities (TSDF) Project for the soil cover.

3.1.19. Land acquisition and R&R issues: The total land requirement for the project is 41 ha of which 13.68 ha is govt. land, 9.65 ha is government land in private possession and 17.37 ha is

private land. Policy has been developed in accordance with the requirements of the Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation & Resettlement Act, 2013 (RTFCTLARRA, 2013). Total budget for implementation of the Rehabilitation and Resettlement Plan is Rs.196.72 crore.

3.1.20. Employment Potential- Total Employment as part of the project will be 2400. Around 2150 people will be employed in construction phase. In operation phase 250 employment will be generated.

3.1.21. Project Benefits:

- Improvement of intermodal connectivity with the Rail Metro and Water Metro by way of restoration of canals.
- Flood mitigation and flood plain management.
- Canal development will create beautifully landscaped canal spaces for leisure and tourism, cute shops, and eateries for creating an illusion of urban vitality along the canal banks and enhanced livelihood opportunities. This would further improve the city's image
- Sanitation facilities and sewage disposal system integrated to serve the inhabitants of the project command.
- Restrict dumping of waste, control encroachments, stop sewage mixing etc.
- Infrastructure / property development along the canals through Value Capture Financing & Transit Oriented Development for generating revenue.
- Improve monitoring of the canal systems, which will reduce to zero waste disposal, mosquito menace, and carbon reduction
- Enhanced utility of the canal waterfront as a natural attraction for social and economic activity for locals and tourists.

3.1.22. Details of Court cases: No court case is pending against the proposed project.

3.1.23. Studies carried out for the project as per the ToR:

<b>Studies</b>	<b>Work carried out</b>
Biodiversity and Marine Ecological Survey	Department of Marine Biology, Microbiology & Biochemistry of Cochin University of Science & Technology
Flood management plan Modelling study	Central Water and Power Research Station (CWPRS), Pune
HTL/LTL Demarcation	Institute of Remote Sensing, Anna University
Ambient air quality, Ground water quality and Soil quality	Standard Analytical Laboratory, Kochi, NABL Accredited.

3.1.24. During deliberation, EAC observed and noted the following:

- i. Disposal/dumping of dredging materials, its movement/transportation methodology, site selection (TSDF) has to be elaborated.
- ii. PP has to consider the organic/economic values of dredged material for utilization (reuse) purpose.

- iii. *PP has to ensure that mangroves are not affected.*
- iv. *PP would have to submit an undertaking stating that disposal of waste material shall be in line with NGT order.*
- v. *Recommendation of the proposal for grant of Environmental and CRZ clearance shall be subject to approval of the NBWL clearance for Mangalavanam Bird Sanctuary.*

3.1.25. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 289<sup>th</sup> meeting during 17<sup>th</sup> - 18<sup>th</sup> February, 2022 and **Recommended** the proposal for grant of Environment and CRZ Clearance with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- (i) The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable, as per the Ministry's OM dated 8th August, 2019. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposal for Wildlife Clearance will be considered by the respective authorities on its merit and decision taken.
- (ii) Dredging shall be carried out in the confined manner to minimize the impacts on marine environment. In no case the dredged material should be accumulated along the canals more than 24 hrs. The disposal of dredged soil from the canals, shall be disposed of to M/s Kerala Enviro Infrastructure Ltd (KEIL), is operating "Common Treatment, Storage and Disposal Facilities (TSDF). Orders/directions of Hon'ble NGT for dumping of waste/dredged materials shall be followed in letter and spirit.
- (iii) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (iv) All the recommendations and conditions specified by the Kerala State Coastal Zone Management Authority (KCZMA) vide letter No 159/AI/2021/KCZMA dated 28<sup>th</sup> January 2022 shall be complied with.
- (v) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (vi) The project proponent shall comply with the air pollution mitigation measures as submitted.
- (vii) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
- (viii) No underwater blasting is permitted.

- (ix) Necessary approvals to be taken during implementation and commissioning from statutory bodies concerned.
- (x) Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life, particularly benthos. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
- (xi) Necessary arrangements for the treatment of the effluents and solid wastes/ facilitation of reception facilities under MARPOL must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986. The provisions of Solid Waste Management Rules, 2016. E- Waste Management Rules, 2016, and Plastic Waste Management Rules, 2016 shall be complied with.
- (xii) While carrying out dredging, an independent monitoring shall be carried out by Government Agency/Institute to check the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
- (xiii) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- (xiv) Necessary arrangement for general safety and occupational health of people should be done in letter and spirit.
- (xv) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory Afforestation etc, either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be implemented and become part of EMP.

### **Agenda No. 3.2**

**Integrated Manufacturing Cluster (IMC) at village Bir, District Hisar, Haryana under Amritsar Kolkata Industrial Corridor (AKIC) Project by M/s Civil Aviation Department, Government of Haryana – Terms of Reference  
[Proposal No. IA/HR/NCP/251434/2022 and File No. 10/4/2022-IA.III]**

On the request of PP vide letter dated 15<sup>th</sup> February, 2022, the proposal was deferred and shall be considered on the request made by the PP.

### Agenda No. 3.3

#### **Expansion of Port facility at Hazira, Surat, Gujarat by M/s Essar Bulk Terminal Ltd. - Validity Extension of Environmental and CRZ Clearance [Proposal No. IA/GJ/NCP/251249/2022 and File No. 11-46/2011-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in EIA/EMP. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and ToR/Environmental Clearance/validity Extension given, if any, will be revoked at the risk and cost of the project proponent.*

3.3.1 The aforementioned proposal was placed before the EAC during 289<sup>th</sup> meeting during 17<sup>th</sup> - 18<sup>th</sup> February, 2022. The project proponent M/s Essar Bulk Terminal Limited (EBTL) made a presentation through Video Conferencing and requested for extension of validity of Environmental and CRZ Clearance for the period of three years as per MoEF&CC Notification dated 14<sup>th</sup> September, 2016.

3.3.2 Environmental and CRZ Clearance for the aforementioned project was granted vide letter no. 11-46/2011-IA.III dated 6<sup>th</sup> May, 2014 which is valid up to 5<sup>th</sup> May, 2021. However, as per notification issued by the Ministry of Environment, Forests and Climate Change (MoEF&CC) vide S.O. 221(E) dated 18<sup>th</sup> January 2021, the validity of this EC is till 5<sup>th</sup> May 2022 (considering 1-year grace period due to Corona outbreak).

3.3.3 The proposed project falls under 7 (e) Ports, Harbour, Cat –A as per EIA notification 2006, and its subsequent amendments.

3.3.4 Reason for Extension of Validity of Environment Clearance: The PP has given following reasons for extension of the validity period of EC/CRZ clearance:

- i. The proposal approved for development of following activities:

S. No.	Particular	Unit	Description
<b>Water Front / Berth(s) Length</b>			
1	Container and Break Bulk Berth	m	1100 m
2	General Cargo Berth		700 m
3	Liquid Cargo Berth		500 m
4	Bulk Berth		700 m
5	Offshore Support Vessels		500 m
6	Dry Dock		700 m
7	Trestle Berth		600 m
<b>Total</b>			<b>4800 m</b>
<b>Land Reclamation</b>			
8	Reclamation	Ha.	334 Ha
<b>Navigation Channel</b>			



9	Extension	KM	From 6.2 km to 17.6 km
10	Deeping	m	From 8 m to 16 m
11	Broadening	m	From 180-230 m to 300-350 m

- ii. Construction approval from Gujarat Maritime Board (GMB) was obtained on 30<sup>th</sup> September 2015. Combined Consent and Authorization (CC&A) required to commence construction activities from Gujarat Pollution Control Board (GPCB) was obtained on 23<sup>rd</sup> March 2016. During the initial 7 years, following of the approved activities were completed:

S. No.	Particular	Unit	Description
Water Front / Berth(s) Length			
1	Container and Break Bulk Berth	m	1100 m
Land Reclamation			
2	Reclamation	Ha.	~77 Ha
Navigation Channel			
3	Extension	KM	From 6.2 km to 8.8 km. Ongoing.
4	Deeping	m	Ongoing
5	Broadening	m	

- iii. Additionally, an application was made, for EC & CRZ Clearance to develop LNG Terminal within the existing developed area of EBTL, which was granted on 20<sup>th</sup> November 2020 vide F.No. 11-46/2011- IA-III by the MoEF&CC.

3.3.5 Reasons for the delay in Implementation of Project: Following reasons were given by the PP for delay in implementation of the proposed project:

- i. Delay in issuance of CC&A required to commence construction activities
- ii. Site identification for RO-RO Jetty by the GoI and GOG
- iii. COVID and disruption caused thereof. As stated above, the work related to facilities as granted in the said EC & CRZ clearance are in progress, it is of utmost importance to maintain the validity of current EC & CRZ Clearance for undertaking the remaining proposed activities

3.3.6 Details of Court cases: No court case is pending against the proposed project.

3.3.7 *During deliberation, EAC observed and noted the following:*

- i. *PP stated that only 23% of work has been completed. The committee needs clarification that how the balance work will be completed within the remaining time frame.*
- ii. *PP has to submit the RO report / site visit report.*

3.3.8 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 289<sup>th</sup> meeting during 17<sup>th</sup> – 18<sup>th</sup> February, 2022 and **recommended** the proposal for extension of the Environmental and CRZ Clearance granted by the Ministry vide File No. 11-46/2011-IA.III dated 6<sup>th</sup> May, 2014 for three years i.e., up to 5<sup>th</sup> may, 2025 with specific conditions and general conditions, as mentioned in the same EC letter.

#### **Agenda No. 3.4**

#### **Installation of Mechanised Handling facilities at General-cum-Bulk Cargo Berth in the outer Harbour of Visakhapatnam Port Trust, Andhra Pradesh by M/s Visakhapatnam Port Trust - Amendment in Environmental and CRZ Clearance**

**[Proposal No. IA/AP/NCP/254532/2022 and File No. 10-9/2009-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in EIA/EMP. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.*

3.4.1 The aforementioned proposal was considered in 289<sup>th</sup> meeting during 17<sup>th</sup> – 18<sup>th</sup> February, 2022. The project proponent along with the EIA consultant M/s Global Management and Engineering Consultants (GMEC), Jaipur has made a presentation through Video Conferencing and provided the following information:

3.4.2 The proposed proposal is for amendment in existing Environmental Clearance for change in the existing Mechanized Coal Handling Import Terminal to Multi Cargo Import – Export Terminal with total handling of 10.18 MMTPA at General – Cum – Bulk Cargo Berth in the Outer Harbour of Visakhapatnam Port Trust at Visakhapatnam, Andhra Pradesh. The bulk cargos that can be handled using existing facility are all Kinds of Coal, Iron ore Fines/Pellets, Manganese/Chromium Ore, Bauxite, Met/Pet/CP Coke, Gypsum/Bentonite, Limestone and Aluminium/Iron/Steel (Export).

3.4.3 The proposed project falls under 7(e), Ports, Harbour, Category A as per EIA notification 2006. Environmental & CRZ Clearance for the proposed project for “Installation of Mechanized Handling facilities at General-cum-Bulk cargo berth in the outer harbor of Visakhapatnam Port trust” was granted vide letter No. 10-9/2009-IA.III dated 01<sup>st</sup> September, 2009, and further amended vide EC no. EC21A033AP183084 dated 17.12.2021 for transportation of Coal/Cargo through roads from Eastern Stack yard for 50% of terminal capacity of existing configuration 10.18 MMTPA.

3.4.4 The proponent vide a letter dated 24<sup>th</sup> Jan 2022 has requested the Ministry for amendment in existing EC letter dated 01<sup>st</sup> September, 2009 for existing Environmental Clearance for change in the existing Mechanized Coal Handling Import Terminal to Multi Cargo Import – Export Terminal with total handling of 10.18 MMTPA at General – Cum – Bulk Cargo Berth in the Outer Harbour of Visakhapatnam Port Trust, Visakhapatnam, Andhra

Pradesh. The required amendment in Project Layout is as following:

S. No.	Para of EC issued by MoEFCC	Details as per the EC Letter	Amendment proposed
01	Para 2 of EC order 01.09.2009	It is interalia, noted that the proposal involves installing the mechanized coal handling facilities at General cargo berth in the outer harbour on BOT basis. At present the coking coal and steam coal are being transported by rail/road.....	Considering limiting options of import of coal and for future business, VPT has decided to handle multiple Import - export bulk cargo within existing facility. The bulk cargos that can be handled using existing facility are given as under: <ul style="list-style-type: none"> <li>• All Kinds of Coal</li> <li>• Iron ore Fines/Pellets</li> <li>• Manganese/Chromium Ore</li> <li>• Bauxite</li> <li>• Met/Pet/CP Coke</li> <li>• Gypsum/Bentonite</li> <li>• Limestone</li> <li>• Aluminium/Iron/Steel (Export)</li> </ul>
02	Para 3 of EC Order:	The proposed installation of mechanical handling system at the existing general cargo berth in the outer harbour for unloading of coking coal and steam coal shall comprise ship unloading system, stackers, reclaimers, wagon loading system and a system of conveyors.....	The existing Mechanical Handling System at the existing general cargo berth in the outer harbour will continue for Multi Cargo Import – Export Terminal with total handling of 10.18 MMTPA material at General – Cum – Bulk Cargo Berth in the Outer Harbour. Only during breakdown of mechanized handling system or difficulty in handling bulk materials due to high moisture/flowability issues, maximum upto 0.3-0.5 MMTPA will be moved from berth to stackyard by trucks.

Further, the PP has proposed the following modifications in *Multi cargo quantity to be handled*

Cargo	Existing (MMTPA)	Proposed after Amendment	
		Range (MMTPA)	Average Handling (MMTPA)
All kinds of coal	10.18	4-6	5
Bauxite	Nil	1-2.5	1.75
Manganese/Chromium Ore	Nil	0.25-0.5	0.375
Gypsum/Bentonite	Nil	0.25-0.36	0.305
Limestone	Nil	0.5-0.75	0.625
Met/Pet/CP Coke	Nil	0.25-0.5	0.375
Iron Ore Fines/Pellets	Nil	0.5-1.5	1.0
Aluminum/Iron/Steel (Export)	Nil	0.5-1.0	0.75

Total	10.18		10.18
-------	-------	--	-------

3.4.5 Final configuration after amendment is as following:

S. No	Plant/ Equipment/ Facility	Existing Configuration	Proposed Configuration	Final configuration after amendment	Remarks if Any
1	Mechanized Grab Handling System with Hopper and conveyor loading belt	3 Numbers	Nil	3 Numbers	No Change
2	Stacker cum Reclaimed	2 Numbers	Nil	2 Numbers	No Change
3	Rapid Wagon loading system with Silo	2 Numbers	Nil	2 Numbers	No Change
4	In-motion Rail weigh bridge	1 Number	Nil	1 Number	No Change
5	Road Weigh Bridge	1 Number	1 Number	2 Numbers	To be increased
6	Workshop Facilities	1 Lot	Nil	1 Lot	No Change
7	Dust suppression and Firefighting facilities	1 Lot	Nil	1 Lot	No Change
8	Illumination including High mast lighting	1 Number	Nil	1 Number	No Change
9	Water supply and distribution system	1 Lot	Nil	1 Lot	No Change
10	Ground level Conveyors in the stackyard area	800 Meters	Nil	800 Meters	No Change
11	Front end loaders	4 Numbers	4 Numbers	8 Numbers	To be increased
12	Elevated enclosed Conveyors from Berth to Stackyard	2500 Meters	Nil	2500 Meters	No Change
13	Elevated Conveyors from Stackyard to Wagon loader	250 Meters	Nil	250 Meters	No Change

3.4.6 Requirement for proposed amendment is as following:

Particular	Description
Additional Equipment for the proposed amendment	4 nos. of Front end loaders. 1 no. of Road Weigh Bridge
Additional Manpower	43 number
<b>Cost Details</b>	
Capital Cost of the project	Rs. 4 Crores/-

Cost for Environmental Protection Measures	Rs. 1.3 Crores /-
Capital Cost	<ul style="list-style-type: none"> <li>• Mist Cannons and Water sprinklers at berth- Rs. 0.5 Cr</li> <li>• Drainage system modification: Rs. 0.2 Cr</li> <li>• Tarpaulin covering: Rs. 0.50 Cr</li> <li>• Air Monitoring: Rs. 0.10 Cr</li> </ul>
Recurring Cost	Rs. 0.68 Crores /annum.

3.4.7 The Proposed amendment will be achieved within the existing project premises and with existing major infrastructure facilities available at site. There is no Change in existing Project Area, existing Water Requirement, existing Power Requirement, and existing traffic load.

3.4.8 Reason for Amendment: In order to achieve the sanctioned 10.18 MMTPA, change in the existing handling multi cargo and mechanized Coal Handling Import terminal to an Import-Export terminal for multi- cargo handling facility. .

3.4.9 Details of Court cases: No Court Case is pending against the proposed project.

3.4.10 *During deliberation, EAC observed and noted the following:*

- i. *PP has to submit the comparative statement of Pollution load/Drainage System due to current Amendment with previous EC.*
- ii. *PP has to submit the mitigation measure/details for handing of the additional load/materials.*

PP has submitted the details during the course of the day

3.4.11 The EAC, taking into account the submission made by the project proponent, inter alia, *comparative statement of Pollution load/drainage system due to current Amendment with previous EC and mitigation measure/details for handing of the additional load/materials.*, had a detailed deliberation in its 289<sup>th</sup> meeting during 17<sup>th</sup> – 18<sup>th</sup> February, 2022 and **recommended** the proposal for the amendment in Environmental and CRZ Clearance under clause 7(ii) of EIA Notification, 2006, as amended, issued by the Ministry in favor of M/s Visakhapatnam Port Trust, vide F. no. 10-9/2009-IA.III dated 01<sup>st</sup> September, 2009 for “transportation of coal/cargo through road up to 2.5 MMTPA of terminal capacity (10.18 MMTPA) from Eastern stack yard as stated above at Para 3.4.4.

### **Agenda No. 3.5**

**Proposed Industrial Park at Village Golana and Mitali, Taluka Khambhat, District Anand, Gujarat by M/s Vibrant Industrial Park Limited – Terms of Reference [Proposal No. IA/GJ/NCP/254281/2022 and File No 10/5/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in EIA/EMP. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and ToR/Environmental Clearance given,*

if any, will be revoked at the risk and cost of the project proponent.

3.5.1. The aforementioned proposal was placed before the EAC in its 289<sup>th</sup> meeting during 17<sup>th</sup> – 18<sup>th</sup> February, 2022. The project proponent along with the EIA consultant M/s Gaurang Environmental Solutions Pvt. Ltd. has made a presentation through Video Conferencing and provided the following information-

3.5.2. The proposed project is for development of Industrial Park by M/s. Vibrant Industrial Park Limited at Village: Golana and Mitali, Taluka: Khambhat, District: Anand, Gujarat.

3.5.3. The proposed project falls under 7(c) – Industrial Park, Category-A, as per EIA notification 2006. Total investment/cost of the project is Rs 11,345 Crore.

3.5.4. Geo-coordinates of project site:

Coordinates of North Side Extent:	22°28'20.29"N, 72°24'45.48"E
Coordinates of East Side Extent:	22°26'55.16"N, 72°24'48.77"E
Coordinates of South Side Extent:	22°25'49.63"N, 72°24'12.49"E
Coordinates of West Side Extent:	22°27'36.25"N, 72°23'53.48"E

3.5.5. The project site is spread over an area of 407.92 ha.

3.5.6. Land use/ Land cover (approx. area) of the project site is as following: Total proposed land area is 40,81,192.00 m<sup>2</sup> considering Plots for various member units, common infrastructures and common treatment facilities and other amenities.

Particular	Area (m <sup>2</sup> )
<b>Amenities by Estate</b>	
Treatment Facilities such as CETP, Common MEE, Spray Dryer, Water Treatment Plant, Sewage Treatment Plant, Decontamination facility, Spent acid management facility, Spent solvent management Facility, Coprocessing facility	4,05,335.00
Treatment Storage & Disposal Site	2,12,820.00
Boiler House	45,862.00
COP	73,348.00
Road	6,06,644.00
Common Facility such as security cabin, admin building, fire station, hospital etc.	84,187.00
<b>Total [A]</b>	<b>14,28,196.00</b>
<b>Greenbelt Area</b>	
Greenbelt Area along periphery of estate & road	3,29,510.00
Greenbelt by members	2,32,348.00
<b>Total [B]</b>	<b>5,61,860.00</b>
<b>Area for Industries</b>	
Chemical Zone	16,52,193.00
Pesticide	2,04,493.00
Textile	41,359.00
Paper mill	1,93,091.00
<b>Total [C]</b>	<b>20,91,136.00</b>

Particular	Area (m <sup>2</sup> )
<b>Grand Total</b>	<b>40,81,192.00</b>

3.5.7. Landuse/Landcover around 10 km radius of project site:

S. No.	Land Use	Area in (Sq. km)	Area in %
1.	<b>BUILT-UP LAND</b>		
	Settlements	5.824	1.3
	Industrial area	1.344	0.3
2.	<b>WATERBODIES</b>		
	Tank / River etc.	74.368	16.6
3.	<b>CROP LAND</b>		
	Single crop	230.616	51.7
	Double crop	53.312	11.9
4.	<b>WASTELANDS</b>		
	Land with scrub	29.12	6.5
	Land without scrub	5.376	1.2
	Mudflat	33.152	7.4
	Water logged area	13.888	3.1
<b>Total</b>		<b>448.00</b>	<b>100</b>

3.5.8. List to industries to be housed with the proposed project site:

S. No.	Sector	Anticipated Types of industries/activities	Sector No. as per NABET Scheme	Categorization of Industry as per EIA notification, 2006	Categorization as per CPCB
1	Pesticides Industries	Pesticides & its intermediates	17	5(b) "A"	Red
2	Synthetic organic chemicals industry	Dyes & dye intermediates; bulk drugs and intermediates; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates	21	5(f) "A"	Red
3	Pulp and Paper Industries	Waste paper based industries	24	5(i) "B"	Red
4	Textile Industries	Dyeing, Printing and Processing	-	-	Red
5	Common Boiler House	Supply of steam	-	-	Red
6	Thermal Power Plant - Captive (Co-generation	Supply of electricity to estate	4	1(d) "B"	Red

	Plant)				
7	Treatment Storage Disposal Facility	Disposal of Landfillable waste generated	32	7 (d) "B"	Red
8	Common Effluent Treatment Plant	Treatment of Low COD Effluent generated	36	7 (h) "B"	Red
9	Common MEE followed by Spray Dryer	Treatment of High COD Effluent generated	-	-	Red
10	Sewage Treatment Plant	Treatment of Domestic Effluent generated	-	-	Red
11	Spent Solvent Management Facility	Collection, storage, treatment & disposal/ sell of Spent Solvent Generated	-	-	Red
12	Spent Acid Management Facility	Collection, storage, treatment & disposal/ sell of Spent Acid Generated	-	-	Red
13	Decontamination Facility	Collection, storage, treatment & disposal/ sell of discarded bags	-	-	Red
14	Water Treatment Plant	Treatment of fresh water & supply	-	-	-
15	Co processing Facility	Collection, storage, treatment & disposal/ sell of coprocessible waste	-	-	Red

3.5.9. Terrain and Topographic Features: Terrain of the project site is undulating and Mean Sea Level is ranging from 7.2 to 10.67 m.

3.5.10. Water bodies and impact on drainage: There are no water bodies within proposed site. As per DLR, natural drains are within project site carrying storm water of village. Hence storm water towards project area is collected in storm water drains planned outside the premises & diverted to River. Outfall of nearby canal is channelized for better infrastructure and drainage of the area. Ground level of the site boundary on River side is ranging between 8 to 10 m. With due consideration of HFL of 11.5 m it was decided to raise ground level by 2 m & bund of 3 m shall be constructed on River side of proposed site boundary for flood protection.

3.5.11. Water requirement: Total Water requirement for the proposed project is 1,15,143.00 KL/d, out of which fresh water shall be 40,000.00 KL/d and recycled water shall be 75,143.00 KL/d. Source of water for construction and operation phase is taken from Sabarmati river for which application is made to Narmada Water Resources Water Supply and Kalpsar Department.

3.5.12. Tree cutting: On proposed site around 130 trees are present, out of which around 15 to 20 trees are cut and rest are shifted. Other than tree clearance of shrub is to be carried out.



3.5.13. The project area does not fall under forest area. There is no National Parks, Sanctuaries, Tiger Reserves, Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC within 10 km of proposed project site.

3.5.14. The proposed project site does not fall under CRZ area.

3.5.15. Waste Management: CETP: For the treatment of Low COD effluent, CETP of 60 MLD capacity to be provided. The proposed CETP expanded in a phased manner in accordance with the development in the park to treat industrial wastewater. The treated effluent shall be reused by member's units except pharmaceuticals unit. STP: Sewage from units, common facilities and common infrastructures shall be treated in STP of capacity 2.0 MLD. Treated sewage shall be reused for gardening purpose by estate & members.

3.5.16. Land acquisition and R&R issues: No R&R is not required. The Land Acquisition is given below:

S. No.	Status	Nos.
1	Total Nos. of Survey Nos	413
2	Survey Nos. Acquired (Sale deed/Banakhat/LOI)	163
3	Survey No. NA Application done	20

3.5.17. Employment Potential: Around 1,000 Nos. of manpower shall be required during construction phase and around 30,980 Nos. of manpower shall be required during operation phase due to the proposed industrial park. There will be generation of indirect employment due to the proposed project.

3.5.18. Benefits of the Project: Industrial development activities will ultimately result in an overall improvement of quality of life of the region through the improvement of social, economic, health, education and nutrition status.

3.5.19. Details of court cases: There is no court case pending against the proposed project.

3.5.20. The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289th EAC meeting on 17th – 18th February, 2022 and **Deferred** the proposal for grant of Terms of Reference for the want of the above following documents/information:

- i. *The selected site is very near to the Sabarmathi River (500 meters). A detailed layout of industrial units with contour superimposed on the map shall be submitted.*
- ii. *PP stated that estuary is located very close to the project boundary; where there is a possibility of Tidal bore which can take the industrial effluent (red category industry) backward to the city?*
- iii. *A certificate from the Irrigation department/concerned department may be submitted that the site does not fall in the flood plain of the river.*
- iv. *List of proposed industries should be in accordance with the CPCB category and PP has to ensure whether the site selected is based on the 'Zoning Atlas for Siting of Industries published by CPCB.*

- v. Details of the implementation and mechanisms alongwith the technologies for achieving ZLD be submitted.
- vi. The detailed pollution load considering individual industries, its type and coposition of pollutants and its mitigation measures to be adopted be submitted.
- vii. Information provided by the proponent in Annexure-III, PPT and on-line application are not analogous. There is no uniformity in the information provided by the proponent.

### Agenda No. 3.6

#### **Construction of a road tunnel for NH-148E with its approach and connection to NH-248BB in NCT of Delhi by M/s National Highways Authority of India – Terms of Reference [Proposal No. IA/DL/NCP/251268/2022 and File No 10/6/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.6.1. The aforementioned proposal was placed before the EAC in its 289<sup>th</sup> meeting during 17<sup>th</sup> – 18<sup>th</sup> February, 2022. The project proponent along with the DPR consultant M/s. SMEC International Pvt. Ltd and EIA consultant M/s. Ambiantal Global Private Limited has made a presentation through Video Conferencing and provided the following information-

3.6.2. The National Highway Authority of India proposes to implement “Construction of a Road Tunnel for NH-148AE with its connection to NH-248BB in the NCT of Delhi.” The project NH 148AE takes off from under construction underground Shivmurti Interchange (Dwarka Expressway Package-1/UER II NH 248BB) at NH 48 (28° 31’57.38” N 77°6’32.44”E) and ends at Nelson Mandela Marg in Vasant Kunj (28° 31’45.16” N 77°8’53.97”E). The proposed project NH-148AE is 4.78 km long which includes a 2.8 km long twin tube tunnels in ridge area and a surface road of 6-Lanes configuration. The proposed corridor is a green field alignment and will have minimal impact on environment.

<b>Features of the Alignment</b>	
Total Length	4783 m
Tunnel Length	2800 m
Approach Ramp to Tunnel End Portal	600 m
At Grade Surface Road	702 m
Existing Nelson Mandela Marg to be used	681 m

3.6.3. The proposed project falls under Schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total investment/cost of the project is about Rs. 1984.00 Crores.

3.6.4. Land use/ Land cover (approx. area) of the project site is as following:

S.No.	Landuse/Landcover	Area (ha)	Percentage (%)	Remarks if any
1.	Private land	6.0368	88.8	None

2.	Government land	0.7561	11.1	None
3.	Forest land	5.464	-	None
	<b>Total (excluding forest land)</b>	<b>6.7929</b>	<b>100</b>	None

3.6.5. The land use pattern on 10 km either side of the project road is predominately agriculture followed by habitation, waste land. The alignment passes through southern ridge with a length of about 2 km as per Notification issued in 1996 by the Govt. of NCT Delhi. The proposed RoW varies from 45 – 60 M for the project road.

3.6.6. Forest land, Eco sensitive area, National Park is not involved in the project site. The alignment does not pass through any Protected Area.

3.6.7. Terrain and topographical features: Geometric design standards are adopted keeping the above in view. The project road lies in plain and rolling terrain. The design is mainly prepared based on IRC: SP: 87 2019 “Manual of Specifications and Standards for six laning of Highways” and IRC: SP: 91 2019 “Guideline for Road Tunnels” besides adopting relevant standards from IRC SP:23 - Vertical Curves for Highways, IRC:38-Geometric Design for Horizontal Curves.

3.6.8. Water Bodies: Rose Garden Kaccha Nala towards North East which is 4.76 km from the project site.

3.6.9. Water requirement: The average water requirements is anticipated to be 22 KLD approximately. During construction stage water will be extracted from suitable surface sources (river/canals) or ground water will be used after obtaining necessary permissions from the competent authority.

3.6.10. Tree Cutting: No trees are proposed to be cut within the boundary of Southern/ Morphological Ridge. About 1286 trees have been counted within the proposed RoW at the approaches of proposed tunnel and existing Nelson Mandela Marg which are out of Ridge boundary. Most of the trees falling along the alignment are the part of agroforestry/ avenue plantation and along the existing road. Efforts will be made to minimize the trees loss by restricting trees cutting within formation width. Avenue plantation shall be carried out as per IRC: SP:21:2009 on available land apart from statutory requirements.

3.6.11. Land acquisition and R&R issues: The Project requires approx. 6.5 ha land. Approximately 28 nos. of structures are coming in the proposed RoW. Minimum land acquisition would be required in Mehrauli Village’s agriculture land. The land will be acquired as per procedure laid down in NH Act, 1956 and RFCTLARR Act, 2013.

3.6.12. Benefits of the project: The proposed access controlled 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 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.

3.6.13. Details of Court cases: No court case is pending against the proposed project.

3.6.14. During deliberation, EAC observed and noted the following:

- i. *Drainage pattern and how it will be managed for the project has to be detailed out.*
- ii. *Implementation of green belt management details has to be furnished.*

3.6.15. The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 289<sup>th</sup> meeting during 17<sup>th</sup> - 18<sup>th</sup> February, 2022 and **recommended** the proposal for grant of Terms of Reference (ToR) with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. Fresh base line monitoring data should be collected for preparing EIA/EMP studies.
- ii. A comprehensive hydrological and hydrogeological investigation shall be conducted by a reputed institute for the site and should be incorporated in the EIA report.
- iii. A comprehensive assessment of impact of seismicity on tunnel stability needs to be studied by a reputed institute and should be incorporated in the EIA report.
- iv. Details regarding ventilation system envisaged for the tunnels need to be presented in the EIA report.
- v. Detailed muck and dredge material disposal plan including specific earmarked locations be identified.
- vi. Evacuation plans in case of fire, floods, earthquake etc be carefully studied with models and explanations be presented as a part of the EIA report.

### **Agenda No. 3.7**

**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 - Amendment in Terms of Reference**

**[Proposal No. IA/MP/NCP/251652/2022 and File No 10-1/2019-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and ToR/ ToR amendment given, if any, will be revoked at the risk and cost of the project proponent.”*

3.7.1 The project proponent along with EIA Consultant M/s Intercontinental Consultants and Technocrats Pvt. Ltd. New Delhi has made a presentation through Video Conferencing and provided the following information:

3.7.2 The proposed project is the four laning of Balaghat to Gondia Section of newly declared National Highway NH-543 (old SH-9, SH-11 & SH-275).

3.7.3 The proposed project falls under 7(f) – Highways, Category-A, as per EIA notification 2006. It was considered by the Expert Appraisal Committee in its 206<sup>th</sup> meeting held on 24-25 January, 2019. ToR was granted vide letter No. 10-1/2019-IA.III dated 06<sup>th</sup> March 2019.

3.7.4 The PP vide Letter No. CHW/15010/9/ENV/MP/4636, dated 13<sup>th</sup> Jan 2022 has requested for amendment in ToR letter dated 06<sup>th</sup> March 2019 for “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”. The required amendment in Project Layout is as following:

S. No.	Reference of Approved ToR	Description as per Approved ToR	Description as per ToR amendment
1	Project Name	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	Development of 4-laning of Balaghat-Gondia Section of NH-543 from km 0.000 to km 39.410 in the State of Madhya Pradesh and Maharashtra
2	Alignment of Balaghat Bypass	Length of approved alignment was 14.4 km	Length of new alignment is 15.232 km
3	Project Length	48.070 km	39.410 km
4	End Chainage	48+070	39+410
5	Proposed RoW	70.0 m	45.0 m in general; 30.0 m in some forest patches

3.7.5 Reason for the Amendment: The PP has submitted that District Collector, Balaghat directed NHAI to explore a new option for Balaghat Bypass on the representation of the villagers along the proposed alignment of Balaghat bypass. Accordingly, new alignment was explored by NHAI in consultation with the District Collector and public representatives of the area. The proposed new alignment is towards western side of the approved alignment without modifying the start point, which meets the original alignment at Km 6.700. The District Collector Balaghat vide letter dated 10.11.2021 directed NHAI to proceed with the new alignment of Balaghat Bypass. Further, National Highway Division, P.W.D. Maharashtra vide letter dated 14.12.2021 informed that stretch from Rawanwadi to Gondia junction is being developed under planned scheme of MoRTH, which is part of proposed project road. Hence to avoid repetition, it is decided to drop the above stretch for development and this project and the stretch from Rawanwadi to Gondia of length 8.66 km (from chainage 39+410 to 48+070) has

been excluded from this project.

3.7.6 Details of Court cases: No court case is pending against the proposed project.

3.7.7 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289<sup>th</sup> meeting during 17<sup>th</sup> – 18<sup>th</sup> February, 2022 and **recommended** the proposal for grant of Amendment in Terms of Reference as mentioned in the table above (Para 3.7.4) along with the following specific conditions, in addition to all standard conditions applicable for such projects:

- i. Project areas crossing the forest and river (flood area) has to be detailed out.
- ii. Forest passing areas have to be realigned.
- iii. The committee will visit the alignments that is passing through hilly areas/ forest area for consideration.

### **Agenda No. 3.8**

#### **Development of Satellite Town Ring Road (STRR) Phase-I of NH-948A from Dobbaspete (km 0.000) to Ramanagara (km 82.200) in Ramanagara District (Karnataka) under Bharatmala Pariyojana by M/s National Highways Authority of India – Environmental Clearance**

**[Proposal No. IA/KA/MIS/75227/2018; File No. 10-33/2018-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.8.1. The project proponent along with the EIA Consultant M/s. Louis Berger Consulting Private Limited made a presentation through Video Conferencing and provided the following information:

3.8.2. The proposed Satellite Town Ring Road (STRR) Phase-I project is a newly declared National Highway NH-948A *vide* Gazette notification S.O. 06(E), dated 1<sup>st</sup> January, 2018. The project is located in Karnataka State and only passing through two districts namely Ramanagara and Bangalore Rural districts of Karnataka from km. 0.000 (13°14'56.80" N 77°18'29.26"E) in Obalapura village near Dabbaspete and terminates at km. 82.200 (12°40'10.25" N 77°19'50.23"E) in Kailancha village near Ramanagara.

3.8.3. The proposed project falls under schedule 7(f), Highway, Category A of EIA Notification 2006. The Terms of Reference (ToR) was accorded *vide* F. No. 10-33/2018-IA.III, dated 23<sup>rd</sup> January, 2019 during 195<sup>th</sup> EAC meeting dated 30<sup>th</sup> - 31<sup>st</sup> August, 2018. Total project cost is ₹4112.00 Crores.

3.8.4. Total area of the proposed project is 685.367 ha and total length of the alignment is 82.200 Km. The proposed main carriageway is 6 lanes configuration and RoW is 70 m throughout the corridor except at interchange, toll plaza, truck parking, grade separated structures etc.

3.8.5. Land use/ Land cover of the project site is as following:

S. No	Classes	Area (ha.)	Area in (%)
1	Settlement	1.62	0.24
2	Agriculture	632.86	92.34
3	Vegetation	50.47	7.36
4	Waste Land	0.09	0.01
5	Water Bodies	0.33	0.05
<b>Total</b>		<b>685.37</b>	<b>100.00</b>

3.8.6. Landuse/Landcover around 10 km radius of project site (1 km in case of Highway projects) is as following:

S. No.	LU/LC	Area (Ha)	Percentage (%)
1	Settlement	178.62	2.16
2	Agriculture	7089.76	85.62
3	Vegetation	952.24	11.50
4	Waste Land	11.64	0.14
5	Water Bodies	48.24	0.58
<b>Total</b>		<b>8280.50</b>	<b>100.00</b>

3.8.7. Public Hearing was conducted in Ramanagara and Bangalore rural District of Karnataka on the following dates:

S. No.	Date	Venue	Districts	State
1	09.08.2019	National Highway Authority of India, Project Office premises, Basavanapura (Ramadevarapada), Ramanagara-562128.	Ramanagara	Karnataka
2	16.08.2019	Basava Sri Shivashri Kalyana Mantapa Chanadanahodalli Village, Shivagange road, Bengaluru Rural District	Bangalore Rural	Karnataka

3.8.8. Forest land/Eco sensitive areas/Protected area: There is no diversion of forest land in the project. The project is not located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC. However, Ramadevarabetta Vulture Sanctuary is 1.0 km away from the project road, whereas ESZ of Ramadevarabetta Vulture Sanctuary is 200 m away from the proposed alignment.

3.8.9. Terrain and topographical features: The project site is characterized by plain and rolling terrain. The project site is elevated about 900 m above mean sea level.

3.8.10. Water bodies and impact on drainage: The proposed alignment is crossing the Arkavathi river at design km 78.100. In addition, four ponds are marginally affected at design km 8.800, km 12.800, km 27.300 and km 73.500, for that suitable structures (bridges) have been proposed to maintain the natural drainage pattern of these water bodies.

3.8.11. About 17 VUP, 6 VUP with canal crossings, 9 LVUP, 10 VOP, interchanges at 6 locations, 1 Major Bridge, 13 Minor Bridge, 3 ROBs, Viaduct at 4 locations, and 119 culverts are proposed along the project stretch for free passage to villagers & domestic animals and to avoid any impact on local hydrology.

3.8.12. Water requirements: It is estimated that approximately 31,33,233 KL (3436 KLD) water will be required during the construction stage. Water will be sourced from surface water and water tankers. NHAI will purchase water tankers from the approved empaneled agencies of respective districts. Necessary permission will be obtained by the contractor from the appropriate authority prior to construction as per law/agreement. No groundwater extraction is proposed.

3.8.13. Waste Management: Minimum debris/waste material will be generated, since this is a Greenfield project. Only where the road passing through the existing alignment, earthwork generated due to excavation may reuse for filling purpose. Further, C&D waste shall also be used in construction of embankment. Mobile toilet will be provided.

3.8.14. Tree cutting and Green Belt Development: There are 5,401 non-forest trees and 16,806 numbers of poles (girth size having less than 30 m are categorized as poles) are falling under Corridor of Impact. Maximum efforts will be given to save the trees especially those which are falling outside the construction zone. It is estimated that about 728 trees and 4110 poles would fall outside the construction zone and are likely to get saved from felling. Green Belt Development: Contractor will carry out plantation approx 77,011 plants (approx. 33,215 nos. road side & 43,796 nos. shrubs in median) as per IRC SP 21-2009 on available RoW as per scope of agreement.

3.8.15. Energy Conservation will be done as per IRC code.

3.8.16. Rain Water Harvesting: Rainwater harvesting structures will be provided at the locations where the first aquifer of ground water table is more than 8-10m. The provision of rain water harvesting will be executed as per IR:-SP:50-2013 guidelines and MoRT&H guidelines.

3.8.17. During the socio-economic survey, it has been found that total 310 nos. of structures (268 private, 10 Government, 31 communities and 1 panchayat properties), 260 households (PAHs), 468 nos. of families (PAFs) and 1170 nos. of persons (PAPs) are getting affected due to the proposed development. Affected person and structures will be compensated as per relevant provisions of RFCLARR Act 2013 and NH Act 1956. The total cost is INR 2034.54 Cr.

3.8.18. Land Acquisition/ R&R Issues: The R&R plan has been prepared based on Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013. The LA and R&R cost is INR 2034.54 crores.



Total Land required	685.367 ha.
Government Land	66.073 ha.
Private Land	619.294 ha.
Forest Land	Nil

3.8.19. Employment potential: Approximately 2000 employees during construction and 250 employees during operation phase in direct and indirect ways will be required.

3.8.20. 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. In order to decongest the traffic of Bangalore city, the STRR is proposed to ensure a safe, smooth, efficient, and high-speed transport corridor to this city. The STRR will function as an alternative and there is huge potential for the traffic to get diverted to the proposed STRR facility. It will ensure high-speed connectivity primarily to Bangalore International airport and to the proposed Bangalore - Chennai Expressway. The major settlements along the proposed corridor that will be benefitted from the proposed project include Dobaspet, Doddaballapura, Devanahalli, Sulibele, Hoskote, Sarjapur, Attibele, Anekal, Tattakere, Kanakapura, Ramanagara and Magadi.

3.8.21. Details of court cases: No court cases are pending against the proposed project.

3.8.22. During the deliberation, the EAC observed and noted the following:

- i. *The dimension (25 m X 5 m) mentioned for Animal underpass in the DCF Ramanagara letter is not acceptable.*
- ii. *The height of the animal underpass should be minimum 7 m.*
- iii. *Sufficient space (width) should be provided for animals to stand/moving in herds especially for elephants.*
- iv. *PP has to provide animal underpass wherever necessary and as recommended by Chief Wildlife Warden and WII guidelines has to be followed.*
- v. *The details of the muck disposal/ storage site have to be detailed out.*

3.8.23. The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289th EAC meeting on 17th – 18th February, 2022 and **recommended** the proposal for grant of Environmental Clearance with specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. Green belt development (tree plantation) in lieu of the trees being felled in non-forest land should be carried out by the State forest department as deposit work and not by the private contractor. Green belt must be developed using exclusively native species including significant number of Ficus trees. No exotic species to be used for the same. A comprehensive plan for plantation shall be prepared in consultation with state forest department (executing agency) including the costs involved. Such compensatory plantation will be over and above the compensatory afforestation to be carried in lieu of the diversion of forest land, if any.

- ii. No Ground water shall be extracted and used. Approval/permission of concerned authority shall be obtained before drawing surface water from canal or any other sources.
- iii. The proponent shall obtain permission from the competent authorities for tree felling along the proposed alignment.
- iv. Rain water harvesting pit shall be at least 3 - 5 m above the highest ground water table.
- v. In borrow pits, the depth of the pit shall be regulated such that the sides of the excavation will have a slope not steeper than 1:2, from the edge of the final section of bank. Soil erosion checking measures shall be carried out. Details for Borrow area operation and rehabilitation given in EIA report shall be followed.
- vi. Quarry areas shall be barricaded during mining operations. The abandoned quarry shall be developed as water reservoirs with proper fencing around quarry area. Details for Quarry area operation and rehabilitation given the EIA report shall be followed.
- vii. In all the construction sites within 150 m of the nearest habitation, noisy construction work such as crushing, concrete mixing will be stopped during the night time between 10.00 pm to 6.00 am. No noisy construction activities will be permitted around educational institutions/health centres (silence zones) up to a distance of 100 m from the sensitive receptors. All plants and equipment used in construction shall strictly conform to the CPCB/SPCB noise standards.
- viii. Traffic Control Devices/Road Safety Devices/ Roadside Furniture including various types of cautionary, informatory, regulatory as mandatory signboards, road markers, studs, etc. shall be provided at appropriate locations all along the project stretch in accordance with the specifications laid down in Manual of Specifications and Standards for Expressways (IRC: SP:99-2013) and IRC:8, IRC:25, IRC:26, IRC:35, IRC:67, IRC:79, IRC:103 and Section 800 of MORTH Specifications.
- ix. Prepare the traffic prediction report for complete project (including all packages of this project) considering the cumulative impact of the traffic on the environment and submit to the Ministry and concerned Regional Office within 3 months.
- x. All the major, minor bridges and culverts should not affect the drainage systems. Flood plains of the rivers/ drainage systems are not to be disturbed.
- xi. Afforestation using compensatory plantation in the ratio of 1:10 shall be carried out. Native tree species shall be provided as per the IRC Guidelines on Landscaping and Tree Plantation (IRC: SP:21-2009). Effort should be made to plant native trees and Ficus species on both sides of the alignment. Special attention shall be given for protecting giant trees, and locally important trees (having cultural importance) and should be identified chainage wise.
- xii. Project alignment should be managed in such a way to save the Heritage/old trees supposed to be affected by the proposed alignment.
- xiii. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and

conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory afforestation etc., either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also become part of EMP and shall be implemented.

- xiv. Proponent shall keep the finish road level sufficiently elevated from ground level with provision of railing on both sides to restrict animal crossing in order to avoid the possibility of wildlife injury/death. Animal underpasses, watch tower, water holes and other mitigation measures proposed shall be constructed in supervision of forest department. Animal underpasses should be as stated in 3.8.22 ii, iii, iv
- xv. While constructing the over bridges as proposed over major water bodies efforts should be made to avoid construction of pillars in beds of water bodies.

### **Agenda No. 3.9**

**Development of 4/6 lane (Greenfield) access control Expressway from Bengaluru–Kadappa – Vijayawada (BKV) Section: Package-I Starts at Koduru Village on NH-44 (Design Ch. 0.000) and Ends near Kothapalle Village (Design Ch. 160.000) in the State of Andhra Pradesh (Total Length - 160.000 km) by M/s National Highways Authority of India - Terms of Reference**

**[Proposal No. IA/AP/NCP/253124/2022 and File No. 10/7/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.9.1 The project proponent along with the DPR consultant M/s Aarvee Associates Architects Eng. & Consultants Pvt. Ltd has made a presentation through Video Conferencing and provided the following information-

3.9.2 The proposed project is for Development of 4/6 lane (Greenfield) access control Expressway from Bengaluru– Kadappa – Vijayawada (BKV) Section: Package-I Starts at Koduru Village on NH-44 (Design Ch. 0.000; Lat: 13°53'21.50", Long:77°42'20.55"E) and Ends near Kothapalle Village (Design Ch. 160.000; Lat: 14°49'46.17"N, Long: 78°46'31.14"E) in the State of Andhra Pradesh.

3.9.3 The proposed project falls under Schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total estimated civil cost of the project is about Rs. 6001.6 Crores.

3.9.4 The total length of the project corridor is 160.000 km. The proposed land acquisition for the proposed alignment is approx. 1595.65 Ha. The proposed RoW is 90 m in Non-Forest areas and 60 m in Forest-areas. The land use pattern in 1 km either side of the project road is predominantly cultivated and barren fields.

3.9.5 Land use /Land breakup of the proposed project site: The details of Land use/ Land cover of project is as below-

S. No.	Land use/Land cover	Area (ha)	Percentage (%)
1.	Built up	-	-
2.	Agriculture	1052.48	65.97
3.	Forest	38.70	2.43
4.	Barren	478.85	30.00
5.	Others	25.52	1.60
<b>Total</b>		<b>1595.65</b>	<b>100</b>

3.9.6 Terrain and topographical features: Terrain is mostly slope across the highway alignment. Based on this criterion, the entire project stretch traverses predominantly through Plain terrain followed by Rolling terrain.

3.9.7 Forest Land: The project is passing through Dokkalakonda Reserve Forest and Dorigallu Reserved Forest for a length of 6.450 kms. The proposed project involves diversion of 38.70 ha of forest areas.

S. No	Chainage		Length (m)	Name of Forest
	From	To		
1	24400	27250	2850	Dokkalakonda R. F
2	72450	76050	3600	Dorigallu R. F
<b>Total</b>			<b>6450</b>	<b>38.70 ha</b>

3.9.8 ESZ/National Park/Sanctuary: The proposed alignment does not pass through any ESZ, National Parks, Wildlife Sanctuary, Tiger Reserve, Protected area or any other notified eco-sensitive areas within in 10 Km radius of the project locations.

3.9.9 Water bodies: There are 02 nos. of canal, Nala 01 no falling along the alignment. There is no major impact on the drainage system as 46 nos. of structures such as culverts, minor bridges, major bridges etc. will be constructed. The alignment is passing across River Chitravathi at 3.950 km, Penna River at 135.350 km and Kundu River at 141.300 km. The proposed road is also crossing few canals. Proper care shall be taken to free from dumping of solid wastes and earth materials. No change in hydrology of water courses is envisaged due to the project. Adequate number of balancing culverts will be provided to maintain the natural water flow and drainage.

3.9.10 Water requirement: The construction water requirement will be met from surface water bodies. Ground water will be used for construction, where surface water is not available after obtaining prior permission from concerned authorities. Approximate water requirement for the construction is 6,540,650 KL. Ground water will be extracted from bore wells or surface water will be extracted from the nearby river depending on the season of construction and water availability with the permission of ground water board / irrigation department.

3.9.11 Waste management: The proposed project does not involve construction of CETP. However, Septic tank, soak pit will set-up for canteen/kitchen waste in construction camp and toilet waste liquids are discharge to septic/soak pit. Other liquid waste treated at sites by using storage and sedimentation

tank. The effluent of the sedimentation tank is discharge within permissible limits of respective parameters. The sewage system shall be properly designed and built so that no water pollution takes place.

3.9.12 Tree cutting: The proposed alignment requires cutting of approximately 11905 nos (Non-forest areas: 10899 trees + Forest Areas: 1006 trees) of trees in proposed RoW. The detail of development of green belt will be prepared as per IRC:SP-21: 2009 after approval of alignment.

3.9.13 Land acquisition and R&R issues: The proposed project road would require land of approx. 1595.65 hectares. The project affected families (PAF) is approximately 10 nos. The exact number of likely to be affected households and thereby magnitude of impact can be determined after the completion of survey. All the affected properties belonging to legitimate owners shall be incorporated in the subsequent reports.

3.9.14 Employment details: During the construction of the project around 1600 persons would be employed. Generally, locals are employed by the contractor.

3.9.15 Benefits of the project: The proposed green field corridor is very much required as it reduces substantial length, travelling time and fuel consumption. This proposed corridor is also intended to augment the Transport Infrastructure in the states of Andhra Pradesh and Karnataka and boost the industrial, freight movement and tourism sectors by providing faster inter-region connectivity. The project road will cause several benefits to local people both during construction and operation stage. Besides providing better mode and frequency of transport, access to quality health care facilities, educational and other infrastructural facilities will increase economic activities especially supporting transport like gasoline station, automotive repair shops, lodging and restaurants.

3.9.16 Details of court cases: No court cases are pending against the proposed project.

3.9.17 *During the deliberation, the EAC observed and noted the following:*

*i. Canal crossings/tunnels/bridges/Animal crossing zones has to be constructed wherever necessary.*

3.9.18 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289<sup>th</sup> EAC meeting during 17<sup>th</sup> – 18<sup>th</sup> February 2022 and **Deferred** the proposal for grant of Term of reference with specific conditions, as mentioned below-

*i. Consultation with PCCF has to be done for construction of Canal crossings/tunnels/bridges/Animal crossing zones etc.*

*ii. The proposal will be considered based on the recommendations and reviews by the concerned PCCF.*

*iii. Distribution areas of Critically Endangered bird Jerdon's Courser *Rhinoptilus bitorquatus* should be mapped in consultation with Chief Wildlife Warden and shared with EAC. Alignment must avoid Jerdon's Courser distribution areas as well as the areas that may be suitable for the species. The species is on the verge of*

extinction and thus it is paramount that the remaining habitat of the species is left intact. Help from Nature Conservation Foundation (NCF) who is working on the species in the landscape may be sought in this regard.

- iv. *Kottapalli to Mallipalli (chainage 162.00 to 173.00) corridor alignment should be decided by the chief wildlife warden of the concerned state.*

### Agenda No. 3.10

**Development of 4 lane/6 lane (Greenfield) access Control expressway from Bengaluru-Kadapa-Vijayawada (BKV) Section Package-2: Start near Kothapalle Village (Design Ch. 160.000) and Ends near Uppalapadu Village (Design Ch. 226.000) in the State of Andhra Pradesh (Total Length - 66.000 km) by M/s National Highways Authority of India - Terms of Reference**

**[Proposal No. IA/AP/NCP/253209/2022 and File No. 10/8/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.10.1 The project proponent along with the DPR consultant M/s Aarvee Associates Architects Eng. & Consultants Pvt. Ltd has made a presentation through Video Conferencing and provided the following information-

3.10.2 The proposed project is for Development of 4 lane/6 lane (Greenfield) access Control expressway from Bengaluru-Kadapa-Vijayawada (BKV) Section Package-2: Start near Kothapalle Village (Design Ch. 160.000; Lat: 14°49'46.25"N, Long: 78°46'31.07"E) and Ends near Uppalapadu Village (Design Ch. 226.000; Lat: 15° 9'41.39"N, Long: 79°14'24.42"E) in the State of Andhra Pradesh. Total Length of the project is 66.000 km.

3.10.3 The proposed project falls under Schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total estimated civil cost of the project is about Rs. 3901.92 Crores.

3.10.4 Land use /Land breakup of the proposed project site is as following:

S. No.	Land use/Land cover	Area (ha)	Percentage %
1.	Built up	-	-
2.	Agriculture	362.83	61.45
3.	Forest	83.62	14.16
4.	Barren	132.15	22.38
5.	Others	11.88	2.01
<b>Total</b>		<b>590.48</b>	<b>100</b>

3.10.5 The land use pattern in 1 km either side of the project road is predominantly cultivated and barren fields.

3.10.6 The right of way (RoW) of 90 m is considered for the Non-Forest areas and 60 m for the Forest areas throughout the project length.

3.10.7 Terrain and topographical features: Terrain is mostly slope across the highway alignment. Based on this criterion, the entire project stretch traverses predominantly through Plain terrain followed by rolling terrain.

3.10.8 Forest Land: The proposed project involves diversion of 83.62 ha of forest land as shown below-

S. No	Chainage		Length (m)	Name of Forest
	From	To		
1	166050	170800	4750	Kanchalamoram R. F
2	196100	201700	5600	Chintodu R. F
3	218800	219150	350	Bhairavuni Konda R. F
4	223250	225050	1800	
<b>Total</b>			<b>12500</b>	<b>83.62 ha</b>

3.10.9 Water requirement: The construction water requirement will be met from surface water bodies. Ground water will be used for construction, where surface water is not available after obtaining prior permission from concerned authorities. Approximate water requirement for the construction is 2,814,963 KL. Ground water will be extracted from bore wells or surface water will be extracted from the nearby river depending on the season of construction and water availability with the permission of ground water board / irrigation department.

3.10.10 Tree cutting: The proposed alignment requires cutting of approximately 5722 nos (in Non-forest areas 3548 and in Forest Areas 2174) of trees in proposed RoW. The detail of development of green belt will be prepared as per IRC:SP-21: 2009 after approval of alignment.

3.10.11 The proposed alignment is passing 16 Km away from Lanka Malleswaram WLS and 54 km from Gundla Brahmeswara, WLS. It is passing through the proposed Tiger Corridor of Nagarjunasagar-Srisailem Tiger Reserve (NSSTR).

3.10.12 Water bodies: The alignment is not passing across any major river. However, the proposed road is crossing few streams. Proper care shall be taken to free from dumping of solid wastes and earth materials. No change in hydrology of water courses is envisaged due to the project. Adequate number of balancing culverts will be provided to maintain the natural water flow and drainage.

3.10.13 Land acquisition and R&R issues: The proposed project road would require land of approx. 590.48 hectares. The project affected families (PAF) is approximately 14 nos. The exact number of likely to be affected households and thereby magnitude of impact can be determined after the completion of survey. All the affected properties belonging to legitimate owners shall be incorporated in the subsequent reports.

3.10.14 Waste management: The proposed project does not involve construction of CETP. Septic tank, soak pit will set-up for canteen/kitchen waste in construction camp and

toilet waste liquids are discharge to septic/soak pit. Other liquid waste treated at sites by using storage and sedimentation tank. The effluent of the sedimentation tank is discharge within permissible limits of respective parameters. The sewage system shall be properly designed and built so that no water pollution takes place.

3.10.15 Employment details: During the construction of the project around 700 persons wouldbe employed. Generally, locals are employed by the contractor.

3.10.16 Benefits of the project: The proposed green field corridor is very much required as it reduces substantial length, travelling time and fuel consumption. This proposed corridor is also intended to augment the Transport Infrastructure in the states of Andhra Pradesh and Karnataka and boost the industrial, freight movement and tourism sectors by providing faster inter-region connectivity. The project road will cause several benefits to local people both during construction and operation stage. Besides providing better mode and frequency of transport, access to quality health care facilities, educational and other infrastructural facilities will increase economic activities especially supporting transport like gasoline station, automotive repair shops, lodging and restaurants. Increase agro-industrial activities are also expected to take an advantage of improved access to urban centres, where there are higher demands and better prices for agricultural products. Further, tourism activities in the area and state will be enhanced which in many terms will boost the local economy and build better investment climate for industries creating more employment opportunities to local people.

3.10.17 Details of court cases: No court cases are pending against the proposed project.

3.10.18 *During the deliberation, the EAC observed and noted the following:*

*i. Canal crossings/tunnels/bridges/Animal crossing zones has to be constructed wherever necessary.*

3.10.19 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289<sup>th</sup> EAC meeting during 17<sup>th</sup> – 18<sup>th</sup> February 2022 and **deferred** the proposal for grant of Term of reference with specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects.

*i. The proposal will be considered based on the recommendations and reviews by the concerned PCCF.*

*ii. Consultation with PCCF has to be done for construction of Canal crossings/tunnels/bridges/Animal crossing zones etc.*

*iii. Viability of this alignment is subject to specific observations made in 3.9.18 i to iv*

### **Agenda No. 3.11**

**Development of 4/6 lane (Greenfield) access control Expressway from Bengaluru–Kadappa – Vijayawada (BKV) Section Package III: Starts near Uppalapadu village (Design Ch. 226.000) and ends near Muppavaram village on NH-16 (Design Ch. 342.500) in the state of Andhra Pradesh (Total Length - 116.50 km) by M/s National Highways**



## Authority of India - Terms of Reference

[Proposal No. IA/AP/NCP/253282/2022 and File No. 10/9/2022-IA.III]

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.11.1 The project proponent along with the DPR consultant M/s Aarvee Associates Architects Eng. & Consultants Pvt. Ltd has made a presentation through Video Conferencing and provided the following information-

3.11.2 The proposed project is for Development of 4/6 lane (Greenfield) access control Expressway from Bengaluru– Kadappa – Vijayawada (BKV) Section Package III: Starts near Uppalapadu village (Design Ch. 226.000; 15° 9'41.63"N; 79°14'24.51"E) and ends near Muppavaram village on NH-16 (Design Ch. 342.500; 15°50'7.30"N; 80° 2'53.55"E) in the state of Andhra Pradesh. Total Length of the proposed alignment is 116.5 km.

3.11.3 The proposed project falls under Schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total estimated civil cost of the project is about Rs. 4560.98 Crores.

3.11.4 Land use /Land breakup of the proposed project site:

S. No.	Land use/Land cover	Area (ha)	Percentage (%)
1.	Built up	-	-
2.	Agriculture	808.82	69.18
3.	Forest	12.60	1.08
4.	Barren	328.98	28.16
5.	Others	18.00	1.58
<b>Total</b>		<b>1169.90</b>	<b>100</b>

3.11.5 Land use pattern in 1 km either side of the project road is predominantly cultivated and barren fields.

3.11.6 The right of way (RoW) of 90 m is considered for the Non-Forest areas and 60 m for the Forest areas throughout the project length.

3.11.7 Terrain and topographical features: Terrain is mostly slope across the highway alignment. Based on this criterion, the entire project stretch traverses predominantly through Plain terrain followed by Rolling terrain.

3.11.8 Forest Land: The proposed project involves diversion of 83.62 ha of forest land. The proposed project passes through Pulimikonda R.F for a length of 1.800 Kms. The proposed project involves diversion of 12.60 ha of forest land

3.11.9 ESZ/National Park/Sanctuary: The proposed alignment is not passing through Wildlife Sanctuary falling within 15 km. However, the proposed project passes through Pulimikonda R.F for a length of 1.800 Kms. The proposed project involves diversion of 12.60 ha of forest

land.

3.11.10 Water bodies: The alignment is passing across River Musi at km 301.000. The proposed road will cross few streams. Proper care shall be taken to free from dumping of solid wastes and earth materials. No change in hydrology of water courses is envisaged due to the project. Adequate number of balancing culverts will be provided to maintain the natural water flow and drainage.

3.11.11 Water requirement: The construction water requirement will be met from surface water bodies. Ground water will be used for construction, where surface water is not available after obtaining prior permission from concerned authorities. Approximate water requirement for the construction is 4,903,418 KL. Ground water will be extracted from bore wells or surface water will be extracted from the nearby river depending on the season of construction and water availability with the permission of ground water board / irrigation department.

3.11.12 Waste Management: The proposed project does not involve construction of CETP. However, Septic tank, soak pit will set-up for canteen/kitchen waste in construction camp and toilet waste liquids are discharge to septic/soak pit. Other liquid waste treated at sites by using storage and sedimentation tank. The effluent of the sedimentation tank is discharge within permissible limits of respective parameters. The sewage system shall be properly designed and built so that no water pollution takes place.

3.11.13 Tree cutting: The proposed alignment requires cutting of approximately 8429 nos (in Non-forest areas 8101 and in Forest Areas 328) of trees in proposed RoW. The detail of development of green belt will be prepared as per IRC: SP-21: 2009 after approval of alignment.

3.11.14 Land acquisition and R&R issues: The proposed project road would require land of approx. 1169.90 hectares. The project affected families (PAF) is approximately 30 nos. The exact number of likely to be affected households and thereby magnitude of impact can be determined after the completion of survey. All the affected properties belonging to legitimate owners shall be incorporated in the subsequent reports.

3.11.15 Employment details: During the construction of the project around 1200 persons would be employed. Generally, locals are employed by the contractor.

3.11.16 Benefits of the project: The proposed green field corridor is very much required as it reduces substantial length, travelling time and fuel consumption. This proposed corridor is also intended to augment the Transport Infrastructure in the states of Andhra Pradesh and Karnataka and boost the industrial, freight movement and tourism sectors by providing faster inter-region connectivity. The project road will cause several benefits to local people both during construction and operation stage. Besides providing better mode and frequency of transport, access to quality health care facilities, educational and other infrastructural facilities will increase economic activities especially supporting transport like gasoline station, automotive repair shops, lodging and restaurants. Increase agro-industrial activities are also expected to take an advantage of improved access to urban centres, where there are higher demands and better prices for agricultural products. Further, tourism activities in the area and

state will be enhanced which in many terms will boost the local economy and build better investment climate for industries creating more employment opportunities to local people.

3.11.17 Details of court cases: No court cases are pending against the proposed project.

3.11.18 *During the deliberation, the EAC observed and noted the following:*

*i. Canal crossings/tunnels/bridges/Animal crossing zones has to be constructed wherever necessary.*

3.11.19 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289th EAC meeting during 17th – 18th February 2022 and **deferred** the proposal for grant of Term of reference with specific conditions, as mentioned below-

*i. The proposal will be considered based on the recommendations and reviews by the concerned PCCF.*

*ii. Consultation with PCCF has to be done for construction of Canal crossings/tunnels/bridges/Animal crossing zones etc.*

*iii. Viability of this alignment is subject to specific observations made in 3.9.18 i to iv*

*iv. Forest clearance status has to be detailed out.*

### **Agenda No. 3.12**

**Development of economic corridors, inter corridors, feeder routes and borders road to improve the direct connectivity in Indian Cities (Lot-8/Package-1) Surat –Nashik-Ahmednagar Greenfield Stretch (Length 289.00 km) in the States of Gujarat and Maharashtra by M/s National Highways Authority of India – Further consideration for Terms of Reference**

**[Proposal No. IA/MH/NCP/229436/2021 and File No. 10/47/2021-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.12.1 The proposal was earlier considered by EAC in its 281<sup>st</sup> meeting during 24<sup>th</sup> – 25<sup>th</sup> November, 2021 and deferred the proposal for want of some requisite documents/ information. The PP has submitted pointwise justification and detailed compliance of the ADS raised in 281<sup>st</sup> EAC meetings.

<b>S. no</b>	<b>ADS raised</b>	<b>Compliance of the ADS</b>
01	EAC noted that the project alignment passes through the Western Ghats and the RoW is 70m which will give a high impact to the environment.	• The Proposed ROW in Ghat section is reduced from 70 m to 45 m in forest area and 60m non-forest area. The proposed ROW for 6 lane tunnel (2

		<p>tubes) is reduced from 150m to 50m (2 X 25m) except at tunnel portal wherein it is proposed 150 m due to site specific technical reason.</p> <ul style="list-style-type: none"> <li>• Detailed Table has been provided in the compliance report.</li> </ul>
02	<p>EAC noted that project alignment passes through 438 hectares of forest land and crosses rivers like Ambika, Kaveri, Kharera, Sasu, Man, Par, Godavari, Paravara NB canal, Mula river and Dev Nadi. Committee suggested that the alignment will give negative impact to these resources if implemented.</p>	<ul style="list-style-type: none"> <li>• The proposed diversion of forest land is reduced from 438 ha. to about 265 ha by restricting ROW in forest area of Ghat section. There is proposed 13 Nos of major bridges and cross drainage structures at an interval of about 300m as per detailed geo- hydrological studies to maintain the natural drainage pattern.</li> <li>• Details of Major bridges across the Rivers proposed in the project have been mentioned in the compliance report.</li> </ul>
03	<p>Placing of tunnels in the proposed area might have serious impact on the water drainage pattern of the region and should be one of the important consideration before choosing the project location.</p>	<ul style="list-style-type: none"> <li>• The alignment of tunnel is proposed to avoid the water courses/aquifers after detailed geo-hydrological and geo-technical studies of the tunnel location. There will be no impact on the surface water drainage pattern.</li> <li>• The location of tunnel is placed based on the existing terrain condition.</li> <li>• All the mitigation measures will be taken to reduce the impact on the existing drainage pattern of the region.</li> </ul>
04	<p>EAC suggested to NHAI to explore the use the existing road/alignment in Western Ghats region as a new alignment in the Western Ghat section and tampering too much on it will have negative impact on the environment</p>	<p>The alternative analysis was carried out using the impact scoring matrix by comparing the existing alignment with the proposed alignment in Western Ghats section. Detailed information has been provided in the compliance report.</p>
05	<p>Committee recommends NHAI to revisit the site and identify for a better alignment with least possible impact on the Western Ghat section of the proposed road</p>	<p>Consultants had revisited the site and did road Inventory on existing NH-848. The proposed realignments &amp; Terrain conditions are furnished in the compliance report.</p>

3.12.2 At this instance, the project proponent along with the DPR consultant M/s Aarvee Associates Architects Eng. & Consultants Pvt. Ltd has made a presentation through Video Conferencing and provided the following information –

3.12.3 The proposed project is a Green field alignment, which starts from Vadodara – Mumbai

Expressway (at Km. 196+500) of Navsari district near to Toli village in the state of Gujarat (20°55'17.78"N, 73° 3'47.56"E) and ends at road connecting NH-61 near Kolhewadi village in Ahmednagar District (Des. Ch 290+700) in the State of Maharashtra (19° 5'3.37"N, 74°50'0.78"E).

3.12.4 The proposed project falls under 7(f), Highway, Category A. Total project cost is Rs, 17950 Cr.

3.12.5 Land use/Land cover of project site is as following-

S. No	Land Use	Area (ha)	Percentage (%)
1.	Built-up	2.80	0.14
2.	Agriculture	1515.15	73.71
3.	Forest	437.57	21.29
4.	Barren	91.70	4.46
5.	Others	8.40	0.41
	<b>Total</b>	<b>2055.62</b>	<b>100</b>

3.12.6 Land use/ Land cover around 10 km radius of project site (1 km in case of Highway projects): The proposed site envisaged wide variation of land using pattern with respect to environmental factors such as soil characteristics, climate, topography, and vegetation etc. In project area, the land use is characterized by agricultural lands, barren, water bodies, forests, hills and plantation etc. The major part of the land use pattern is used for cultivation purposes. The project area is a mix of both fertile wet and dry land. A large chunk of fallow/barren land parcel was found in Maharashtra side of SA road.

3.12.7 The total length of the project corridor is 290.7 km. The proposed land area for the proposed alignment is approx 2402 Ha. The proposed Right of Way (ROW) is 70 m throughout the project length and at the tunnel section 150 m.

3.12.8 The proposed alignment will have 20 nos. of SVUPs, 54 nos of LVUPs.,31 nos of VUPs, 13 nos of VOPs, 16 nos of MJBs, 131 nos of MIBs, 3 nos of ROB, 2 no of Tunnels, 23 nos of Interchanges, 11 nos of Viaducts and 430 nos of Culverts

3.12.9 Terrain and topographical features: Terrain in the project site is classified based on the general slope of the country across the highway alignment. Based on this criterion the project is mostly through plain terrain followed by hilly and rolling terrain.

3.12.10 Water Bodies: The proposed alignment that passes through the water bodies are below:

River	Distance
River Ambika	7.660 Km
River Kaveri	21.640 Km
River Kharera	33.760 Km
River Sasu	45.990 Km
River Man (at Two locations)	58.460 & 60.760 Kms- Gujarat state
River Par (At Three Locations)	70.660, 82.760 & 85.360 Km

River Godavari	151.960 Km
Paravara NB Canal	224.760 Km
Mula River	249.560 Km
Dev Nadi	256.340 Km
<b>Alignment passing across streams</b>	4.728, 5.163, 6.300, 8.835, 14.714, 122.884 and 168.818 to 181.254 Km
Adequate number of balancing culverts will be provided to maintain the natural water flow and drainage	

3.12.11 Water requirements: Total requirement of water for the construction is estimated to be 48,47,293 KL. During construction phase surface water will be used and drinking water requirement for workers will meet out through tube wells. Ground water will be extracted from bore wells or surface water will be extracted from the nearby river depending on the season of construction and water availability with the permission of ground water board / irrigation department.

3.12.12 Tree Cutting & Green Belt Development: About 64,600 nos. trees proposed to be removed within PRow of 70 m in non-forest areas and 37,500 nos of trees proposed to be cut in forest areas within PRow of 45m. Total trees proposed to be cut are 1,02,100 nos. The details of the afforestation in the project will be done in the form of avenue & median plantation will be done on available ROW as per IRC:SP-21: 2009. The detail of development of green belt will be prepared after approval of alignment.

3.12.13 Diversion of forest land: The proposed project involves diversion of 265 ha of Reserved forest land (as referred in Table 1, 2 & 3 for break-up). The forest clearance is not yet submitted.

S. No	State Name	District	Chainage (Km.)		Length (Km.)	Area in (Ha.)
			From (km)	To (km)		
1	Gujarat State	Navsari	35.7	36.2	0.5	2.25
2			37.6	38.1	0.5	2.25
3			38.25	44.6	6.35	28.575
4			45.1	45.15	0.05	0.225
		Total Length and Area in Navsari District.			7.4	33.3
5		Valsad	46.6	68.36	19.74	88.83
		Tunnel-1	65.89	67.11	1.22	6.1
		Approach			0.8	12
		Total Length and Area in Valsad District.			21.76	106.93
<b>Total Length and Area in Gujarat State</b>					<b>29.16</b>	<b>140.23</b>
S.No	State Name	District	Chainage (Km.)		Length (Km.)	Area in (Ha)
			From (km)	To (km)		
1	Maharashtra State	Nashik	68.360	90.500	19.99	89.96
2			93.500	95.800	2.30	10.35
3			96.600	96.800	0.20	0.90
4			97.200	98.200	1.00	4.50
5			Tunnel-2	78.290	79.640	1.35
		Approach	0.80			12.00
		Total Length and Area in Nashik District.			25.64	124.46

Total Length and Area in Maharashtra State					25.64	124.46
S.No	State Name	District Name	Length (Km.)	Area in (Ha)		
1	Gujarat State	Navsari	7.4	33.3		
2		Valsad	21.76	106.93		
3	Maharashtra State	Nashik	25.64	124.46		
<b>Total Forest Length &amp; Area</b>			<b>54.8</b>	<b>264.685</b>		

3.12.14 Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA): Forest Area of 438 Ha is required for development of this project. The proposed alignment is Passing 6km away from Nandur Madmeshwar Bird Sanctuary and Vansda National Park is around 17.5 Kms from the project.

3.12.15 CETP/STP Details: The proposed project does not involve construction of CETP. It does not involve any permanent wastewater from the proposed project. Hence, no sludge would be generated. As per the requirement in construction camp the canteen/kitchen/toilet waste shall be routed to septic tank and soak pit. Other liquid waste at sites will be stored at sedimentation tank. The effluent of the sedimentation tank shall be discharged within permissible limits of respective parameters. The sewage system shall be properly designed and built so that no water pollution occurs.

3.12.16 Land Acquisition/ R&R Issues: The proposed land acquisition for the alignment is approx. 2,402 Ha. As the RoW is 70 m and the exact number of affected households and thereby magnitude of impact can be determined after the completion of survey. The land required for the construction of highway will be acquired by NHAI before the commencement of construction work as per the provision of the LARR 2013 and NH Act 1956. All the affected properties belonging to legitimate owners shall be incorporated in the subsequent reports.

3.12.17 Employment potential: Due to the project, it is anticipated that it will create employment for 2,600 workers during peak construction period (two years) and for 1,300 workers during non-peak construction phase (two years) for the skilled and unskilled work force in the area.

3.12.18 Benefits of the project: **Connectivity:** Proposed green field corridor is reducing substantial length, travelling time and fuel consumption. It is also intended to augment the Transport Infrastructure in the states of Maharashtra and Gujarat and boost the industrial, freight movement and tourism sectors by providing faster inter-region connectivity. The project road will cause several benefits to local people both during construction and operation stage. **Economic:** Providing better mode of transport, access to quality health care facilities, educational and other infrastructural facilities will increase economic activities. The project helps in transportation of gasoline, automotive repair shops, lodging and restaurants. Increase agro-industrial activities are also expected to take an advantage of improved access to urban centers, where there are higher demands and better prices for agricultural products. Further, tourism activities in the area and state will be enhanced which will boost the local economy and

build better investment for industries creating more employment opportunities to local people.

3.12.19 Details of Court cases: No Court Case is pending against the proposed project.

3.12.20 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289<sup>th</sup> EAC meeting during 17<sup>th</sup> - 18<sup>th</sup> February 2022 and decided to conduct a site visit before taking final decision in the matter.

### Agenda No. 3.13

**Development of 4/6 lane (green field) access control expressway from Varanasi to Kolkata Package-I from Varanasi ring road Km 00.000 (near Barhuli village) to Km 73.800 (near Rampur village) in the state of Uttar Pradesh and Bihar under Bharatmala Pariyojana Phase-II (lot-9 package-3)(Total Length - 73.800 km) by M/s National Highways Authority of India - Terms of Reference [Proposal No. IA/UP/NCP/253149/2022 and File No. 10/10/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.13.1 The project proponent along with the DPR consultant M/s SA. Infrastructure Consultants Pvt. Ltd and EIA consultant M/s. P&M Solution has made a presentation through Video Conferencing and provided the following information-

3.13.2 The proposed project is for development of 4/6 lane (green field) access control expressway from Varanasi to Kolkata Package-I from Varanasi ring road Km 00.000 (near Barhuli village; 25°16'3.72"N 83°10'16.38"E) to Km 73.800 (near Rampur village; 24°56'25.80"N, 83°47'22.32"E) in the state of Uttar Pradesh and Bihar under Bharatmala Pariyojana Phase-II (lot-9 package-3). The proposed road passes through 2 districts viz. Chandauli in Uttar Pradesh & Kaimur in the state of Bihar. Total Length of the project is 73.80 km.

3.13.3 The proposed project falls under Schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total estimated civil cost of the project is about Rs. 2903 Crores.

3.13.4 Land use /Land cover of the proposed project site is as below:

S. No.	Land use/Land cover	Area (ha)	Percentage (%)
1.	Private land (Agriculture/Barren Land)	436.20	65.67
2.	Government land (Agriculture/Barren Land)	221.66	33.37
3.	Forest land	6.34	0.96
<b>Total</b>		<b>664.20</b>	<b>100</b>

3.13.5 Land use/Land cover around 10 km radius of project site (1 km in case of Highway



projects): The land use/land cover around 1 km of the proposed alignment is majority agricultural/private land followed by government/barren & forest land.

3.13.6 The Proposed Right of Way is 90 m as per the requirement, keeping in view the fully access controlled Highway is 4/6-lane dual carriage way configuration.

3.13.7 The Proposed road will have 02 Major Bridges, 45 nos. of Minor Bridges, 53 nos. of LVUP, 22 nos. of SVUP, 01 no. of Intersections.

3.13.8 Terrain and topographical features: The project area is located in the state of UP and Bihar. The topography in the proposed project area is mainly plain and rolling area. The areas have an elevation ranging of 700 m (2,300 ft).

3.13.9 Forest Land: There is no reserved and protected forest but there may be notified forest areas (Approx. 6.34 Ha) along the roads and canals. The forest proposal shall be prepared after consultation with concerned forest officer if it attracts FC under section 2, 1980.

3.13.10 Tree cutting: The alignment will require cutting of approximately 3500 nos. of trees falling in proposed ROW. However, bare minimum no. of trees to be felled for construction of six lane road. Detailed tree inventories will be provided after joint enumeration with the appropriate authority in EIA.

3.13.11 ESZ/National Park/Sanctuary: The proposed alignment does not pass through any National Parks, Wildlife Sanctuary, and Tiger Reserve of any other notified eco-sensitive areas and does not fall in 10 Km radius of any protected areas.

3.13.12 Water bodies/ Impact on Drainage: There are about 12 nos. of Rivers Nalags/Canals– 3 Nos. Total –15 Nos. falling along the alignment. There shall be no major impact on the system. About 123 nos. of drainage system such as culverts, minor bridges, major bridges etc. are to be constructed.

3.13.13 Water requirement: The total requirement of water for construction is estimated to 2,600 KL/day. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining the permission from appropriate authority.

3.13.14 Land acquisition and R&R issues: About 664.20 ha land likely to be acquired as per NH Act 1956; compensation will be given as per RFCT LARR Act, 2013.

3.13.15 Employment details: During the construction of the road project around 730000 mandays will be requiring during construction phase and approx. 1000 persons or more would be employed temporarily for a period of 2 years. However due to construction of toll plazas approx. 100 persons will be employed on permanent basis through contractor. Preference will be given to local people for employment. The Project will enhance economic development in the area through industrial growth, agricultural, and commercial development and consequent employment generation, savings in travel time & shall provide easy access to social infrastructure.

3.13.16 Benefits of the project: The proposed access controlled project with new

alignment has 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 planned in the form of interchanges and flyover to ensure uninterrupted flow of traffic. 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.

3.13.17 Details of court cases: No court cases are pending against the proposed project.

3.13.18 *During deliberation, EAC observed and noted the following:*

- i. Canal crossings/tunnels/bridges/Animal crossing zones has to be constructed wherever necessary.*
- ii. The tunnels for Elephant crossing should have maximum height of 7 meters.*
- iii. Measures has to be taken for avoiding Animal accidents. Hence WII guidelines has to be followed.*
- iv. Road side barricade has to be built in the forest areas*

3.13.19 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289<sup>th</sup> EAC meeting during 17<sup>th</sup> – 18<sup>th</sup> February 2022 and **deferred** the proposal for the want of following documents/information:

- i. The proposal will be considered based on the recommendations and reviews by the concerned PCCF.*
- ii. Consultation with the PCCF has to be done for forest locations.*
- iii. Package III/IV is most critical part of the entire alignment and thus viability of the same has to be established first before the full alignment is finalized.*

#### **Agenda No. 3.14**

**Development of 4/6 lane (green field) access control expressway from Varanasi to Kolkata Package-II from Km 73.800 (near Rampur village) to Km 114.000 (near Tetaraha village) in the state of Bihar under Bharatmala Pariyojana Phase-II (lot-9 package-3)(Total Length - 40.200 km) by M/s National Highways Authority of India - Terms of Reference**

**[Proposal No. IA/BR/NCP/253236/2022 and File No. 10/11/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is*

*found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent. ”*

3.14.1 The project proponent along with the DPR consultant M/s SA. Infrastructure Consultants Pvt. Ltd and EIA consultant M/s. P&M Solution has made a presentation through Video Conferencing and provided the following information:

3.14.2 The proposed project is for development of 4/6 lane (green field) access control expressway from Varanasi to Kolkata Package-II from Km 73.800 (near Rampur village; 24°56'25.80"N, 83°47'22.32"E) to Km 114.000 (near Tetarahar village; 24°45'30.75"N, 84°7'8.37"E) in the state of Bihar under Bharatmala Pariyojana Phase-II (lot-9 package-3). Total Length of the project is 40.2 km.

3.14.3 The proposed project is a part of an interlinked project i.e., Varanasi to Kolkata Green field alignment under Bharatmala Pariyojana Phase-II (lot-9 package-3) from Chainage CH: 73+800 to 114+000.

3.14.4 The proposed project falls under Schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total estimated civil cost of the project is about Rs. 2500.00 Crores.

3.14.5 Land use /Land breakup of the proposed project site is as below:

S. No.	Land use/Land cover	Area (ha)	Percentage (%)
1.	Private land	217.30	62.93
2.	Government land	95.0	27.51
3.	Forest land	33.0	9.56
<b>Total</b>		<b>345.30</b>	<b>100</b>

3.14.6 Land use/Land cover around 10 km radius of project site (1 km in case of Highway projects): The land use/land cover around 1 km of the proposed alignment is majority agricultural/private land followed by government/barren and forest land.

3.14.7 The Proposed Right of Way is 90 m in non-forest Area and 60 m in Forest areas. As per the requirement the alignment is fully access controlled Highway with 4/6-lane dual carriage way configuration.

3.14.8 Terrain and topographical features: The project area is located in the state of Bihar. The topography in the proposed project area is mainly plain and rolling area. The areas have an elevation ranging of 700 m (2,300 ft).

3.14.9 Forest Land Diversion: The proposed project passes through 5.5 Km of Protected Forest, approximately. 33 Ha of forest land has to be acquired due to the proposed highway. The forest proposal shall be prepared after consultation with concerned forest officer if it attracts FC under section 2, 1980.

3.14.10 Tree cutting: The alignment will require cutting of approximately 2500 trees falling in proposed ROW. However, bare minimum no. of trees to be felled for construction of four/six lane road. Detailed tree inventories will be provided after joint enumeration with the

appropriate authority in EIA.

3.14.11 ESZ/National Park/Sanctuary/Protected area: The proposed alignment passes through Kaimur wild life sanctuary, approx. 5 km, tunnel is provided to avoid the damages in wild life sanctuary.

3.14.12 Water bodies/ Impact on Drainage: There are about 7 nos. of Rivers, Nalaha/Canals– 3 Nos. Total –10 Nos. falling along the alignment. There shall be no major impact on the system. About 42 nos. of drainage structures such as culverts, minor bridges, major bridges etc. are to be constructed.

3.14.13 Water requirement: The total requirement of water for construction is estimated to 1,250 KL/day. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining the permission from appropriate authority.

3.14.14 CETP/STP: It is not required. However, septic tank will be constructed in camp.

3.14.15 Land acquisition and R&R issues: About 345.30 ha land likely to be acquired as per NH Act 1956; compensation will be given as per RFCT LARR Act, 2013.

3.14.16 Employment details: During the construction of the road project around 365000 man-days will be requiring during construction phase and approx. 1000 persons or more would be employed temporarily for a period of 2 years. However due to construction of toll plazas approx. 100 persons will be employed on permanent basis through contractor. Preference will be given to local people for employment. The Project will enhance economic development in the area through industrial growth, agricultural, and commercial development and consequent employment generation, savings in travel time & shall provide easy access to social infrastructure.

3.14.17 Benefits of the project: The proposed access controlled project with new alignment has 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 planned in the form of interchanges and flyover to ensure uninterrupted flow of traffic. 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.

3.14.18 Details of court cases: No court cases are pending against the proposed project.

3.14.19 *During deliberation, EAC observed and noted the following:*

- i. *Canal crossings/tunnels/bridges/Animal crossing zones has to be constructed wherever necessary.*
- ii. *Measures has to be taken for avoiding Animal accidents. Hence WII guidelines has*

*to be followed.*

iii. *Road side barricade has to be built in the forest areas.*

3.14.20 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289<sup>th</sup> EAC meeting during 17<sup>th</sup> – 18<sup>th</sup> February 2022 and **deferred** the proposal for the want of following documents/information:

- i. *The proposal will be considered based on the recommendations and reviews by the concerned PCCF.*
- ii. *Consultation with the PCCF has to be done for forest locations.*

### **Agenda No. 3.15**

**Development of 4/6 lane (green field) access control expressway from Varanasi to Kolkata Package-III from Km 114.000 (near Tetaraha village) to Km 184.400 (near Shahpur village, Bihar/Jharkhand Border) in the state Bihar under Bharatmala Pariyojana Phase-II (lot-9 package-3)(Total Length - 70.40 km) by M/s National Highways Authority of India - Terms of Reference [Proposal No. IA/BR/NCP/253270/2022 and File No. 10/12/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.15.1 The project proponent along with the DPR consultant M/s SA. Infrastructure Consultants Pvt. Ltd and EIA consultant M/s. P&M Solution has made a presentation through Video Conferencing and provided the following information-

3.15.2 The proposed project is for development of 4/6 lane (green field) access control expressway from Varanasi to Kolkata Package-III from Km 114.000 (near Tetaraha village; 24°45'30.75"N, 84° 7'8.37"E) to Km 184.400 (near Shahpur village, Bihar/Jharkhand Border; 24°23'50.56"N, 84°40'1.58"E) in the state Bihar under Bharatmala Pariyojana Phase-II (lot-9 package-3). Total Length of the project is 70.4 km.

3.15.3 The proposed project is a part of an interlinked project i.e., Varanasi to Kolkata Green field alignment under Bharatmala Pariyojana Phase-II (lot-9 package-3) from Chainage CH: 114+000 to 184+400.

3.15.4 The proposed project falls under Schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total estimated civil cost of the project is about Rs. 2792 Crores.

3.15.5 Land use /Land breakup of the proposed project site is below:

S. No.	Land use/Land cover	Area (ha)	Percentage %
--------	---------------------	-----------	--------------

1.	Private land	319.9	54.27
2.	Government land	181.4	30.77
3.	Forest land	88.2	14.96
<b>Total</b>		<b>589.5</b>	<b>100</b>

3.15.6 Land use/Land cover around 10 km radius of project site (1 km in case of Highway projects): The land use/land cover around 1 km of the proposed alignment is majority agricultural/private land followed by government/barren and forest land,

3.15.7 The Proposed Right of Way is 90 m in non-forest Area and 60 m in Forest areas. As per the requirement the alignment is fully access controlled Highway with 4/6-lane dual carriage way configuration.

3.15.8 Terrain and topographical features: The project area is located in the state of Bihar. The topography in the proposed project area is mainly plain and rolling area. The areas have an average elevation above sea level of 173 feet.

3.15.9 Forest Land: The proposed project passes through 14.7 Km of notified/protected forest, approximately. 88.2 Ha of forest land has to be acquired due to the proposed highway. The forest proposal shall be prepared after consultation with concerned forest officer if it attracts FC under section 2, 1980.

3.15.10 Tree cutting: The alignment will require cutting of approximately 12000 nos. of trees falling in proposed ROW. However, bare minimum no. of trees to be felled for construction of four/six lane road. Detailed tree inventories will be provided after joint enumeration with the appropriate authority in EIA.

3.15.11 ESZ/National Park/Sanctuary: The proposed alignment does not pass through any National Parks, Wildlife Sanctuary, and Tiger Reserve. However, it falls within 10 km boundary of wildlife sanctuary.

3.15.12 Water bodies/ Impact on Drainage: There are about 13 nos. of Rivers, Nalahs/Canals-5 Nos and 1 no of pond falling along the alignment. There shall be no major impact on the system. About 104 nos. of drainage structures such as culverts, minor bridges, major bridges etc. are to be constructed.

3.15.13 Water requirement: The total requirement of water for construction is estimated to 2650 KL/day. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining the permission from appropriate authority.

3.15.14 Land acquisition and R&R issues: About 589.5 ha land likely to be acquired as per NH Act 1956; compensation will be given as per RFCT LARR Act, 2013.

3.15.15 Employment details: During the construction of the road project around 1000 persons would be employed through contractor temporarily for a period of 2 years. During operation phase about 100 persons will be employed through the concerned contractor. Generally, locals are employed by the contractor.

3.15.16 Benefits of the project: The proposed access controlled project with new alignment has 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 planned in the form of interchanges and flyover to ensure uninterrupted flow of traffic. 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.

3.15.17 Details of court cases: No court cases are pending against the proposed project.

3.15.18 During the deliberation, the EAC observed and noted the following:

- i. *Canal crossings/tunnels/bridges/Animal crossing zones has to be constructed wherever necessary.*
- ii. *Measures has to be taken for avoiding Animal accidents. Hence WII guidelines has to be followed.*
- iii. *Road side barricade has to be built in the forest areas.*

3.15.19 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289<sup>th</sup> EAC meeting during 17<sup>th</sup> – 18<sup>th</sup> February 2022 and **deferred** the proposal for the want of following documents/information:

- i. *The proposal will be considered based on the recommendations and reviews by the concerned PCCF.*
- ii. *Consultation with the PCCF has to be done for forest locations.*

### **Agenda No. 3.16**

**Development of 4/6 lane (green field) access control expressway from Varanasi to Kolkata Package-IV from Km 184.400 (near Shahpur village, Bihar/Jharkhand Border) to Km 375.600 (near Kamalpur village, Jharkhand/WB Border) in the state Jharkhand under Bharatmala Pariyojana Phase-II (lot-9 package-3)(Total Length - 191.200 km) by M/s National Highways Authority of India - Terms of Reference [Proposal No. IA/JH/NCP/253250/2022 and File No. 10/13/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.16.1 The project proponent along with the DPR consultant M/s SA. Infrastructure Consultants Pvt. Ltd and EIA consultant M/s. P&M Solution has made a presentation through Video Conferencing and provided the following information-

3.16.2 The proposed project is for development of 4/6 lane (green field) access control expressway from Varanasi to Kolkata Package-IV from Km 184.400 (near Shahpur village, Bihar/Jharkhand Border: 24°23'50.56"N, 84°40'1.58"E) to Km 375.600 (near Kamalpur village, Jharkhand/WB Border: 23°29'37.35"N, 86°2'32.89"E) in the state Jharkhand under Bharatmala Pariyojana Phase-II (lot-9 package-3). Total Length of the project is 191.200 km.

3.16.3 The proposed project is a part of an interlinked project i.e., Varanasi to Kolkata Green field alignment under Bharatmala Pariyojana Phase-II (lot-9 package-3) from Chainage CH: CH 184+400 to CH 375+600.

3.16.4 The proposed project falls under Schedule 7(f), Highway, Category "A" of EIA Notification 2006. Total estimated civil cost of the project is about Rs. 7466 Crores.

3.16.5 Land use /Land breakup of the proposed project site:

S. No.	Land use/Land cover	Area (ha)	Percentage (%)
1.	Private land	568.4	38.91
2.	Government land	382.4	26.18
3.	Forest land	510	34.91
<b>Total</b>		<b>1460.8</b>	<b>100</b>

3.16.6 Land use/Land cover around 10 km radius of project site (1 km in case of Highway projects): The land use/land cover around 1 km of the proposed alignment is majority agricultural/private land followed by government/barren and forest land

3.16.7 The Proposed Right of Way is 90 m in non-forest Area and 60 m in Forest areas. As per the requirement the alignment is fully access controlled Highway with 4/6-lane dual carriage way configuration.

3.16.8 Terrain and topographical features: The project area is located in the state of Jharkhand. The topography in the proposed project area is mainly plain and rolling area. The areas have an average elevation above sea level of 1365 meters.

3.16.9 Forest Land: The proposed project passes through 85 Km of notified forest area. 510 Ha of forest land has to be acquired due to the proposed highway. The forest proposal shall be prepared after consultation with concerned forest officer if it attracts FC under section 2, 1980.

3.16.10 Tree cutting: The alignment will require cutting of approximately 40000 nos. of trees falling in proposed ROW. However, bare minimum no. of trees to be felled for construction of four/six lane road. Detailed tree inventories will be provided after joint enumeration with the appropriate authority in EIA.

3.16.11 ESZ/National Park/Sanctuary/Protected area: The proposed alignment does not pass through any National Parks, Wildlife Sanctuary, and Tiger Reserve of any other notified



eco-sensitive areas and does not fall in 10 Km radius of any protected areas.

3.16.12 Water bodies/ Impact on Drainage: There are about 10 nos. of Rivers, Nalahs/Canals-3 Nos and 3 no of pond falling along the alignment. There shall be no major impact on the system. About 210 nos. of drainage structures such as culverts, minor bridges, major bridges etc. are to be constructed.

3.16.13 Water requirement: The total requirement of water for construction is estimated to 6750 KL/day. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining the permission from appropriate authority.

3.16.14 Land acquisition and R&R issues: About 1460.8 ha land likely to be acquired as per NH Act 1956; compensation will be given as per RFCT LARR Act, 2013.

3.16.15 Employment details: During the construction of the road project around 1000 persons would be employed through contractor temporarily for a period of 2 years. During operation phase about 100 persons will be employed through the concerned contractor. Generally, locals are employed by the contractor.

3.16.16 Benefits of the project: The proposed access controlled project with new alignment has 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 planned in the form of interchanges and flyover to ensure uninterrupted flow of traffic. 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.

3.16.17 Details of court cases: No court cases are pending against the proposed project.

3.16.18 During the deliberation, the EAC observed and noted the following:

- i. *Wherever the alignment passes through the thick forest area there should be Canal crossings/tunnels/bridges/Animal crossing zones accordingly has to be constructed.*
- ii. *The tunnels for Elephant crossing should have maximum height of 7 meters.*
- iii. *Measures has to be taken for avoiding Animal accidents. Hence WII guidelines has to be followed.*

3.16.19 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289<sup>th</sup> EAC meeting during 17<sup>th</sup> – 18<sup>th</sup> February 2022 and **deferred** the proposal for the want of following documents/information:

- i. *The proposal will be considered based on the recommendations and reviews by the concerned PCCF. The proposal will be considered after the report from concerned*

PCCF

- ii. The project location falls in the elephant corridor. The alignment has to be cross checked with the concerned PCCF.

### Agenda No. 3.17

**Development of 4/6 lane (Greenfield) access control expressway from Varanasi to Kolkata (Package-5) from Km 375+600 (near Kamalpur village, Jharkhand/West Bengal Border) to Km 612.00, NH-16, near Uluberia, Howrah District, West Bengal under Bharatmala Pariyojana Phase-II (Lot-9 Package-3) (Total length – 236.400 km) by M/s National Highways Authority of India - Terms of Reference [Proposal No. IA/WB/NCP/253301/2022 and File No. 10/14/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in PFR/DPR/Form-1/Annexure-III. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and ToR/Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”*

3.17.1 The project proponent along with the DPR consultant M/s SA. Infrastructure Consultants Pvt. Ltd and EIA consultant M/s. P&M Solution has made a presentation through Video Conferencing and provided the following information-

3.17.2 The proposed project is for development of 4/6 lane (green field) access control expressway from Varanasi to Kolkata Package-V from Km 375.600 (near Kamalpur village, Jharkhand/WB Border: 23°29'37.35"N, 86° 2'32.89"E) to Km 612.000 NH16, near Uluberia (22°28'15.71"N 87°59'20.11"E), Howrah District, West Bengal in the state West Bengal under Bharatmala Pariyojana Phase-II (lot-9 package-3). Total Length of the project is 236.400 km.

3.17.3 The proposed project is an interlinked project of Varanasi to Kolkata Green field alignment under Bharatmala Pariyojana Phase-II (lot-9 package-3) from Chainage CH: 375+600 to 612+000.

3.17.4 The proposed project falls under Schedule 7(f), Highway, Category “A” of EIA Notification 2006. Total estimated civil cost of the project is about Rs. 9250 Crores.

3.17.5 Land use /Land breakup of the proposed project site is as below:

S. No.	Land use/Land cover	Area (ha)	Percentage %
1.	Private land	1294.6	62.39
2.	Government land	673.4	32.41
3.	Forest land	108	5.20
	<b>Total</b>	<b>2078</b>	<b>100</b>

3.17.6 Land use/Land cover around 10 km radius of project site (1 km in case of Highway projects): The land use/land cover around 1 km of the proposed alignment is majority

agricultural/private land followed by government/barren and forest land.

3.17.7 The Proposed Right of Way is 90 m in non-forest Area and 60 m in Forest areas. As per the requirement the alignment is fully access controlled Highway with 4/6-lane dual carriage way configuration.

3.17.8 Terrain and topographical features: The project area is located in the state of West Bengal. The topography in the proposed project area is mainly plain and rolling area. The areas have an average elevation above sea level of 3400 meters.

3.17.9 Forest Land: The proposed project passes through 18 Km of notified forest area. 108 Ha of forest land has to be acquired due to the proposed highway. The forest proposal shall be prepared after consultation with concerned forest officer if it attracts FC under section 2, 1980.

3.17.10 Tree cutting: The alignment will require cutting of approximately 14000 nos. of trees falling in proposed ROW. However, bare minimum no. of trees to be felled for construction of four/six lane road. Detailed tree inventories will be provided after joint enumeration with the appropriate authority in EIA.

3.17.11 ESZ/National Park/Sanctuary: The proposed alignment does not pass through any National Parks, Wildlife Sanctuary, and Tiger Reserve of any other notified eco-sensitive areas and does not fall in 10 Km radius of any protected areas.

3.17.12 Water bodies/ Impact on Drainage: There are about 12 nos. of Rivers, Nalahs/Canals-2 Nos and 8 no of ponds falling along the alignment. There shall be no major impact on the system. About 120 nos. of drainage structures such as culverts, minor bridges, major bridges etc. are to be constructed.

3.17.13 Water requirement: The total requirement of water for construction is estimated to 7500 KL/day. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining the permission from appropriate authority.

3.17.14 Land acquisition and R&R issues: About 2078 ha land likely to be acquired as per NH Act 1956; compensation will be given as per RFCT LARR Act, 2013.

3.17.15 Employment details: During the construction of the road project around 1000 persons would be employed through contractor temporarily for a period of 2 years. During operation phase about 100 persons will be employed through the concerned contractor. Generally, locals are employed by the contractor.

3.17.16 Benefits of the project: The proposed access controlled project with new alignment has 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 planned in the form of interchanges and flyover to ensure uninterrupted flow of traffic. 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.

3.17.17 Details of court cases: No court cases are pending against the proposed project.

3.17.18 *During the deliberation, the EAC observed and noted the following:*

- i. Wherever the alignment passes through the thick forest area there should be Canal crossings/tunnels/bridges/Animal crossing zones accordingly has to be constructed.*
- ii. The tunnels for Elephant crossing should have maximum height of 7 meters.*
- iii. Measures has to be taken for avoiding Animal accidents. Hence WII guidelines has to be followed.*

3.17.19 The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 289<sup>th</sup> EAC meeting during 17<sup>th</sup> – 18<sup>th</sup> February 2022 and **deferred** the proposal for the want of following documents/information:

- i. The proposal will be considered based on the recommendations and reviews by the concerned PCCF. The proposal will be considered after the report from concerned PCCF*
- ii. The alignment has to be cross checked with the concerned PCCF regarding elephant movement.*

**Annexure-A**

**Following members were present during the 289<sup>th</sup> EAC(Infra-1) meeting held on 17<sup>th</sup> – 18<sup>th</sup> February, 2022**

S. No.	Name	Designation	Remarks	
			17 <sup>th</sup> Feb 2022	18 <sup>th</sup> Feb 2022
1.	Dr. Deepak Arun Apte	Chairman	Present	Present
2.	Sh. S. Jeyakrishnan	Member	Present	Present
3.	Sh. Manmohan Singh Negi	Member	Present	Present
4.	Sh. Sham Wagh	Member	Present	Present
5.	Dr. Mukesh Khare	Member	Absent	Present
6.	Dr. Ashok Kumar Pachauri	Member	Present	Present
7.	Dr. V. K Jain	Member	Present	Present
8.	Dr. Manoranjan Hota	Member	Present	Present
9.	Sh. R Debroy	Member	Absent	Absent
10.	Dr. Rajesh Chandra	Member	Absent	Absent
11.	Dr. M. V Ramana Murthy	Member	Present	Absent
12.	Smt. Bindu Manghat	Member	Absent	Absent
13.	Dr. Niraj Sharma	Member	Absent	Absent
14.	Dr. Nirmalendu Kumar	SoI	Absent	Absent
15.	Sh. Amardeep Raju	Scientist 'E' & MS, MoEF&CC	Present	Present
17.	Dr. Rajesh Prasad Rastogi	Scientist 'C', MoEF&CC	Present	Present
18.	Mr. P. Balakumar	Consultant	Present	Present