

**Minutes of the 260<sup>th</sup> meeting of Expert Appraisal Committee held on 5<sup>th</sup> - 6<sup>th</sup> April, 2021 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, harbours, break waters, dredging 7(e) and National Highways 7(f)**

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The 260<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 on 5<sup>th</sup> – 6<sup>th</sup> April, 2021 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. Dr. V.K. Jain requested leave of absence due to health issues.

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

The Committee confirmed the Minutes of 258<sup>th</sup> EAC meeting held on 17<sup>th</sup> – 18<sup>th</sup> March, 2021.

- i. *In the 254<sup>th</sup> meeting of EAC held on 11<sup>th</sup> February, 2021 following table is inserted for the Agenda Item No 3.7*

*PP has requested for the following amendments in the Environmental and CRZ Clearance issued by the Ministry vide letter no. 11-42/2013-IA.III, dated 4<sup>th</sup> July, 2016.*

<i>S. No.</i>	<i>Plant Facility</i>	<i>As per EC issued on 04.07.2016</i>	<i>Amendment requested</i>
1	<i>Handling Capacity</i>	<i>Phase 1: 3.60 MTPA; Phase 2: 7.20 MTPA</i>	<i>7.2 MTPA</i>
2	<i>Offshore LNG Facility</i>	<i>Offshore LNG FSRU, FSU etc</i>	<i>GBS with LNG storage and regasification</i>
3	<i>Mooring Dolphins</i>	<i>Six mooring dolphins each for FSU and LNGC</i>	<i>Four (04) mooring piles with walkways</i>
4	<i>Estimated project cost</i>	<i>Rs. 870 Cr Phase1 and Rs. 400 Cr for Phase2</i>	<i>Rs. 1270 Cr</i>
5	<i>Regasification technology- Intermediate Fluid Vaporiser</i>	<i>propane will be used as an intermediate fluid</i>	<i>glycol water will be used as an intermediate fluid</i>

6	Loading/unloading Arms and Hoses	Eight (8) 16'' loading/unloading arms	Four (4) 16'' loading/unloading arms
7	Floating Storage and Regasification Unit (FSRU)	FSRU-barge with 6m draft, regasification modules	Regasification unit will be on top of GBS
8	LNG Carrier Capacity	75,000 m <sup>3</sup> to 155,000 m <sup>3</sup>	175,000 m <sup>3</sup>
9	LNG Storage	LNG carrier-174,000m <sup>3</sup> -266,000m <sup>3</sup> , buffer-40000m <sup>3</sup>	210,000 m <sup>3</sup> tank inside GBS
10	Breasting Dolphins	Three (03) breasting dolphins for each of FSU, LNG	Fenders are attached to GBS it self

- ii. In the Minutes of 256<sup>th</sup> Meeting of Expert Appraisal Committee (EAC) held on 3<sup>rd</sup> - 4<sup>th</sup> March, 2021, following is inserted:

S. No	MoM of 256 <sup>th</sup> EAC	Revision
3.1 – 3(v)	No objection certificate from the Pardip port for this activity be submitted.	The master plan of Pardip port shouldn't overlap with activities of proposed port and hence, an undertaking in this regard may be submitted to the Ministry

### 3. 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 - Terms of Reference (Proposal No IA/BR/NCP/205173/2021 File No 10/18/2021-IA.III)**

*“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the 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.”*

The project proponent along with the EIA consultant M/s P & M Solution, Uttar Pradesh has made a presentation through Video Conferencing and provided the following information-

3.1.1 The proposed project is for Development of 4 lane inter corridor (Green field alignment) starts from Shiwrampur District (Ch. 55+002), Jehanbad to Ramnagar District (Ch. 109+327), Patna under Bharatmala Pariyojna (Lot-5/Package-7) in the state of Bihar (Package-II). The

proposed road passes through three Districts viz. Jehanabad, Patna and Nalanda in the state of Bihar and is connected with Berka, Kukari, Sohjana, Jamalpur, Maheva, Malathi, Supi, Kako, Modanganj, Milkidrvra, Shadipur in Jehanabad District; Dhanrua, Nasaratpur, Chhati, Tadwa, Fatuha in Patna District, and Verthu, Abbupur, Salempur and Kandhauli in Nalanda District. The total length of the proposed alignment is 54.325 km approx.

3.1.2 The proposed project falls under 7(f), Category-A, Highway as per EIA notification 2006. Total investment/cost of the project is Rs 1,075.41 Crores.

3.1.3 The Proposed Right of Way (RoW) is 60 m. The terrain of the alignment area is mainly plain and rolling area. The project alignment involves acquisition of 341.66 ha of land which includes 309.89 ha of private land, 28.77 ha Government land and 3 ha forest land. Compensation for land acquisition will be given as per RFCT LARR Act, 2013. For diversion of forest land, the forest proposal shall be prepared after consultation with concerned forest officer, if it attracts FC under section 2, 1980.

3.1.4 The proposed alignment does not pass through any National Parks, Wildlife Sanctuary, and Tiger Reserve or any other Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC within 10 Km radius of the project site.

3.1.5 There are 03 nos. of Rivers, 24 nos. of Canals, 20 nos. of Nalahs falling along the alignment. There shall be no major impact on the drainage system as 147 numbers of structures (such as culverts, minor bridges, major bridges etc.) will be constructed. The road will have 3 Major Bridges, 44 no's of Minor Bridges, 4 no's of Vehicular underpass, 03 no's of LVUP, 02 no's of SVUP, 2 nos. of Interchanges/Flyover, 1 nos. ROB and 88 nos. of Box Culverts.

3.1.6 The total requirement of water for construction is estimated to 12,777.59 KL. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining permission from the competent authority.

3.1.7 A total of 1100 nos. of trees falls in proposed ROW. However, bare minimum no. of trees shall be felled for construction of four lane road. Detailed tree inventories will be provided after joint enumeration with the appropriate authority in EIA. Avenue plantation shall be carried out as per IRC SP: 21:2009 on available ROW apart from statutory requirements.

3.1.8 A total number of 25 structures will be affected due to proposed Road. The NHAI shall compensate the entire affected title holder as per NHAI Act, 1956 and Right to fair compensation and transparency in land acquisition, rehabilitation and Resettlement Act, 2013.

3.1.9 All safety measures will be provided as per NHAI Safety Manual and IRC: SP 88 and Expressway Manual IRC: SP 99). Safety Measures, as provided in NHAI Safety Manual i.e. Unit-3 (pertaining to Traffic Safety , such as traffic control zone , advance warning zones, traffic control devices, regulatory & warning signs cylindrical cones, drums, flagman, Barricades , Pedestrian

Safety , speed control etc.) and other safety guidelines & measures suggested in Unit-4 (Construction Zone Safety), Unit 5 (Temporary Structures Safety), Unit-6 (Workers & Work Zone Safety), Unit-7 (Electrical & Mechanical Safety) will be strictly implemented. All required illustrative plans for safety at construction sites keeping in view all situations highlighted IRC: SP: 55 and in NHAI Safety Manual will be prepared and strictly implemented.

3.1.10 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 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. About 1000 persons will be employed temporarily during the construction phase for a period of 3 years. During operation phase about 50 persons will be employed.

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

3.1.12 The EAC noted that the NHAI has submitted 5 proposals from Package-I to Package-V which can be seen in the MOM from agenda item 3.1 to 3.5. All the packages are in the same alignment however divided into 5 packages for convenience. The Kacchi Dargah–Bidupur Bridge currently under construction will span the river Ganges, connecting Kacchi Dargah in Patna and Bidupur in Hajipur in the state of Bihar. The proposed completion date is Nov 2021. This bridge will provide an easy roadway link between the northern and southern parts of Bihar and will connect two major national highways, linking NH 30 (Patna-Bakhtiyarpur Road) to NH 333 (Hajipur Samastipur Road). The bridge will reduce the load on Mahatma Gandhi Setu and will also reduce the traffic in the capital city of Patna. The bridge will be a major connecting bridge between North and South Bihar.

3.1.13 The concrete laying in well foundations started on 19 July 2017 on the Raghapur side. Total 67 foundations to be constructed (65 DD type well foundations and 2 Circular Well foundations). The length of main bridge is 9.750 Km (75+65x150+75) and the length of both side approach roads is 1.5 Km (South/Kachhi Dargah side) and 8.5 Km (North/Bidupur/Kalyanpur Side). Total length of the project is 19.750 Km.

3.1.14 The project is being implemented by L&T Construction, JV with Daewoo E&C from Korea. The estimated project cost is Rs. 3115 Cr. The proposed bridge is one of the longest bridges on river Ganga. The project authority is Road Construction Department, Bihar.

3.1.15 In case construction of Kacchi Dargah–Bidupur Bridge could not be completed, the existing bridge (Gandhi Setu) can be used as alternative alignment/connectivity from Kacchi Dargah (End point of Package-3) to Kalyanpur (Starting point of Package-IV) through existing NH- 30 (Patna-Bakhtiyarpur Road) and NH-103 (Hajipur Samastipur Road). The existing Gandhi Setu is located approximate 10 Km away from end point of Package-3 and Starting point of Package-4.

3.1.16 The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 260<sup>th</sup> meeting during 5<sup>th</sup> - 6<sup>th</sup> April, 2021 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. Apart from land compensation, the loss for crop has also to be compensated.
- ii. 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.
- iii. Cumulative impact assessment study to be carried out along the entire stretch including the other packages in the current stretch under consideration.
- iv. 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 to be geotagged.
- v. 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.
- vi. 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.
- vii. 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.

- viii. 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.

### 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 – Terms of Reference (Proposal No. IA/BR/NCP/204598/2021 and File No. 10/19/2021-IA.III)**

*“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the 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.”*

The project proponent along with the EIA consultant M/s P & M Solution, Uttar Pradesh has made a presentation through Video Conferencing and provided the following information-

3.2.1. The proposed project is for Development of 4 lane inter corridor (Green field alignment) starts from existing National Highway 2 (New NH-19) from Amas (Ch.00+000) to Shiwrampur (Ch. 55+002) under Bharatmala Pariyojna (Lot-5/Package-7) in the state of Bihar (Package-I). The proposed road passes through Gaya District in the state of Bihar and passes through approx. 60 villages such as Amas, Guraru, Paraiya, Itawa, Koiri Bigha, Manda, Deal Chak, Salaipura, Parsohad, Anantpur, Burma Tilor road, Kormath, Shekhipur, Mungara, Nepa Chak, Fatehpur, Tekari, Bela Ganj, etc. The total length of the proposed alignment is approx. 55.002 km.

3.2.2. The proposed project falls under 7(f), Category-A, Highway as per EIA notification 2006. Total investment/cost of the project is Rs 1207.91 Crores.

3.2.3. The alignment is mainly passing through agriculture land. The Proposed Right of Way (RoW) is 60 m. The terrain of the alignment area is mainly flat to undulating in nature. The project alignment involves acquisition of 376.50 ha of land which includes 310.18 ha of private land, 60.82 ha Government land and 5.5 ha forest land. The land will be acquired as per NH Act 1956 and compensation will be given as per RFCT LARR Act, 2013. As the proposed project falls in notified protected forest areas at some locations (crossings point of roads/railway/canals), declared for management purposes, the forest proposal shall be prepared after consultation with concerned forest officer if it attracts FC under section 2, 1980.

3.2.4. The proposed alignment does not pass through any National Parks, Wildlife Sanctuary, and Tiger Reserve or any other Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC within 10 Km radius of the project site.

3.2.5. There are 04 nos. of Rivers, 7 nos. of Canals, 20 nos. of Nalaha, falling along the alignment. There shall be no major impact on the drainage system as 151 numbers of structures (such as culverts, minor bridges, major bridges etc.) will be constructed. The Proposed road will have 4 Major Bridges, 27 no.s of Minor Bridges, 2 nos. of Vehicular underpass, 05 no.s of LVUP, 12 no.s of SVUP, 3 nos. of Interchanges/Flyover, 2 nos. ROB and 96 nos. of Box Culverts.

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

3.2.7. The proposed alignment will require cutting of approximately 1300 nos. of trees. However, bare minimum no. of trees shall be felled for construction of four lane road. Detailed tree inventories will be provided after joint enumeration with the appropriate authority in EIA. Avenue plantation shall be carried out as per IRC SP: 21:2009 on available ROW apart from statutory requirements.

3.2.8. A total number of 50 structures will be affected due to proposed Road alignment. The NHAI shall compensate the entire affected title holder as per NHAI Act, 1956 and Right to fair compensation and transparency in land acquisition, rehabilitation and Resettlement Act, 2013.

3.2.9. All safety measures will be provided as per NHAI Safety Manual and IRC: SP 88 and Expressway Manual IRC: SP 99). Safety Measures, as provided in NHAI Safety Manual i.e. Unit-3 (pertaining to Traffic Safety , such as traffic control zone , advance warning zones, traffic control devices, regulatory & warning signs cylindrical cones, drums, flagman, Barricades, Pedestrian Safety , speed control etc.) and other safety guidelines & measures suggested in Unit-4 (Construction Zone Safety), Unit 5 (Temporary Structures Safety), Unit-6 (Workers & Work Zone Safety), Unit-7 (Electrical & Mechanical Safety) will be strictly implemented. All required illustrative plans for safety at construction sites keeping in view all situations highlighted IRC: SP: 55 and in NHAI Safety Manual will be prepared and strictly implemented.

3.2.10. 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 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. About 1000 persons will be employed temporarily during the construction phase for a period of 3 years. During operation phase about 50 persons will be employed.



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

3.2.12. The EAC noted that the NHAI has posed 5 proposals from Package-I to Package-V which can be seen in the MOM from agenda item 3.1 to 3.5. All the packages are in the same alignment however divided into 5 packages for convenience. The Kacchi Dargah–Bidupur Bridge currently under construction will span the river Ganges, connecting Kacchi Dargah in Patna and Bidupur in Hajipur in the state of Bihar. The proposed completion date is Nov 2021. This bridge will provide an easy roadway link between the northern and southern parts of Bihar and will connect two major national highways, linking NH 30 (Patna-Bakhtiyarpur Road) to NH 333 (Hajipur Samastipur Road). The bridge will reduce the load on Mahatma Gandhi Setu and will also reduce the traffic in the capital city of Patna. The bridge will be a major connecting bridge between North and South Bihar.

3.2.13. The concrete laying in well foundations started on 19 July 2017 on the Raghopur side. Total 67 foundations to be constructed (65 DD type well foundations and 2 Circular Well foundations). The length of main bridge is 9.750 Km (75+65x150+75) and the length of both side approach roads is 1.5 Km (South/Kachhi Dargah side) and 8.5 Km (North/Bidupur/Kalyanpur Side). Total length of the project is 19.750 Km.

3.2.14. The project is being implemented by L&T Construction, JV with Daewoo E&C from Korea. The estimated project cost is Rs. 3115 Cr. The proposed bridge is one of the longest bridges on river Ganga. The project authority is Road Construction Department, Bihar.

3.2.15. In case construction of Kacchi Dargah–Bidupur Bridge could not be completed, the existing bridge (Gandhi Setu) can be used as alternative alignment/connectivity from Kacchi Dargah (End point of Package-3) to Kalyanpur (Starting point of Package-IV) through existing NH- 30 (Patna-Bakhtiyarpur Road) and NH-103 (Hajipur Samastipur Road). The existing Gandhi Setu is located approximate 10 Km away from end point of Package-3 and Starting point of Package-4.

3.2.16. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 260<sup>th</sup> meeting during 5<sup>th</sup> - 6<sup>th</sup> April, 2021 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. Apart from land compensation, the loss for crop has also to be compensated.
- ii. 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.



- iii. Cumulative impact assessment study to be carried out along the entire stretch including the other packages in the current stretch under consideration.
- iv. 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 to be geotagged.
- v. 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.
- vi. 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.
- vii. 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.
- viii. 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.

### Agenda No. 3.3

#### **Development of 4 lane inter corridor (Greenfield alignment) from Kalyanpur (Ch. 0+000) to Tal Dasraha (Ch. 47+000) (Package-IV, Length - 47.0 km) under Bharatmala Pariyojana (Lot-5, Package-7) in state of Bihar by M/s National Highways Authority of India - Terms of Reference (Proposal No. IA/BR/NCP/205952/2021 and File No. 10/20/2021-IA.III)**

*“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the 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.”*

The project proponent along with the EIA consultant M/s P & M Solution, Uttar Pradesh has made a presentation through Video Conferencing and provided the following information-

3.3.1. The proposed project is for Development of 4 lane inter corridor (Green field alignment) starts from Kalyanpur (new NH 19: Ch. 0+000 Km) to Tal Dasraha (Ch. 47+000 Km) under Bharatmala Pariyojna (Lot-5/Package-7) in the state of Bihar (Package-IV). The proposed road passes through 2 districts viz. Vaishali and Samastipur district in the state of Bihar and passes through approx. 57 villages. The major settlements along the alignment are Raja Pakad, Jandaha, Patepur, Hazipur, Mahua in Vaishali district and Samastipur, Kalyanpur and Varishnagar in Samastipur district. The total length of the proposed alignment is approx. 47.000 km.

3.3.2. The proposed project falls under 7(f), Category-A, Highway as per EIA notification 2006. Total investment/cost of the project is Rs 1165.54 Crores.

3.3.3. The alignment is mainly passing through agriculture land. The Proposed Right of Way (RoW) is 60 m. The terrain of the alignment area is mainly flat to undulating in nature. The project alignment involves acquisition of 304.54 ha of land which includes 294.03 ha of private land, 8.87 ha Government land and 1.5 ha forest land. The land will be acquired as per NH Act 1956 and compensation will be given as per RFCT LARR Act, 2013. As the proposed project falls in notified protected forest areas at some locations (crossings point of roads/railway/canals), declared for management purposes, the forest proposal shall be prepared after consultation with concerned forest officer if it attracts FC under section 2, 1980.

3.3.4. The proposed alignment does not pass through any National Parks, Wildlife Sanctuary, and Tiger Reserve or any other Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC within 10 Km radius of the project site.

3.3.5. There are 02 nos. of rivers, 23 Nos. of Canals, 04 Nos. of Nalags, falling along the alignment. There shall be no major impact on the drainage system as 113 numbers of structures (such as culverts, minor bridges, major bridges etc.) will be constructed. The Proposed road will have 2 Major Bridges, 6 no.s of Minor Bridges, 4 nos. of Trumpet/Flyover, 5 no.s of VUP, 5 no.s of LVUP, 15 nos. of SVUP, 1 nos. ROB and 75 nos. of Box Culverts.

3.3.6. The total water requirement during construction is estimated to 13329 KL. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining permission from the competent authority.

3.3.7. The proposed alignment will require cutting of approximately 1750 nos. of trees. However, bare minimum no. of trees shall be felled for construction of four lane road. Detailed tree inventories will be provided after joint enumeration with the appropriate authority in EIA. Avenue plantation shall be carried out as per IRC SP: 21:2009 on available ROW apart from statutory requirements.

3.3.8. A total number of 30 structures will be affected due to proposed Road alignment. The NHAI shall compensate the entire affected title holder as per NHAI Act, 1956 and Right to fair compensation and transparency in land acquisition, rehabilitation and Resettlement Act, 2013.

3.3.9. All safety measures will be provided as per NHAI Safety Manual and IRC: SP 88 and Expressway Manual IRC: SP 99). Safety Measures, as provided in NHAI Safety Manual i.e. Unit-3 (pertaining to Traffic Safety , such as traffic control zone , advance warning zones, traffic control devices, regulatory & warning signs cylindrical cones, drums, flagman, Barricades, Pedestrian Safety , speed control etc.) and other safety guidelines & measures suggested in Unit-4 (Construction Zone Safety), Unit 5 (Temporary Structures Safety), Unit-6 (Workers & Work Zone Safety), Unit-7 (Electrical & Mechanical Safety) will be strictly implemented. All required illustrative plans for safety at construction sites keeping in view all situations highlighted IRC: SP: 55 and in NHAI Safety Manual will be prepared and strictly implemented.

3.3.10. 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. The total manpower required for the project is 1050. About 1000 persons will be employed temporarily during the construction phase for a period of 3 years. During operation phase about 50 persons will be employed.

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

3.3.12. The EAC noted that the NHAI has posed 5 proposals from Package-I to Package-V which can be seen in the MOM from agenda item 3.1 to 3.5. All the packages are in the same alignment however divided into 5 packages for convenience. The Kacchi Dargah–Bidupur Bridge currently under construction will span the river Ganges, connecting Kacchi Dargah in Patna and Bidupur in Hajipur in the state of Bihar. The proposed completion date is Nov 2021. This bridge will provide an easy roadway link between the northern and southern parts of Bihar and will connect two major national highways, linking NH 30 (Patna-Bakhtiyarpur Road) to NH 333 (Hajipur Samastipur Road). The bridge will reduce the load on Mahatma Gandhi Setu and will also reduce the traffic in the capital city of Patna. The bridge will be a major connecting bridge between North and South Bihar.

3.3.13. The concrete laying in well foundations started on 19 July 2017 on the Raghapur side. Total 67 foundations to be constructed (65 DD type well foundations and 2 Circular Well foundations). The length of main bridge is 9.750 Km (75+65x150+75) and the length of both side approach roads is 1.5 Km (South/Kachhi Dargah side) and 8.5 Km (North/Bidupur/Kalyanpur Side). Total length of the project is 19.750 Km.

3.3.14. The project is being implemented by L&T Construction, JV with Daewoo E&C from Korea. The estimated project cost is Rs. 3115 Cr. The proposed bridge is one of the longest bridges on river Ganga. The project authority is Road Construction Department, Bihar.

3.3.15. In case construction of Kacchi Dargah–Bidupur Bridge could not be completed, the existing bridge (Gandhi Setu) can be used as alternative alignment/connectivity from Kacchi Dargah (End point of Package-3) to Kalyanpur (Starting point of Package-IV) through existing NH- 30 (Patna-Bakhtiyarpur Road) and NH-103 (Hajipur Samastipur Road). The existing Gandhi Setu is located approximate 10 Km away from end point of Package-3 and Starting point of Package-4.

3.3.16. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 260<sup>th</sup> meeting during 5<sup>th</sup> - 6<sup>th</sup> April, 2021 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. Apart from land compensation, the loss for crop has also to be compensated.
- ii. 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.
- iii. Cumulative impact assessment study to be carried out along the entire stretch including the other packages in the current stretch under consideration.
- iv. 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 to be geotagged.
- v. 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.
- vi. 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.
- vii. 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.

- viii. 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.

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

#### **Development of 4 lane inter corridor (Greenfield alignment) from Tal-Dasraha (Ch. 47+000) to Bela Nawada (NH 57) (Ch. 89+100) (Package-5, Length - 42.100 km) under Bharatmala Pariyojana (Lot-5, Package-7) in the state of Bihar by M/s National Highways Authority of India - Terms of Reference (Proposal No. IA/BR/NCP/205963/2021 and File No. 10/21/2021-IA.III)**

*“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the 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.”*

The project proponent along with the EIA consultant M/s P & M Solution, Uttar Pradesh has made a presentation through Video Conferencing and provided the following information-

3.4.1. The proposed project is for Development of 4 lane inter corridor (Green field alignment) starts from Tal Dasraha (Ch. 47+000) to Bela Nawada (NH 57; Ch. 89+100) under Bharatmala Pariyojna (Lot-5/Package-7) in the state of Bihar (Package-V). The proposed road passes through 2 districts viz. Samastipur and Darbhanga district in the state of Bihar and passes through approx. 60 villages. The major settlements along the alignment are Kalyanpur, Hayaghat, Bahadurpur and Darbhanga. The total length of the proposed alignment is approx. 42.100 km.

3.4.2. The proposed project falls under 7(f), Category-A, Highway as per EIA notification 2006. Total investment/cost of the project is Rs 1133.34 Crores.

3.4.3. The alignment is mainly passing through agriculture land. The Proposed Right of Way (RoW) is 60 m. The terrain of the alignment area is mainly flat to undulating in nature. The project alignment involves acquisition of 265.33 ha of land which includes 236.83 ha of private land, 25.5 ha Government land and 3.2 ha forest land. The land will be acquired as per NH Act 1956 and compensation will be given as per RFCT LARR Act, 2013. As the proposed project falls in notified protected forest areas at some locations (crossings point of roads/railway/canals), declared for management purposes, the forest proposal shall be prepared after consultation with concerned forest officer if it attracts FC under section 2, 1980.

3.4.4. The proposed alignment does not pass through any National Parks, Wildlife Sanctuary, and Tiger Reserve or any other Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC within 10 Km radius of the project site.

3.4.5. There are 04 nos. of rivers, 7 Nos. of Canals, 81 Nos. of Nalahs, falling along the alignment. There shall be no major impact on the drainage system as 121 no.s numbers of structures (such as culverts, minor bridges, major bridges etc.) will be constructed. The Proposed road will have 5 Major Bridges, 7 no.s of Minor Bridges, 2 nos. of Fly over, 04 no.s of Vehicular underpass, 5 no.s LVUP, 14 no.s of SVUP, 2 nos. ROB and 81 nos. of Box Culverts.

3.4.6. The total water requirement during construction is estimated to 11673 KL. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining permission from the competent authority.

3.4.7. The proposed alignment will require cutting of approximately 1700 nos. of trees. However, bare minimum no. of trees shall be felled for construction of four lane road. Detailed tree inventories will be provided after joint enumeration with the appropriate authority in EIA. Avenue plantation shall be carried out as per IRC SP: 21:2009 on available ROW apart from statutory requirements.

3.4.8. A total number of 75 structures will be affected due to proposed Road alignment. The NHAI shall compensate the entire affected title holder as per NHAI Act, 1956 and Right to fair compensation and transparency in land acquisition, rehabilitation and Resettlement Act, 2013.

3.4.9. All safety measures will be provided as per NHAI Safety Manual and IRC: SP 88 and Expressway Manual IRC: SP 99). Safety Measures, as provided in NHAI Safety Manual i.e. Unit-3 (pertaining to Traffic Safety , such as traffic control zone , advance warning zones, traffic control devices, regulatory & warning signs cylindrical cones, drums, flagman, Barricades, Pedestrian Safety , speed control etc.) and other safety guidelines & measures suggested in Unit-4 (Construction Zone Safety), Unit 5 (Temporary Structures Safety), Unit-6 (Workers & Work Zone Safety), Unit-7 (Electrical & Mechanical Safety) will be strictly implemented. All required illustrative plans for safety at construction sites keeping in view all situations highlighted IRC: SP: 55 and in NHAI Safety Manual will be prepared and strictly implemented.

3.4.10. 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 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. The total manpower required for the project is 1050. About 1000 persons will be employed temporarily during the construction phase for a period of 3 years. During operation phase about 50 persons will be employed on permanent basis.

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

3.4.12. The EAC noted that the NHAI has posed 5 proposals from Package-I to Package-V which can be seen in the MOM from agenda item 3.1 to 3.5. All the packages are in the same alignment however divided into 5 packages for convenience. The Kacchi Dargah–Bidupur Bridge currently under construction will span the river Ganges, connecting Kacchi Dargah in Patna and Bidupur in Hajipur in the state of Bihar. The proposed completion date is Nov 2021. This bridge will provide an easy roadway link between the northern and southern parts of Bihar and will connect two major national highways, linking NH 30 (Patna-Bakhtiyarpur Road) to NH 333 (Hajipur Samastipur Road). The bridge will reduce the load on Mahatma Gandhi Setu and will also reduce the traffic in the capital city of Patna. The bridge will be a major connecting bridge between North and South Bihar.

3.4.13. The concrete laying in well foundations started on 19 July 2017 on the Raghopur side. Total 67 foundations to be constructed (65 DD type well foundations and 2 Circular Well foundations). The length of main bridge is 9.750 Km (75+65x150+75) and the length of both side approach roads is 1.5 Km (South/Kachhi Dargah side) and 8.5 Km (North/Bidupur/Kalyanpur Side). Total length of the project is 19.750 Km.

3.4.14. The project is being implemented by L&T Construction, JV with Daewoo E&C from Korea. The estimated project cost is Rs. 3115 Cr. The proposed bridge is one of the longest bridges on river Ganga. The project authority is Road Construction Department, Bihar.

3.4.15. In case construction of Kacchi Dargah–Bidupur Bridge could not be completed, the existing bridge (Gandhi Setu) can be used as alternative alignment/connectivity from Kacchi Dargah (End point of Package-3) to Kalyanpur (Starting point of Package-IV) through existing NH- 30 (Patna-Bakhtiyarpur Road) and NH-103 (Hajipur Samastipur Road). The existing Gandhi Setu is located approximate 10 Km away from end point of Package-3 and Starting point of Package-4.

3.4.16. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 260<sup>th</sup> meeting during 5<sup>th</sup> - 6<sup>th</sup> April, 2021 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. Apart from land compensation, the loss for crop has also to be compensated.
- ii. 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.



- iii. Cumulative impact assessment study to be carried out along the entire stretch including the other packages in the current stretch under consideration.
- iv. 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 to be geotagged.
- v. 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.
- vi. 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.
- vii. 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.
- viii. 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.

### Agenda No. 3.5

**Development of 4 lane inter corridor (Greenfield alignment) from Amas (Old NH-2/New NH-19) to Shiwrampur under Bharatmala Pariyojana (Lot-5, Package-7) in the state of Bihar - Package-III from Ramnagar (Ch. 00+000 to Kachchi Dargah (Ch.14+257) - Length 14.257 km by M/s National Highways Authority of India - Terms of Reference (Proposal No. IA/BR/NCP/206000/2021 and File No. 10/22/2021-IA.III).**

*[Note: The PP/Consultant has provided erroneous project title as the correct project name is "Development of 4 lanes inter corridor (Green field alignment) from Ramnagar to Kachchi Dargah under Bharatmala Pariyojna in state of Bihar (Lot-5/Package-7). Package-III (Km chainage from 00+000 to 14+257)". Further, in the proposed project there is diversion of 1 ha Forest land; however, in form-1, the PP has incorrectly mentioned that 0 ha of Forest land is Involved. It may be mentioned that the NHAI has been asked several times to submit the technically correct information. Despite several verbal requests, the NHAI/consultant is submitting their proposal with several mistakes.]*

*“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the 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.”*

The project proponent along with the EIA consultant M/s P & M Solution, Uttar Pradesh has made a presentation through Video Conferencing and provided the following information-

3.5.1. The proposed project is for Development of 4 lane inter corridor (Green field alignment) starts from Ramnagar (Ch. 0+000) to Kachchi Dargah (Ch. 14+257) under Bharatmala Pariyojna (Lot-5/Package-7) in the state of Bihar (Package-III). The proposed road passes through Patna district in the state of Bihar and passes through 20 villages. The major settlements along the alignment are Patna City and Fathua. The total length of the proposed alignment is approx. 14.257 km.

3.5.2. The proposed project falls under 7(f), Category-A, Highway as per EIA notification 2006. Total investment/cost of the project is Rs 1082.4 Crores.

3.5.3. The alignment is mainly passing through agriculture land. The Proposed Right of Way (RoW) is 60 m. The terrain of the alignment area is mainly plain and rolling area. The project alignment involves acquisition of 99.00 ha of land which includes 85.20 ha of private land, 12.80 ha Government land and 1 ha forest land. The land will be acquired as per NH Act 1956 and compensation will be given as per RFCT LARR Act, 2013. As the proposed project falls in notified protected forest areas at some locations (crossings point of roads/railway/canals), declared for management purposes, the forest proposal shall be prepared after consultation with concerned forest officer if it attracts FC under section 2, 1980.

3.5.4. The proposed alignment does not pass through any National Parks, Wildlife Sanctuary, and Tiger Reserve or any other Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC within 10 Km radius of the project site.

3.5.5. There are 01 nos. of rivers, 07 Nos. of Canals, 20 Nos. of Nalags, falling along the alignment. There shall be no major impact on the drainage system as 65 numbers of structures (such as culverts, minor bridges, major bridges etc.) will be constructed. The Proposed road will have 1 Major Bridges, 07 no.s of Minor Bridges, 02 nos. of Vehicular underpass, 12 no.s of SVUP, 1 nos. of Interchanges/Flyover, and 42 nos. of Box Culverts.

3.5.6. The total water requirement during construction is estimated to 5687 KL. Water will be extracted from surface sources. The ground water will be abstracted for camp site after obtaining permission from the competent authority.

3.5.7. The proposed alignment will require cutting of approximately 1000 nos. of trees. However, bare minimum no. of trees shall be felled for construction of four lane road. Detailed tree inventories will be provided after joint enumeration with the appropriate authority in EIA. Avenue plantation shall be carried out as per IRC SP: 21:2009 on available ROW apart from statutory requirements.

3.5.8. A total number of 20 structures will be affected due to proposed Road alignment. The NHAI shall compensate the entire affected title holder as per NHAI Act, 1956 and Right to fair compensation and transparency in land acquisition, rehabilitation and Resettlement Act, 2013.

3.5.9. All safety measures will be provided as per NHAI Safety Manual and IRC: SP 88 and Expressway Manual IRC: SP 99). Safety Measures, as provided in NHAI Safety Manual i.e. Unit-3 (pertaining to Traffic Safety , such as traffic control zone , advance warning zones, traffic control devices, regulatory & warning signs cylindrical cones, drums, flagman, Barricades, Pedestrian Safety , speed control etc.) and other safety guidelines & measures suggested in Unit-4 (Construction Zone Safety), Unit 5 (Temporary Structures Safety), Unit-6 (Workers & Work Zone Safety), Unit-7 (Electrical & Mechanical Safety) will be strictly implemented. All required illustrative plans for safety at construction sites keeping in view all situations highlighted IRC: SP: 55 and in NHAI Safety Manual will be prepared and strictly implemented.

3.5.10. 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 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. The total manpower required for the project is 1050. About 1000 persons will be employed temporarily during the construction phase for a period of 3 years. During operation phase about 50 persons will be employed on permanent basis.

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

3.5.12. The EAC noted that the NHAI has posed 5 proposals from Package-I to Package-V which can be seen in the MOM from agenda item 3.1 to 3.5. All the packages are in the same alignment however divided into 5 packages for convenience. The Kacchi Dargah–Bidupur Bridge currently under construction will span the river Ganges, connecting Kacchi Dargah in Patna and Bidupur in Hajipur in the state of Bihar. The proposed completion date is Nov 2021.

This bridge will provide an easy roadway link between the northern and southern parts of Bihar and will connect two major national highways, linking NH 30 (Patna-Bakhtiyarpur Road) to NH 333 (Hajipur Samastipur Road). The bridge will reduce the load on Mahatma Gandhi Setu and will also reduce the traffic in the capital city of Patna. The bridge will be a major connecting bridge between North and South Bihar.

3.5.13. The concrete laying in well foundations started on 19 July 2017 on the Raghopur side. Total 67 foundations to be constructed (65 DD type well foundations and 2 Circular Well foundations). The length of main bridge is 9.750 Km (75+65x150+75) and the length of both side approach roads is 1.5 Km (South/Kachhi Dargah side) and 8.5 Km (North/Bidupur/Kalyanpur Side). Total length of the project is 19.750 Km.

3.5.14. The project is being implemented by L&T Construction, JV with Daewoo E&C from Korea. The estimated project cost is Rs. 3115 Cr. The proposed bridge is one of the longest bridges on river Ganga. The project authority is Road Construction Department, Bihar.

3.5.15. In case construction of Kacchi Dargah–Bidupur Bridge could not be completed, the existing bridge (Gandhi Setu) can be used as alternative alignment/connectivity from Kacchi Dargah (End point of Package-3) to Kalyanpur (Starting point of Package-IV) through existing NH- 30 (Patna-Bakhtiyarpur Road) and NH-103 (Hajipur Samastipur Road). The existing Gandhi Setu is located approximate 10 Km away from end point of Pakage-3 and Starting point of Package-4.

3.5.16. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 260<sup>th</sup> meeting during 5<sup>th</sup> - 6<sup>th</sup> April, 2021 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. Apart from land compensation, the loss for crop has also to be compensated.
- ii. 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.
- iii. Cumulative impact assessment study to be carried out along the entire stretch including the other packages in the current stretch under consideration.
- iv. 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 to be geotagged.

- v. 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.
- vi. 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.
- vii. 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.
- viii. 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.

### Agenda No. 3.6

**Developmental expansion of Industrial park over an area of 1415.25 ha in addition to existing Developed area of 290.37 ha within total permitted area of 1705.62 ha in respect of Khed City Multi-product Industrial Park at Khed Taluka, District Pune, Maharashtra by M/s Khed Economic Infrastructure Pvt. Ltd - Environmental Clearance (Proposal No IA/MH/NCP/203636/2008 and File No 21-944/2007-IA.III)**

*“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the 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.”*

3.6.1 The Environmental clearance subsequent to Public hearing of the above proposal was earlier granted *vide* letter No. 21-944/2007-IA.III, dated 20<sup>th</sup> May 2010 for 4500 Ha of land (2000 Ha of processing area + 2000 Ha of non-processing area + 500 Ha of domestic tariff area). The validity of this EC was further extended for two years i.e., up to 19<sup>th</sup> May 2017 *vide* letter No. of even number dated 19<sup>th</sup> February 2016 and then for further three years. i.e., up to up to 19<sup>th</sup> May, 2020 *vide* letter No. of even number dated 11<sup>th</sup> August 2017. **Further, MOEF&CC *vide* its**

*notification dated 27<sup>th</sup> September 2020 extended the validity of the EC's expiring in the year 2020-2021 upto 31<sup>st</sup> March 2021.*

3.6.2 As stated above, initially, the project was planned to be spread over an area of 4,500 Ha falling in jurisdiction of Gram Panchayats of Khed and Shirur Talukas, but MIDC was able to acquire only 1705.62 Ha of land therefore only 1705.62 Ha was leased out by MIDC to KEIPL vide two lease deeds for the period of 95 years for Phase I in four villages viz. Dawdi, Kanerhsar, Nimgaon in Khed Taluka and Kendur of Shirur Taluka. Further, MPCB has granted Consent to Operate for Processing Area (PA) and Domestic Tariff Area on plot area of 192.67 Ha, out of total plot area of 1705.62 Ha for a period upto 31<sup>st</sup> March, 2021. Subsequently, MPCB has also granted Consent to Operate for Domestic Tariff Area-II on plot area of 97.7 Ha, out of total area of 1705.62 Ha for period up to 31<sup>st</sup> October, 2024. [Remaining/Balance Area: 1705.62 Ha - 192.67 Ha - 97.7 Ha = **1415.25 Ha**]

3.6.3 In order to regularize the validity of EC and development of Industrial park over balance area of 1415.25 Ha out of total acquired area of 1705.62 Ha, it was necessary to obtain a fresh EC with this expansion proposal.

3.6.4 For the want of fresh Terms of Reference (TOR) followed by EC, the above mentioned proposal was earlier considered by Expert Appraisal Committee (EAC) in its 235<sup>th</sup> and 237<sup>th</sup> EAC meetings held on 26<sup>th</sup> May, 2020 and 29<sup>th</sup> June 2020, respectively. The MOEF & CC vide letter no. 21-944/2007/-IA-III, dated 20<sup>th</sup> July 2020 issued the TOR to KEIPL, with a mandate to conduct Public Consultation/ Hearing.

3.6.5 Further, The PP vide letter No. KEIPL/EC/Public Hearing/56/20-21, dated 17<sup>th</sup> December, 2020 had submitted on-line application on dated 26<sup>th</sup> Dec 2020, requesting for amendment/modification of ToR letter No. 21-944/2007/-IA-III, dated 20<sup>th</sup> July 2020 “*exemption of Public Hearing*”. The EAC, taking into account the submission made by the project proponent and the detailed deliberation during its 253<sup>rd</sup> meeting on 18<sup>th</sup> – 19<sup>th</sup> January, 2021, recommended the proposal for amendment/modification (i.e., exemption of Public Hearing) in Terms of Reference, which was issued vide letter No. 21-944/2007/-IA-III, dated 20<sup>th</sup> July 2020. *Subsequently, a revised ToR was accorded by the Ministry with “exemption of Public Hearing” vide a ToR letter of even no., dated 25<sup>th</sup> February, 2021.*

3.6.6 At this instant, the PP vide Proposal No. IA/MH/NCP/203636/2008 has submitted application on-line on dated 16<sup>th</sup> Mar 2021, requesting for fresh Environmental clearance under the project type “Expansion” of the aforementioned project. The proposal was placed before the EAC in its 260<sup>th</sup> meeting during 5<sup>th</sup> - 6<sup>th</sup> April, 2021, in favor of Environmental clearance. The project proponent alongwith EIA consultant M/s Ardra Consulting Services Pvt. Ltd.

Bhubaneswar, Odisha, has made a presentation through Video Conferencing and provided the following information-

3.6.7 The proposed project is for developmental expansion of Industrial park over an area of 1415.25 ha in addition to existing Developed area of 290.37 ha within total permitted area of 1705.62 ha in respect of Khed City Multi-product Industrial Park at Khed, Pune, Maharashtra by M/s Khed Economic Infrastructure Pvt. Ltd.

3.6.8 The proposed project falls under 7(c)-Industrial estates/ parks/ complexes/ areas, export processing Zones: Industrial Park, Category-A, as per EIA notification 2006.

3.6.9 ToR for the proposed project was issued *vide* Proposal no. IA/MH/NCP/152981/2020, dated 20<sup>th</sup> July, 2020 and subsequently, ToR amendment letter was issued *vide* Proposal no. IA/MH/NCP/190021/2020, dated 25<sup>th</sup> February, 2021.

3.6.10 Total investment/cost of the project is Rs 327431 Lakh. The Capital cost to be invested over development in next 10 year is Rs159715 Lakh. The EMP cost is Rs 48421 Lakh (capital cost) & Rs 28940 Lakh (recurring cost).

3.6.11 Public hearing (PH) was conducted during previous Environmental Clearance *vide* letter No.21- 944/2007-I-A-III dated 20<sup>th</sup> May 2010. For the proposed expansion project, PH was exempted *vide* ToR amendment letter dated 25<sup>th</sup> February, 2021.

3.6.12 Total Area of the proposed Project is 1705.62 ha, out of which 290.37 ha has already been developed and balance 1415.25 ha need to be developed. The topography in and around the site is mostly undulated with steep slopes on edges of the plateau. The Landuse/Landcover of project site is as following:

Sr No	Land Use/Land Cover	Existing Land Use	Proposed Land Use	Total land use
		Area (ha)	Additional Area (ha)	Area (ha)
1	Industrial	175.83	697.22	873.05
2	Amenities/ Utilities	17.57	75.52	93.09
3	Roads	37.53	44.39	81.92
4	Supporting activities for residential and commercial	17.77	315.68	333.45
5	Open Spaces/ greenbelt	41.67	133.44	175.11
6	Authorized area under Khed City Development Limited (KDL)*	-----	149.00	149.00
<b>Total</b>		<b>290.37</b>	<b>1415.25</b>	<b>1705.62</b>



3.6.13 The industries related to Health care, FMCG, Renewable and non-renewable energy, Auto and engineering. Heavy Industries, Light Industries, Electronics and Electrical products, Automobiles, Biotechnology, Pharmaceutical, IT/ITES/Food Processing, Textile and apparel, Gems, Jewellery, Plastics, aviation and logistics shall be housed with the proposed project. No water polluting and chemical industries are proposed under Pharmaceutical category.

3.6.14 No water bodies are present in the project site, and no natural drainage is getting disturbed. However, Vel River and Bhima River is present at a distance of 1.0 Km at East side and 2.0 km at western side, respectively. There is one pond namely Thitewadi tank at a distance of 1.7 km East.

3.6.15 The water requirement for the project is 75.40 MLD that will be drawn from Bhima River and Chaskaman dam. Necessary permission is in place. Ground water will not be abstracted during construction & operation phase of the project. Surface water from Chaskman dam of 50 MLD and Watekarwadi K.T. weir on Bhima River of 1.73 MLD will be transfer to proposed Industrial Park. As per the estimation, the average water requirement for the proposed project will be 0.2 MLD during the construction phase and 75.20 MLD during the operation phase. KEIPL provides water to the units through the exclusive arrangement with Irrigation department of Govt. of Maharashtra from the Bhima River and Chaskaman Dam.

3.6.16 No further land acquisition is proposed in the present developmental expansion project application for fresh EC. A certified compliance report has been issued by the Nagpur regional office of MoEF&CC. No forest land diversion is involved in the project.

3.6.17 There are no protected areas under international conventions, national or local legislation for their ecological, landscape, cultural or other related value within 15 km radius. No new Rehabilitation of communities/villages is required. Land acquisition and rehabilitation of communities are implemented.

3.6.18 Waste Management: Solid waste management System has been planned and will be in place as per the provisions of the MSW (M&H) rules 2016.

3.6.19 Common effluent treatment plant of 1.0 MLD capacity and STP of 35 KLD capacity based on MBBR technology is proposed.

3.6.20 Total 22,148 trees are reported from Khed City Project area. The current cumulative status of tree felling is shown below.

S. No	No. of Trees Felled within Project Area	Total
1	1027*	1027
2	Total No. of Trees Transplanted	45
3	<b>Total No. of Trees Impacted (No.s) (1+2)</b>	1072

\* Majority with girth around 10 cms, mainly non scheduled species

Note: KEIPL has planted 111314 numbers of local tree saplings and 50735 numbers of shrubs.

3.6.21 Greenbelt development is recommended for implementation, in area of 177.71 Ha. KEIPL will consider maintaining 50 m green belt between industrial units and residential areas and the all possibilities while the plots are handed over to customers. Green belt to a width of 15 meters, thick vegetation along boundaries, Roads and plots setbacks is provided. To ensure a permanent green shield around the periphery planting is considered in two phases:

3.6.22 Rainwater harvesting structures are developed in the project site. KEIPL has constructed 11 surface rain water harvesting structures to catch 189.23 TCM of rain water, out of which 9 structures are Earthen Nala Bunds and 2 are Cement Nala Bunds. The Total capacity for rain water harvesting in the project area has been enhanced to 340.367 ML from 304.23 ML by further strengthening of 7 Earthen Nala Bunds.

3.6.23 Socio-economic condition of local people: Local villagers which are nearby to Khed City are having agriculture as main occupation. Some people from these villages are having their own business like cement agencies, kirana and essentials supply shops, dairy, package water supply. Some people are associated with Khed City in terms of contract works like earth works, road construction, manpower supply to the industries located in the Khed City, and some are even doing regular jobs in these industries.

3.6.24 Benefits of the project: *Employment Generation*: The project will provide employment to a large number of local people. Skilled, semi-skilled and unskilled man power will be utilized during construction and operation phase. This will positively impact the economic condition of the study area. *Microclimate improvement of the surrounding*: Due to increase/enhancement of the forests and greenery, the project area will possess an enriched ecological profile with significant improvement in micro-climate. *Improvement in the health and educational profile of the area*: The development of planned residential and industrial growth shall necessitate the erection of education and health infrastructure. The project will undertake their creation with quality. *Improvement in infrastructure facility*: In order to facilitate the industries in the Integrated Industrial area and in order to enhance their productivity, it is proposed to improve existing connectivity and add green-field connectivity projects. *Economy improvement*: After implementation of the Project, a host and variety of industries will be established in the area. This will give rise to employment to the local people. The industrial development will also promote allied businesses and facilities in the area. This will result in considerable improvement in the economic condition of the study area.

3.6.25 Details of Court cases: Earlier, there were two legal aspects with regards to KEIPL projects. Land owners had approached Hon'ble High Court and further before Hon'ble Supreme Court. In

the year 2013 Honourable Supreme Court dismissed the allegations made by the land owners. KEIPL's EC was also challenged before the Honourable National Green Tribunal, New Delhi and further before Hon'ble Supreme Court, which was also dismissed and the EC was confirmed.

3.6.26 The Committee notes that the PP during ToR stage submitted that they are continuing the "sectors" approved in the earlier EC granted by the Ministry vide letter dated 20th May, 2010. No new sectors has been included in the expansion application. No chemical industries are proposed under Pharmaceutical category. Only formulation unit is proposed as per continuation with prior EC.

3.6.27 The sectors approved in the earlier EC are heavy industry, light industries, electronics and electrical products, automobiles, biotechnology, pharmaceutical, IT/ITES/Food Processing, textiles and apparels, gems, jewellery, plastics, aviation and logistic. However, at the time of appraisal PP submitted a layout map showing maximum red category industry. Further there is no legend on the map to know the sectoral division of the industries.

3.6.28 The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 260<sup>th</sup> meeting during 5<sup>th</sup> - 6<sup>th</sup> April, 2021 and **deferred the proposal** for want of following documents/ information:

- i. Layout map showing the existing industrial development vis-à-vis proposed industries with sectors specified on the layout map.
- ii. Detailed list of industries as envisaged in the original EC and revised ToR issued on 20<sup>th</sup> July, 2020 and subsequently, ToR amendment dated 25<sup>th</sup> February, 2021.
- iii. The infrastructure which is already in place and the proposed infrastructure should be clearly highlighted on the layout map with legend. The existing green belt and the proposed green belt should be clearly highlighted.
- iv. The map should be clear in all perspective including legend, scale, North mark etc.

### **Agenda No. 3.7**

#### **Developmental of Greenfield Bhavanapadu Port, District Srikakulam, Andhra Pradesh by M/s Andhra Pradesh Maritime Board – Terms of Reference (Proposal No IA/AP/MIS/173542/2020 and File No 10-56/2020-IA.III)**

*“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the 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.”*

**Note-** It may be mentioned this proposal was considered in 243<sup>rd</sup> EAC meeting during 28<sup>th</sup> -30<sup>th</sup> September, 2020 and was deferred for want of some requisite information. Further, the proposal was reconsidered in 256<sup>th</sup> EAC meeting held on 3<sup>rd</sup> – 4<sup>th</sup> March, 2021 and it was observed that the land for the site selected for project has been already allotted by the State Government to Singareni Collieries Company Limited (SCCL) as a part of compensatory afforestation. EAC observed that the same site cannot be allotted by the State Government to another project and therefore, the proposal was deferred till the availability of land for the proposed port is ascertained by the competent authority of the state government. ***However, the PP/consultant has given false/misleading information at point 3 of the Annexure III (Required for ToR: New/Expansion/Amendment Proposals) as shown below-***

3	Whether the proposal was considered in earlier meetings of EAC: If yes, provide date of EAC meeting and reasons for deferment, if any	No
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The project proponent along with the EIA consultant M/s P & M Solution, Uttar Pradesh has made a presentation through Video Conferencing and provided the following information-

3.7.1. The proposed project is for development of Greenfield Bhavanapadu Port at Srikakulam, Andhra Pradesh by M/s Andhra Pradesh Maritime Board.

3.7.2. The proposed project falls under 7(e) - Ports & Harbors, Category-A (cargo handling capacity > 5 million TPA), as per EIA notification 2006. Total investment/cost of the project is Rs 309190 Lakhs.

3.7.3. Total area for Port development for Phase-I is about 1010 Acres i.e., 408.73 Ha (Port Development 660 acres i.e., 267.093 ha and area for external infrastructure like road and rail connectivity is 350 Acres i.e., 141.64 Ha). The Land use/land cover of project site is as following-

S. No.	Land use category	Area (in Ha)	Area in %
1	Agriculture Land	12	2.87
2	Settlement	00	0.03
3	Waterbody	169	41.44
4	Forest	141	34.55
5	Wetland	1	0.27
6	Open scrub	85	20.84
<b>Total</b>		<b>408</b>	<b>100.00</b>

3.7.4. The total Land required for Phase I is 660 acres (267.093 ha) out of which government land and forest is 379 acres (153.376 Ha) and 281 acres (113.717 Ha), respectively. The Total Forest Land Area Identified is 471.35 Acres (190.74 Ha) (for master plan).

3.7.5. Total Water Requirement for the proposed project is 111295 litres (31455 litres for administrative building + 9240 litres for Workshop Building + 70600 litres for Miscellaneous Facilities). The water demand shall be met from the nearby reservoir. No ground water shall be abstracted or used for any commercial purposes of Port Operations.

3.7.6. Bushes and scrubs with Trees will be cut due to Development of proposed Bhavanapadu Port. Care will be taken to relocate the trees and necessary permission will be sought from the competent authority. The details will be provided in the EIA report.

3.7.7. The project site is in CRZ III area & part of the area will fall under harbor, berth, north & south break water & turning circle will fall under CRZ 1B. Bhavanapadu Port Area falls under rural area & hence categorized as CRZ III. Average Density of Population of Srikakulam district is 462 / Sqkm (Census 2011), hence Bhavanapadu being a part of it will fall under CRZ-III B. Demarcation of coastal regulation zone, High Tide Line/Low Tide Line & Land Use map will be prepared through MoEFCC authorized / accredited institute & the same will be presented in Environmental Impact Assessment Report.

3.7.8. Total Domestic Effluent Generation will be 69.04 KLD. STP of 70 KLD will be provided for domestic Effluent.

3.7.9. The details on the shoreline change will be studied by doing modelling and littoral drift studies as required & the same will be submitted during Environmental Impact Assessment Study (Report) in detail.

3.7.10. The estimated capital dredging quantity & dredging areas for the proposed port is as follows:

- a. Entrance / Approach Channel /Turning Circle/ Sand trap – 10.88 Mm<sup>3</sup>
- b. Berthing Area/ Port Basin – 10.377 Mm<sup>3</sup>
- c. Providing Navigational aids and shore marks – Lump Sum (LS)
- d. Mobilisation and Demobilisation of dredgers and other ancillary equipment's – (LS)
- e. Total estimated dredging quantity for Phase I development is 21.177 Million cum (Mm<sup>3</sup>).

3.7.11. Cargo stacking and storage facilities will be developed for handling cargos with commodities like –

- a. Raw cashew, Lime stone, Edible oil, other commodities, containers, Mineral sands, cashew, soya meal, Granite, Ferro products, Jute products, Iron & Steel scrap, Iron ore, Iron & steel products, Fertilizers. Thermal coal/ Coking coal
- b. There is deposition of dust in to the air at the time of construction and cargo handling.
- c. Dust suppression systems (e.g. water Sprinkling/misting at the bulk storage).

3.7.12. There are no fishing boats, no fish landing centres observed within the project site boundary. There is one Fishery Harbour near to the port. However, the Fishery Harbour is outside the port boundary. Hence, development of Bhavanapadu port shall not disturb the fishery Harbour operations.

3.7.13. R & R issues: Land Compensation and R & R is planned per the land acquisition plan for Project Affected Family's (PAF's) and budget is established as per the District Collector Letter RC no. 806/2015 G.1 dated .23/8/2018. Rehabilitation and Resettlement (R & R) will be taken up

adhering to The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation & Resettlement Act, 2013 (No. 30 of 2013) – Andhra Pradesh Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2014. Notification – Orders Issued GO. MS. No. 389 dated 20/11/2014.

3.7.14. Benefits of the project: The project has considerable benefits from the social perspective. The proposed project will have positive impact on social and economic improvement of the region by overall improvement in living standard through creation of new direct and Indirect Jobs, increase in volume of general trade, general improvement in infrastructural facility with better transport and communication network. It is estimated that, this project will generate 10,000 No. of Direct and indirect Employment. As per the Feasibility Assessment, the project is found to be viable from all aspects such as technical, economic, environmental and social aspects.

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

3.7.16. The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 260<sup>th</sup> meeting during 5<sup>th</sup> - 6<sup>th</sup> April, 2021 and **deferred the proposal** with following comments:

It was observed by the committee in the earlier meeting that the land for the site selected for project has been already allotted by the State Government to Singareni Collieries Company Limited (SCCL) as a part of compensatory afforestation. EAC observed that the same site cannot be allotted by the State Government to another project and therefore, the proposal was deferred till the availability of land for the proposed port is ascertained by the competent authority of the state government.

PP further submitted the letter No. INI0-01-PORTS-I/129/2020-PORTS, dated 20.03.2021 that the Special Chief Secretary has given confirmation for land being allotted for the proposed port including forest and revenue land and assured that the Go AP & AP Maritime Board will follow the due process involved in obtaining Forest Clearance from the Central Government and comply the conditions stipulated while granting Stage-I & Stage-II clearances by MoEF&CC.

The EAC observed that the land was accorded to Singareni collieries in the year 2001, however the Notification (reserve or protected forest) for the same has not been issues till date. Money has been deposited for the compensatory afforestation to CAMPA. Further, the compensatory afforestation work has also been completed. However, the forest land has not been de-notified; in fact the Notification work itself is pending. PP informed that an alternative site for afforestation has been identified in YSR district of AP.

The Committee decided that the ToR for the project cannot be accorded to a piece of land for which the land records are not clear and land is not in possession of the PP. The EAC, taking into account the above fact **deferred the proposal**.

### Agenda No. 3.8

**Integrated development of International Container Transshipment Terminal (ICTT)-14.2 Million TEU along with Greenfield International Airport (4000 Peak Hour Passengers- PHP), Township & Area development and 450 MVA Gas and Solar based power plant in 16610 ha. Great Nicobar Islands, Nicobar District by M/s Andaman and Nicobar Islands Integrated Development Corporation Ltd. - Further consideration for Terms of Reference (Proposal No. IA/AN/NCP/201159/2021 and File No 10/17/2021-IA.III)**

*“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the 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 proposal was considered in the 258th meeting of Expert Appraisal Committee held on 17<sup>th</sup> -18<sup>th</sup> March, 2021. The proposal was deferred by the EAC for want of additional information from the proponent.

3.8.2 PP submitted the requisite information and the proposal was further considered in the EAC in its 260th meeting held on 5th - 6th April, 2021. The DPR consultant engaged for the project is M/s AECOM India Pvt Ltd.

3.8.3 It has been mentioned that total township area is 149.60 Sq.km. Revenue land is 28.27 Sq.km, Revenue land (deemed forest) is 8.37 Sq.km, and forest land is 112.96 Sq.km. Regarding Site grading, all details related to port and airport are included in the PEFRR. For township related site grading, same shall be conducted during the detailed engineering studies. Regarding water requirement, it has been mentioned that the total Water Demand for the project area is estimated at 160 MLD (Fresh Water Demand 90 MLD and Recycled Water Demand 70 MLD).

<b>LANDUSE AREA CHART- GNI</b>		
<b>Land Use Category</b>	<b>Area (sq.km.)</b>	<b>Percentage (%)</b>
<b>RESIDENTIAL</b>	<b>36.66</b>	<b>22.07</b>
Residential Mixed-Use (Medium density)	29.1	
Residential (Medium Density)	2.98	
Residential Low Density	4.58	
<b>COMMERCIAL</b>	<b>6.44</b>	<b>3.88</b>
Commercial Mixed-Use	4.33	
Commercial Office	0.41	
Tourism and Hospitality	1.70	



<b>INSTITUTIONAL</b>	<b>15.14</b>	<b>9.11</b>
Institutional Campus	15.14	
<b>INDUSTRIAL</b>	<b>0.31</b>	<b>0.19</b>
Industrial	0.31	
<b>TRANSPORT</b>	<b>24.01</b>	<b>14.46</b>
Ports and Marine	7.66	
Aviation	8.45	
Logistics	7.90	
<b>UTILITIES</b>	<b>1.2025</b>	<b>0.72</b>
Power Plant	0.39	
Other Utilities (includes Solid Waste disposal)	0.81	
<b>OPEN SPACE</b>	<b>73.0575</b>	<b>43.98</b>
Greens	9.61	
Eco-Tourism	40.81	
Coastal tourism	22.64	
<b>DEFENCE AREA</b>	<b>9.28</b>	<b>5.59</b>
<b>TOTAL PROJECT AREA</b>	<b>166.10</b>	<b>100.00</b>
<b>TOWNSHIP AREA</b>	<b>149.60</b>	<b>90.01</b>

3.8.4 In order to have minimal dependency on surface water from Galathea River, it is being proposed to create rainwater harvesting reservoirs within the project area. Approximate 2.5 Sq.km of area is being identified for creation of water reservoirs which will store rainwater from surface runoff. Detail watershed studies and mathematical modelling will be carried out at the detail design stage and will be included in the EIA report. A LIDAR survey for the island was conducted for detailed terrain mapping. The data is classified as restricted by Ministry of Defence. Necessary approvals are being obtained for doing detail analysis on the LIDAR data collected. Final water sourcing will be included in the EIA report to be submitted. In case of inadequacy of water from these sources, alternate sources will be explored and presented at the time of EIA submission.

3.8.5 Regarding impact on Leatherback Turtle and other geo-seismological view it has been mentioned that the most technically and financially feasible location is Galathea Bay. All emphasis will be given to avoid any impact on the turtle nesting sites and detail mitigation strategies shall be covered in the EIA report including but not limiting to offshore break water provision to have unhindered turtle movement to nesting grounds. Further, comparative analysis of all location viz Galathea Bay, Casuarina Bay, Anderson Bay, Pemayya Bay, Campbell Bay was presented.

3.8.6 Regarding Geographical Meteorological study and Seismology status, it has been mentioned that there is no IMD station in Great Nicobar Island. The data from INS Baaz station in Great Nicobar Island (Navy facility) has been procured and shall be used for all modelling

studies. All relevant reports available with National Centre for Seismology will also be procured and analyzed during the EIA study.

3.8.7 Regarding conformity of proposed integrated development in relation to latest CZMP at 1:4000 scale and Island Development plan for Great Nicobar it has been mentioned that approvals as per ICRZ notification 2019 shall be obtained for undertaking proposed development. The CRZ maps at 1:4000 scale as mandated in the notification shall be submitted along with application for CRZ clearance. However, PP has to submit all documents at the time EC+CRZ (combined clearance) as mentioned in the procedure for CRZ clearance for permissible and regulated activities at item 8 of CRZ Notification 2019 alongwith recommendation of the A&N CZMA for all activities proposed under aforesaid integrated development project.

Following break-up for Area statement is provided.

S. No.	Description	Area in Sqkm
1	Total Area of Great Nicobar Island	910.04
2	Forest Area	865.84
3	Campbell National Park*	391.75
4	Campbell National Park Eco sensitive Zone	65.81
5	Galatea National Park*	107.10
6	Galatea National Park Eco sensitive Zone	14.93
7	Tribal Reserve Area	751.41
8	Revenue Area	44.20
9	Developable area (Project area)	166.10

\* (The notified areas of Galathea National Park, Campbell Bay National Park and Biosphere Reserve are 110 sq. km, 426.23 sq. km and 885 sq. km respectively. However, on account of reconciliation of area of Great Nicobar Island by Survey of India vide letter dated 01.09.2020, there is revision in the area of Galathea National Park, Campbell Bay National Park and Biosphere Reserve).

Of the total 166.1 sq.km project area,

- i. Revenue land 44.2 sq.km,
  - a. Revenue land (allotted) = 23.53 sq.km.
  - b. Revenue land (vacant)= 6.62 sq.km
  - c. Revenue land (encroached) = 2.0 sq.km.
  - d. Others (roads and water bodies) = 3.16 sq.km.
  - e. Revenue land (Deemed Forest) = 8.88 sq.km.
- ii. Forest area - 121.87 sq.km

3.8.8 The Committee notes that the site selection for the port component has been done keeping primarily the technical and financial viability in place. The environmental aspects were not given much weightage while selecting the site. The Island has large number of endangered species including Leatherback Turtle at the Galathea Bay. It would be ideal to involve an independent organisation/institution with specialized skills such as IIT, NIOT, NCCR, NIO etc for technical aspect while research institutes such as Zoological Survey of India (ZSI), SACON and Wildlife Institute of India (WII) for ecological assessment with expertise on Island ecosystems, its terrestrial and marine flora and fauna. An independent study/evaluation for the suitability of the proposed port site with specific focus on Leatherback Turtle, Nicobar Magapod and Dugong should be carried out and submitted its recommendations. The report shall become the part of EIA/EMP report and the recommended selection of the site could be further considered in the EAC for the merits of site in in terms of environmental sensitivity.

3.8.9 Committee also of the view that the consultant agency for conducting the EIA study shall be independent of the agency involved in preparation of DPR and should involve the experts from the organisations which were involved in assessing the impact of Tsunami on and its mitigation in the A&N islands. Consultant agency should also involve senior scientists from WII or ZSI or IISc or SACON in ecological and biodiversity studies.

3.8.10 Committee further opined that since the project is appraised by single Committee (Infra-1) with involvement of Member Secretaries of concerned sector, it is advisable to take comments from all sectors so that specific ToRs for each sector can be provided for EIA studies.

3.8.11 The EAC, taking into account the submission made by the project proponent had a detailed deliberation in its 260<sup>th</sup> meeting during 5<sup>th</sup> - 6<sup>th</sup> April, 2021 and **recommended the proposal for grant of Terms of Reference (ToR)**. The sector specific ToRs are obtained from the respective sector. The EIA/EMP studies shall be conducted based on the sector specific ToRs as mentioned below, in addition to all standard ToRs applicable for such projects.

#### A. **International Container Transshipment Terminal (ICTT)**

- i. The Island has large number of endangered species such as Leatherback Turtle at the Galathea Bay. The area also has a presence of Nicobar Megapod, an endemic species and possibility of other endangered species such as Dugong and Saltwater Crocodiles. An independent evaluation of impact of proposed port site at Galathea Bay including its backend support infrastructure on the ecology and biodiversity shall be carried out by engaging a nationally recognized institutes such as Zoological Survey of India or SACON or Wildlife Institute of India or consortium of these three institutes and submit detailed study including findings, recommendations and comprehensive mitigation plan to the Ministry. The report shall specifically include key components such as impact of dredging and reclamation, port operations, ship movement, illumination, habitat alteration, breakwater, underwater noise, oil pollution etc on the movement and nesting beaches of Leatherback as well as shore

morphology and sand grain profile at the nesting sites. The report shall become the part of EIA/EMP report and the selection of the site shall be based on the recommendations and environment management plan prescribed in the report. The study also should examine other alternate sites suggested in the presentation such as Casuarina Bay, Anderson Bay, Pemayya Bay and Campbell Bay based on environmental, ecological and economic considerations, and choose one appropriate site having minimum impacts on ecology and environment with specific focus on Leatherback Turtle and other endangered species (both terrestrial and marine). A detailed comparison of the sites in this regard shall be submitted. The study should emphasize impact on Leatherback Turtles and Nicobar Magapod and its past and present distribution including nesting of these species.

- ii. An independent study for assessment of biodiversity and Wildlife value of all the alternative sites for ICTT port shall be conducted by engaging a nationally recognized institutes such as WII or ZSI or IISc or SACON or consortium of these institutes. Diversity and wildlife value so assessed by these organisations or a team of these organisations shall form one of the criteria for cost benefit analysis of all the alternative sites. The report along with Cost Benefit Analysis shall be incorporated in EIA/EMP report
- iii. The alternate sites than proposed Galathea Bay for International Container Transhipment Terminal should be explored through detailed studies with more focus on environmental and ecological impact of ICTT during construction and its operation, specially movements of vessels on turtles.
- iv. The ecologically fragile area including CRZ 1A area etc shall be demarcated in conformity with latest approved CZMP as per notification of 2019 and superimposed on the layout plan at 1: 4000 scale and submitted. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.
- v. Risk analysis for handling different types of cargos shall be conducted and submitted. Focus also should be given on how such a cargo will affect Leatherback nesting areas.
- vi. Detailed study well supported by strong historical data through simulation studies, whether the selected site can withstand the cyclone/storm surge and Tsunami.
- vii. Erosion and accretion study at the mouth of the Galathea Bay and entire island with reputed national institute to be submitted through predictive modelling for port area reclamation, construction and breakwaters. The study should highlight impact of these on Leatherback nesting sites.
- viii. Recommendation of the A&N CZMA shall be obtained and submitted. Submit superimposing of latest CZMP as per CRZ (2011) on the CRZ map. Submit a complete set of documents required as per para 4.2 (i) of CRZ Notification, 2011.

- ix. Comprehensive study of the impact of dredging and reclamation and port operations including oil spills on marine ecology and marine biodiversity with specific focus on corals, mangroves, sandy shores and mud flat should be done by engaging a nationally recognized institutes such as Zoological Survey of India or SACON or Wildlife Institute of India or consortium of these three institutes and draw up a management and mitigation plan. Being sensitive area, proposed plan of online monitoring of water quality drilling dredging and disposal should be submitted.
- x. A specific study to be undertaken to ascertain the impact of proposed development on the migratory birds by engaging a nationally recognized institutes such as Zoological Survey of India or SACON or Wildlife Institute of India covering both inward and return migration period. The studies should specially focus on migratory bird species composition, impact due to habitat destruction, impact due to oil spillage and risk of all the hazards that has potential to damage the fragile environment. A comprehensive mitigation plan also to be developed.
- xi. A detailed and comprehensive study for assessment of requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract) shall be conducted and submitted.
- xii. A detailed study for assessing the carrying capacity of the areas proposed for development shall be conducted and incorporated in EIA/EMP Report
- xiii. An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site.
- xiv. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA.
- xv. Disaster Management Plan for the project shall be prepared and submitted.
- xvi. Oil spill management plan should be drawn as per NOS DCP and submitted
- xvii. The details about number of labourers, number of labour camps and its construction, their basic requirements such as transport, fuel for cooking, freshwater, sanitation, health and emergency evacuation etc to be provided in detail.
- xviii. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made. It should be ensured that tribes such as Shompen and Nicobarese and anthropological organisations well versed in

communication with and involved in welfare of Shompen and Nicobarese are adequately represented in the Public Hearing.

**B. Greenfield International Airport (4000 Peak Hour Passengers-PHP)**

- i. The E.I.A. will give a justification for land requirements along with a comparison to the guidelines established by the Airport Authority of India/Ministry of Civil Aviation in this regard.
- ii. An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, on the flora and fauna of the region shall be made.
- iii. Detailed studies on Bird Hazzard to the proposed airport and flight operations and its mitigation measures should be carried out (both migratory and resident birds) by engaging a nationally recognized institutes such as SACON or Wildlife Institute of India.
- iv. Impact of proposed Port on the Flight Safety and operations and Airport security should be examined in detailed
- v. Layout maps of proposed project indicating runway, Aerodrome building, parking, greenbelt area, utilities etc.
- vi. The ecologically fragile area including CRZ 1A area etc shall be demarcated and superimposed on the layout plan and submitted.
- vii. An independent study for assessment of biodiversity and Wildlife value of all the alternative sites for ICTT port shall be conducted by the organisations in this field like WII, ZSI, IIS and SACON. Diversity and wildlife value so assessed by these organisations or a team of these organisations shall form one of the criteria for cost benefit analysis of all the alternative sites. The report along with Cost Benefit Analysis shall be incorporated in EIA/EMP report
- viii. An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA. The Plan to be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- ix. The E.I.A. should specifically address to vehicular traffic management as well as estimation of vehicular parking area inside the Airport premises.
- x. An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.
- xi. A note on appropriate process and materials to be used to encourage reduction in carbon foot print. Optimize use of energy systems in buildings that should maintain a specified indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy Conservation Building Code (ECBC) 2017 of the Bureau of Energy Efficiency, Government of India. The energy system includes air conditioning systems, indoor lighting systems, water heaters, air heaters and air circulation devices.
- xii. Details of emission, effluents, solid waste and hazardous waste generation and their management. Air quality modelling and noise modelling shall be carried out for the

emissions from various types of aircraft. Detail plan for impact of noise on the sensitive environment specially the wildlife sanctuaries and national parks.

- xiii. The impact of aircraft emissions in different scenarios of idling, taxiing, take off and touchdown shall be examined and a management plan suggested.
- xiv. The impact of air emissions from speed controlled and other vehicles plying within the Airport shall be examined and management plan drawn up.
- xv. A detailed management plan, drawn up in consultation with the competent District Authorities, shall be submitted for the regulation of unauthorized development and encroachments within a 05 Km radiants of the Aerodrome.
- xvi. The details about number of labourers, number of labour camps and its construction, their basic requirements such as transport, fuel for cooking, freshwater, sanitation, health and emergency evacuation etc to be provided in detail.
- xvii. Noise monitoring and impact assessment shall be done for each representative area (as per the Noise Rules of MoEF&CC). A noise management plan shall be submitted to conform to the guidelines of the MoEF&CC and the DGCA. Noise monitoring shall also be carried out in the funnel area of flight path.
- xviii. A detailed and comprehensive study for assessment of requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract) shall be conducted and submitted.
- xix. A detailed study for assessing the carrying capacity of the areas proposed for development shall be conducted and incorporated in EIA/EMP Report
- xx. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made. It should be ensured that tribes such as Shompen and Nicobarese and anthropological organisations well versed in communication with and involved in welfare of Shompen and Nicobarese are adequately represented in the Public Hearing.
- xxi. Recommendation of the A&N CZMA shall be obtained and submitted.
- xxii. Details of fuel tank farm and its risk assessment.
- xxiii. The report should give a detailed impact analysis and management plan for handling of the following wastes for the existing and proposed scenarios. The management plan will include compliance to the provisions of the MSW Rules, 2016.
  - (a) Trash collected in flight and disposed at the Aerodrome including the segregation mechanism.
  - (b) Toilet wastes and sewage collected from aircrafts and disposed at the Aerodrome.
  - (c) Maintenance and workshop wastes.
  - (d) Wastes arising out of eateries and shops situated within the Aerodrome.

### **C. Township & Area development**

- i. The ecologically fragile area including CRZ 1A area etc shall be demarcated and superimposed on the layout plan and submitted.
- ii. Seismic and Tsunami hazard map on entire island and its relation to each component of the integrated project should be detailed. All the facilities should be analysed for these hazards, with emphasis on future possible events



- iii. An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA. The Plan to be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- iv. The details about number of labourers, number of labour camps and its construction, their basic requirements such as transport, fuel for cooking, freshwater, sanitation, health and emergency evacuation etc to be provided in detail.
- v. A note on appropriate process and materials to be used to encourage reduction in carbon foot print. Optimize use of energy systems in buildings that should maintain a specified indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy Conservation Building Code (ECBC-R) 2018 of the Bureau of Energy Efficiency, Government of India. The energy system includes air conditioning systems, indoor lighting systems, water heaters, air heaters and air circulation devices.
- vi. A detailed and comprehensive study for assessment of requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract) shall be conducted and submitted.
- vii. A specific study should be conducted to enumerate the anticipated impact and mitigation of increased illumination and noise on nocturnal bird and mammal fauna.
- viii. A detailed study for assessing the carrying capacity of the areas proposed for development shall be conducted and incorporated in EIA/EMP Report.
- ix. Details of emission, effluents, solid waste and hazardous waste generation and their management.
- x. Specify plan of Administration of A & N to prevent further encroachment on the forest land with the proposed increased population considering that already 2 sq km revenue land has been encroached by existing population as envisaged in the ToR presentation
- xi. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made. It should be ensured that tribes such as Shompen and Nicobarese and anthropological organisations well versed in communication with and involved in welfare of Shompen and Nicobarese are adequately represented in the Public Hearing.
- xii. Recommendation of the A&N CZMA shall be obtained and submitted.

**D. 450 MVA Gas and Solar based power plant**

- i) The proposed project shall be given a unique name in consonance with the name submitted to other Government Departments etc. for its better identification and reference.
- ii) Vision document specifying prospective long term plan of the project shall be formulated and submitted.
- iii) The project proponent needs to identify minimum three potential sites based on environmental, ecological and economic considerations, and choose one appropriate site

- having minimum impacts on ecology and environment. A detailed comparison of the sites in this regard shall be submitted.
- iv) Executive summary of the project indicating relevant details along with recent photographs of the proposed site (s) shall be provided. Response to the issues raised during Public Hearing and the written representations (if any), along with a time bound Action Plan and budgetary allocations to address the same, shall be provided in a tabular form, against each action proposed.
  - v) Harnessing solar power within the premises of the plant particularly at available roof tops and other available areas shall be formulated and for expansion projects, status of implementation shall also be submitted.
  - vi) The geographical coordinates (WGS 84) of the proposed site (plant boundary), including location of ash pond along with topo sheet (1:50,000 scale) and IRS satellite map of the area, shall be submitted. Elevation of plant site and ash pond with respect to HFL of water body/nallah/River and high tide level from the sea shall be specified, if the site is located in proximity to them.
  - vii) Layout plan indicating break-up of plant area, ash pond, green belt, infrastructure, roads etc. shall be provided.
  - viii) Land requirement for the project shall be optimized and in any case not more than what has been specified by CEA from time to time. Item wise break up of land requirement shall be provided.
  - ix) Present land use (including land class/kism) as per the revenue records and State Govt. records of the proposed site shall be furnished. Information on land to be acquired including coal transportation system, laying of pipeline, ROW, transmission lines etc. shall be specifically submitted. Status of land acquisition and litigation, if any, should be provided.
  - x) Impact of transmission lines on migratory birds and large raptors by engaging a nationally recognized institutes such as Zoological Survey of India or SACON or Wildlife Institute of India.
  - xi) If the project involves forest land, details of application, including date of application, area applied for, and application registration number, for diversion under FCA and its status should be provided along with copies of relevant documents.
  - xii) The land acquisition and R&R scheme with a time bound Action Plan should be formulated and addressed in the EIA report.
  - xiii) Satellite imagery and authenticated topo sheet indicating drainage, cropping pattern, water bodies (wetland, river system, stream, nallahs, ponds etc.), location of nearest habitations (villages), creeks, mangroves, rivers, reservoirs etc. in the study area shall be provided.
  - xiv) Location of any National Park, Sanctuary, Elephant/Tiger Reserve (existing as well as proposed), migratory routes / wildlife corridor, if any, within 10 km of the project site shall be specified and marked on the map duly authenticated by the Chief Wildlife Warden of the State or an officer authorized by him.
  - xv) Topography of the study area supported by toposheet on 1:50,000 scale of Survey of India, along with a large scale map preferably of 1:25,000 scale and the specific information whether the site requires any filling shall be provided. In that case, details of filling, quantity of required fill material; its source, transportation etc. shall be submitted.
  - xvi) A detailed study on land use pattern in the study area shall be carried out including identification of common property resources (such as grazing and community land, water resources etc.) available and Action Plan for its protection and management shall be

- formulated. If acquisition of grazing land is involved, it shall be ensured that an equal area of grazing land be acquired and developed and detailed plan submitted.
- xvii) A mineralogical map of the proposed site (including soil type) and information (if available) that the site is not located on potentially mineable mineral deposit shall be submitted.
  - xviii) Details of fly ash utilization plan as per the latest fly ash Utilization Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.
  - xix) The water requirement shall be optimized (by adopting measures such as dry fly ash and dry bottom ash disposal system, air cooled condenser, concept of zero discharge) and in any case not more than that stipulated by CEA from time to time, to be submitted along with details of source of water and water balance diagram. Details of water balance calculated shall take into account reuse and re-circulation of effluents.
  - xx) Water body/Nallah (if any) passing across the site should not be disturbed as far as possible. In case any Nallah / drain is proposed to be diverted, it shall be ensured that the diversion does not disturb the natural drainage pattern of the area. Details of proposed diversion shall be furnished duly approved by the concerned Department of the State.
  - xxi) It shall also be ensured that a minimum of 500 m distance of plant boundary is kept from the HFL of river system / streams etc. and the boundary of site should also be located 500 m away from railway track and National Highways.
  - xxii) Hydro-geological study of the area shall be carried out through an institute/ organization of repute to assess the impact on ground and surface water regimes. Specific mitigation measures shall be spelt out and time bound Action Plan for its implementation shall be submitted.
  - xxiii) Detailed Studies on the impacts of the ecology including fisheries of the River/Estuary/Sea due to the proposed withdrawal of water / discharge of treated wastewater into the River/Sea etc shall be carried out and submitted along with the EIA Report. In case of requirement of marine impact assessment study, the location of intake and outfall shall be clearly specified along with depth of water drawl and discharge into open sea.
  - xxiv) Source of water and its sustainability even in lean season shall be provided along with details of ecological impacts arising out of withdrawal of water and taking into account inter-state shares (if any). Information on other competing sources downstream of the proposed project and commitment regarding availability of requisite quantity of water from the Competent Authority shall be provided along with letter / document stating firm allocation of water.
  - xxv) Detailed plan for rainwater harvesting and its proposed utilization in the plant shall be furnished.
  - xxvi) Feasibility of near zero discharge concept shall be critically examined and its details submitted.
  - xxvii) Optimization of Cycles of Concentration (COC) along with other water conservation measures in the project shall be specified.
  - xxviii) Plan for recirculation of ash pond water and its implementation shall be submitted.
  - xxix) Detailed plan for conducting monitoring of water quality regularly with proper maintenance of records shall be formulated. Detail of methodology and identification of monitoring points (between the plant and drainage in the direction of flow of surface / ground water) shall be submitted. It shall be ensured that parameter to be monitored also include heavy metals. A provision for long-term monitoring of ground water table using Piezometer shall be incorporated in EIA, particularly from the study area.

- xxx) Socio-economic study of the study area comprising of 10 km from the plant site shall be carried out through a reputed institute / agency which shall consist of detail assessment of the impact on livelihood of the local communities.
- xxxii) Action Plan for identification of local employable youth for training in skills, relevant to the project, for eventual employment in the project itself shall be formulated and numbers specified during construction & operation phases of the Project.
- xxxiii) If the area has tribal population it shall be ensured that the rights of tribals are well protected. The project proponent shall accordingly identify tribal issues under various provisions of the law of the land.
- xxxiiii) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made. It should be ensured that tribes such as Shompen and Nicobarese and anthropological organisations well versed in communication with and involved in welfare of Shompen and Nicobarese are adequately represented in the Public Hearing.
- xxxv) While formulating CER schemes it shall be ensured that an in-built monitoring mechanism for the schemes identified are in place and mechanism for conducting annual social audit from the nearest government institute of repute in the region shall be prepared. The project proponent shall also provide Action Plan for the status of implementation of the scheme from time to time and dovetail the same with any Govt. scheme(s). CER details done in the past should be clearly spelt out in case of expansion projects.
- xxxvi) R&R plan, as applicable, shall be formulated wherein mechanism for protecting the rights and livelihood of the people in the region who are likely to be impacted, is taken into consideration. R&R plan shall be formulated after a detailed census of population based on socio economic surveys who were dependant on land falling in the project, as well as, population who were dependant on land not owned by them.
- xxxvii) Assessment of occupational health and endemic diseases of environmental origin in the study area shall be carried out and Action Plan to mitigate the same shall be prepared.
- xxxviii) Occupational health and safety measures for the workers including identification of work related health hazards shall be formulated. The company shall engage full time qualified doctors who are trained in occupational health. Health monitoring of the workers shall be conducted at periodic intervals and health records maintained. Awareness programme for workers due to likely adverse impact on their health due to working in non-conductive environment shall be carried out and precautionary measures like use of personal equipment etc. shall be provided. Review of impact of various health measures undertaken at intervals of two to three years shall be conducted with an excellent follow up plan of action wherever required.
- xxxix) One complete season site specific meteorological and AAQ data (except monsoon season) as per latest MoEFCC Notification shall be collected and the dates of monitoring shall be recorded. The parameters to be covered for AAQ shall include PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO and Hg. The location of the monitoring stations should be so decided so as to take into consideration of the upwind direction, pre-dominant downwind direction, other dominant directions, habitation and sensitive receptors. There should be at least one monitoring station each in the upwind and in the pre-dominant downwind direction at a location where maximum ground level concentration is likely to occur.

- xxxix) In case of expansion project, air quality monitoring data of 104 observations a year for relevant parameters at air quality monitoring stations as identified/stipulated shall be submitted to assess for compliance of AAQ Standards (annual average as well as 24 hrs).
- xl) A list of industries existing and proposed in the study area shall be furnished.
- xli) Cumulative impacts of all sources of emissions including handling and transportation of existing and proposed projects on the environment of the area shall be assessed in detail. Details of the Model used and the input data used for modelling shall also be provided. The air quality contours should be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any. The windrose and isopleths should also be shown on the location map. The cumulative study should also include impacts on water, soil and socio-economics.
- xlii) Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.
- xliii) Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage etc should also be furnished.
- xliv) Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished. The Ministry's Notification dated 02.01.2014 regarding ash content in coal shall be complied. For the expansion projects, the compliance of the existing units to the said Notification shall also be submitted
- xliv) Details of transportation of fuel from the source (including port handling) to the proposed plant and its impact on ambient AAQ shall be suitably assessed and submitted. If transportation entails a long distance it shall be ensured that rail transportation to the site shall be first assessed. Wagon loading at source shall preferably be through silo/conveyor belt.
- xlvi) For proposals based on imported coal, inland transportation and port handling and rail movement shall be examined and details furnished. The approval of the Port and Rail Authorities shall be submitted.
- xlvi) Details regarding infrastructure facilities such as sanitation, fuel, restrooms, medical facilities, safety during construction phase etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase should be adequately catered for and details furnished.
- xlvi) EMP to mitigate the adverse impacts due to the project along with item - wise cost of its implementation in a time bound manner shall be specified.
- xlix) A Disaster Management Plan (DMP) along with risk assessment study including fire and explosion issues due to storage and use of fuel should be carried out. It should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the plant layout map clearly showing which of the proposed activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures should be provided. Measures to guard against fire hazards should also be invariably provided. Mock drills shall be suitably carried out from time to time to check the efficiency of the plans drawn.
- l) The DMP so formulated shall include measures against likely Fires/Tsunami/Cyclones/Storm Surges/Earthquakes etc, as applicable. It shall be ensured that DMP consists of both On-site and Off-site plans, complete with details of containing likely disaster and shall specifically mention personnel identified for the task. Smaller

version of the plan for different possible disasters shall be prepared both in English and local languages and circulated widely.

- li) Detailed scheme for raising green belt of native species of appropriate width (50 to 100 m) and consisting of at least 3 tiers around plant boundary with tree density of 2000 to 2500 trees per ha with a good survival rate of around 80% shall be submitted. Photographic evidence must be created and submitted periodically including NRSA reports in case of expansion projects. A shrub layer beneath tree layer would serve as an effective sieve for dust and sink for CO<sub>2</sub> and other gaseous pollutants and hence a stratified green belt should be developed.
- lii) Over and above the green belt, as carbon sink, plan for additional plantation shall be drawn by identifying blocks of degraded forests, in close consultation with the District Forests Department. In pursuance to this the project proponent shall formulate time bound Action Plans along with financial allocation and shall submit status of implementation to the Ministry every six months.
- liii) The details about number of labourers, number of labour camps and its construction, their basic requirements such as transport, fuel for cooking, freshwater, sanitation, health and emergency evacuation etc to be provided in detail.
- liv) Corporate Environment Policy
  - a. Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - b. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - c. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions. Details of this system may be given.
  - d. Does the company has compliance management system in place wherein compliance status along with compliances / violations of environmental norms are reported to the CMD and the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

All the above details should be adequately brought out in the EIA report and in the presentation to the Committee.

- lv) Details of litigation pending or otherwise with respect to project in any Court, Tribunal etc. shall invariably be furnished.

### **Special Conditions**

- 1) Cumulative Impact Assessment of all above proposed four sectors (ICTT, Greenfield International Airport, Township and Area Development and 450 MVA Gas and Solar based power plant) to be undertaken keeping in focus ecological and environmental impacts on Great Nicobar Island

- 2) Detailed freshwater requirement and augmentation plan, its impact and mitigation plan on native, endangered and endemic freshwater flora and fauna to be developed for all above four sectors.
- 3) Public hearing: It should be ensured that tribes such as Shompen and Nicobarese and anthropological organisations well versed in communication with and involved in welfare of Shompen and Nicobarese are adequately represented in the Public Hearing. Details of the same to be provided in EIA-EMP of all above four sectors.

**Annexure-A**

**Following members were present during the 260<sup>th</sup> EAC (Infra-1) meeting held on 5<sup>th</sup> – 6<sup>th</sup> April, 2021**

S. No.	Name	Designation	Remarks	
			Day 1	Day 2
1.	Dr. Deepak ArunApte	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. MukeshKhare	Member	Absent	Absent
6.	Dr. Ashok Kumar Pachauri	Member	Absent	Present
7.	Dr. V.K Jain	Member	Absent	Absent
8.	Dr. Manoranjan Hota	Member	Present	Present
9.	Sh. R Debroy	Member	Absent	Absent
10.	Dr. Rajesh Chandra	Member	Absent	Absent
11.	Dr. M.V Ramana Murthy	Member	Present	Present
12.	Smt.Bindu Manghat	Member	Absent	Absent
13.	Dr. Niraj Sharma	Member	Present	Present
14.	Sh. Amardeep Raju,	Scientist 'E' & Member Secretary, MoEF&CC	Present	Present
15.	Dr. H. Kharkwal	Scientist 'E' & Member Secretary (CRZ), MoEF&CC	-	Present
16.	Sh. Lalit Bokoloya	Scientist 'F' & Member Secretary (Infra-II), MoEF&CC	-	Present
17.	Dr. Rajesh P Rastogi	Scientist 'C', MoEF&CC	Present	Present