

Environmental and Social Due Diligence Report

Project Number: 47083-004
September 2021

INDIA: Accelerating Infrastructure Investment Facility in India – Tranche 3

Ashoka Ankleshwar Manubar Expressway Private Limited (Part 1 of 24)

Prepared by India Infrastructure Finance Company Limited for the India Infrastructure Finance Company Limited and the Asian Development Bank.

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Due Diligence Report on Environment and Social Safeguards

By

**India Infrastructure Finance Company Limited (IIFCL)
(A Govt. of India Enterprise)**

**Construction of Eight Lane Vadodara Kim Expressway from Km 279.000 to 292.000
(Ankleshwar to Manubar Section of Vadodara Mumbai Expressway) in the State of Gujarat
under NHDP Phase-VI on Hybrid Annuity Mode (Phase IA- Package IV)**







September 2021

SUB PROJECT: Eight-laning of Vadodara Kim expressway from (Ankleshwar to Manubar section) (Km 279+000 to Km 292+000 for a length of 13 km) in the State of Gujarat under NHDP Phase - VI on Hybrid Annuity Mode (Phase IA-Package IV)

M/s Ashoka Ankleshwar Manubar Expressway Private Limited (AAMEPL)

**Environment and Social Safeguards Due-Diligence Report
(ESDDR)**

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PROJECT BACKGROUND

1. PURPOSE OF THE REPORT

This Environmental and Social Due Diligence Report (ESDDR) has been carried out by India Infrastructure Finance Company Limited (IIFCL) in consultation with the Concessionaire, M/s Ashoka Ankleshwar Manubar Expressway Private Limited to assess the adequacy of the project with respect to applicable national, IIFCL's ESSF and ADB's safeguard compliance requirements. The report has been prepared as per the documents/information received from the Concessionaire.

2. SUB-PROJECT TITLE

The sub-project includes - Eight-laning of Ankleshwar to Manubar section of the Vadodara Kim expressway from Km 279.000 to Km 292.000 for a length of 13 km in the state of Gujarat under NHDP Phase - VI on Hybrid Annuity Mode (Phase IA - Package IV).

3. SUB-PROJECT BACKGROUND

National Highways Authority of India (NHAI) has awarded road stretch project comprising construction of eight Lane Vadodara Kim Expressway from Km 279.000 to 292.000 (Ankleshwar to Manubar Section of Vadodara Mumbai Expressway) in the State of Gujarat under NHDP Phase-VI on Design, Build, Operate and Transfer basis [Hybrid Annuity Mode (Phase IA- Package IV)] to Concessionaire M/s. Ashoka Ankaleshwar Manubar Expressway Pvt Ltd. (AAMEPL). AAMEPL has entered into Concession Period of 17.5 Years with NHAI; from COD which includes construction period of 910 days i.e. 2.5 Years and Operation Period of 15 Years. The project is awarded to M/s Ashoka Buildcon Limited on the basis of lowest amount of Bid Project Cost. The total estimated project cost is 1483.06 crores and funds required for the project will be met through a mix of sponsor contribution, construction support from the NHAI and Rupee term Debt.

AAMEPL had entered into a Concession Agreement (CA) with the Authority (NHAI) on 11th May 2018 for construction, operation and maintenance of the Project. The CA sets out the scope, rights and obligations of all the parties, overall framework for the development, operation and maintenance of the Project. As per the Concession Agreement, NHAI will pay 40% of the inflation linked Bid Project Cost in five equal instalments linked to physical progress during the Construction Period. The remaining project cost shall be financed by the Concessionaire through a mix of debt and equity during Construction Period against which; the Concessionaire will receive 30 structured semi-annual annuities from the Authority (NHAI) during the operation period.

4. SUB-PROJECT LOCATION & DESCRIPTION

The site of the eight lane project highway comprises the section of Vadodara Kim Expressway commencing from KM 279+000 to KM 292+000 (Ankaleshwar to Manubar section) in the State of

Gujarat, India. The total design length of the project road is about 13.00 km. The alignment of the project is shown in **Figure 1** below.

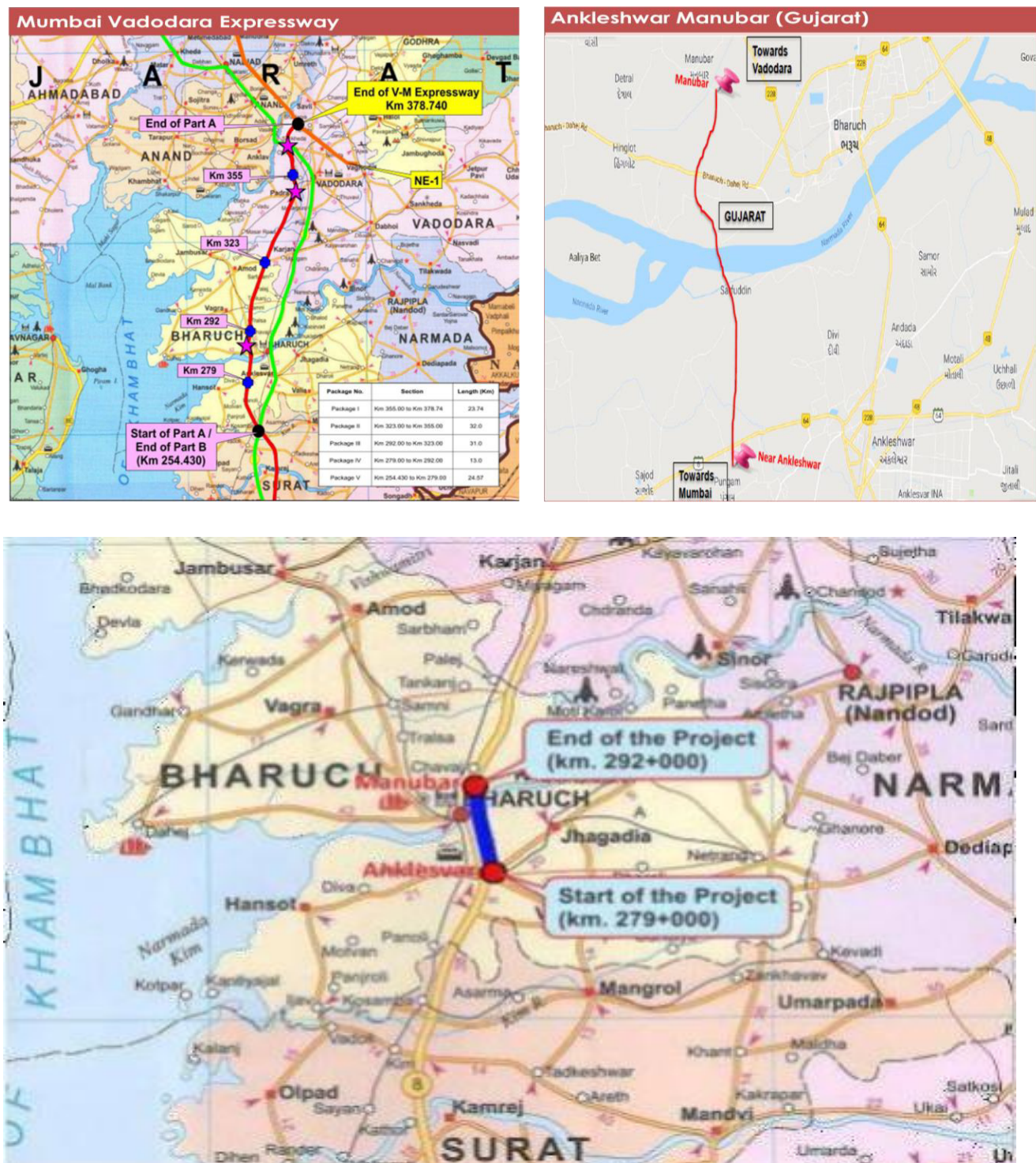


Figure 1: Project Location on Map

The project starts from Hansot-Ankleshwar Road near Ankleshwar and crosses Namada River in Bharuch District. After crossing Narmada, the alignment crosses SH- 6 and leads to Bharuch on the east and to Dahej on the west. Bharuch is a vital industrial hub and Dahej is an important port in the state. The alignment ends just before Jambusar-Bharuch Road which has recently been upgraded to a National Highway (NH 228) near the village of Manubar.

The alignment will pass through settlements of Manubar, Pungam, Diva and Ankleshwar. Additional land shall be acquired for Toll plazas and interchanges. The sub-project will provide the construction of eight lane (Ankleshwar to Manubar Section) of Vadodara Kim Expressway and its Operation and Maintenance (O & M). The paved carriageway shall be 18.75 meters wide (one-way) excluding the median.

The project expressway shall be constructed to 8 lane (from Km 279+000 to Km 287+700) and 6 lane (from Km 287+700 to Km 292+000). It shall have an access controlled expressway configuration with paved shoulders with or without connecting roads. The paved carriageway shall be 30 m wide for 6 lane section and 37.50 m for 8 lane section excluding median.

(Source-PIM Document for the sub-project)

The Salient features of the sub-project are given in **Table 1**.

Table 1: Salient Features of Ashoka Ankaleshwar Manubar Expressway Private Limited

Particulars	Features
Project Road	Vadodara Kim Expressway from Km 279.000 to 292.000
State	Gujarat
Concessioning Authority	National Highways Authority of India (NHAI)
Concessionaire	M/s Ashoka Ankleshwar Manubar Expressway Private Limited
Length	13.00 km
Major Bridge	1
Width of Paved Carriageway 8-Lane	2 X 18.75 m (Excluding median)
Minor Bridge	4
Flyovers	1
Vehicular Underpasses	2
Pedestrian/Cattle Underpass	7
Culverts	35 (24 Box Culverts and 11 Hume Pipe Culverts)
Interchange	1
Light Vehicular Underpasses	4
Special Structure (Major Bridge) over Narmada River	1
Project Facilities	Toll Plaza, ATMS, Noise Barrier, Utilities, Rain Water

	Harvesting, Road Side Furniture, Median and Avenue Plantation.
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Source: LIE report, March 2021

5. CONCESSIONAIRE

NHAI has appointed M/s Ashoka Ankleshwar Manubar Expressway Private Limited (AAMEPL) as the concessionaire for this sub-project. AAMEPL is a Special Purpose Vehicle (SPV) company promoted by M/s Ashoka Buildcon Limited. M/s Ashoka Ankleshwar Manubar Expressway Private Limited (AAMEPL) is a 100% subsidiary of Ashoka Concessions Ltd (ACL/Sponsor), a holding company of road assets of Ashoka Buildcon Limited (ABL). AAMEPL has entered into CA with NHAI on 11th May 2018 for a concession period of 17.5 years from the Appointed Date including construction period of 910 days.

6. EPC CONTRACTORS

M/s. Ashoka Buildcon Limited (ABL) is the EPC contractor and is responsible for the construction and commissioning of project road and related facilities as per the EPC contract with AAMEPL. ABL has sub-contracted the execution of construction of bridge over Narmada River to Arvind Technocrats & Engineers LLP (ATEL). EPC agreement has been signed between ABL and AAMEPL.

7. INDEPENDENT ENGINEER

The contract agreement between NHAI and SA Infrastructure Consultants Pvt. Ltd. has been signed to monitor the sub-project as Independent Engineer (IE). M/s. TPF Engineering Pvt Ltd has been appointed as Lender's Independent Engineer to monitor the sub-project on behalf of lenders consortium.

8. IIFCL FUNDING

The total project cost of this sub-project is Rs. 1483.06 Crore. The project is financed by IIFCL under Direct Finance Scheme. IIFCL has sanctioned an amount of ₹ 200 crore towards AAMEPL and IIFCL has disbursed ₹ 162.20 crores as on 04-06-2021.

9. STATUS OF PROJECT IMPLEMENTATION

The sub-project is under construction and the Scheduled Commercial Operations Date (SCOD) which was earlier 7th June 2021 (based on 910 days from the appointment date of 10th December 2018) has been revised to 02nd January 2022. As per LIE report of May 2021, 87.96 % of physical progress has been achieved as on 31st March, 2021 in AAMEPL sub-project.

Due Diligence on Environmental safeguards

10. ENVIRONMENT SAFEGUARDS COMPLIANCE REVIEW

The environmental due diligence (EDD) report focuses on the status and review of the applicable environmental regulatory requirements, compliance to the regulatory requirements, review of the environment related sub-project documents, implementation to the Environmental Management Plans (EMPs), institutional arrangements for implementation and monitoring of environmental mitigation measures, EMP planned for operation phase, environment, health & safety (EHS) related clauses in agreements, health and work safety measures, status of plantations, safety and emergency preparedness plan. The EDD also reviews the environment & social management system of the sub-project developer.

11. APPLICABILITY OF ENVIRONMENTAL IMPACT ASSESSMENT NOTIFICATION

It is required that the project meets the applicable national guidelines / regulations relating to the environment, occupational health and safety and social issues. The project should have necessary clearances as well as permits and approvals for project implementation and suitable environmental management plans.

The sub- Project is a part of Greenfield expressway being developed by National Highway Authority of India, Govt. of India (GoI) , hence falls in item no 7(f) of the Schedule to the EIA Notification, 2006 and subsequent amendments thereof, Hence requires Prior Environment Clearance from Ministry of Environment ,Forests and Climate Change (MoEFCC) , GOI. In order to obtain prior environment clearance, Environment Impact Assessment Study is also required to be carried out based on approved Terms of Reference by MoEFCC, GOI. The proposed alignment of Vadodara- Mumbai, expressway is passing for a length 1.273 km through CRZ- I(b), CRZ- III and CRZ- IV across river Narmada in Bharuch district of Gujarat..

The Main Expressway passes through the states of Maharashtra, Gujarat and Union territory of Dadra & Nagar Haveli. The total length of the main expressway is about 379 km. The expressway project was divided in 3 phases for execution,i.e. Phase I, Phase II and Phase III. Phase I has been divided in Phase IA and Phase IB and during June 2017, NHAI decided to further sub-divide Phase-IA into 5 packages for execution of project on EPC mode. Therefore, this sub-project is package IV of Phase IA from Km 279+00 to Km 292+00 (Ankaleshwar to Manubar section of Vadodara Mumbai Expressway.

NHAI appointed M/s. Intercontinental Consultants and Technocrats Pvt. Ltd. for preparation of Environmental Impact Assessment study of Phase-I section for development of Vadodara Mumbai Expressway (Phase-I) from Km 104+700 (Km 390+864 of NH-8) to Km 378+722 (Km 80 of NE-1) in the state of Gujarat, Maharashtra and Union Territory of Dadra & Nagar Haveli. Final Environmental Impact Assessment study report of Phase-I stretch for Vadodara Mumbai expressway is attached as **Annexure-1**. NHAI received environmental clearance (including CRZ clearance) for Phase-I (as above mentioned) from Ministry of Environment , Forest & Climate Change (IA-III Division), Government of India as per letter no. F.No. 10-57/2013-1A-III, Dated 11th February 2016 under the Provisions of the

Environment Impact Assessment Notification, 2006 and Coastal Regulation Zone (CRZ) Notification, 2011 and amendments thereto under the Environment (Protection) Act, 1986.

12. APPROACH TO THE ENVIRONMENT SAFEGUARDS DUE DILIGENCE REPORT:

The Environmental Due Diligence Report (EDDR) reviews the available documents and assesses the compliance of the sub-project with respect to environmental safeguards; regulatory clearances; environmental impacts and management measures; EMP implementation; Health, Safety and Environment (HSE) measures; and categorization of sub-project on the basis of above review.

The following documents were referred in order to prepare Environmental Safeguards Due-Diligence Report:

- Project Information Memorandum
- Concession Agreement
- EPC Contract Document
- Detailed Project Report for Phase IA (Package IV), Vol. 1, Main Report, August 2017
- Final EIA study report for Vadodara Mumbai Expressway (Phase-I)
- Environment Management Plan (EMP) and Compliance Report- March 2021
- Compliance status of statutory approvals conditions
- Lender's Independent Engineer (LIE) Report (March and May 2021)
- Project Statutory Approvals/Permits
- Project HSE Documents prepared by Concessionaire & EPC Contractor
- Environment, Safety and Social Management System Manual
- Emergency Response Plan
- Grievance Redressal Mechanism & Records
- Corporate Social Responsibility (CSR) Report (2019-2020)
- Environmental Monitoring Report – March 2021

The environmental safeguard due-diligence study was carried out for the sub-project on the basis of understanding project scope based on information and documents provided by Concessionaire.

On review of the documents / information related to the sub-project, the impacts of the AAMEPL on local environment are envisaged, which are given in section 17 of the ESDDR. The sub-project is mitigating the environmental impacts at the site with various measures. The status of EMP implementation is given in Section 18 of the ESDDR.

13. COMPLIANCE OF AAMEPL TO THE ESSF OF IIFCL:

The Environmental and Social Safeguard Framework (ESSF) provides the enabling mechanism to IIFCL to deliver its policy objectives and applies to projects funded by IIFCL throughout the project cycle. The

ESSF defines procedures, roles, and responsibilities, at various project milestones for managing the adverse environmental impacts.

The environmental due diligence for AAMEPL has been done as per requirements of direct lending scheme. The environmental safeguard risks during construction phase have been assessed and risks during operational phase have been evaluated. AAMEPL is under construction and following the national regulations and guidelines. There does not seem to be any significant risk for either IIFCL or DFI involved. The status of environmental measures being implemented at the sub project is given in **Table 3** and EMP for operational phase of sub-project is given in **Table 4**.

The environmental safeguard due-diligence study has been carried out for the sub-project on the basis on information and documents provided by Concessionaire. It can be concluded that AAMEPL is compliant to the requirements of IIFCL's ESSF under direct lending scheme and has adequate management measures implementation on site.

14. POLICY, LEGAL AND REGULATORY REQUIREMENT:

It is required that the sub-project meets the requirements of appropriate Indian legislations by considering appropriate obligations and guidelines of Regulatory Authorities. The sub project should have necessary national and local environmental clearances as well as permits and approvals for project implementation and suitable environmental management plan should be applied. On this basis, AAMEPL is required to comply with the specific and general conditions of environmental clearance & applicable guidelines relating to the environmental protection, occupational health and safety in addition to complying with local pollution control board regulations. The statutory permits/clearances related to environmental aspects obtained/to be obtained from regulatory authorities as part of AAMEPL development were assessed and current status of availability of such permits/clearances are given in **Table 2** below and enclosed under **Annexure-2**:

Table 2: Status of Regulatory Permits/ Clearances Obtained related to Environmental Safeguards

S.No.	Permits/Clearances	Statutory Authority	Current Status
1.	Environmental Clearance & CRZ Clearance	Ministry of Environment, Forests & Climate Change (MoEF&CC), New Delhi	NHAI received environmental clearance & CRZ Clearance for Phase-I of Vadodara Mumbai Expressway (including 13 km stretch of this sub-project) from Ministry of Environment, Forest & Climate Change (IA-III Division), Government of India as per letter no. F.No. 10-57/2013-1A-III, Dated 11 th February 2016 under the Provisions of the Environment Impact Assessment Notification, 2006 and Coastal Regulation Zone (CRZ) Notification, 2011 and amendments thereto under the Environment

S.No.	Permits/Clearances	Statutory Authority	Current Status
			(Protection) Act,1986. (Sub-Annexure-2A)
2.	Forest Clearance	MoEF&CC , New Delhi and State Forest Department	Not Applicable. The sub-project stretch does not involve any forest land.
3.	Wildlife Clearance	MoEF&CC, New Delhi	Not Applicable The sub-project stretch area does not lie within any ecologically sensitive area and is not located close to any National Park/Wildlife Sanctuary. The location of sub-project does not contravene any international biodiversity or ecosystem conservation conventions. Therefore, it does not require wildlife clearance or permission.
4.	Tree cutting permissions	Mamlatdar office, Bharuch District, Gujarat (Office of District Collector)	Sub-project involves cutting of about 1521 trees during highway construction. Tree cutting permissions have been obtained from concerned Authority (attached as Sub-Annexure 2B)
5.	Consent to Establish	Gujarat Pollution Control Board (GPCB), Gujarat State	Consent to Establish under section 25 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act 1981 was obtained for Ready Mix Concrete (RMC Plant) from Gujarat Pollution Control Board on 17.09.2018 (Sub-Annexure 2C).
6.	Consolidated Consent to Operate & Authorization	Gujarat Pollution Control Board (GPCB), Gujarat State	Consent to Operate in exercise of the power conferred under section 27 of Water Prevention & Control of pollution) Act, 1974, under section 21 of Air Prevention & Control of Pollution) Act 1981 and authorization under Rule 3(C) & 5 (51 of the Hazardous Waste (M & H) Rules 1989 & as Amended up to year 2016 framed under the Environment (Protection) Act, 1986 has been taken by AAMEPL which is valid till 31.12.2023. (Sub-Annexure 2D)

S.No.	Permits/Clearances	Statutory Authority	Current Status
7.	Borrow Area Permissions	Concerned Village Panchayats and Office of Geology and Mining Dept., Taluka -Bharuch & Ankaleshwar, Bharuch District, Gujarat	For borrowing of ordinary earth to be used in road construction, the project developer has obtained permissions from concerned village Panchayats and from office of Geology and Mining Dept. under Gujarat Minor Mineral Concession Rules, 2017. The sample copies of these permissions are given under Sub-Annexure -2E .
8.	Labour License	Regional Labour Commissioner, Vadodara, Government of India	AAMEPL has taken Labour License under Contract Labour (Regulation and Abolition) Act 1970 and Contract Labour (R& A) for 600 workmen in accordance to Rule 29(2) of the said rules (Sub-Annexure -2F).
9.	Employee Compensation Insurance Policy	Insurance provider company	AAMEPL has taken Employee insurance under the requirements of Employee Compensation Act, 1923 & subsequent amendments and Fatal Accidents Act. (Sub-Annexure -2G).
10.	Permission for establishment of Base Camp	Village Panchayat office, Dahegam Village, Taluka & District-Bharuch	AAMEPL has taken permission from Village Panchayat for establishment of Base Camp for which village Panchayat permission has been taken which is attached as Sub-Annexure -2H .
11.	License for possession of Explosive use for blasting purpose And Blasting Permission by use of Explosives	Petroleum & Explosive Safety Organization (PESO), Ministry of Industry and Commerce, Government of India Office of Chief Controller of Explosives	AAMEPL has provided approval taken by Third Party Vendor who has taken permission from the authority for use of explosives under Explosive Rules, 2008. Under the requirements of Explosive Rules, 2008. Third Party Vendor Certificate for blasting operations has been provided by AAMEPL The permission copies are attached as Sub-Annexure- 2 I .

S.No.	Permits/Clearances	Statutory Authority	Current Status
12.	Factory License	Directorate Industrial Safety & Health, Gujarat State	AAMEPL has taken permission from the authority for use of premises as a factory within the limits specified in the plan as approved by Joint Director, Industrial Safety & Health, Surat Region. The permission is attached as Sub-Annexure- 2J .
13.	Permission of operation of DG Set	Office of the Electrical Inspector, Vadodara	AAMEPL has taken permission from the authority (measures related to safety and Electrical Supply) for operation of DG set. The permission is attached as Sub-Annexure -2K .
14.	Permission for storage of petroleum	Office of Controller of Explosives, Petroleum & Explosive Safety Organization (PESO), Ministry of Industry and Commerce, Government of India	AAMEPL has obtained license to store petroleum in tanks by establishment of petrol pump at camp site. The permission is attached as Sub-Annexure- 2L .
15.	Environmental Clearance for Operation of Quarry	State level Environment Impact Assessment Authority, Gujarat	AAMEPL has provided approval taken by Third Party Vendor who has taken environment clearance for the mining of basalt stone. The permission is attached as Sub-Annexure -2M .

15. PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

Formal Public Hearings as part of Environment Clearance Process were conducted to disseminate the project information and to record the views/aspirations of the local people. Apart from formal public hearing, Public consultations were organized in all districts of Maharashtra, Dadra, Nagar Haveli and Gujarat in order to know views of local residents about the proposed expressway project. EIA Consultant organized informal consultations at 21 locations along the alignment. As per EIA report, under section 6.3, for AAMEPL project stretch of 13 km, public consultation was carried out at Kukarwada Village (Chainage 284.5 km) and community consultation was conducted at Manubar village (Chainage 290.5 Km) in Bharuch district.

During these consultations, several environmental and social issues were discussed. Other than organizing public consultations, meetings were held with other stakeholders like officers of several government departments where various dimensions of the project were discussed.

As per the Terms of Reference of EIA study, dated 14th November, 2013 approved by MoEF & CC, the Public Hearings were conducted as per provisions of EIA Notification, 2006 and amendments thereof in all the affected districts as mentioned in Table 6.4 of EIA study. Advertisements for public hearings were published in a local daily and a national daily for all the districts of entire expressway for which paper cutting of advertisements are given in Annexure 6.1 of attached EIA study report.

For AAMEPL project stretch, public hearing was conducted on 24th February, 2014 at Dahegam Gram Panchayat Cricket Ground, Dahegam Village, of Bharuch District in Gujarat state. Public hearing advertisement was published in English daily “Time of India”, dated 24/01/2014 and Gujarati daily “Divya Bhaskar”, dated 24/01/2014.

During public hearings/formal public consultations, project affected persons were consulted throughout the sub-project stretch pertaining to various issues like expressway construction and prospect of resettlement and environmental issues, impacts on surface water bodies, tree cutting, compensation aspects for land acquisition/rehabilitation, environmental monitoring studies. Traffic management aspects, construction of underpasses at relevant points, tolling charges, green belt development, local employment generation, locations of wayside amenities, CSR activities, fly ash utilization in road construction etc. Views, suggestions, comments & objections of public and responses of project proponent regarding issues raised by public have been summarized under Table 6.5 and photographs of public hearing are given in Figure 6.5 of EIA report.

16. ALTERNATIVE ANALYSIS

The analysis of alternatives is one of the most important exercises that needs to be carried out to find the least cost option with regards to socio-economic and environmental consequences to each alternative and the cost attributed to it. The present sub-project is greenfield road alignment.

Under public hearing responses of EIA study, project proponent informed that the alignment alternatives were studied by MORTH in 1992 under an ADB - TA study. Based on this study, an alignment was finalized and a corridor of 600m was frozen by the Govt. of Gujarat which has been followed in general. During EIA study, no alternative were considered for the route since, the Government of Gujarat had already frozen the route for the expressway and declared the same so that very less demolition and acquisition has to be done in the event of the Expressway coming up.

Before awarding the project construction work via bidding process, NHAI again conducted studies for detailed project report preparation under various packages of Vadodara Mumbai Expressway and in August 2017, M/s. ICT prepared fresh DPR for sub-project alignment of Phase IA, Package –IV of

AAMEPL project stretch of 13 km starting from Chainage 279 Km to Chainage 292 Km. DPR copy is attached as **Annexure-3**.

In this DPR, Chapter 17 is related to Economic Analysis which presents economic analysis for establishing viability of the proposed investments in constructing the proposed 6/8 lane access controlled expressway parallel to existing NH-8. The economic analysis identifies the expected tangible and intangible benefits of the above investment with the focus on the reduction in vehicle operating costs, time-savings and other benefits in the influence areas of the proposed project.

The economic analysis is based on the comparison of the total road agency costs and road users' cost under the two scenarios: (i) with project, i.e. construction of expressway; and (ii) without project, i.e. do minimum or no capital investment. The net benefits to the economy out of the investment in the proposed expressway development have been shown to be obtained by comparing the costs between two above-mentioned scenarios. In the present condition, NH-8 is the existing major highways running parallel to the proposed expressway. Therefore existing 6-lane section (NH-8) of these roads is considered as base case. Alternatively in the "with project case" scenario, there will be 6/8 lane expressway running parallel to NH-8, other nearby roads.

The results of economic analysis supported with sensitivity analysis considering the most adverse case show that the proposed intervention in the Project Roads is economically viable and highly desirable for the economic development of the region and macro level as well. Hence, development of the project roads, i.e. the Proposed Expressway should be taken up for implementation without any delay in view of full realization of benefits to the road users and the community along the Project affected area.

The existing NH8 is carrying daily traffic ranging from 93452 to 121908 PCUs and is not access controlled. The average journey speed in some sections of NH8 is as low as 50 kmph. The expressway will be a competing facility for NH-8 and considerable traffic is expected to divert to the expressway apart from the generated traffic due to its better level of service as it is access controlled. The Consultants have carried out comprehensive traffic modeling of the project area taking into account the existing and future roads network, socio economic profile of the area, future development plans in the area and different toll rate scenario etc. Based on life cycle costing, rigid pavement was recommended for the entire length of expressway.

With rapid economic development taking place in the State of Gujarat, there is a need to develop a high speed corridor wherein the movement of large volumes of passenger and goods vehicles can take place at a fast pace. The development of Delhi Mumbai industrial corridor is further going to increase the traffic in the region necessitating augmentation of capacity. The Economic Analysis of the Expressway (Phase IA) indicates that the project is economically viable in base case and worst case Scenario also. It means there will be considerable economic gains in terms of reduced VOC and travel time.

As per EIA report, it is stated that NH8 is carrying traffic in the range of 50,000 to 80,000 PCU per day. It has been developed as 6- lane recently but many of the sections are reaching nearly the capacity volume

of 6 lane NH (120,000 PCU) in the year 2015 itself. Even with six laning or further widening, segregation of long distance and local and / or slow traffic is hard to achieve. Further, since it's a National Highway (not access controlled) and passes through many settlements land availability and displacement of people would be a major concern.

17. IMPACT ASSESSMENT OF SUB-PROJECT

EMP prepared as part of EIA report outlines the impacts of the sub-project. The main impacts envisaged due to various activities at the sub-project are summarised in the paragraphs below:

Impact on Land Environment: The sub-project involves construction of eight lane expressway in the State of Gujarat. During construction phase, the topography at sub-project location will change due to excavation of borrow areas, cuts and fills for project road and construction of project related structures. The impacts are temporary and are manageable with mitigation measures which are given in Section 18.

Impact on Water Resources: The Sub Project is crossing Narmada River. As per the design, no partial loss of water body will take place. Hence, no loss in volumetric capacity of river water resource is envisaged. Minor Impact on surface and ground water resources is envisaged during construction phase due to increased sedimentation load because of construction activities, waste water discharge from labour camps, fuel/oil from construction vehicles etc. However, mitigation measures are taken up to ensure no diversion of waste and any other harmful material contamination in the water bodies. During construction phase, soil laden run-off is also restricted from water bodies and waste management practices are followed for disposal of waste. For fuel/oil, oil collection trays are used at fabrication yard to avoid leakage/spillage. EMP has been proposed to manage these impacts.

Impact on Air Quality: The operation of ready mix concrete plant, and vehicle movements during road construction shall involve generation of dust and release of other pollutants leading to the localised degradation of air quality. Quarterly environmental monitoring is being done and all parameters are within prescribed standards. The vehicles are being covered with proper tarpaulin while carrying construction materials. Also, the RMC plant is provided with canopy and sprinklers on the conveyor to avoid dust emission in the area. For dust suppression, regular water sprinkling is being done. Mitigation measures are in place to manage these insignificant and short-term impacts.

Impact on Noise Environment: Impact on noise environment is envisaged during both construction and operation phases. The baseline noise levels are below the prescribed limits. In construction phase, all DG Sets having acoustic attachments to control noise at source. Also, to avoid the disturbance, working hours and safety measures during execution near to habitation area has been taken. AAMEPL has proactive plant and machinery maintenance schedule to control noise and air pollution.

Impact on Biological Environment: No National Park or Wildlife Sanctuary is located within close proximity of the project road and there is no notified animal corridor/migration route is present in the

project area. No Reserve Forest is located along the project road. About 1521 trees are likely to be affected in construction of expressway for which permissions from the authority have been obtained. No significant impacts on fauna are anticipated at the sub-project. The construction of major bridge over Narmada River can cause some contamination of the water due to spillage of construction material, sediment loading & increased turbidity downstream of the bridge location. This may impact aquatic flora and fauna temporarily. Necessary mitigation measures have been recommended at locations of structure where construction/maintenance is proposed.

Impact on Coastal Environment: The sub-project alignment of Vadodara- Mumbai, expressway is passing across river Narmada in Bharuch district in the State of Gujarat which is regulated under Coastal regulation Zone(CRZ) under the provisions of CRZ regulations, 2011. A length of 1.273 Km (Km 283+800 to Km 285+166) of the Expressway passes through CRZ IB (1.639 ha.), CRZ III (4.434 ha.) and CRZ IV(Water Body-9.05 ha.) in Sakarpura and Kukadwada villages where road will be elevated on viaduct. The land acquisition will be done for 15.22 Ha, however, the area will not be disturbed except for erection of pillars. Under Annexure 3.6 of EIA study report, CRZ status report (October 2015) related to “Delineation of HTL,LTL and CRZ for proposed Vadodara-Mumbai Expressway (VME) crossings at Narmada River (Phase-I),Bharuch ,Gujarat” has been enclosed. NHAI entrusted this work to National Centre for Earth Science Studies, Thituvanathapuram, Kerala and the objectives of the study were related to delineation of HTL and LTL for the proposed area, demarcation of Coastal Regulation Zones and Observation on CRZ Categories. The findings of the study states that the project area does not have any sensitive ecosystems under CRZ IA category such as mangroves, corals and sand dunes. The intertidal zone consisting of the area between the LTL and HTL is CRZ IB , while the water body and the bed are CRZ-IV. Being in an underdeveloped rural area, the CRZ on the landward side of the HTL of Sakarpura Village and Kukkadwada Villages are in CRZ III. The Expressway passes through CRZ IB,CRZ III and CRZ IV in Sakarpura Village and Kukkadwada Villages. The proposed expressway (Phase-I) is approximately 35 km from Gulf of Khambat.

18. IMPLEMENTATION OF ENVIRONMENT MANAGEMENT PLANS

The status of EMP implementation is elaborated in the subsequent section on the basis of information received from the developer. EMP is being implemented at AAMEPL and the status of implementation is being maintained at site and communicated to AAMEPL corporate level as well as to statutory agencies on quarterly basis. The EMP implementation status on the basis of documents/information shared by developer is given in **Table 3**. EMP for the operational phase of the project will be implemented as per **Table 4**.

Table 3: Status of EMP Implementation at AAMEPL (through its EPC Contractor M/s. Ashoka Buildcon Limited-ABL)

Issues	EMP	Responsibility	Status of EMP Implementation
Avenue tree cutting and Median Plantation	<ul style="list-style-type: none"> Prepare an action plan for an estimated 1521 Nos. (Approx.) of trees to be affected/ felled in the project stretch. Intimate Mamlatdar forest office before cutting trees and Prepare action plan for avenue plantation. Avenue Plantation: The avenue plants proposed along the project stretches are as per IRC-SP-21:2011. 	AAMEPL	The contractor has been given target of 13300 no of trees for median and Avenue plantation. Tree plantation is under process. The Avenue plantation program is under progress for the entire stretch, which is targeted to be completed by January 2022. Tree felling permissions have been taken from Mamlatdar forest office, Bharuch.
Borrow pits and Quarry (Stone)	<ul style="list-style-type: none"> NOCs to be taken from the private/Government Owners well before start of work Borrow areas shall be carried out up to depth of 2.0m in non-cultivable & elevated lands, 0.45 m in productive lands etc. with a slope of not steeper than 1 vertical to 4 horizontal. The borrow areas shall be located at least 800 m away from the villages/towns. Resurfacing and landscaping of the borrow pits utilized in the project. 	AAMEPL	<ul style="list-style-type: none"> NOCs for borrow areas are secured from Village Panchayats/Govt authorities. Borrowing of soil carried out as per prescribed conditions and the precautions are taken so as to avoid any type of environment degradation. The locations are selected as per the prescribed conditions. The rehabilitation of borrow area locations is carried out as per the conditions and land owner requirements.
Site for storage and construction camp	<ul style="list-style-type: none"> The project Contractor shall select a Campsite which is duly confirming the labour laws. Storage of HSD will be expected as per the stipulated 	AAMEPL	<ul style="list-style-type: none"> Yes, Maintaining and following instructions as per the standard. Procedure and implemented

	<p>guidelines. Besides these, emergency response plan will be in place towards meeting unforeseen emergencies. Trained personnel will be handling such materials and care will be taken so that spills are abated and in case of spills, immediately they are contained.</p>		<ul style="list-style-type: none"> • HSD stored very safely and secured location • Maintained fire points at required locations • Emergency Response Plan is prepared for Camp Area to cover all type of possible emergency and displayed at prominent locations
Sewerage and solid waste disposal.	<ul style="list-style-type: none"> • For sewerage disposal, septic tanks with soak pits will be provided at campsites. Proper sanitation facilities at the construction workers camp shall be provided • It is envisaged that approximate 200 Kg of domestic solid waste per day will be generated from the workers camps which will be disposed to local villagers for Animal feed. • The solid waste generated due to construction and allied activities would mainly consist of earth materials. These materials will be reused for rehabilitation of borrow area / quarry sites, camp sites and in temporary diversions and slopes. • The solid wastes generated in construction & workers camp will be disposed-off at nearest identified location of disposal / landfill sites of local authority with payments in environmentally acceptable manner. 	AAMEPL	<ul style="list-style-type: none"> • Septic tank with soak pit is provided at campsites. Maintaining and following instructions / guidelines. • Solid waste generated at camp area is collected at camp areas and disposed to local parties. • The construction activities waste generated are disposed off as per the construction waste management best practices.
Traffic management	<ul style="list-style-type: none"> • The project stretch passes through village roads and therefore traffic management arrangement should be done as per IRC guidelines. 	AAMEPL	<ul style="list-style-type: none"> • Traffic Management measures like display of warning signs, placement of traffic control devices like Barricades, NJ

	<ul style="list-style-type: none"> Secure assistance from local police for traffic control during the construction. Safety measures shall also be undertaken by installing road signs and markings for safe and smooth movement of traffic. 		<p>barriers, delineators etc. are taken at major junctions</p> <ul style="list-style-type: none"> Information has been passed on to Concern Police Station and Police Department. Traffic Management measures like display of warning signs, placement of traffic control devices like Barricades, NJ barriers, delineators etc. are taken at major junctions.
Noise level	<ul style="list-style-type: none"> Stationary equipment shall be placed as far as possible from residential areas to minimize noise impacts on the near inhabitants. Construction activities will be strictly prohibited between 10.00 p.m. to 6.00 a.m. near habitation Provision of ear plugs to workers exposed to high noise levels in the project who work in batch mix plants, hot mix plants, quarries etc. 	AAMEPL	<ul style="list-style-type: none"> Proper precautions have been taken during the execution of work at sites and Noise Level Monitoring Reports are submitted to GPCB. Working hours and safety measures during working near to habitation area has been taken to avoid the disturbance. Provided ear plugs to workers exposed to high noise levels in the project.
Air Quality	<ul style="list-style-type: none"> The mean Respirable Particulate Matter (PM10) values shall be within the range of CPCB standard i.e. 100 micro gram/m³ residential/industrial category. However, all the values shall be within the stipulated standards. During construction, a good number of trucks will carry the construction material for which emission of air pollutants will increase. We should see that all the vehicles deployed for construction of the project will 	AAMEPL	<ul style="list-style-type: none"> Quarterly Environmental Monitoring has been done. All parameters of air quality are within prescribed standards. Temporary use of DG sets is ensured with provision of Stacks and acoustic enclosures for restrict air and noise pollution in nearly working areas. Vehicles are being covered with proper

	<p>tested for pollution under control certificate DG sets will also emit air pollutants in the area during construction period. The emission generated during Construction will be temporary and localized in nature.</p> <ul style="list-style-type: none"> • Vehicles carrying construction material shall be covered to avoid spilling. • Ready Mix plant shall be over 500m away from Residential neighborhood and 300m away from the road. • Mixing equipment shall be seated and equipped with dust removal device. • Water will be sprinkled in morning and evening hours at the construction yards and the unpaved sections of the road. 		<p>tarpaulin while carrying construction materials.</p> <ul style="list-style-type: none"> • RMC plants are more than 500m away from the habitat nearby • The RMC plant is provided with canopy and sprinklers on the conveyor to avoid dust emissions in nearby area • Water sprinkling is being carried out on regular basis for dust suppression.
Water Quality & Solid Waste disposal	<ul style="list-style-type: none"> • Prior permission of the concerned engineer and regulatory authorities shall be taken regarding the discharge or disposing of any material arising from the execution of the works. • During construction, it will be ensured that contractor does not dispose off debris in water bodies. • Soil laden run off will not be diverted to water bodies. • Provision of waste disposal site for waste from construction and storage yards shall be made. • Vehicle maintenance and refuelling will be confined to areas under construction yard to trap discarded lubricant and fuel spills. 	AAMEPL	<ul style="list-style-type: none"> • Permission from Gujarat State Pollution Control Board has been obtained for carrying out the construction work and GPCB has granted CTE and CTO approval to project. • Construction waste disposal methodology is in place and Precautions are taken during execution. • Soil laden run-off restricted from water bodies. Waste Management Practices are followed for disposal of waste • P&M Maintenance shed construction is done at base camp site. • Oil Collection trays are used at

			fabrication yard
Occupational Health and Safety	<ul style="list-style-type: none"> • Labors shall be equipped with proper safety gears like helmets, gloves and gum boots. • Periodic health checkup of construction workers 	AAMEPL	<ul style="list-style-type: none"> • PPEs has been provided to all workers during construction work . • Periodic Health Checkup is conducted as per schedule.
Basic amenities And sanitation facilities for labors	<ul style="list-style-type: none"> • Adequate sanitary facilities shall be provided to the workers to avoid health related problems. • Sanitation Waste from workers camp will not be diverted to water bodies. • Periodic health checkup of labors shall be done. • Public health utilities plan for the workers camp and other working sites, which make adequate provision for safe disposal of all wastes and prevention of spillages, leakage of polluting materials etc. • Contractor will be required to pay all costs associated with cleaning up any pollution caused by their activities and to pay full compensation to those affected. 	AAMEPL	<ul style="list-style-type: none"> • Welfare facilities are provided to the workers and labour such accommodation, drinking water, sanitary, Canteen, lights and first aid facility. • Periodic Health Checkup has been conducted as per schedule • Waste Management practices are implemented as per standard operating procedures was in place and implemented during the execution • Necessary measures had taken during the execution and construction phase to avoid any type of pollution.
Fuel for Labors	<ul style="list-style-type: none"> • Adequate supply of fuel (LPG) shall be provided to the labors to avoid felling of trees for cooking and other domestic chores 	AAMEPL	<ul style="list-style-type: none"> • LPG used for domestic purpose at canteen area.
Prevention of erosion	<ul style="list-style-type: none"> • Stabilizing the embankment with appropriate technique immediately after placing. 	AAMEPL	<ul style="list-style-type: none"> • Soil erosion measures like turfing, slope protections coir mat are provided

and scouring	<ul style="list-style-type: none"> The high embankment slopes near to the major bridges are washed out or weaken and the same shall be strengthened. Treating high embankment slopes with rip rap, stone pitching or other technologies to prevent erosion. Construction of RCC/Box drain all along the road on both sides. Avoiding obstruction of existing drainage during filling. 		<p>at site to avoid soil erosion.</p> <ul style="list-style-type: none"> The high embankment areas are provided with boundary wall and provided with soil protection coir mats to avoid any type of runoff. Measures are taken at site for strengthen high embankment slopes by providing Turfing. RCC Box drains are provided from both site of Road at the locations as per the concessions agreement. Environment friendly methodology is adopted to avoid obstruction of existing drainage during filling.
Drainage system	<ul style="list-style-type: none"> Adequate care has been taken for the purpose of free flow of flood discharge in the design stage itself. The Construction of new bridge, Proposed Vehicular Underpass proposed along the project corridor to allow free flow of the natural drainage water in the area. Construction of RCC/ Box drain along the road on both the sides. Avoiding obstruction of existing drainage during filling. 	AAMEPL	<ul style="list-style-type: none"> Construction of structure is done as per the approved design. RCC Box drain construction work at required locations on the road is done are the work scope The drains were cleaned and ensured that there is free water flow.
Conservation of Eco-Resources	<ul style="list-style-type: none"> To preserve earth borrowing areas, piling, and building temporary camps are prohibited in forests lands. Arable lands should not be used as earth 	AAMEPL	<ul style="list-style-type: none"> No Forest areas covered at entire project stretch for camp and Borrow areas. Borrow areas are selected as per the standard requirement and

	<p>borrowing whenever possible. If needed, the topsoil (30cm) should be kept and refilled after construction is over to minimize the impact on ecosystem and agriculture.</p> <ul style="list-style-type: none"> • Construction workers should be told to protect natural resources and wild animals. • Construction vehicles should run at temporary accesses to avoid damaging arable lands and cattle-raising lands. 		<p>rehabilitation measures are taken for land development</p> <ul style="list-style-type: none"> • Trainings are carried out for construction workers for the awareness • Trainings are conducting to all operators for safe and environment friendly use of machinery.
Communication and Transportation	<ul style="list-style-type: none"> • Local materials should be used as much as possible so as to avoid long distance transportation that of earth, sand and stone. • If there is traffic jam during construction, measures should be taken to move the jam with the coordination of transportation and public security department. • Temporary access should be built at the interchange of the highway and other roads. • Passing time on National Highways will be limited, similar measures will also be applied to roads with traffic jams. • Materials may be delivery in advance in relatively leisurely season of traffic. • A transportation plan of materials will be formulated to avoid delivery of materials at peak hours on existing roads. 	AAMEPL	<ul style="list-style-type: none"> • Borrow Areas are selected from nearby locations confirming to the work requirements. • proper coordination with local authorities has been done and made system arrangements during construction phase. • The vehicular traffic is guided with the help of traffic control devices and installation of road furniture at required locations. • Measures are taken for on time delivery of material • The transportation routes are decided as per the plan and also the temporary routes are levelled for smooth movement of heavy vehicles.
Utilization of Fly Ash	In the proposed project, There are Chandrapura and Bhokaro Thermal Power Stations and Bokaro power stations are proposed which fall within 50 Km from the	AAMEPL	<ul style="list-style-type: none"> • Pond ash and copper slag is utilized in project road construction, which is taken from Hindalco Industries

	project corridor. Hence, Utilization of Fly Ash in the project is estimated to be 10 lacks cubic meter provision made as per the IRC SP: 58 2001 and Fly ash Notification 2007 and the subsequent amendments in 25th March, 2015.		Limited which is 31 km away from the project site. <ul style="list-style-type: none"> The fly ash/pond ash is utilized as filling material for construction activities.
Surplus earth/ Muck disposal	<ul style="list-style-type: none"> Top Soil: Top soil of 15cm will be carefully stripped and utilized as top layer in median filling and / or embankment slopes prior to turfing for restoration of temporary sites, etc. Excavated Materials: Suitable excavated materials will be reused in road embankments formation. The non- usable material will be utilized for reclamation / rehabilitation of quarries and borrow pits or can be used to fill the depression. 	AAMEPL	<ul style="list-style-type: none"> Top soil is carefully removed before excavation of Borrow area and later the soil is filled on the surface for further use.

EMP for operation phase has been proposed as given in **Table no. 4** below.

Table 4: Proposed EMP for Operation of AAMEPL

Impact/Issues	EMP	Responsibility	Monitoring indicators
Noise	<ul style="list-style-type: none"> Multi layered plantation to serve as mitigation option for operation phase Effective traffic management and good road condition shall be maintained to reduce the noise level Speed limitation and honking restrictions may be 	AAMEPL	<ul style="list-style-type: none"> On site observations Records of safety week

Impact/Issues	EMP	Responsibility	Monitoring indicators
	<p>enforced near sensitive locations.</p> <ul style="list-style-type: none"> • Create awareness in locals and drivers through programmes 		
Embankment protection	<ul style="list-style-type: none"> • Periodic maintenance of stabilizing measures at embankments like turfing etc. 	AAMEPL	On site checks & observations
Water logging	<ul style="list-style-type: none"> • Regular maintenance and cleaning of drains 	AAMEPL	On site checks & observations
Maintenance of Safety	<ul style="list-style-type: none"> • Traffic control measures to be enforced strictly • Monitor and ensure that all safety provisions included in design and construction phase are properly maintained • Highway patrol units for round the clock patrolling to be available at site • One ambulance to be available at toll plaza • One tow-away facility for the break down vehicles 	AAMEPL	<ul style="list-style-type: none"> • Safety signage to be displayed and maintained at site • Accident incident reports to be maintained at site
Avenue / Median Plantation & Maintenance	<ul style="list-style-type: none"> • Avenue plants are proposed along the project stretches as per IRC-SP-21:2011. • The avenue plants proposed to be planted on either side of the road in multiple rows. • Planted trees and shrubs in Avenue and Median Plantation to be properly maintained • Tree survival list to be maintained for plantation effectiveness 	AAMEPL	<ul style="list-style-type: none"> • Records of trees planted to be maintained at site • Survival records to be maintained at site
Redressal of public grievances	<ul style="list-style-type: none"> • AAMEPL shall maintain a complaint register at toll plaza • AAMEPL shall define a mechanism to handle and manage grievances raised by road users, project affected persons and employees/workers including 	AAMEPL	<ul style="list-style-type: none"> • Complaint Record register

Impact/Issues	EMP	Responsibility	Monitoring indicators
	<p>those of sub-contractors.</p> <ul style="list-style-type: none"> • AAMEPL shall send copy of the register to Concessioning Authority and Independent Engineer 		

Project developer has prepared Environmental Management Plan for sub-project stretch road construction , which is attached as **Annexure-4**. The EMP compliance status for March 2021 along with photographic proof is also enclosed in the end of this EMP document. Details of solid waste management practices and utilization of solid waste materials in road construction of package-IV ,i.e. pond ash and copper slag quantities are also attached as **Annexure-5 & 6**.

Project developer is regularly monitoring & reporting the compliance status to regulatory authorities w.r.t. conditions stipulated under different statutory approvals obtained for the sub-project road construction. The six-monthly environmental compliance report (attached as **Annexure-7**) for EC letter conditions for the period of August 2020-January 2021 has been prepared by project developer which is submitted to NHAI (Independent Engineer) for onward submission to MoEF & CC. Site photographs demonstrating environmental management measures taken by Concessionaire/EPC Contractor are also included under abovementioned six monthly compliance report. The compliance status of CCA-CTO authorisation has been regularly submitted to regional office of Gujarat Pollution Control Board, which is attached as **Annexure-8**, and submission of Annual Environmental Statement (Form-V) to GPCB for the period of 2019-2020 is also attached as **Annexure-9**.

19. ENVIRONMENT AND SAFETY RELATED CLAUSES IN CONCESSION AGREEMENT

NHAI signed concession agreement during May 2018 with Ashoka Ankaleshwar Manubar Expressway Pvt. Ltd. (AAMEPL), concessionaire for this project under Public Private Partnership in Highway Development. Under Article 4 of condition precedent required to be satisfied by the authority, the concessioning agency/ authority will procure for the concessionaire ,the right of way to the site, procure all applicable permits related to environmental protection, & conservation in respect of land forming part of the right of way under clause 10.3.1 and 10.3.2, and procure forest clearance for and in respect of land forming part of the right of way including approval of the General arrangement drawings. Under Clause 4.1.3., the conditions precedent of concessionaire are given which require the concessionaire to procure all the applicable permits specified in part-I of Schedule-E.

As per article 5 under obligations of Concessionaire in concession agreement, the concessionaire shall comply with all applicable laws and applicable permits (including renewals as required) in the performance of its obligations under this agreement as per clause 5.1.2. Under clause 5.1.3 , the Concessionaire shall discharge its obligations in accordance with Good Industry Practice at all times.. Clause 5.1.4 mentions that Concessionaire shall ensure and procure that its contractors comply with all applicable permits and applicable laws in the performance by them of any of the Concessionaire's obligations under this agreement. Article 17 is related to Operation and Maintenance Phase of Highway operation and details out O&M obligations of the Concessionaire. During operation phase, concessionaire by itself or through its O&M Contractor will comply with applicable laws and applicable permits, conform to specifications, standards and Good Industry Practices and comply with safety requirements in accordance with Article 18.

Safety requirements are given under Article 18 in which it is again specified that the Concessionaire shall comply with the provisions of this agreement, applicable laws and applicable permits and conform to good industry practices for securing the safety of the users. In particular, the Concessionaire shall develop, implement and administer a surveillance and safety programme for providing a safe environment on or about the project highway, and shall comply with the safety requirements set forth in Schedule-L. Compliance for obtaining applicable permits under applicable laws has also been specified in Schedule -E of Concession agreement. As per the schedule- L of CA, safety requirements apply to all phases of construction, operation and maintenance with emphasis on identification of factors associated with accidents, consideration of the same, and implementation of appropriate remedial measures. The concessionaire shall abide with applicable laws and applicable permits, manual for safety in road design, issued by MORTH, relevant standards/guidelines of IRC relating to safety of road and associated facilities, in accordance with the provisions of CA and good industry practices relating to safety of users. NHAI shall appoint an experienced and qualified firm or organization as a safety consultant for the project for carrying out safety audit of the project highway in accordance with the safety requirements. The Safety Consultant shall employ a team comprising, without limitation, one road safety expert and one traffic planner to undertake safety audit of the Project Highway. Concession agreement (Parts –I,II & X covering the mentioned covenants) for this project is attached as **Annexure-10**.

20. ENVIRONMENT AND SAFETY RELATED CLAUSES IN EPC CONTRACT

Ashoka Ankaleshwar Manubar Expressway Pvt. Ltd. (AAMEPL), the concessionaire has awarded the EPC works for this project to Ashoka Buildcon Limited and contract agreement between both the parties was signed on 20th June, 2018. The EPC Contract (Part 1 & 2) for this project has been attached as **Annexure-11**.

As per EPC Contract, Under Article-4, sub-clause 4.7 related to Clearances, it is mentioned that the EPC Contractor shall be responsible for all the clearances listed in Schedule-E and /or any other clearances, permits and permissions required as per applicable Laws and necessary for design and execution of works. Under Clause 8.2, it is mentioned that it shall perform the works using Good Industry practice and accepted professional standards, codes of practice and regulations which are consistent with the agreement. As per clause 8.4, the EPC Contractor shall take full responsibility for the adequacy, stability and safety of all on-site and off-site operations and methods of manufacture, construction, transportation, installation and commissioning and testing and shall be fully responsible for the design of any parts of the works.

Under Article-11 related to project implementation, it is mentioned that EPC Contractor will prepare Construction Management Plan which shall include an environmental management plan pertaining to the construction activities of the project. The EPC Contractor shall be responsible for any compliance with the environmental management plan pertaining to RoW and other report as envisaged by Authority/Project company. Construction Management Plan will also have traffic management plan, safety management program including an emergency response protocol, maintenance plan for quarry & haulage road and obtain all such applicable permits (clause 11.12) which are necessary for the construction to commence the execution of the works of the project.

During engagement of labour (clause 13.10), the EPC Contractor shall be responsible for making all the arrangements for the payment, feeding, housing and transport of all labour, local and otherwise, skilled and unskilled. The sub-clause 13.10.3 related to compliance with statutes and statutory declaration, in the employment of workmen for the execution of the works, the EPC Contractor shall comply and shall require its employees, sub-contractors, suppliers and its representatives (wherever applied) to comply without limitation with all requirements of applicable labour laws of India relating to the employment of workmen. EPC Contractor is responsible for the compliance by its subcontractors/Suppliers of all applicable laws relating to its works. Under Article 14, sub-clause-14.2, The EPC Contractor shall at its cost and expense, purchase and maintain Contractor's all risk insurance, third party liability insurance and workmen's compensation insurance etc.

Under Article-16 related to project site safety and security, the EPC Contractor will comply with all environmental requirements stipulated in the project requirements and with all the environmental laws and regulations having application to the project, including but not limited to standards for noise and vibration levels and airborne and waterborne pollutants. The EPC Contractor shall provide a person at the project site to act as Environmental Compliance Manager to take care of the Environmental issues pertaining to the construction activities. Before the date of issue of notice to proceed; the EPC Contractor shall submit to the project company

for approval of a plan related to project site safety plan and also appoint a suitable qualified and experienced person as project site safety officer, to act as manager of the project site safety plan and be responsible for all safety matters related to the works.

21. EMP IMPLEMENTATION BUDGET

As part of the project implementation, detailed EMP measures have been suggested including a budget of Rs. 15.64 Crores for VM Expressway (as given in chapter 8 of EIA Report) during construction and operation phase for implementing the same. M/s. AAMEPL has shared EMP Budget (**Annexure-12**) of Rs. 2.01 crores for the expenditure done on HSE aspects at project site during the year 2019-2020.

The EMP budget exclusively includes the following measures:

- Environmental Quality Monitoring during construction and operation Phase including vehicle exhaust monitoring during operation phase;
- Median and Road side Tree plantation and maintenance during Construction & Operation Phase;
- Borrow area rehabilitation
- Safety signs during construction & operation phase;
- Safety provisions at construction sites including PPEs for laborers;
- Water sprinkling and cover for vehicles transporting construction material during construction for air pollution control measures;
- Waste collection, segregation and disposal;
- Provision for Environment and safety management staff
- HSE Training and awareness activities
- Health, Safety and Environment Management Measures in the construction camps;
- Environmental Enhancement Measures during construction and operation phase

22. ENVIRONMENTAL QUALITY MONITORING

Monitoring of environmental quality during construction and during operation reflects the success of implementation of the mitigation measures and it also provides a chance to review the suggested measure and improve upon the measures. The environmental monitoring is primarily the responsibility of the EPC contractor. EPC Contractor- Ashoka Buildcon Limited (ABL) has outsourced the job of environmental monitoring to an Environmental Laboratory namely M/s. CCS Enviro Control LLP based at Rajkot. The Environmental Monitoring reports for project sites for the period of March-April 2021 are enclosed as **Annexure-13**. As informed by project developer, Frequency of ambient air quality, noise level monitoring, water quality & stack monitoring has been kept on quarterly basis. As per the report attached, the levels of environmental quality parameters are within the permissible limits as per Indian standards, at plant locations.

23. INSTITUTIONAL FRAMEWORK FOR EMP IMPLEMENTATION

The project institutional framework as given in the project EMP indicates that the overall implementation responsibility of the EMP lies with the Project Implementation Unit (PIU); Project Director at PIU is supported by the Environment Officer of NHAI. NHAI has appointed the safety consultant for carrying out safety audit of the project highway in accordance with the safety requirement and shall take all other actions necessary for securing compliance with safety requirements. During execution of works, the concessionaire & EPC contractors have taken reasonable steps to protect the environment on and off the site and avoid damage or nuisance to persons or to property of the public or other resulting from pollution, noise or other causes arising as a consequence of their method of operation. Environment & Safety Plans has also been prepared for this project which is implemented by concessionaire and EPC Contractor at project site. Chief Project Manager at Concessionaire company (SPV) reports the HSE implementation status on periodic basis to Team Leader of Independent Engineer appointed by NHAI. From the concessionaire end, the Chief Project Manager through his Environmental Officer and package/section wise HSE Engineers of the contractor take care of the implementation of the Environment, Safety and labor related aspects. Chief Project manager of EPC Contractor is responsible for implementing the EMP during all phases of construction and ensures that all subcontractors are aware of and comply with the EMP. The monitoring of environmental aspects being implemented by the contractor is regularly monitored by Concessionaire's Environment cum Safety Expert who visits the site to monitor the compliance of EMP implementation. HSE Organogram for SPV and EPC Contractor has been attached as **Annexure-14**.

24. HEALTH , SAFETY AND ENVIRONMENT (HSE) MANAGEMENT SYSTEM AT PROJECT SITE

AAMEPL (Concessionaire-SPV) has its own Environmental, Safety and Social Management System Manual (ESSMS Manual), which is applicable at its projects. ESSMS Manual has been attached as **Annexure-15**. The ESSMS manual of SPV elaborates the organizational structure roles and responsibilities of HSE staff; Environmental management at project sites, traffic safety and management practices; work place safety etc. AAMEPL follows the safety guidelines and conducts safety training programmes as defined in the procedures and records for the same are maintained at the sub-project site. First aid boxes and fire fighting systems are maintained at sub-project camp sites.

ABL (EPC Contractor) has an Emergency Response Plan (**Annexure 16**), which provide the organizational guidelines and directions to ensure fast and effective response in any emergency situation in order to save life, property and environment. The document provides details of emergency response team and responsibilities, pre-emergency planning procedures, different formats for emergency reporting and emergency contact details. Mock drills are being carried out for fire fighting & safety trainings to security guards, drivers, operators and other staffs. The details of mock drills and records of HSE related trainings (along with photographic proof) carried out by EPC Contractor are given in **Annexure -17 & Annexure-18**.

Median and Avenue tree plantation plan including drawing (attached as **Annexure-19**) has been shared by AAMEPL which will be implemented by SPV through its EPC Contractor. The plantation plan has been approved by Independent Engineer of NHAI which makes provision of total number of trees to be planted as 13300 number instead of 12016 number of trees as per earlier provision of Schedule-C of CA. Project developer has informed that plantation of 13300 saplings is targeted to be completed by January 2022.

Ashoka Buildcon Limited (EPC Contractor) has also taken precautions and safety measures as per COVID-19 Guidelines at road construction site and its premises. The details are attached as **Annexure -20**.

25. GRIEVANCE REDRESSAL MECHANISM

AAMEPL has devised guideline for Grievance Redressal Mechanism (GRM) as part of ESSMS Manual. Provision of Grievance Redressal cell has been given under GRM. The cell has representation from SPV, Sub-contractor and local administration.

Project developer has confirmed that they are maintaining a register for recording of grievances. Record of any grievance or demand received from locals is maintained in grievance register at the site office. Details regarding grievances received during recent months and redressal status has been shared which is attached as **Annexure- 21**.

As per Article 40 of Concession Agreement related to redressal of public grievances, under clause 40.1, it is mentioned that Concessionaire shall maintain a public relations office at site where it shall keep ('the Complaint Register') open to public access at all times for recording of complaints by any person ('the Complainant'). Information relating to the availability of access to the complaint register shall be prominently displayed by the Concessionaire at each of the site so as to bring it to the attention of all users. Under clause 40.2, related to Redressal of Complaints, the Concessionaire shall inspect the complaint register every day and take prompt and reasonable action for redressal of each complaint and within seven days of close of each month, the Concessionaire shall send to the authority and to the Independent Engineer the true photocopy each of all the pages of the complaint register alongwith redressal details.

26. ENVIRONMENTAL SENSITIVITY

The environmental sensitivity of AAMEPL has been assessed by reviewing various documents, and telephonic discussion done with the project developer team.

The environmental sensitivity assessment is given below:

- The sub- project stretch is passing through plain terrain.
- The sub-project sites are not located in any protected area like wildlife sanctuary / national park or in close proximity of any notified eco-sensitive area.

- Approximately 1521 numbers of trees are cut at the sub-project and tree cutting permissions were taken from concerned authority.
- There are no archeological monuments and cultural or heritage sites falling within corridor of impact for this sub-project;
- The sub-project has the necessary approvals and permits from regulatory authorities.
- The impacts of the sub-project are temporary in nature and are manageable with EMP implementation.
- Periodical environmental monitoring and environmental management during the project implementation is being carried out by the concessionaire and its EPC Contractor.
- Public consultations were conducted during the environmental studies to disseminate the project information and to record the views/aspirations of the local people along the sub-project stretch in Bharuch district

27. PROJECT AGAINST THE PROHIBITED INVESTMENT ACTIVITIES LIST

The sub - project does not involve any prohibited activity as per the Prohibited Investment Activities List (PIAL) of ADB.

28. CATEGORIZATION OF SUB-PROJECT

The sub-project can be classified as Category B based upon ADB's EA requirements as per their Safeguard Policy Statement (2009). This classification is based on the review of the available documents with respect to the environmental sensitivity due to project activities.

29. SITE VISIT STATUS

During preparation of safeguards due-diligence report, site visit could not be undertaken by IIFCL staff due to COVID-19 Pandemic. Site visit by IIFCL staff will be taken up when the COVID-19 situation improves and it is conducive and safe for IIFCL staff to conduct a site visit. On IIFCL request, Project developer has shared photographs of site activities, which also includes audit observations related to HSE implementation & closing photographic evidences at project site. Site activities photographs are attached as **Annexure-22**.

30. DISCLOSURE

The final ESDDR after approval from the ADB will be uploaded for public disclosure in ADB and IIFCL's website.

31. CONCLUSIONS AND RECOMMENDATIONS

Based on the review of the available information, it can be concluded that the concessionaire AAMEPL through its EPC contractor has undertaken adequate environmental safeguard measures and complying with the statutory requirements as per the national and state guidelines and regulations. AAMEPL is committed to protection of the environment while performing its activities. The 13.00 km road project in the State of Gujarat is unlikely to pose any adverse environmental risks given the nature of the activities.

There are no legally protected areas, cultural heritage sites and forest land located within and/or in close proximity to the sub-project. Moreover, the sub-project activities have reversible environmental impacts, which have been managed by suitable environmental management measures for which different documentary records have been shared by project developer.

Based upon the review of available documents, it is concluded that the concessionaire has undertaken adequate environmental safeguard measures. The conclusions for the sub-project are given below:

- The sub-project has been developed by NHAI as per its own mandate and not in anticipation to ADB involvement;
- The sub-project has necessary national and local level environmental clearances as well as statutory permits and approvals for project implementation as given under Annexure-2;
- The sub-project does not affect any notified eco-sensitive zones and also, the sub-project does not pass through any national park or wild life sanctuary area.
- No historical or archaeologically important monuments are affected due to this road project;
- The sub-project is new expressway developed as Greenfield eight lane expressway.
- The sub-project stretch (package-IV) does not involve diversion of forest land. Due to road construction, total 1521 numbers of trees have been cut for RoW Clearance for which, the concessionaire/EPC Contractor has been given plantation target of 13300 number of trees to be implemented by January 2022 under approved Median & Avenue plantation Plan.
- Concessionaire has confirmed that all statutory environmental clearances /approvals /consents are obtained prior to commencing with the works in those relevant road sections or with operation of those construction equipment; and are renewed subsequently as per the requirements
- Concessionaire has confirmed that continued compliance has been carried out by the facility owner and the civil works contractor with the terms and conditions stipulated for according statutory environmental clearances /approvals /consents;
- Institutional arrangement is also being done for regular environmental management and monitoring during the project implementation by the EPC Contractor;

- The concessionaire is maintaining safety at the site as per the management plans. The EMPs are undertaken to minimize any significant negative impact on environment.

Based on documentary evidence provided by the Developer and its assessment, it can be deduced that the sub-project has no significant environmental safeguard issues and the sub project is meeting the compliance requirements of ADB's Safeguard Policy Statement (SPS), 2009. The sub-project, therefore, does not appear to involve any kind of reputational risk to ADB funding on environmental safeguards.

DUE DILIGENCE ON SOCIAL SAFEGUARDS

32. PURPOSE OF THE SOCIAL SAFEGUARDS DUE DILIGENCE:

The Social Safeguards Due Diligence Report (SSDDR) has been carried out by India Infrastructure Finance Company Limited (IIFCL) in consultation with the Concessionaire, Ashoka Ankleshwar Manubar Expressway Private Limited (AAMEPL) to assess the Social safeguards compliances of the project with the applicable National Policies. The report has been prepared as per the documents/information received from the concessionaire. In order to be eligible for funding under ADB line of credit, IIFCL has prepared the Social Safeguards Due Diligence Report (SSDDR) for the sub-project AAMEPL. Due to ongoing Covid-19 Pandemic situation and resulting restrictions, site visit couldn't be planned. Site visit will be taken up once the situation improves and conducive for the staff to travel.

33. OBJECTIVE OF SOCIAL SAFEGUARDS DUE DILIGENCE:

Social Safeguards due diligence study is carried out to assess the social safeguards monitoring compliance status of the project with regards to applicable National policies/procedures as per the information received. The main objective of this Social Safeguard Due Diligence Report (SSDDR) is:

- To assess the likely social impacts and its minimization/mitigation majors adopted for the project with respect to land acquisition, compensation, Indigenous people affected, involuntary resettlement and common properties resources affected, if any, in terms of displacement, loss of incomes, and community links:
- To ascertain, in case of any adverse impact, if appropriate mitigation measures have been taken during the project planning, designing and frameworks established for carrying out safeguard measures during the construction stage to minimize and mitigate such if any adverse impacts.

34. APPROACH AND METHODOLOGY:

The Social safeguard due diligence study for Ashoka Ankleshwar Manubar Expressway Private Limited (AAMEPL) has been carried out after reviewing the documents made available by the subproject developer. On discussion with the project developer and review of various permits and approvals relating to the project to understand the salient features of the project and social concerns. The following documents/Reports/Licenses/permits and notifications were referred in order to prepare the Social Safeguard Due Diligence Report:

- Detailed Project Report
- Right of Way (RoW)
- EPC Agreement
- Lender's Independent Engineer (LIE) Reports (March & May 2021)

- Labour License & Workman Compensation insurance
- HSE Training Manual
- Corporate Social Responsibility (CSR) Report
- Site Pictures and CSR Photos

35. PROJECT AGAINST THE PROHIBITED INVESTMENT ACTIVITIES LIST:

The sub project does not involve any prohibited activity as per the Prohibited Investment Activities List (PIAL) of ADB.

36. SOCIAL IMPACT OF THE PROJECT:

36.1 Land Acquisition in the Project

Land acquired for the project is done as per NH Act 1956. As per May 2021 LIE report, Total land required for the project is 225.2573 Ha. As on date, 100 % land is in possession of the Authority, which has been handed over to the Concessionaire AAMEPL through the RoW Hand over letter.

Land acquired for the project is done as per NH Act 1956. Compensation is being paid as per The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013.

Land acquisition process was initiated prior to IIFCL's involvement and not in anticipation of ADB financing. Since the land acquisition was not in anticipation of ADB or IIFCL financing, ADB SPS on involuntary resettlement does not apply. Further, as confirmed by the project developer there is no rehabilitation and resettlement in the project.

36.2 Impact on Structure

The sub-project falls in Bharuch District in the state of Gujarat. Most of the section of project road is passing through plain terrain. During the discussions over phone and through mail it was informed by the concessionaire that no structure is affected due to the project. Further, as confirmed by the project developer there is no physical or economical displacement of people.

36.3 Rehabilitation and Resettlement impact in the sub-project

As confirmed by the project developer, there is no rehabilitation and resettlement impact in the project.

36.4 Impact on Indigenous people

As confirmed by the project developer there is no indigenous people in the project.

37. GRIEVANCE REDRESSAL MECHANISM FOR THE SUB-PROJECT:

As confirmed by the project developer, that the project authority has formed their own institutional arrangements to deal with local complaints/grievances at project site to resolve issues/ concerns at project level. AAMEPL has informed that grievances, demands and complaints of the local people are handled by the site Liaison Team.

During the discussions it was informed, that Grievance Redressal Committee (GRC) has been constituted at the project site to ensure that the affected person's grievances, on both environmental and social concerns, are adequately addressed. As informed by the project developer that a grievance register is being maintained at site for taking up complaints/concerns, however no grievance/complaints have been received.

Redressal of Public Grievances will be done during operation phase as per Article 40 of the Concession Agreement. The Concessionaire has to maintain complaint register at the toll plaza for recording public grievances.

38. EMPLOYMENT GENERATION:

Approx. more than 50 Locals are engaged for skilled/Semi-Skilled & Non Skilled activities. During the discussions it was told that employment opportunities are being provided to the local people for various skilled, unskilled and semi-skilled activities like, Electrician, Security Guards and Office Assistants, Driver, boatmen, material testing in laboratory, site supervisors, labours etc.

39. LABOUR LICENSE OBTAINED BY THE SUBPROJECT DEVELOPER:

The EPC Contractor M/s Ashoka Buildcon Ltd. has received the Labour license from the Licensing Officer and Regional Labour Commissioner, (Central), Vadodara, Gujarat, Govt. of India, Ministry of Labour & Employment.

The EPC Contractor on behalf of the principal employer has taken labour license for the project, as per the labour licenses the subproject developer can employ as contract labour in the establishment which shall not, on any day, exceed 600 Nos. the detail of the labour licenses, is attached as **Annexure 2F**. The subproject developer has taken employ compensation insurance policy for the project AAMEPL, the detail of the insurance policy is attached as **Annexure 2G**.

40. THE COMMUNITY ENGAGEMENT ACTIVITIES:

As information provided by the concessionaire, to reach the local people, AAMEPL has undertaken a few of community developments activates at construction stage of the project. The subproject developer engages with various level of society in various capacities including free health check-up camp, promoting road safety, community shed at local Gram Panchayat/Tehsil Office/village/market/school, seminar about environmental awareness, cleanliness at school other awareness camps on COVID-19, maintain social distancing at site and various community areas, sanitization of lab/equipment/machineries at project and community development initiatives.

Access to Crossing River via boats is being provided to the locals by the developer, those being used for ferrying workers and other essentials for the bridge being constructed on River Narmada.

41. DISCLOSURE:

The final ESDDR after approval from the ADB will be uploaded for public disclosure in ADB and IIFCL's website.

42. CONCLUSION

Based upon the available documents and its desk review, it seems that the concessionaire has undertaken adequate measures for the implementation of the project at construction stage of the project. The conclusions for the sub-project is given below:

- The sub-project has been prepared by NHAI under NHDP Phase IV stage plans and as per its own funding requirement and not anticipation to IIFCL or ADB involvement.
- Land acquisition process by NHAI (CA) was initiated prior to IIFCL's involvement and not in anticipation of ADB financing.
- Since the land acquisition was not in anticipation of ADB or IIFCL financing, ADB SPS on involuntary resettlement does not apply.
- The subproject does not have any indigenous people or communities in the project;
- As discussed, and confirmed by the subproject developer, there is no physical or economical displacement of people.
- There is no rehabilitation and resettlement in the project.
- Local labour are being engaged in the construction activities for skilled as well as unskilled activities;
- The Subproject AAMEPL does not involve any prohibited activity as per the Prohibited Investment Activities List (PIAL) of ADB.
- Considering the socio-economic requirements of the project area it can be noted that the project would improve the quality of life for the rural population in the project area.
- The Sub-project do not appear to involve any kind of reputational risk to IIFCL and the Asian

Development Bank funding on social safeguards and is recommended for funding under the proposed project.

- The project team is following Covid-19 measures at project and has come up with multiple interventions on social distancing, regular washing hands, wearing mask, sanitization of machineries and random on-site general health checkups for all the employees and workers at large.

**Compliance to ADB Observations on Environment & Social Due Diligence Report (ESDDR) of
Ashoka Ankaleshwar Manubar Expressway Private Limited (AAMEPL)**

S.No.	ADB Comment	IIFCL response/clarifications
Comments on Environment Safeguards		
1.	The ESDDR has mentioned that “..... even with six-laning or further widening, segregation of long distance and local and / or slow traffic is hard to achieve”. Does it mean that the proposed sub-project may not deliver the expected benefits of reduced VOC and travel time as stated in ESDDR? IIFCL is requested to clarify.	<p>The mentioned statement “..... even with six-laning or further widening, segregation of long distance and local and / or slow traffic is hard to achieve” is related to existing National Highway-8 which is running parallel to sub-project (Vadodara-Mumbai Expressway) alignment. This statement is not related to project stretch of AAMEPL sub-project.</p> <p>Under page no 20-22 of submitted ESDDR, details of Alternative Analysis are given under section 16 (reference document DPR submitted as Annexure-3) which are again referred below: Under chapter 17 of DPR, ,economic analysis is presented which identifies the expected tangible and intangible benefits of the proposed expressway investment with the focus on the reduction in vehicle operating costs, time-savings and other benefits in the influence areas of the proposed project. In the present condition, NH-8 is the existing major highways running parallel to the proposed expressway. Therefore existing 6-lane section (NH-8) of these roads is considered as base case. Alternatively in the “with project case” scenario, there will be 6/8 lane expressway running parallel to NH-8, other nearby roads</p> <p><i>Further in the submitted EIA report as Annexure-1 , it is stated that NH-8 is carrying traffic in the range of 50,000 to 80,000 PCU per day. It has been developed as 6- lane recently but many of the sections are reaching nearly the capacity volume of 6 lane NH (120,000 PCU) in the year 2015 itself. Even with six laning or further widening, segregation of long distance and local and / or slow traffic is hard to achieve.</i></p> <p>In view of above, it is clear that the statement is related to existing six laning NH-8 running parallel to proposed sub-project. The proposed sub-project is being developed as access controlled expressway, which will bring the expected benefits of reduced VOC and travel time.</p>

**Compliance to ADB Observations on Environment & Social Due Diligence Report (ESDDR) of
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2.	IIFCL is also requested to undertake a field visit to the sub-project site when the COVID-19 situation improves, and provide a detailed note to ADB with its field visit observations. IIFCL is requested to confirm either continued compliance of the sub-project with ADB's SPS 2009 or developing a time-bound corrective action plan to address the identified shortcomings based on its field-based environmental due diligence to achieve compliance with ADB's SPS 2009. This note would be disclosed on ADB website as addendum to revised ESDDR.	<p>IIFCL will undertake field visit of project site during October 2021; if it will be safe to travel for IIFCL staff as per prevailing covid pandemic status.</p> <p>Post site visit, IIFCL will submit detailed note to ADB with its field visit observations and during site visit, if any shortcomings will be observed then suitable time-bound corrective action plan will also be developed based on shortcomings observed and status will be shared with ADB.</p> <p>Further , <u>Section 31 related to conclusions and recommendations</u> has been updated on page no. 41 under revised ESDDR; wherein it is included that “Based on documentary evidence provided by the Developer and its assessment, it can be deduced that the sub-project has no significant environmental safeguard issues and the sub project is meeting the compliance requirements of ADB's Safeguard Policy Statement (SPS), 2009”.</p>
3.	<p>IIFCL is further requested to provide:</p> <p>(i) translated copies of documents in English that were submitted in local language with the ESDDR;</p>	<p>The Tree cutting permissions and few samples of Borrow area usage permissions were submitted in local language along with ESDDR for which translated copies are shared back under revised Sub-Annexures -2B related to Tree Cutting Permissions and revised Sub-Annexure -2E related to Borrow area permissions.</p>
4.	<p>(ii) copies of environmental clearances as per stipulated condition (sr. no. 12) in quarry permits enclosed;</p>	<p>Project developer has confirmed that under Part-B related to General Conditions of EC letter , excavation and rehabilitation measures for Borrow sites are already included for which six monthly compliance status (already shared as Annexure-7) is submitted to Independent Engineer, NHAI by project team for onwards submission of compliance status to MoEF & CC. Environmental Clearance Letter obtained for proposed expressway is already submitted with ESDDR as Sub-Annexure 2A.</p>

**Compliance to ADB Observations on Environment & Social Due Diligence Report (ESDDR) of
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5.	(iii) missing pages of quarry permit no. 1601017513 provided in the ESDDR;	The full copy of Borrow area permission with permit no. 1601017513 is included under revised Sub-Annexure 2E related to Borrow Area Permissions.
6.	(iv) copies of state government clearances for extraction of sand from river, if any; and	Project developer has informed that concessionaire is not extracting sand directly from river and sand is purchased from third party traders available in the market.
7.	(v) copy of afforestation plan along with implementation schedule for 13300 saplings to be planted along the stretch.	Project developer has informed that plantation of 13300 saplings is targeted to be completed by January 2022. This statement has been suitably updated under revised ESDDR under sections 18, Table 3 (page no. 24), Section 24 (page no. 38) , Section 31 (page no. 40).
8.	<p>The proposed sub-project is considered eligible for financing under Loan 3728-IND subject to the following:</p> <p>I. IIFCL to confirm in the ESDDR that the sub-project fully complies with ADB's Safeguard Policy Statement, 2009; and</p>	<p>Reply already given as per comment no. 2 above.</p> <p><u>Section 31 related to conclusions and recommendations</u> has been updated on page no. 41 under revised ESDDR; wherein it is included that "Based on documentary evidence provided by the Developer and its assessment, it can be deduced that the sub-project has no significant environmental safeguard issues and the sub project is meeting the compliance requirements of ADB's Safeguard Policy Statement (SPS), 2009".</p>
9.	<p>II. IIFCL to confirm that the requisite environmental clearances for borrow earth were obtained by ABL and/or AAMEPL for the borrow earth procured till March 2020 notification was issued by MOEFCC and provide relevant copies with the revised ESDDR.</p>	<p>Reply already given as per comment no. 3 (ii) above.</p> <p>Project developer has confirmed that under Part-B related to General Conditions of EC letter , excavation and rehabilitation measures for Borrow sites are already included for which six monthly compliance status (already shared as Annexure-7) is submitted to Independent Engineer, NHAI by project team for onwards submission of compliance status to MoEF & CC. Environmental Clearance Letter obtained for proposed expressway is already submitted with ESDDR as Sub-Annexure 2A.</p>

**Compliance to ADB Observations on Environment & Social Due Diligence Report (ESDDR) of
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10.	IIFCL is requested to incorporate the above observations in the ESDDR and submit revised ESDDR along with additional annexures for ADB's review and clearance.	ESDDR has been suitably revised in line with ADB's observations and resubmitted along with revised Sub-Annexures-2B related to Tree Cutting Permissions and revised Sub-Annexure -2E related to Borrow area permissions.
Comments on Social Safeguards		
11.	IP categorization form - In section D, please indicate the project activity output under Ashoka Ankleshwar Manubar Expressway Private Limited (AAMEPL) and its negative or positive effect (if any, but if there's none, please indicate none since this is cat C)	<p>IP Categorisation form has been modified for project activity output and status has been reflected as "None" /Not Applicable related to <u>Anticipated project impacts on Indigenous Peoples</u> under Key Concerns Column.</p> <p>Revised IP Categorization Form has been submitted alongwith.</p>
12.	ESDDR – In para 25 (GRM), it would be good to mention the total grievances received and how many are resolved and how many are still active.	<p>Project developer has informed that total 02 no. of grievances were received which are resolved as on date.</p> <p>Further project developer informed that in the past, few informal requests were received from local public regarding provision of minor facilities in the project area, which were attended by project developer, but documentary records have not been maintained for the same.</p>