

**Minutes of the 296<sup>th</sup> meeting of Expert Appraisal Committee held on 28<sup>th</sup> – 29<sup>th</sup> April, 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).**

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The 296<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 28<sup>th</sup> – 29<sup>th</sup> April, 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 294<sup>th</sup> EAC meeting held on 11<sup>th</sup> – 12<sup>th</sup> April, 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 4 lane inter-corridor (Greenfield alignment) from Shiwrampur (Ch. 55+002) to Ramnagar (Ch. 109+327) under Bharatmala Pariyojna (Lot-5, Pkg-7) in state of Bihar (Package-2, Length- 54.325 km) by M/s National Highways Authority of India – Environmental Clearance**

**[Proposal No. IA/BR/NCP/205173/2021 and File No. 10/18/2021-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have submitted 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.”*

3.1.1. The abovementioned proposal was placed before the EAC in its 296<sup>th</sup> meeting on 28<sup>th</sup> – 29<sup>th</sup> April 2022. The project proponent along with the DPR Consultant M/s SA Infrastructure Consultants Pvt. Ltd. And EIA Consultant M/s P&M Solution made a presentation through Video Conferencing and provided the following information -

3.1.2. The proposed project is for Development of 4 lane inter corridor (Green field alignment) from Shiwrampur to Ramnagar under Bharatmala Pariyojna (Lot-5/Package-7) in

state of Bihar- Package-II from Shiwrampur (Ch. 55+002) to Ramnagar (Ch. 109+327). The length of the proposed alignment is 54.325 km approx.

3.1.3. ToR was granted vide letter No. 10/18/2021-IA.III dated 20th May, 2021 during the 260th meeting on 5th April, 2021.

3.1.4. 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. 1075.41 Crores.

3.1.5. Public hearing: The public hearing was conducted on 8.12.2021 and 29.12.2021 at Jehanabad and Nalanda District of Bihar, respectively. The main issues raised was about the air/noise pollution, tree plantation, land acquisition and compensation, highway connectivity to the local roads, water logging, toll plaza, effect on water bodies, etc.

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

| S.No. | Land use/Landover | Area (ha)     | Area (%)   | Remarks if any          |
|-------|-------------------|---------------|------------|-------------------------|
| 1.    | Private land      | 309.89        | 91         | Agriculture/Barren Land |
| 2.    | Government land   | 28.77         | 8          | Agriculture/Barren Land |
| 3.    | Forest land       | 3             | 1          | -                       |
|       | <b>Total</b>      | <b>341.66</b> | <b>100</b> | -                       |

3.1.7. Land use/Land cover around 10 km radius of project site (1 km in case of Highway projects): This is a Greenfield project. The alignment is mainly passing through agriculture land.

3.1.8. Right of Way: The Proposed Right of Way is 60 m as per the requirement keeping in view the fully access controlled Highway with 4-lane dual carriage way configuration.

3.1.9. Cumulative Impact Assessment: The cumulative impact assessment will be submitted during submission of application of grant of EC of Package-V.

3.1.10. Terrain and topographical features: The terrain of the alignment area is mainly plain and rolling area. The project area is located in Patna, Jehanabad and Nalanda districts of Bihar.

3.1.11. Forest Land: Approx. 3.0 ha of forest land (Railway line crossing and canal crossing) need to be diverted for construction of proposed highway. Forest Diversion proposal has been prepared and submitted as per the guidelines and consultation with concerned authorities via proposal no. FP/BR/ROAD/143461/2021 dated 15/06/2021.

3.1.12. Tree cutting & Green belt development: Approx. 870 non-forest trees and 471 forest trees are present along the alignment. No protected or endangered species are noted. The proposed alignment finalizations are geometry design endeavored to conserve the maximum number of trees especially those that are falling outside the construction zone. The possibilities of relocating of existing trees shall be finalized in consultation with DFO. 2 nos. of trees shall be planted for every tree to be cut. Compensatory afforestation would be carried out in as per the state Forest Guidelines.

3.1.13. ESZ/National Park/Sanctuary/PA: 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.

3.1.14. Water bodies/ Impact on Drainage: There are 03 nos. of rivers, 5 canals/Nalags, falling along the alignment. There shall be no major impact on the drainage system as 147 numbers of structures (such as 03 Major Bridge, 44 Minor Bridge, 04 VUP, 03 LVUP, 02 SVUP, 02 flyover, 01 ROB, 88 culverts) will be constructed.

3.1.15. Water requirement: The total requirement of water for construction is estimated to 12777.59 KLD. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining the permission from competent authority. Septic tank will be constructed in camp.

3.1.16. Rain Water Harvesting: The Contractor will construct Rain water harvesting pits at an average distance of 500 m on either side of the highway which will be connected with longitudinal drains.

- The pits should be at least 5 m above the highest ground water table.
- The Contractor shall submit a detailed layout plan for all such sites in consultation with Central Ground Water Board and approval of the PMC shall be necessary prior to their establishment.
- The schematic diagram of Rain water harvesting pit is presented as Rain Water Harvesting Structure along the Project road total no.s = 216 nos; Cost of each Rain Water Harvesting Structure = 40000 and total cost of Rain Water Harvesting Structure= 86, 40,000 Rs.

3.1.17. Waste Management: Disposal of Sewage and other wastes in the construction yard and labor camps will be done as per directions of the Environmental Specialist / Environmental Engineer of the Engineer.

3.1.18. Energy conservation measures: A few energy conservation like solar lighting, solar power street lights and LED light are proposed

3.1.19. Land acquisition and R&R issues: About 341.66 ha land likely to be acquired as per NH Act 1956; compensation will be given as per RFCT LARR Act, 2013.

3.1.20. Employment details: During the construction of the project around 1000 persons would be employed through contractor temporarily. During operation phase about 50 persons will be employed through the concerned contractor. Generally, locals are employed by the contractor.

3.1.21. Benefits of the project: The main objective of the proposed project is to reduce the distance and travel time from North-Bihar to South Bihar and to give connectivity to remote areas and major cities. The proposed alignment is connected Berka, Kukari, Sohjana, Jamalpur, Maheva, Malathi, Supi, Kako, Modanganj, Milkidrvra, Shadipur, in Jehanabad Distt., Dhanrua, Nasaratpur, Chhati, Tadwa, Fatuha in Patna Distt, and Verthu, Abbupur, Salempur and Kandhauli in Nalanda distt. The project lays emphasis on development of these areas and makes them available with the resources. 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 project will enhance

economic development in the area through industrial areas, Agriculture (Market access), commercial development and consequent employment. 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 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.

3.1.22. Brief summary of specialized studies carried out for the project as per the ToR: Cumulative impact assessment as suggested in the ToR has been included as Annexure III of EIA report.

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

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

- i. *The Toll plaza is proposed nearby the village as this issue was also raised in the public hearing and villagers requested to shift it away from the village.*

3.1.25. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 296<sup>th</sup> meeting during 28<sup>th</sup> – 29<sup>th</sup> April 2022 and **recommended** the proposal for grant of Environmental clearance with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. Based on the PH, Toll plaza should be shifted away from the village.
- ii. 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.
- iii. 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.
- iv. The proponent shall obtain permission from the competent authorities for tree felling along the proposed alignment.
- v. Rain water harvesting pit shall be at least 3 - 5 m above the highest ground water table.
- vi. 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.
- vii. 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.

- viii. 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.
- ix. 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.
- x. 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.
- xi. 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.
- xii. 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.
- xiii. Project alignment should be managed in such a way to save the Heritage/old trees supposed to be affected by the proposed alignment.
- xiv. 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.
- xv. 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.
- xvi. 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. 3.2

**Development of 4 lane inter corridor (Greenfield alignment) from Amas (Old NH-2/New NH-19) (Ch. 00+000) to Shiwrampur (Ch. 55+002) under Bharatmala Pariyojna (Lot-5/Package-7) in state of Bihar (Package-I Length - 55.002 km) by M/s National Highways Authority of India – Environmental Clearance**  
**[Proposal No. IA/BR/NCP/204598/2021 and File No. 10/19/2021-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have submitted 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.”*

3.2.1. The abovementioned proposal was placed before the EAC in its 296<sup>th</sup> meeting on 28<sup>th</sup> – 29<sup>th</sup> April 2022. The project proponent along with the DPR Consultant M/s SA Infrastructure Consultants Pvt. Ltd. and EIA Consultant M/s P&M Solution made a presentation through Video Conferencing and provided the following information -

3.2.2. The proposed project is for Development of 4 lane inter corridor (Green field alignment) from Amas (Old NH-2/New NH-19) to Shiwrampur under Bharatmala Pariyojna (Lot-5/Package-7) in state of Bihar- Package-I from Amas (Ch.00+000) to Shiwrampur (Ch. 55+002). The total length of the proposed project highway is approx.55.002 km.

3.2.3. ToR was granted vide letter No. 10/19/2021-IA.III dated 20th May, 2021 during the 260<sup>th</sup> meeting on 5th April, 2021.

3.2.4. 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. 1207.91 Crores.

3.2.5. Public hearing: The public hearing was conducted on 28.10.2021 at Gaya District of Bihar. The main issues raised was about the land acquisition and compensation, Impact on Environment and drainage system, Employment generation, Compensatory Afforestation and Teak plantation.

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

| S.No. | Land use/Land cover | Area (ha)     | Area (%)   | Remarks if any          |
|-------|---------------------|---------------|------------|-------------------------|
| 1.    | Private land        | 310.18        | 82         | Agriculture/Barren Land |
| 2.    | Government land     | 60.82         | 16         | Agriculture/Barren Land |
| 3.    | Forest land         | 5.5           | 2          | -                       |
|       | <b>Total</b>        | <b>376.50</b> | <b>100</b> | -                       |

3.2.7. Land use/Land cover around 10 km radius of project site (1 km in case of Highway projects): This is a Greenfield project. The alignment is mainly passing through agriculture land.

3.2.8. Right of Way: The Proposed Right of Way is 60 m as per the requirement keeping in

view the fully access controlled Highway with 4-lane dual carriage way configuration.

3.2.9. Cumulative Impact Assessment: The cumulative impact assessment will be submitted during submission of application of grant of EC of Package-V.

3.2.10. Terrain and topographical features: The terrain of the alignment is basically flat to undulating in nature. The project area is located in Gaya district of Bihar.

3.2.11. Forest Land: Approx. 5.5 ha of forest land (Railway line crossing and canal crossing) need to be diverted for construction of proposed highway. Forest Diversion proposal has been prepared and submitted as per the guidelines and consultation with concerned authorities via proposal no. FP/BR/ROAD/146205/2021 dated 19/08/2021.

3.2.12. Tree cutting & Green belt development: Approx. 1117 non-forest trees and 18 forest trees are present along the alignment. No protected or endangered species are noted. The proposed alignment finalizations are geometry design endeavoured to conserve the maximum amount of trees especially those that are falling outside the construction zone. The possibilities of relocating of existing trees shall be finalized in consultation with DFO. 2 nos. of trees shall be planted for every tree to be cut. Compensatory afforestation would be carried out in as per the state Forest Guidelines. Approximately 31,482 numbers of trees and shrubs will be planted along the roadside and in median portion respectively. The plantation shall be carried out as per IRC: SP: 21-2009 guidelines and Green Highway Policy-2015. Adequate space has been left on both sides of the road for greenbelt development apart from the plantation at median.

3.2.13. ESZ/National Park/Sanctuary/PA: 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.

3.2.14. Water bodies/ Impact on Drainage: There are 3 Rivers and 6 Canals / Nala falling along the alignment. There shall be no major impact on the drainage system as 151 nos. numbers of structures (such as 04 Major Bridge, 27 Minor Bridge, 02 VUP, 05 LVUP, 12 SVUP, 03 flyover, 02ROB, 96 culverts) will be constructed.

3.2.15. Water requirement: The total requirement of water for construction is estimated to 12956 KL. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining the permission from competent authority.

3.2.16. Rain Water Harvesting: The Contractor will construct Rain water harvesting pits at an average distance of 500 m on either side of the highway which will be connected with longitudinal drains.

- The pits should be at least 5 m above the highest ground water table.
- The Contractor shall submit a detailed layout plan for all such sites in consultation with Central Ground Water Board and approval of the PMC shall be necessary prior to their establishment.
- The schematic diagram of Rain water harvesting pit is presented as Rain Water Harvesting Structure along the Project road total no.s = 220 nos; Cost of each Rain Water Harvesting Structure = 40000 and total cost of Rain Water Harvesting Structure = 8800000 Rs.

3.2.17. Waste Management: Disposal of Sewage and other wastes in the construction yard and labor camps will be done as per directions of the Environmental Specialist / Environmental Engineer of the Engineer. septic tank will be constructed in camp.

3.2.18. Energy conservation measures: A few energy conservations like solar lighting, solar power street lights and LED light are proposed

3.2.19. Land acquisition and R&R issues: About 376.50 ha land likely to be acquired as per NH Act 1956; compensation will be given as per RFCT LARR Act, 2013.

3.2.20. Employment details: During the construction of the project around 1000 persons would be employed through contractor. During operation phase about 50 persons will be employed through the concerned contractor. Generally, locals are employed by the contractor.

3.2.21. Benefits of the project: The main objective of the proposed project is to reduce the distance and travel time from NH- 2 to NH-57 and North-Bihar to South Bihar and to give connectivity to remote areas and major cities. The proposed alignment is connected Amas, Guraru, Guraru, Paraiya, Tekari, Bela Ganj and Shiwrampur in Gaya district. The project lays emphasis on development of these areas and makes them available with the resources. 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 project will enhance economic development in the area through industrial areas, Agriculture (Market access), commercial development and consequent employment. 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 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.

3.2.22. Brief summary of specialized Studies carried out for the project as per the ToR: Cumulative impact assessment as suggested in the ToR has been included as Annexure III of EIA report.

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

3.2.24. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 296<sup>th</sup> meeting during 28<sup>th</sup> – 29<sup>th</sup> April 2022 and **recommended** the proposal for grant of Environmental clearance with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. It must be ensured that the proposed alignment is not passing through any water body/ponds.
- ii. 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.

- iii. 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.
- iv. The proponent shall obtain permission from the competent authorities for tree felling along the proposed alignment.
- v. Rain water harvesting pit shall be at least 3 - 5 m above the highest ground water table.
- vi. 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.
- vii. 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.
- viii. 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.
- ix. 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.
- x. 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.
- xi. 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.
- xii. 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.
- xiii. Project alignment should be managed in such a way to save the Heritage/old trees supposed to be affected by the proposed alignment.
- xiv. 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.

- xv. 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.

### **Agenda No. 3.3**

#### **Development of Six Lane Greenfield spur from Delhi-Vadodara Greenfield Expressway near Bandikui terminate at Chainage 0.000 of Jaipur Ring Road in Bharatmala Priyojana Phase-1 in the State of Rajasthan (Length – 67 km) by M/s National Highways Authority of India – Environmental Clearance**

**[Proposal No. IA/RJ/NCP/238241/2021 and File No. 10/40/2021-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 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 296<sup>th</sup> meeting during 28<sup>th</sup> – 29<sup>th</sup> April 2022. The project proponent along with the DPR Consultant M/s SA Infrastructure Consultants Pvt. Ltd. and EIA Consultant M/s P&M Solution made a presentation through Video Conferencing and provided the following information -

3.3.2 The proposed project is for development of 6-Lane Greenfield spur from Delhi-Vadodara Greenfield Expressway near Bandikui and terminate at Jaipur Ring Road (CH 00+000) in Bharatmala Pariyojana Phase-I in the state of Rajasthan. The length of the proposed alignment is 67 km approx.

3.3.3 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. 1370.00 Crores.

3.3.4 ToR was granted vide letter No. 10/40/2021-IA.III dated 11.10.2021 during 273rd meeting of EAC dated 16.09.2021. TOR amendment was granted on 22.12.2021.

3.3.5 Public hearing: The public hearing was conducted on 21.02.2022 and 22.02.2022 at Dausa and Jaipur District of Rajasthan respectively. The main issues raised was about the land acquisition and compensation, division of villages in two parts, Proper arrangement for drainage of water from the underpass, Tree Plantation, Drainage issue, etc.

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

| S. No. | Land use/Land cover | Area (ha)  | Area (%)   | Remarks if any          |
|--------|---------------------|------------|------------|-------------------------|
| 1.     | Private land        | 389        | 81         | Agriculture/Barren Land |
| 2.     | Government land     | 86         | 19         | Agriculture/Barren Land |
| 3.     | Forest land         | -          | 0          | -                       |
|        | <b>Total</b>        | <b>475</b> | <b>100</b> | -                       |

3.3.7 Land use/Land cover around 10 km radius of project site (1 km in case of Highway projects): This is a Greenfield project. The alignment is mainly passing through agriculture land.

3.3.8 Right of Way: The Proposed Right of Way is 60 m as per the requirement keeping in view the fully access controlled Highway with 6 lane dual carriage way configuration.

3.3.9 Terrain and topographical features: The topography in the proposed project area is mainly plain and rolling area. The areas have an elevation ranging from 250 m to 334. The project area is located in Dausa and Jaipur district of Jaipur.

3.3.10 Forest Land/tree cutting: The project does not involve diversion of forest land. There is approximately 7277 no. of trees in non-forest area. The Details of tree inventory is enclosed in chapter 4 of the EIA report. The tree felling will be restricted within construction zone and will be saved as best as possible.

3.3.11 ESZ/National Park/Sanctuary/PA: The proposed project doesn't passes through any national park/wildlife sanctuary conservation reserve. Whereas, Jamwaramgarh Wildlife Sanctuary is located in the north direction from the proposed Highway development project in the Jaipur district. But, the boundary of the sanctuary is more than 1 km away from the project activity area.

3.3.12 Water bodies/ Impact on Drainage: There are 02 nos. of rivers, 01 Nos. of Canals falling along the alignment. There shall be no major impact on the drainage system as 182 numbers of structures (02 Major Bridge, 11 Minor Bridge, 10 VUP, 17 SVUP, 06 flyover, 01 ROB, 135 culverts) will be constructed.

3.3.13 Water requirement: The total requirement of water for construction is estimated to 19434 KL/day. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining the permission from competent authority. The ground water will be abstracted for camp site after obtaining the permission from competent authority.

3.3.14 Rain Water Harvesting: The Contractor will construct Rain water harvesting pits at an average distance of 500 m on either side of the highway which will be connected with longitudinal drains.

- The pits should be at least 5 m above the highest ground water table.

- The Contractor shall submit a detailed layout plan for all such sites in consultation with Central Ground Water Board and approval of the PMC shall be necessary prior to their establishment.
- The schematic diagram of Rain water harvesting pit is presented as Rain Water Harvesting Structure along the Project road total no.s = 268 nos; Cost of each Rain Water Harvesting Structure = 40000 and total cost of Rain Water Harvesting Structure is Rs.10720000.

3.3.15 Waste Management: Disposal of Sewage and other wastes in the construction yard and labor camps will be done as per directions of the Environmental Specialist / Environmental Engineer of the Engineer. septic tank will be constructed in camp.

3.3.16 Land acquisition and R&R issues: About 475 ha land likely to be acquired as per NH Act 1956; compensation will be given as per RFCT LARR Act, 2013.

3.3.17 Energy conservation: A few energy conservations like solar lighting, solar power street lights and LED light are proposed

3.3.18 Employment details: During the construction of the project around 1000 persons would be employed through contractor temporarily for a period of 2 years. During operation phase about 200 persons will be employed through the concerned contractor. Generally, locals are employed by the contractor.

3.3.19 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 project will enhance economic development in the area through industrial areas (Delhi and Jaipur), Agriculture (Market access), commercial development and consequent employment. 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 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.

3.3.20 Brief summary of specialized Studies carried out for the project as per the ToR: Cumulative impact assessment as suggested in the ToR has been included as Annexure III of EIA report.

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

3.3.22 EAC observed that in Jaipur district though the road is not passing through the forest area yet the road is passing through a narrow non forest area on one side of which is Jamwaramgarh WLS and on the other side there is a large hilly forest area. WLS is only one km from the road. There is likelihood of wild animals using this non forest area to move from WLS to forest area and vice versa. Therefore, it will be appropriate that elevated road of atleast 300 to 500 meter is constructed at an appropriate point in consultation with Chief Wildlife Warden of the State to facilitate the possible movement of the wild life. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 296<sup>th</sup>

meeting during 28<sup>th</sup> – 29<sup>th</sup> April 2022 and **recommended** the proposal for grant of Environmental clearance with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. An elevated road of atleast 300 to 500 meter be constructed at an appropriate point in a stretch between Jamwaramgarh WLS and hilly forest patch in consultation with Chief Wildlife Warden of the State to facilitate the possible movement of wild animals across this road. Geo coordinates and chainage of the proposed location be communicated to the Ministry before commencement of the work
- ii. 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.
- iii. 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.
- iv. The proponent shall obtain permission from the competent authorities for tree felling along the proposed alignment.
- v. Rain water harvesting pit shall be at least 3 - 5 m above the highest ground water table.
- vi. 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.
- vii. 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.
- viii. 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.
- ix. 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.
- x. 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.

- xi. 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.
- xii. 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.
- xiii. Project alignment should be managed in such a way to save the Heritage/old trees supposed to be affected by the proposed alignment if identified in the EIA-EMP.
- xiv. 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.
- xv. 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.

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

#### **Construction of 6/8 Lane Greenfield Expressway from Tharad to Ahmedabad under Bharatmala Pariyojana in the State of Gujarat (Length - 213.803 km) by M/s National Highways Authority of India - Terms of Reference [Proposal No. IA/GJ/NCP/262509/2022 and File No. 10/19/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant submitted 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.”*

3.4.1. The aforementioned proposal was placed before the EAC in its 296<sup>th</sup> meeting during 28<sup>th</sup> – 29<sup>th</sup> April 2022. The project proponent along with the EIA consultant M/s Intercontinental Consultants and Technocrats Pvt. Ltd., New Delhi made a presentation through Video Conferencing and provided the following information-

3.4.2. The proposed project is for Construction of 6/8 Lane Greenfield Expressway from

Tharad to Ahmedabad under Bharatmala Pariyojana in the State of Gujarat (Length - 213.803 km). This expressway will provide expressway connectivity between Amritsar to Mumbai through under construction Amritsar – Santhalpur Expressway & Vadodara – Mumbai Expressway and existing Ahmedabad – Vadodara Expressway. The proposed green field alignment, starts from Amritsar – Santhalpur Expressway at Tharad Taluka of Banaskantha District (Ch. 0+000: 24°22'9.79"N 71°38'30.73"E) and terminates at Ahmedabad – Vadodara Expressway (NE-1) at Daskroi Taluka of Ahmedabad District (Ch. 213+803: 22°55'19.94"N 72°44'59.22"E) in the State of Gujarat. The proposed alignment is passing through 5 districts (Banaskantha, Patan, Mahesana, Gandhinagar and Ahmedabad) in the state of Gujarat.

3.4.3. 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. 13,567.25 Crores.

3.4.4. Land use /Land cover of the proposed project site is as below: Proposed Land Acquisition is 1744.42 ha.

| S. No.       | Land use Land cover class | Area Ha (%)  |
|--------------|---------------------------|--------------|
| 1            | Agricultural Land         | 92.13        |
| 2            | Barren/ waste land        | 5.52         |
| 3            | Built-up area             | 1.33         |
| 4            | Water bodies              | 0.78         |
| 5            | Forest                    | 0.23         |
| <b>Total</b> |                           | <b>99.99</b> |

3.4.5. Land use/Land cover around 10 km radius of project site (1 km in case of Highway projects): Agriculture land occupied major part (85.52%) of the total area, followed by built-up area (9.9%), water bodies (2.2%), Barren/ Waste Land (1.75%) and forest (0.63%).

3.4.6. The Proposed Right of Way shall be 70 m in general. Additional land has been considered for toll plaza, Interchanges, junction, Way side amenities etc. as per the actual Design requirement.

3.4.7. Terrain and topographical features: The alignment is passing through plain terrain with elevation ranges from 43 m to 109 m AMSL

3.4.8. Forest Land Diversion: There is no reserved forest along and close vicinity of the proposed expressway alignment. However, the proposed alignment is crossing existing National Highways (NH), State Highways (SH) & Major District Roads (MDR) and plantation along these roads are declared as Protected Forest. The proposed project involves diversion of approx. 8.568 ha of protected forest land out of which 1.12 ha in Banaskantha district, 1.995 ha in Patan district, 1.925 ha in Mahesana district, 2.31 ha in Gandhinagar district and 1.218 ha in Ahmedabad district. Forest proposal is under preparation.

3.4.9. Tree cutting: About 20,231 no. of trees is proposed to be felled as given below. Major species are Babool, Khair, Shisham, Neem, Jambu, Karanj etc. Actual numbers of trees within proposed RoW will be provided in the EIA Report.

| Chainage | Girth Size (cm) wise Number of Trees | Total Trees |
|----------|--------------------------------------|-------------|
|----------|--------------------------------------|-------------|

|                  | 30-60 | 61-90 | 91-120 | 121-150 | 151-180 | >180  |        |
|------------------|-------|-------|--------|---------|---------|-------|--------|
| 0+000 to 213+803 | 8,520 | 5,390 | 2,104  | 1,841   | 1,315   | 1,061 | 20,231 |
| %                | 42.1  | 26.6  | 10.4   | 9.1     | 6.5     | 5.2   |        |

3.4.10. PA/ESZ/National Park/Sanctuary: There is no protected area/ Eco-Sensitive Zone or Eco-Sensitive area within 10 km radius of the proposed project road.

3.4.11. Water bodies/ Impact on Drainage: The proposed alignment is crossing Banas River at Ch. 52+200, Chekaria River at Ch. 61+505, Khari River at Ch. 61+750, Saraswati River at Ch. 80+540, Pushpavati River at Ch. 104+382, Rupen River at Ch. 114+000, Sabarmati River at Ch. 164+500 and also crosses streams & local Nalas at several locations. To minimize the impact drainage & hydrological flow, 23 major bridges, 57 minor bridges, 637 culverts are proposed to be constructed along the project road. It has been ensured that all the 1<sup>st</sup> and 2<sup>nd</sup> order streams crossing the proposed alignment provided with necessary culverts and bridges with capacity of more than 20% excess discharge.

3.4.12. Water requirement: **Construction Phase:** Water demand of the project is approx. 11,673 KL per day. In compliance to the Sub-Clause 111.8.3 of MoRTH Specifications, the Contractor will identify the nearest source of water body at plant and camp site and shall source the water preferably from surface water bodies, rivers, canals and tanks in the project area. Only at locations where surface water sources are not available, the Contractor shall contemplate extraction of ground water, after intimation and consent from the CGWB. **Operation Phase:** During the operations phase the water would be required primarily for domestic use at the toll plaza and landscaping. Groundwater extraction is not proposed.

3.4.13. Land acquisition and R&R issues: As per initial assessment, 1744.42 ha land is to be acquired for the project. The total number of affected properties in project road is 805, out of which 778 are private, 15 are Government and 12 are CPRs. The compensation amount for the acquisition of land and structures will be determined by the CALA (Competent Authority for Land Acquisition) in accordance with the provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 under the National Highways Act, 1956.

3.4.14. Employment details: Project shall provide employment opportunities for about 2500 persons (including permanent and temporary).

| Employment                                | No. of Peoples |
|---|----------------|
| Permanent Employment-During Construction  | 900            |
| Temporary Employment- During Construction | 200            |
| Permanent Employment-During Operation     | 800            |
| Temporary Employment- During Operation    | 600            |
| <b>Total Manpower:</b>                    | <b>2500</b>    |

3.4.15. Benefits of the project: This expressway will provide expressway connectivity between Amritsar (North India) to Mumbai (Financial Capital) through under construction Amritsar –



Santhalpur Expressway, Vadodara – Mumbai Expressway and existing Ahmedabad – Vadodara Expressway. Proposed expressway will Improve the road network benefiting the local people; reduce the travel time, distance as well as transportation cost; boost socio-economic and tourism development along the project influence area; income of vulnerable and poor people will be increased; increase possibility of employment of semi-skilled and unskilled people living along the project road and its adjoining villages during the construction and operational period; will provide better driving conditions and road safety.

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

3.4.17. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 296th meeting during 28th – 29th April 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. Provide details regarding the availability of water.
- ii. Since, this is a greenfield highway, please mention clearly regarding the tree plantation on both side of the alignment as a mandatory requirement.
- iii. Minimum possible pillars shall be constructed on Riverbed for making bridge/s by keeping the interpillar span of minimum 60 meter and if technology permits more. the details should be submitted.
- iv. Wildlife crossing structures shall be constructed at appropriate location identified after consultation with state forest department. Details of the same to be provided in the EIA-EMP. Apart from land compensation, the loss for crop has also to be compensated.
- v. Cumulative impact assessment study should be carried out along the entire stretch including the other packages and the current stretch under consideration.
- vi. The proponent shall carry out a detailed traffic flow study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.
- vii. Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety.
- viii. Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan.
- ix. The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent

authorities. Alignment also should be such that it will avoid cutting old and large and heritage trees if any. All such trees should be geo-tagged, photographed and details be submitted in the EIA –EMP report.

- x. The proponent shall carry out a comprehensive socio-economic assessment and also impact on biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.
- xi. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30<sup>th</sup> September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
- xii. In pursuance of Ministry's OM no stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.
- xiii. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25<sup>th</sup> October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
- xiv. A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided. Such plantation alongside of forest stretch will be over and above the compensatory afforestation. Tree species should be same as per the forest type.

### **Agenda No. 3.5**

**Development of Greenfield Regional expressway on northern side of Hyderabad connecting from Girmapur Village (on NH-65 at Ch. 429.200 km) in Sangareddy District to Choutuppal (on NH-65 at ch. 55.400 km) in Yadadri Bhuvanagir District via Medak and Siddipet District in the state of Telangana under Bharatmala Pariyojana (Total length – 158.645 km) by M/s National Highways Authority of India. – Terms of Reference [Proposal No. IA/TG/NCP/265376/2022 and File No. 10/22/2022-IA.III]**

3.5.1. The aforementioned proposal was placed before the EAC in its 296<sup>th</sup> meeting during 28<sup>th</sup> – 29<sup>th</sup> April 2022. The project proponent along with the DPR consultant M/s K&J Projects Private. Limited made a presentation through Video Conferencing and provided the following information-

3.5.2. The proposed project is for Development of Greenfield Regional Expressway on northern side of Hyderabad connecting from Girmapur village (on NH-65 at Ch 492.200 km) in Sangareddy district to Choutuppal (on NH-65 at Ch.55.400 km) in Yadadri Bhuvanagir district via Medak and Siddipet District, comprising total design length 158.645 km, in the state of Telengana under Bharatmala Pariyojana. The Project corridor running west to east between latitude 17°36'15.84"N longitude 78° 2'9.52"E and latitude 17°14'48.22"N longitude 78°54'48.40"E.

3.5.3. 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. 8407.397 Crore.

3.5.4. Land use /Land cover of the proposed project site is as below: Proposed Land Acquisition is 1903.740.

| S.No. | Landuse / Landcover | Area (ha)       | Area (%)   | Remarks if any   |
|-------|---------------------|-----------------|------------|------------------|
| 1.    | Private land        | 1746.353        | 91.73      | Agriculture Land |
| 2.    | Government land     | 95.187          | 5.0        | Agriculture Land |
| 3.    | Forest land         | 62.200          | 3.27       | RF               |
|       | <b>Total</b>        | <b>1903.740</b> | <b>100</b> | -                |

3.5.5. Land use/Land cover around 10 km radius of project site (1 km in case of Highway projects): This is a Greenfield project. The alignment is mainly passing through agriculture land & forest land.

3.5.6. Right of Way: The Proposed Right of Way shall be 100 m.

3.5.7. Terrain and topographical features: The terrain of the alignment is basically flat to undulating in nature.

3.5.8. Forest Land Diversion: The proposed alignment consists of 73.94 ha forest land combining protected and reserve forest. Application will be submitted after joint survey with forest department.

3.5.9. Tree cutting: About 48,765 trees are likely to be affected due to proposed RoW of 100 m. The actual no. of trees proposed to be felled will be submitted in Final EIA after joint enumeration with appropriate authorities of respective State Government. Efforts will be made to minimize the trees loss by restricting trees cutting within formation width. Avenue plantation shall be carried out as IRC: SP: 21:2009 on available RoW apart from statutory requirements.

3.5.10. PA/ESZ/National Park/Sanctuary: There is no protected area/ Eco-Sensitive Zone or Eco-Sensitive area within 10 km radius of the proposed project road.

3.5.11. Water bodies/ Impact on Drainage: There are Ponds - 05Nos., Canals – 10 Nos, Drains – 25 Nos, Stream – 13 No. and Distributary – 180 Nos falling along the alignment. There shall be no major impact on the drainage system as sufficient numbers of structures (such as culverts, minor bridges and major bridges) will be constructed.

3.5.12. Water requirement: Approx. 54,99,151.36 KLD Water will be extracted from suitable surface sources (canals) or ground water after obtaining necessary permissions from the competent authority. Ground water proposed to be used only for camp site for transient period

after obtaining the permissions from appropriate authority.

3.5.13. Land acquisition and R&R issues: The Project requires approx. 1903.74 ha. approx. land. Approx. 75 nos. of structures are coming in the proposed RoW. The land will be acquired as per procedure laid down in RFCT LARR Act, 2013.

3.5.14. Employment details: During the construction of the road project around 1500 persons would be employed temporarily for a period of 2.5 years. However due to construction of toll plazas approx. 200 persons will be employed on permanent basis. The total manpower requirement for the project is 1700. Preference will be given to local people for employment.

3.5.15. Benefits of the project: 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.

3.5.16. The committee also observed that the proposed road is also passing through some of the lands already identified for compensatory afforestation in lieu of forest land diversion against some other project. Such lands for CA should not be used for road construction. Legal status of such CA land is not clarified by the PP nor the status of CA is communicated.

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

3.5.18. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 296th meeting during 28<sup>th</sup> – 29<sup>th</sup> April 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. Proposed alignment shall be modified in consultation with state forest department so that as far as possible the forest areas especially the land identified for compensatory afforestation are completely avoided.
- ii. NHAI will design the alignment with necessary structural provisions for safe passage of wildlife in consultation with Chief Wildlife Warden of the State and explore re-alignment for saving of forest cover /patch/area.
- iii. Cumulative impact assessment study should be carried out along the entire stretch including the other packages and the current stretch under consideration.
- iv. The proponent shall carry out a detailed traffic flow study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.
- v. Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage

and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety.

- vi. Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan.
- vii. The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. Alignment also should be such that it will avoid cutting old and large and heritage trees if any. All such trees should be geo-tagged, photographed and details be submitted in the EIA –EMP report.
- viii. The proponent shall carry out a comprehensive socio-economic assessment and also impact on biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.
- ix. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30<sup>th</sup> September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
- x. In pursuance of Ministry's OM no stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.
- xi. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25<sup>th</sup> October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
- xii. A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided. Such plantation alongside of forest stretch will be over and above the compensatory afforestation. Tree species should be same as per the forest type.

### **Agenda No. 3.6**

**Development of Payal Industrial Park at Villages Pakhajan, Pipaliya & Vahiya, Taluka Vagra, District Bharuch, Gujarat by M/s Payal Properties Pvt. Ltd. – Further**

## **consideration for Environmental Clearance**

**[Proposal No. IA/GJ/NCP/225979/2021 and File No. 10/39/2021-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have submitted 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 proposal was earlier considered in the 291<sup>st</sup> EAC meeting held on 10<sup>th</sup> March, 2022. The EAC deferred the proposal for want of following information:

- i. There is no full utilization of water as it appears from the Water Balance Chart. Which is also it very confusing. Water balance data should be re-visited and revised.*
- ii. There is huge discharge of effluents in the Arabian Sea. Almost 60 % (50 MLD out of 92 MLD) waste water will be discharged in the Sea. Zero liquid discharge-based model should be explored. A detailed management plan for the recovery/utilization of treated effluent be submitted accordingly.*
- iii. Total green belt area and percentage of green belt development be revised in accordance to the PCPIR norms for Green belt and OM issued by the MoEFCC. Accordingly, the capital cost for green belt development be revised*
- iv. Industry zoning with colour code alongwith distance of individual industry and nearby village with their population should be disclosed properly.*
- v. Appropriate air pollution control measures have to be taken as per Seasonal Wind rose.*
- vi. The PP has to ensure in writing as well as supported with state of art air modeling data that no plume carrying toxic material/aerosols will disperse in the village direction.*
- vii. Total cost for health and safety measures be revised, since Rs. 25 Lakhs for about 32000 peoples is a meager amount and considering extremely toxic nature of products and by-products of the proposed industrial estate.*
- viii. Detailed plan along with financial allocation for infrastructure for nearby Govt. health center/hospital be submitted and stated and accordingly EMP allocations should be revised.*
- ix. Total cost for firefighting system should be revised significantly considering very meager allocation in the current EMP budget and highly inflammable nature of some of the products and by-products.*
- x. Complete disaster management/mitigation plan should be detailed out.*
- xi. The proposed industrial park comprises of highly polluting industries; hence Health care center/Risk Assessment study/ Hazardous Management Study/Safety study/Mitigation measures be mandatorily carried out. Independent health care center or strengthening and modernization of existing government health care centers in the vicinity of the project has to be undertaken not only for the work force of the industrial estate but also for the people around the industrial park.*
- xii. Based on the above comments (sr. no i to xii) EMP and its cost has to be revised accordingly.*

3.6.2. Accordingly, PP submitted the following information and the matter was discussed in the meeting:

The revised Water balance is submitted, regarding ZLD it is mentioned that looking to the area of the park and possible industries to be established in the park, full-fledged CETP would be in operation in next 5 years. Industries will be setup in phased manner and so CETP with full 50 MLD load would be in function in next 5 years. Regarding green belt total 1422.10 Ha land area is available at site; out of this 469.3 Hectares (33%) area will be developed as greenbelt and other forms of greenery. Total budget for the green belt development shall be Rs. 15 crores. Other information on air emissions and preventive measures were also submitted. Regarding health care, the budget for Health care infrastructures is revised. Total Rs. 5 crores have been allocated for provision of Health care center/hospitals and strengthening of nearby health center/hospital.

3.6.3. The EAC during the meeting felt that the information submitted for certain points were not captured properly by the PP, therefore the EAC requested PP to submit the information on the following components and PP submitted the information on the same day as following:

| S. No  | Queries raised  | Reply submitted  |  |      |                     |  |  |  |                     |                    |                    |                  |   |                     |                       |         |        |       |      |     |   |         |       |       |      |     |  |         |       |       |      |     |   |        |       |      |      |     |             |  |  |        |      |      |
|--|---|--|--|------|---------------------|--|--|--|---------------------|--------------------|--------------------|------------------|---|---------------------|-----------------------|---------|--------|-------|------|-----|---|---------|-------|-------|------|-----|--|---------|-------|-------|------|-----|---|--------|-------|------|------|-----|-------------|--|--|--------|------|------|
| 1  | Recycling of 20% treated effluent from CETP                     | Total treated effluent from CETP: 50 MLD. Out of 50 MLD, <b>10 MLD (20%)</b> treated effluent shall be recycled after adequate treatment.  |  |      |                     |  |  |  |                     |                    |                    |                  |   |                     |                       |         |        |       |      |     |   |         |       |       |      |     |  |         |       |       |      |     |   |        |       |      |      |     |             |  |  |        |      |      |
| 2  | Breakup of 7.21% Green Belt area in tabular format and its cost | <table border="1"> <thead> <tr> <th colspan="6"><b>Green belt Area to be developed by Industrial Park management</b></th> </tr> <tr> <th>Revised Green Space</th> <th>Plot Area in Sq.mt</th> <th>Plot Area in Acres</th> <th>Area in Hectares</th> <th>%</th> <th>Cost, Rs. In crores</th> </tr> </thead> <tbody> <tr> <td>Green Space Plot Nos.</td> <td>639,169</td> <td>157.94</td> <td>63.92</td> <td>4.49</td> <td>9.3</td> </tr> <tr> <td>Payal IP Boundary-Green Space-Periphery</td> <td>237,880</td> <td>58.78</td> <td>23.79</td> <td>1.68</td> <td>3.5</td> </tr> <tr> <td>CETP, TSDF &amp; MEE-Green Space-Periphery</td> <td>108,400</td> <td>26.79</td> <td>10.84</td> <td>0.76</td> <td>1.6</td> </tr> <tr> <td>Water Body (11 Nos.) -Green Space-Periphery</td> <td>40,518</td> <td>10.01</td> <td>4.05</td> <td>0.28</td> <td>0.6</td> </tr> <tr> <td>Grand Total</td> <td></td> <td></td> <td>102.60</td> <td>7.21</td> <td>15.0</td> </tr> </tbody> </table> | <b>Green belt Area to be developed by Industrial Park management</b> |      |                     |  |  |  | Revised Green Space | Plot Area in Sq.mt | Plot Area in Acres | Area in Hectares | % | Cost, Rs. In crores | Green Space Plot Nos. | 639,169 | 157.94 | 63.92 | 4.49 | 9.3 | Payal IP Boundary-Green Space-Periphery | 237,880 | 58.78 | 23.79 | 1.68 | 3.5 | CETP, TSDF & MEE-Green Space-Periphery | 108,400 | 26.79 | 10.84 | 0.76 | 1.6 | Water Body (11 Nos.) -Green Space-Periphery | 40,518 | 10.01 | 4.05 | 0.28 | 0.6 | Grand Total |  |  | 102.60 | 7.21 | 15.0 |
| <b>Green belt Area to be developed by Industrial Park management</b> |   |  |  |      |                     |  |  |  |                     |                    |                    |                  |   |                     |                       |         |        |       |      |     |   |         |       |       |      |     |  |         |       |       |      |     |   |        |       |      |      |     |             |  |  |        |      |      |
| Revised Green Space  | Plot Area in Sq.mt  | Plot Area in Acres   | Area in Hectares   | %    | Cost, Rs. In crores |  |  |  |                     |                    |                    |                  |   |                     |                       |         |        |       |      |     |   |         |       |       |      |     |  |         |       |       |      |     |   |        |       |      |      |     |             |  |  |        |      |      |
| Green Space Plot Nos.  | 639,169   | 157.94   | 63.92  | 4.49 | 9.3                 |  |  |  |                     |                    |                    |                  |   |                     |                       |         |        |       |      |     |   |         |       |       |      |     |  |         |       |       |      |     |   |        |       |      |      |     |             |  |  |        |      |      |
| Payal IP Boundary-Green Space-Periphery                              | 237,880   | 58.78  | 23.79  | 1.68 | 3.5                 |  |  |  |                     |                    |                    |                  |   |                     |                       |         |        |       |      |     |   |         |       |       |      |     |  |         |       |       |      |     |   |        |       |      |      |     |             |  |  |        |      |      |
| CETP, TSDF & MEE-Green Space-Periphery                               | 108,400   | 26.79  | 10.84  | 0.76 | 1.6                 |  |  |  |                     |                    |                    |                  |   |                     |                       |         |        |       |      |     |   |         |       |       |      |     |  |         |       |       |      |     |   |        |       |      |      |     |             |  |  |        |      |      |
| Water Body (11 Nos.) -Green Space-Periphery                          | 40,518  | 10.01  | 4.05   | 0.28 | 0.6                 |  |  |  |                     |                    |                    |                  |   |                     |                       |         |        |       |      |     |   |         |       |       |      |     |  |         |       |       |      |     |   |        |       |      |      |     |             |  |  |        |      |      |
| Grand Total  |   |  | 102.60   | 7.21 | 15.0                |  |  |  |                     |                    |                    |                  |   |                     |                       |         |        |       |      |     |   |         |       |       |      |     |  |         |       |       |      |     |   |        |       |      |      |     |             |  |  |        |      |      |
| 3  | Green Belt area 15-meter at the                                 | Green Belt area 15-meter at the periphery of park which is under influence of village buffer is submitted  |  |      |                     |  |  |  |                     |                    |                    |                  |   |                     |                       |         |        |       |      |     |   |         |       |       |      |     |  |         |       |       |      |     |   |        |       |      |      |     |             |  |  |        |      |      |

|          | periphery of park which is under influence of village buffer  |   |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
|----------|---|---|----------|--------------|--------------------------------------|---|--------------------------|------|---|--------------------|---------|---|-------------------------|--------|---|-----------------------|-------------------|---|---------------------|-------------------|---|--------------------|--------------------|---|----------------------|---------------------|---|----------------|------|---|------------------------|---------------------|----|------------------------------|-------------------|----|---------------------|--------------------|----|--------------------|-------------------|
| 4        | Commitment to accommodate packaging, textiles industries, etc. towards Pakhajan and Pipaliya villages | <p>As suggested and directed, considering wind rose diagram and dispersion model those industries emitting gaseous pollutants as mentioned below will not be allowed in funnel area</p> <table border="1"> <thead> <tr> <th>Scenario</th> <th>MCL Scenario</th> <th>Quantity in KL / m<sup>3</sup> / kg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Release of 1,3 Butadiene</td> <td>2 KL</td> </tr> <tr> <td>2</td> <td>Release of Ammonia</td> <td>27.2 kg</td> </tr> <tr> <td>3</td> <td>Release of Hydrogen gas</td> <td>5.1 kg</td> </tr> <tr> <td>4</td> <td>Release of Iso Butane</td> <td>60 m<sup>3</sup></td> </tr> <tr> <td>5</td> <td>Release of n Butane</td> <td>35 m<sup>3</sup></td> </tr> <tr> <td>6</td> <td>Release of Propane</td> <td>150 m<sup>3</sup></td> </tr> <tr> <td>7</td> <td>Release of Propylene</td> <td>1500 m<sup>3</sup></td> </tr> <tr> <td>8</td> <td>Release of LPG</td> <td>8 MT</td> </tr> <tr> <td>9</td> <td>Release of 1,4-Dioxane</td> <td>34.5 m<sup>3</sup></td> </tr> <tr> <td>10</td> <td>Release of Carbon disulphide</td> <td>21 m<sup>3</sup></td> </tr> <tr> <td>11</td> <td>Release of Methanol</td> <td>506 m<sup>3</sup></td> </tr> <tr> <td>12</td> <td>Release of Toluene</td> <td>40 m<sup>3</sup></td> </tr> </tbody> </table> | Scenario | MCL Scenario | Quantity in KL / m <sup>3</sup> / kg | 1 | Release of 1,3 Butadiene | 2 KL | 2 | Release of Ammonia | 27.2 kg | 3 | Release of Hydrogen gas | 5.1 kg | 4 | Release of Iso Butane | 60 m <sup>3</sup> | 5 | Release of n Butane | 35 m <sup>3</sup> | 6 | Release of Propane | 150 m <sup>3</sup> | 7 | Release of Propylene | 1500 m <sup>3</sup> | 8 | Release of LPG | 8 MT | 9 | Release of 1,4-Dioxane | 34.5 m <sup>3</sup> | 10 | Release of Carbon disulphide | 21 m <sup>3</sup> | 11 | Release of Methanol | 506 m <sup>3</sup> | 12 | Release of Toluene | 40 m <sup>3</sup> |
| Scenario | MCL Scenario  | Quantity in KL / m <sup>3</sup> / kg  |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 1        | Release of 1,3 Butadiene  | 2 KL  |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 2        | Release of Ammonia  | 27.2 kg   |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 3        | Release of Hydrogen gas   | 5.1 kg  |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 4        | Release of Iso Butane   | 60 m <sup>3</sup>   |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 5        | Release of n Butane   | 35 m <sup>3</sup>   |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 6        | Release of Propane  | 150 m <sup>3</sup>  |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 7        | Release of Propylene  | 1500 m <sup>3</sup>   |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 8        | Release of LPG  | 8 MT  |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 9        | Release of 1,4-Dioxane  | 34.5 m <sup>3</sup>   |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 10       | Release of Carbon disulphide  | 21 m <sup>3</sup>   |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 11       | Release of Methanol   | 506 m <sup>3</sup>  |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 12       | Release of Toluene  | 40 m <sup>3</sup>   |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |
| 5        | Details of industries emitting gaseous pollutants   | Considering wind rose diagram and dispersion model those industries emitting gaseous pollutants will not be allowed in funnel area.   |          |              |                                      |   |                          |      |   |                    |         |   |                         |        |   |                       |                   |   |                     |                   |   |                    |                    |   |                      |                     |   |                |      |   |                        |                     |    |                              |                   |    |                     |                    |    |                    |                   |

3.6.4. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 296th meeting during 28th – 29th April 2022 and **recommended** the proposal for Environmental and Clearance with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. All the mitigation measures to reduce pollution as mentioned in EIA-EMP report shall be implemented in toto.
- ii. All commitments made during the presentation and submitted as an additional information vide letter dated 30<sup>th</sup> March, 2022 and 29<sup>th</sup> April, 2022 shall be complied with.
- iii. As suggested and directed, considering wind rose diagram and dispersion model those industries emitting gaseous pollutants as mentioned above in 3.6.4.4 will not be allowed in funnel area encompassing settlements near the project boundary.
- iv. As committed, full-fledged CETP of 50 MLD capacity shall be in operation in next 5 years i.e. by May, 2027.
- v. Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016.
- vi. 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.

- vii. The existing water bodies in the project area shall be conserved and used for effective water management. No ground water shall be used in any case.
- viii. Provision shall be made to construct rainwater harvesting structures for augmentation of ground water levels. Rain water harvesting for roof run-off and surface run-off, as plan submitted shall be implemented.
- ix. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured/recorded to ensure the water balance is maintained and the record shall be submitted to the Regional Office, MoEF&CC along with six Monthly Monitoring report.
- x. Grading within the project site shall be planned such that there shall be negligible impacts on the existing natural drainage system/pattern. An adequate drainage system shall be provided at the site with separate collection streams to segregate the storm run-off from roads, open areas, material storage areas, vehicle wash water and other wastewater streams. Suitable measures should be taken to prevent the washing away of construction materials into the drainage system.
- xi. Ambient noise levels shall be regularly monitored and conform to the prescribed standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during development/ construction phase.
- xii. Continuous monitoring system be installed by all the member industries and adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/SPCB.
- xiii. A comprehensive plan for disaster management and mitigation be developed taking in to account the products, processes and hazardous waste if any and its disposal. The plan should also include financial provisions for the same and integrate these within EIA/EMP.
- xiv. EMP- Budget allocation for developing adequate infrastructure for healthcare facilities and its operations for the employees and general public be made and implemented. Also, adequate financial provisions be made for skill development for local population as provided for in the EIA-EMP

- xv. Green belt should be developed all around the settlements and water bodies using native species. Minimum 33% of total project area shall be maintained as green belt

### Agenda No. 3.7

#### **Construction of 4/6 Laning of Palakkad – Kozhikode of NH-966 (Greenfield) from Km 0.000 to Km 121.006 (Total Length – 121.006 km) in the state of Kerala under Bharatmala Pariyojana on HAM mode by M/s National Highways Authority of India - Terms of Reference**

**[Proposal No. IA/KL/NCP/261224/2022 and File No. 10/20/2022-IA.III]**

*“The EAC noted that the Project Proponent and the consultant have submitted 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.”*

3.7.1 The aforementioned proposal was placed before the EAC in its 296<sup>th</sup> meeting during 28<sup>th</sup> – 29<sup>th</sup> April 2022. The project proponent along with the DPR consultant M/s TPF Getinasa Euroestudios S.Lin J.V with TPF Engineering Pvt. Ltd and EIA consultant M/s Ultra Tech Environmental Consultancy and Laboratory made a presentation through Video Conferencing and provided the following information-

3.7.2 The proposed project is for development of 4/6 lane partially access controlled Greenfield highway to ease the infrastructure asymmetry and improve the efficiency of freight movement under Bharatmala Pariyojana. Total length of the proposed highway is 121.006 km. The alignment will start from Ch 0+000 (10°46'30.53"N, 76°42'6.25"E) at NH-544 (Salem-Kochi-Kanyakumari Highway) at Marutharode Village, Palakkad District and traverses entirely through plain/rolling terrain and it will end at Ch 121+006 (11°14'16.19"N, 75°50'30.19"E) of NH-66 at Olavanna Village, Kozhikode District. The proposed project will cover Palakkad, Malappuram and Kozhikode districts in Kerala State.

3.7.3 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. 7937.96 Crores.

3.7.4 Land use /Land cover of the proposed project site is as below: Proposed Land Acquisition is 547.407 ha.

| S. No. | Landuse/Landcover | Area (ha)      | Area (%)      |
|--------|-------------------|----------------|---------------|
| 1      | Agricultural Land | 455.935        | 83.29         |
| 2      | Built up Land     | 91.472         | 16.71         |
| 3      | Barren land       | 0.000          | 0.00          |
| 4      | Forest            | 0.000          | 0.00          |
|        | <b>Total Area</b> | <b>547.407</b> | <b>100.00</b> |

3.7.5 Land use/Land cover around 10 km radius of project site (1 km in case of Highway projects): Landuse/Landcover within 1 km not yet done. This will be incorporated in the EIA report.

3.7.6 The Proposed Right of Way shall be 45.0 m in general.

3.7.7 Terrain and topographical features: The proposed alignment has 84 % Plain Terrain and 16 % Rolling Terrain.

3.7.8 Forest Land Diversion: There is no diversion of forest land.

3.7.9 Tree cutting: Approximately 1,22,470 number of trees within proposed RoW, will be felled for construction of the Greenfield Highway. However, compensatory and avenue plantation will be done using native plant species to enhance the genetic diversity.

3.7.10 PA/ESZ/National Park/Sanctuary: The boundary of Silent Valley National Park is at distance of 5.5 km from the proposed alignment. Application for National Board for wild life (NBWL) Clearance will be submitted. The nearest Eco-Sensitive Area (ESA) of Western Ghats is at a distance of 1.0 km from the proposed alignment at Palakkad district.

3.7.11 CRZ area: The proposed alignment crosses the Chaliyar River. Application for CRZ Clearance will be submitted. Also CRZ map will be submitted.

3.7.12 Water bodies/ Impact on Drainage: Total number of water bodies – 27. The natural drainage pattern will be maintained throughout the project by providing necessary cross drainage structures such as Major/Minor Bridges and culverts. Total 4 Major Bridges, 19 Minor Bridges and 363 culverts has been proposed.

3.7.13 Water requirement: Water requirement during construction phase will be approximately 5300 kLD. It will be sourced from surface water bodies through water tankers after obtaining necessary approvals. Drinking water required for the construction workers will be sourced from nearby drinking water suppliers. Drinking water facilities will be provided at Toll Plaza and way side amenities during the operation phase. If ground water needs to be extracted, necessary approvals will be taken before groundwater extraction.

3.7.14 Land acquisition and R&R issues: Total land acquisition for the proposed alignment is about 547.407 ha and estimated cost for land acquisition is INR 401381 Lakh. Rehabilitation and Resettlement Plan - Most of the land falling in the alignment of the proposed highway is agricultural land followed by builtup land. No forest and barren land are involved. 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 (with its amendments).

3.7.15 Employment details: **Direct Employment:** During the construction of the road project around 600 persons would be employed temporarily for a period of 30 months. This will include skilled, semi-skilled and unskilled labours, Preference will be given to local people for employment. In the post construction phase, the project will provide social benefits to no. of people in terms of direct employment by way of better commercial and industrial development of the area. **Indirect Employment:** Ancillary units will be set up due to the establishment of project which will provide employment. Local vendors/traders etc. will be benefitted through

employment generated during construction and operation phase.

3.7.16 Benefits of the project: The project will reduce the travel time between Palakkad and Kozhikode from 4.0 hours to 2.0 hours. It interconnects two important NHs of Kerala (i.e., NH-544 and NH-66). Project road will also cater to the to and from traffic between Kozhikode and International airport at Kondotty. It will provide connectivity to 39 villages alongside. The proposed project will cater to the traffic from all the existing and proposed industrial establishments such as the Kerala Industrial Infrastructure Development Corporation (KINFRA) at Kanjikode, Kannambra, Kakkanchery etc. The proposed alignment will provide high speed connectivity to Kozhikode port and Chennai port. Faster movement of freight & passenger vehicles by avoiding busy existing highways resulting in usage shift from existing roads. Development / Strengthening of ports and infrastructure / networking of the state will help in increase in the growth of industrial/tourism/health and education sectors of Kerala. It will improve the connectivity to tourist destinations like Silent Valley, Nilambur, Wayanad, Mysore and Ooty.

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

3.7.18 The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 296th meeting during 28th – 29th April 2022 and **deferred** the proposal for grant of Terms of Reference (ToR) for the want of following documents/information:

- i. Explore suitable alignment beyond 10km ESZ of the Silent Valley NP and adjoining forest areas.
- ii. All the other alternate alignments were found not viable and are infact much nearer to the Silent Valley National Park
- iii. Will the development of green field alignment will bring more population closer the to the boundary of Silent Valley National Park? What are the impact of the same on human-wildlife conflict? And habitat destruction at Silent Valley National Park?
- iv. Considering extremely sensitive nature of the forests near the alignment, a sub-committee will make a site visit before considering the proposal further for ToR.

### **Agenda No. 3.8**

**Proposed Industrial Park at Village Golana and Mitali, Taluka Khambhat, District Anand, Gujarat by M/s Vibrant Industrial Park Limited – Further consideration for 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 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 abovementioned proposal was earlier considered in the 289<sup>th</sup> meetings of Expert Appraisal Committee held during 17th -18th February, 2022. The proposal was deferred for the want of requisite information/documents.

3.8.2. At this instance, the proposal was further placed before the EAC in its 296<sup>th</sup> meeting during 28th – 29th April 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-

3.8.3. Proponent Submitted Responses to 289<sup>th</sup> Meeting of EAC Observations during 17th - 18th February, 2022:

| Information sought during 289 <sup>th</sup> EAC Meeting   | Reply given by PP during 296 <sup>th</sup> meeting during 28th – 29th April 2022  |
|---|---|
| <p>i. <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</i></p>                                     | <p>The proponent has submitted detailed information/documents regarding the query raised. Briefly, the PP has submitted that</p> <ul style="list-style-type: none"> <li>- All industries located in this estate shall be more than 500m away from Sabarmati River. Layout map showing industrial units.</li> <li>- Contour of the area has been presented.</li> </ul>   |
| <p>ii. <i>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?</i></p> | <ul style="list-style-type: none"> <li>• VIPL has proposed ZLD system for treatment of effluent &amp; sewage generated from member’s units &amp; industrial park. Hence, there will no discharge of industrial effluent in the river.</li> <li>• Anand and Ahmedabad city are located at 48 &amp; 54km from project site respectively. Salinity in the river at downstream of project site is less than 2ppt &amp; estuary zone is estimated to be approximately 5km downstream from the project site.</li> <li>• Hence there is no possibility of tidal bore which can take the industrial effluent backward to the city.</li> <li>• Detailed survey of river salinity shall be carried out during EIA study.</li> </ul> |
| <p>iii. <i>A certificate from the Irrigation department/concerned department may be submitted that the site does not fall in the flood plain of the river</i></p>   | <ul style="list-style-type: none"> <li>• We have submitted letter to District Magistrate &amp; Collector, Anand and Water Resource department, Anand regarding information on River Sabarmati Flood Plain Zone on 15.02.2022.</li> <li>• Certificate received from District Magistrate &amp; Collector, Anand via letter no. POL/2/WS/1756A/22 dated 24.03.2022 stating survey no. within 500</li> </ul>  |

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|  | m,1000 m and beyond, no survey is falling within 500m of the river.  |
| iv. <i>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.</i> | <ul style="list-style-type: none"> <li>Proposed project is located in District Anand. Zoning Atlas is not available for District Anand as this district does not fall in any of priority criteria set up by CPCB.</li> <li>In State of Gujarat Zoning atlas is prepared only for Panchmahal district (which is around 90 km in East direction from proposed project site) hence this Atlas is not applicable to proposed project site.</li> <li>As per CPCB's zoning atlas guidelines, all the industries proposed in the Estate are of Category A2W1 &amp; falls under Zone IX.</li> <li>As zoning Atlas for Anand District is not prepared by CPCB hence we have followed siting criteria published by CPCB for Industrial Estate</li> </ul>   |
| v. <i>Details of the implementation and mechanisms alongwith the technologies for achieving ZLD be submitted.</i>  | <p>The proponent has submitted detailed information/documents regarding the query raised. Briefly, the PP has submitted that</p> <ul style="list-style-type: none"> <li>Dilute stream generated shall be treated in CETP followed by RO. Concentrated stream and RO Reject shall be treated in Common MEE followed by Spray Dryer to achieve Zero Liquid Discharge System.</li> <li>Regarding Mode of Disposal, Recycle water from RO shall be reused by member units except pharma.</li> <li>Development of Industrial park shall take place over a period in phased manner. To match with this development, CETP also should be developed in a phased manner so we shall be developed in 4 phases.</li> <li>Offline Lagoon is proposed as emergency storage tank. Overflow of this lagoon shall be directed to Equalization Tank.</li> </ul> |
| vi. <i>The detailed pollution load considering individual industries, its type and composition of pollutants and its mitigation measures to be adopted be submitted</i>  | The proponent has submitted detailed information/documents regarding the query raised. Proponent agreed to drop pesticide units from the proposed Industrial Park  |
| vii. <i>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</i>                          | Unit of area mentioned in application, presentation and project details were not analogous. Hence, we have streamlined the data and the same was submitted via mail dated 22.02.2022.  |

3.8.4. PP during the deliberation mentioned that since the proposed industrial estate has pre-defined set of activities, and further Specific Condition is applicable for the project, therefore, the ToR must be issued in such a way that individual industries including proposed industrial housing within such estates /complexes will not be required to take prior environmental clearance.

Following is the specific condition

*If any Industrial Estate/Complex / Export processing Zones /Special Economic Zones/Biotech Parks / Leather Complex with homogeneous type of industries such as Items 4(d), 4(f), 5(e), 5(f), or those Industrial estates with pre –defined set of activities (not necessarily homogeneous, obtains prior environmental clearance, individual industries including proposed industrial housing within such estates /complexes will not be required to take prior environmental clearance, so long as the Terms and Conditions for the industrial estate/complex are complied with (Such estates/complexes must have a clearly identified management with the legal responsibility of ensuring adherence to the Terms and Conditions of prior environmental clearance, who may be held responsible for violation of the same throughout the life of the complex/estate).*

3.8.5. The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 296th meeting during 28th – 29th April 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. The planning of Industrial Estate should be based on siting criteria published by CPCB for Industrial Estate.
- ii. Documents regarding clearly identified management with the legal responsibility of ensuring adherence to the Terms and Conditions of prior environmental clearance may be submitted. Such management shall be held responsible for violation of the EC conditions throughout the life of the complex/estate.
- iii. A detailed layout plan for all kind of pre-defined activity shall be submitted such that all future developments shall take place as per the final layout submitted along with the EIA/EMP report.
- iv. Pesticide units will not be allowed as agreed by the PP
- v. Separate chapters for different type of industries proposed in the industrial area along with details like number of industries for each type, placement of industries on the layout map, resource requirement by each type of industry, raw material linkages, details on supply of resource, pollution potential, probable quantity of emission/waste generated, waste disposal plans, mitigative measures and environmental management plan shall be prepared as a part of EIA/EMP report.
- vi. Water balance chart be prepared and submitted along with EIA/EMP report.
- vii. Proponent shall ensure the conservation and development of nearby water bodies in the surrounding areas.
- viii. Detailed land use breakup of proposed Industrial area with green belt to be submitted.

- ix. The terrain of the project area has to be detailed with hydrological study and its impact need to be carried out on the catchment and drainage system in core and buffer zones.
- x. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M) dated 25th October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
- xi. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
- xii. In pursuance of Ministry's OM no stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.

### **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 – Further consideration for 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 abovementioned proposal was earlier considered in the 289<sup>th</sup> meetings of Expert Appraisal Committee held during 17th -18th February, 2022. The proposal was deferred for the want of requisite information/documents.

3.9.2 At this instance, the proposal was further placed before the EAC in its 296<sup>th</sup> meeting during 28th – 29th April 2022. The project proponent along with the EIA consultant M/s. Aarvee Associates Architects Eng. & Consultants Pvt. Ltd. has made a presentation through Video Conferencing and provided the following information-

3.9.3 Proponent Submitted Responses to 289<sup>th</sup> Meeting of EAC Observations during 17th - 18th February, 2022:



| Information sought during 289th EAC Meeting  | Reply given by PP during 296 <sup>th</sup> meeting during 28th – 29th April 2022  |
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| i. <i>Consultation with PCCF has to be done for construction of Canal crossings/tunnels/bridges/Animal crossing zones etc.</i>   | <p>The proponent has submitted detailed information as below-</p> <ul style="list-style-type: none"> <li>• The User Agency agreed to the construction of canal crossings/tunnels/ bridges/ Animal crossing zones etc. Box culverts/ pipe culverts are proposed in the project duly meeting the requirements of "Eco-friendly Mitigation Measures suggested for Linear Projects by WII, May 2016".</li> <li>• Construction of site suitable engineering structures in the reserve forest areas (Nellore Division: Seetharamapam RF) (Giddalur Division: Bhairavakonda RF) (Anantapuram Division: Dokalakonda RF).</li> </ul> |
| ii. <i>The proposal will be considered based on the recommendations and reviews by the concerned PCCF</i>  | <p>The proponent has submitted detailed information as below-</p> <ul style="list-style-type: none"> <li>• The user agency has agreed to the construction of canal crossings/tunnels/ bridges/ Animal crossing zones etc. in the wildlife areas as per the guidelines issued by the Ministry on Eco-friendly Measures to mitigate the Impacts of linear infrastructure on wildlife.</li> <li>• It is the only option available with a minimum forest area involved for the proposed diversion.</li> <li>• Necessary measures will be taken up by the user agency in consultation with A.P Forest Department</li> </ul>      |
| iii. <i>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</i> | <p>The proponent has submitted detailed information as below-</p> <ul style="list-style-type: none"> <li>• Distribution areas of Critically Endangered bird Jerdon's Courser Rhinoptilus bitorquatus will be mapped in consultation with the Chief Wildlife Warden, subject expert, and shared with EAC shortly by the project proponent.</li> <li>• Necessary essential Wildlife Conservation and mitigation measures will be prepared by the user agency in consultation with the Chief Wildlife Warden of Andhra Pradesh.</li> </ul>   |
| iv. <i>Kottapalli to Mallipalli (chainage 162.00 to 173.00) corridor alignment should be</i>   | <p>The proponent has submitted detailed information as below-</p> <ul style="list-style-type: none"> <li>• The proposed expressway from Kottapalli to</li> </ul>  |

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| <p><i>decided by the chief wildlife warden of the concerned state</i></p> | <p>Mallipalli (chainage 162.00 to 173.00) approximately over a length of 5 km (166 km to 171 km) is passing through the tiger corridor consisting of Nagarjuna Sagar-Srisailem Tiger reserve and Sri Venkateswara National Park, Tirupathi.</p> <ul style="list-style-type: none"> <li>• The proposed expressway is passing on LHS of existing BT road from Mydukur to Porumamilla. The road falls in compartment no. 144 and 145 0 K.K. Dasaripalli Muddireddypalli Beat in Onipenta Range and compartment no. 158 0 K.K. Dasaripalli RF, Mallipalli Beat in Porumamilla Range.</li> <li>• Further, the expressway is also passing in the Reserve forest area from Chainage 196.00 km to 198.50 km pertaining to Proddatur (WL) Division, which is approximately 2.50 km. This patch of road falls in compartment no.250, Kavalakuntla South RF, Siddavaram Beat and in compartment no.253, Kavalakuntla Extn. A &amp; B RF, Tekurupeta beat in Porumamilla Range. This patch of road falls in the Tiger Corridor.</li> <li>• Approximately over a length of 7.50 km of expressway road falls in Proddatur (WL) Division.</li> <li>• The area proposed for diversion is the only option and the minimum possible area hence considered in the public interest.</li> <li>• The above engineering mitigation measures suggested in Point-I will be meeting the requirements of the Tiger Corridor areas also. Hence. the suggested alignment from Design Ch. 162+000 to Ch. 173+000 may be allowed</li> </ul> |
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3.9.4 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 296th meeting during 28th – 29th April 2022 and **recommended** the proposal for grant of ToR with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. Since the proposed road is passing through hilly terrain proper muck disposal plan shall be prepared and submitted as part of EIA/EMP report.
- ii. As already agreed, upon by the State Forest Department location and type of wild animal crossing structures like over bridge, elevated road, underpasses, box culverts shall be decided in consultation with state CWLW and SFD
- iii. Cumulative impact assessment study should be carried out along the entire stretch including the other packages and the current stretch under consideration.
- iv. A specific study should be undertaken on impact assessment, habitat improvement and mitigation with focus on *Critically Endangered bird Jerdon's Courser*

*Rhinoptilus bitorquatus*, its habitat in its known distribution and adjoining areas by nationally reputed institute like SACON, GUIDE etc.

- v. The proponent shall carry out a detailed traffic flow study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.
- vi. Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety.
- vii. Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan.
- viii. The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. Alignment also should be such that it will avoid cutting old and large and heritage trees if any. All such trees should be geo-tagged, photographed and details be submitted in the EIA –EMP report. PP should explore *possibility of reducing RoW considering very large number of tree cutting involved*
- ix. The proponent shall carry out a comprehensive socio-economic assessment and also impact on biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people’s dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.
- x. As per the Ministry’s Office Memorandum F. No. 22-65/2017-IA.III dated 30<sup>th</sup> September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
- xi. In pursuance of Ministry's OM no stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.
- xii. The Action Plan on the compliance of the recommendations of the CAG as per

Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25<sup>th</sup> October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.

- xiii. Passage for animal movement has to be detailed in the report (if alignment is passing through Forest area).
- xiv. A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided. Such plantation alongside of forest stretch will be over and above the compensatory afforestation. Tree species should be same as per the forest type.
- xv. Detailed Biodiversity assessment and conservation/mitigation plan be developed by a nationally reputed institute such as SACON, GUIDE etc.
- xvi. Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers.

### Agenda No. 3.10

**Development of 4 lane/6 lane (Greenfield) access Control expressway from Bengaluru-Kadapa-Vijayawada (BKV) Section Package-II: 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 – Further consideration for 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 abovementioned proposal was earlier considered in the 289<sup>th</sup> meetings of Expert Appraisal Committee held during 17th -18th February, 2022. The proposal was deferred for the want of requisite information/documents.

3.10.2 At this instance, the proposal was further placed before the EAC in its 296<sup>th</sup> meeting during 28th – 29th April 2022. The project proponent along with the EIA consultant M/s. Aarvee Associates Architects Eng. & Consultants Pvt. Ltd. has made a presentation through Video Conferencing and provided the following information-

3.10.3 Proponent Submitted Responses to 289<sup>th</sup> Meeting of EAC Observations during 17th - 18th February, 2022:

| Information sought during 289 <sup>th</sup> EAC Meeting | Reply given by PP during 296 <sup>th</sup> meeting during 28th – 29th April 2022 |
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| i. <i>The proposal will be considered based on the recommendations and reviews by the concerned PCCF.</i>                         | The proponent has submitted detailed information as mentioned at Proposal no. IA/AP/NCP/253124/2022 for package 1. |
| ii. <i>Consultation with PCCF has to be done for construction of Canal crossings/ tunnels/ bridges /Animal crossing zones etc</i> |  |
| iii. <i>Viability of this alignment is subject to specific observations made in Package 1</i>                                     |  |

3.10.4 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 296th meeting during 28th – 29th April 2022 and **recommended** the proposal for grant of ToR with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. The proposed expressway from Kottapalli to Mallipalli (chainage 162.00 to 173.00) approximately over a length of 5 km (166 km to 171 km) is passing through the tiger corridor consisting of Nagarjuna Sagar-Srisailem Tiger reserve and Sri Venkateswara National Park, Tirupathi. The alignment between Chainage 162.00 to 173.00 will be through tunnel. Provide details of the same in EIA-EMP. Also Chainage 196.00 km to 198.50 km which is approximately 2.50 km is passing through Tiger Corridor. The alignment between this Chainage will be through tunnel
- ii. Since the proposed road is passing through hilly rolling terrain proper muck disposal plan shall be prepared and submitted as part of EIA/EMP report.
- iii. As already agreed, upon by the State Forest Department location and type of wild animal crossing structures like over bridge, elevated road, underpasses, box culverts shall be decided in consultation with state CWLW and SFD
- iv. Apart from land compensation, the loss for crop has also to be compensated.
- v. Cumulative impact assessment study should be carried out along the entire stretch including the other packages and the current stretch under consideration.
- vi. The proponent shall carry out a detailed traffic flow study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.
- vii. Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety.
- viii. Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road

kills of wildlife by the way of road kill management plan.

- ix. The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. Alignment also should be such that it will avoid cutting old and large and heritage trees if any. All such trees should be geo-tagged, photographed and details be submitted in the EIA –EMP report. PP should explore *possibility of reducing RoW considering very large number of tree cutting involved*
- x. The proponent shall carry out a comprehensive socio-economic assessment and also impact on biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.
- xi. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30<sup>th</sup> September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.
- xii. In pursuance of Ministry's OM no stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.
- xiii. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25<sup>th</sup> October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
- xiv. Passage for animal movement has to be detailed in the report (if alignment is passing through Forest area).
- xv. A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided. Such plantation alongside of forest stretch will be over and above the compensatory afforestation. Tree species should be same as per the forest type.
- xvi. Detailed Biodiversity assessment and conservation/mitigation plan be developed by a nationally reputed institute like SACON, GUIDE etc.
- xvii. Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers.

**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 – Further consideration for 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 abovementioned proposal was earlier considered in the 289<sup>th</sup> meetings of Expert Appraisal Committee held during 17th -18th February, 2022. The proposal was deferred for the want of requisite information/documents.

3.11.2 At this instance, the proposal was further placed before the EAC in its 296<sup>th</sup> meeting during 28th – 29th April 2022. The project proponent along with the EIA consultant M/s. Aarvee Associates Architects Eng. & Consultants Pvt. Ltd. has made a presentation through Video Conferencing and provided the following information-

3.11.3 Proponent Submitted Responses to 289<sup>th</sup> Meeting of EAC Observations during 17th - 18th February, 2022:

| <b>Information sought during 289<sup>th</sup> EAC Meeting</b>   | <b>Reply given by PP during 296<sup>th</sup> meeting during 28th – 29th April 2022</b>                             |
|---|--|
| <i>i. The proposal will be considered based on the recommendations and reviews by the concerned PCCF.</i>                         | The proponent has submitted detailed information as mentioned at Proposal no. IA/AP/NCP/253124/2022 for package 1. |
| <i>ii. Consultation with PCCF has to be done for construction of Canal crossings/ tunnels/ bridges /Animal crossing zones etc</i> |  |
| <i>iii. Viability of this alignment is subject to specific observations made in Package 1</i>                                     |  |
| <i>iv. Forest clearance status has to be detailed out</i>   |  |

3.11.4 The EAC, taking into account the submission made by the project proponent has a detailed deliberation in its 296<sup>th</sup> meeting during 28th – 29th April 2022 and **recommended** the proposal for grant of ToR with the specific conditions, as mentioned below, in addition to all standard conditions applicable for such projects:

- i. Since the proposed road is passing through hilly terrain proper muck disposal plan shall be prepared and submitted as part of EIA/EMP report.

- ii. As already agreed, upon by the State Forest Department location and type of wild animal crossing structures like over bridge, elevated road, underpasses, box culverts shall be decided in consultation with state CWLW and SFD
- iii. Apart from land compensation, the loss for crop has also to be compensated.
- iv. Cumulative impact assessment study should be carried out along the entire stretch including the other packages and the current stretch under consideration.
- v. The proponent shall carry out a detailed traffic flow study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.
- vi. Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety.
- vii. Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan.
- viii. The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities. Alignment also should be such that it will avoid cutting old and large and heritage trees if any. All such trees should be geo-tagged, photographed and details be submitted in the EIA –EMP report. PP should explore *possibility of reducing RoW considering very large number of tree cutting involved*
- ix. The proponent shall carry out a comprehensive socio-economic assessment and also impact on biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.
- x. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30<sup>th</sup> September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.



- xi. In pursuance of Ministry's OM no stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.
- xii. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25<sup>th</sup> October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
- xiii. Passage for animal movement has to be detailed in the report (if alignment is passing through Forest area).
- xiv. A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided. Such plantation alongside of forest stretch will be over and above the compensatory afforestation. Tree species should be same as per the forest type.
- xv. Detailed Biodiversity assessment and conservation/mitigation plan be developed by a nationally reputed institute such as SACON, GUIDE etc.
- xvi. Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers.

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Following members were present during the 296<sup>th</sup> EAC(Infra-1) meeting held on 28<sup>th</sup> – 29<sup>th</sup> March 2022.

| S. No. | Name                      | Designation                 | Remarks                      |                              |
|--------|---------------------------|-----------------------------|------------------------------|------------------------------|
|        |                           |                             | 28 <sup>th</sup> April, 2022 | 29 <sup>th</sup> April, 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                      | Requested leave of absence   | Requested leave of absence   |
| 6.     | Dr. Ashok Kumar Pachauri  | Member                      | Present                      | Present                      |
| 7.     | Dr. V. K Jain             | Member                      | Absence                      | Present                      |
| 8.     | Dr. Manoranjan Hota       | Member                      | Present                      | Absence                      |
| 9.     | Sh. R Debroy              | Member                      | Absent                       | Absent                       |
| 10.    | Dr. Rajesh Chandra        | Member                      | Absent                       | Absent                       |
| 11.    | Dr. M. V Ramana Murthy    | Member                      | Present                      | Requested leave of absence   |
| 12.    | Dr. Nirmalendu Kumar      | Member                      | Absent                       | Absent                       |
| 13.    | Dr. Niraj Sharma          | Member                      | Present                      | Present                      |
| 15.    | Sh. Amardeep Raju         | Scientist 'E' & MS, MoEF&CC | Present                      | Present                      |
| 16.    | Dr. Rajesh Prasad Rastogi | Scientist 'C', MoEF&CC      | Present                      | Present                      |

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