

Environmental Assessment and Review Framework

PUBLIC

Project Number: 58099-001
Draft
June 2024

India: Electric Bus Financing Project

Prepared by Indus Environmental Services Private Limited and Private Limited for the Asian Development Bank (ADB).

This draft environmental assessment and review framework is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature. Your attention is directed to the ["terms of use"](#) section of ADB's website.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, ADB does not intend to make any judgments as to the legal or other status of any territory or area.

June 2024

Environmental Assessment and Review Framework

Odisha Electric Bus Financing Project

SUBMITTED TO -
Asian Development Bank

PREPARED & SUBMITTED BY-
INDUS ENVIRONMENTAL SERVICES PVT. LTD.
A-8, C. R. PARK, NEW DELHI - 110 019, INDIA.

ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK

Contents

A. Introduction..... 3

B. Assessment of Legal Framework and Institutional Capacity 4

C. Anticipated Environmental Impacts 8

D. Environmental and Social Compliance Audit of the Existing Facilities (associated facilities such as depot and charging station)..... 9

E. Environmental Assessment for Subprojects and/or Components..... 12

 E 1. Environmental Screening and Classification..... 13

 E 2. Environmental Assessments and Environmental Management Plan..... 13

F. Consultation, Information Disclosure, and Grievance Redress Mechanism 14

G. Institutional Arrangement and Responsibilities 14

H. Monitoring and Reporting..... 15

A. Introduction

The Asian Development Bank (ADB) is proposing to finance the [REDACTED] Electric Bus Financing Project wherein the borrowers are the two (2) Special Purpose Vehicles (SPV) namely [REDACTED] and [REDACTED] (collectively called the Borrowers / client) formed for implementing a Gross Cost Contract (GCC) concession with the Haryana and Odisha State Transport Undertaking (STU) respectively to supply, operate and maintain 450 electric buses and charging infrastructure in the State of Haryana and 200 electric buses and charging infrastructure in the State of Odisha for the tenure of the concession (or “ [REDACTED] Electric Bus Financing Project ” or “ The Project”). The two (2) SPVs or the borrower are wholly owned by [REDACTED] which in turn is an 83% subsidiary of [REDACTED].

The STUs of the two states shall execute GCC agreement with the Borrowers. Under the GCC Agreement, the Borrower or the Operators would be paid a fixed annual fee per km and the buses would be operated Intracity in the State of Odisha and short route Intercity in the State of Haryana. The Concession period is mentioned as 12 years from commissioning for the State of Haryana and 10 years from the commissioning for the State of Odisha. GCC agreement has already been executed for the State of Odisha on 15th March 2024. ADB will provide ordinary capital resources senior secured loan which will be used by the borrowers to finance the Project.

This Environmental Assessment and Review Framework (EARF) has been developed considering the Borrower i.e., [REDACTED] or the project SPV, responsible for implementing the GCC agreement with M/s *Capital Region Urban Transport (CRUT or the Authority)* in the *State of Odisha* at two locations namely:

- Depot 1 – Pokhariput Depot at Bhubaneswar in the State of Odisha is an existing old bus depot that will be demolished and the new depot will be constructed on the same land.
- Depot 2 – Naraj Depot at Cuttack in the State of Odisha is an available vacant land owned by the transport authority where a new bus depot will be constructed.

The SPV, as part of the GCC agreement, will undertake the following tasks:

- Procurement, Operation and Maintenance of 200 numbers of 9 m – 10 m MIDI AC Electric Buses
- Procurement, Operation and Maintenance of Transformer and Electric Chargers including establishment of associated electrical and civil infrastructure and its maintenance.

The Authority shall provide a parking space or depot including office space to park the contracted buses for the entire contract period and carry out maintenance and charging activity in accordance with the terms contained in the GCC agreement. The parking space or depot shall be handed over to the SPV by executing a separate Parking Space License Agreement and shall be leased on depot rental charge basis. The Ownership of the parking space shall remain vested solely with the Authority at all times and the SPV shall be responsible to maintain the area of the bus depot.

ADB funds will not be used for any existing depots construction activities, except for minor civil works to install charging infrastructure and for construction of new depots facilities. However, depots are associated facilities of the project. While the locations of the depots are known, these have not been subjected to due diligence because these are yet to be formally allocated and turned over to the project. As such, [REDACTED] has developed this environmental assessment and review framework (EARF) to cover identified and future depots.

B. Assessment of Legal Framework and Institutional Capacity

The applicable national and local laws, regulations and standards on environmental assessment and management for the implementation of the Project in the State of Odisha as per the GCC agreement are indicated in Table 1 below.

Table 1 Applicable National and Local regulations related to Environmental Assessment and Management

S. No	Applicable Regulations	Responsible Institution	Objective	Applicability
1	The Environmental (Protection) Act 1986	Ministry of Environment Forest and Climate Change (MOEFCC), Central Pollution Control Board (CPCB), Odisha State Pollution Control Board (OSPCB)	It is an umbrella legislation to protect and improve overall environment	The SPV needs to comply with this Act as applicable.
2	The Water (Prevention and Control of Pollution) Act, 1974 as amended, 1988	CPCB, OSPCB	Prevention and control of water pollution as well as restoration of water quality	The SPV shall ensure that the Authority has obtained Consent to Establish (CTE) prior to any construction work for the new Bus Depot or expansion / modernization of any existing bus depot. The SPV shall obtain Consent to Operate prior to commencement of operation at the Bus Depot
3	The Air (Prevention and Control of Pollution) Act, 1981	CPCB, OSPCB	Prevention and Control of air pollution	
4	Noise Pollution (Regulation & Control Rules, 2000)	CPCB, OSPCB	Noise pollution prevention and control	The SPV shall comply with noise standards as prescribes in the Rules.
5	Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended 2019	CPCB, OSPCB	Ensure proper handling, transportation and management of hazardous waste	The SPV shall obtain Authorization under the Rule indicating the category of hazardous waste generated, its quantity and mode of disposal.
6	Bio-Medical Waste (Management and Handling) Rules, 2016 as amended	CPCB, OSPCB	Ensure proper handling, transportation and management of Biomedical waste.	The SPV shall comply with the rules for generation and disposal of biomedical waste as applicable that may be generated from depots due usage of first aid box / ambulance room that shall be provided at each depot as per requirement of the Factories Rules depending on the nature of activities and number of workers deployed at each depot.
7	Battery Waste Management Rules 2022, as amended	CPCB, OSPCB	Ensure adequate handling and management of batteries including lithium-ion	The SPV shall ensure that the Electric Bus supplier has Extended Producer Responsibility registration for the lithium-ion batteries used in the electric bus.

ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK

			batteries used in Electric Vehicle.	
8	E-waste management rules 2022, as amended	CPCB, OSPCB	Ensure adequate handling and management of E-waste generated	The SPV shall comply with the rules for generation and disposal of E-Waste generated
9	Guidelines/ Criteria for evaluation of proposals/request for ground water abstraction by Central Ground Water Authority (CGWA)	Central Ground Water Authority (CGWA) / State Ground Water Department	Regulation of ground water abstraction and usage	The SPV shall ensure that the Authority has obtained NOC in case the source of water for the Bus depot is ground water
10	Plastic Waste Management Rules 2022, as amended	CPCB, OSPCB	Ensure proper management and handling of plastic waste generated	The SPV shall comply with the rules for generation and disposal of plastic waste generated
11	Solid Waste Management Rules 2016	CPCB, OSPCB, Local Municipal Authority at Bhubaneswar and Cuttack	Ensure proper segregation, storage, handling and disposal of municipal solid waste.	The SPV shall comply with the rules for generation and disposal of plastic waste generated
12	Construction and Demolition Waste Management Rules 2016 as amended	CPCB, OSPCB, Local Municipal Authority at Bhubaneswar and Cuttack	Ensure proper segregation, storage, handling and disposal of construction and demolition waste	The SPV shall comply with the rules for generation and disposal of construction and demolition waste generated
13	The Petroleum Act 1934, Petroleum Rules 2002	Petroleum and Explosive Safety Organization (PESO)	Ensure safe storage and handling of Petroleum Compounds	The SPV shall obtain license for storage of petroleum compounds beyond threshold limit as indicated in the regulation
14	The Explosives Act, 1884 & The Gas Cylinder Rules, 2016	PESO	Regulate the manufacture, possession, use, sale of explosive or storage of any compressed gas in any cylinder	The SPV shall obtain license to fill and store any compressed gas in any cylinder.
15	The Electricity Act, 2003 and The Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010	CEA	Regulate generation, transmission, distribution, trading, use of electricity	Approval for electricity supply, for installation of voltage exceeding 650V
16	The Motor Vehicles Act, 1988, as amended	Regional Transport Office	Regulation for operating vehicles on road	The SPV shall Obtain certificate of registration and fitness certificate.

ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK

	Central Motor Vehicle Rules 1989 as amended			Ensure that the drivers operating the electric buses have requisite driving license under the regulation.
17	The Employment Exchange (Compulsory Notification of Vacancies) Act, 1959 and The Employment Exchange (Compulsory Notification of Vacancies) Rules, 1960	Labour Department	To provide for compulsory notification of vacancies to the employment exchange	Every employer is required to register on the department portal and NCS portal
18	The Employees State Insurance Act, 1948 & The Employees State Insurance (General) Regulations, 1950 & The Employees State Insurance Rules, 1950	Labour Department	To secure financial relief and provide medical benefits to the employees having salary below certain amount	The SPV shall Obtain Registration for depot. This act requires the collection of a fixed amount as insurance for all the employees. The amount thus accrued is applicable for use for various uses by the employees.
19	The Contract Labour (Regulation and Abolition) Act, 1970	Labour Department	Contract labour management, prevent exploitation of contract labour and introduce better conditions of work.	The SPV shall obtain Registration certificate / Principal employer license and contract labour license, for employing 20 or more contract labour.
20	The Factories Act, 1948	Labour Department	Regulate working conditions in factories, regulate health and safety welfare for the workers	The SPV shall obtain license for operating the Depot under the regulation indicating the maximum number of workers at any time and max load connection.
21	The Inter-State Migrant Workmen (Regulation of Employment and Condition of Services) Act, 1979	Labour Department	Regulate employment of inter-state migrant workers	The SPV shall obtain Registration of establishment and license to engage any person from different state as labour
22	The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and rules 1998	Labour Department	Regulate the employment and conditions of service of construction workers.	Applies to all the building and construction workers. Registration certificate required prior to initiation of construction work.
23	Child Labour (Prohibition and Regulation) Act, 1986 as amended in 2016	Labour Department	Prohibit the engagement of child labour	The SPV shall ensure that there are no child labours on site.
24	Bonded Labour System (Abolition) Act 1976	Labour department	Abolish the engagement of any form of bonded labour	The SPV to ensure that no bonded labours are engaged on site

ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK

25	Workmen's Compensation Act, 1923	Labour department	To provide financial security to employees' families in case of their death or injury at workplace	SPV to provide compensation to the workmen in case of any injury caused due to project related activities.
26	The Maternity Benefit Act, 1961	Labour department	Social security	SPV to ensure to provide benefits to women workers during maternity period.
27	Minimum Wages Act, 1948 & the Minimum Wage Rules 1950; Payment of Wages Act, 1936 Equal Remuneration Act, 1976 Payment of Bonus Act 1965	Labour department	Payment of wages in accordance with regulation	JEMPL to provide minimum wage to the workers during project activities without discrimination and devoid of any unjust deductions
28	The Industrial Employment (Standing orders) Act, 1946 & The Industrial Employment (Standing orders) Rules, 1946	Labour department	Social security	SPV shall ensure to provide employment conditions as per this act which is approved from labour department
29	The Payment of Gratuity Act, 1972;	Labour department	Social security	SPV shall ensure to provide gratuity to the employees as per this act.
30	The Employees Public Provident Fund Act and miscellaneous provision act, 1952	Labour department	Social security	SPV to provide for instituting a compulsory contributory fund for the future of the workers after retirement or for the worker's dependents in the case of early death.

C. Anticipated Environmental Impacts

The project activities and their anticipated impacts on the environment are indicated in Table 2 below:

Table 2 Anticipated Environmental Impacts due to Project Activity

S. No	Aspect	Potential Impacts
Construction Stage Activities		
1	Soil erosion	Soil erosion due to exposure of soil surfaces to rain and wind during site clearing, earth moving, and excavation activities.
2	Soil Contamination	Soil contamination due to improper disposal of hazardous and non-hazardous waste generated during construction stage.
3	Ecological resources	Clearing of existing vegetation may impact the associated ecological habitats and their fauna.
4	Air Quality	Air pollution due to dust generated from construction, demolition, or rehabilitation works and rehabilitation of construction machinery exhausts.
5	Noise and vibration	Increased noise and vibration levels due to construction, demolition, or rehabilitation works and operation of construction equipment
6	Water Quality	Construction works within or near water bodies may cause sedimentation. Further untreated wastewater from labour camps can also impact the water quality
7	Waste Management	Construction and demolition waste lying at site can contaminate the soil. Further hazardous waste generated if not disposed properly can contaminate soil and deteriorate water quality.
8	Traffic Management	Disturbance to traffic, businesses, and communities during delivery of construction materials and/or equipment. Further temporary impacts to access of certain areas around the project due construction activity.
9	Asbestos containing materials	Health hazards due to exposure to asbestos containing material while demolition or renovation of old existing structure at site.
10	Community health and safety	Physical hazard to community due to temporary access restriction during construction stage
11	Occupational Health and Safety	Physical hazards to workers, which could be caused by noise and vibration, dust, handling heavy materials and equipment, falling objects, work on slippery surfaces, fire hazards, chemical hazards, and others. Risk of poor-quality housing and hygiene standards resulting in injury or sickness of workers
12	Socio -economic	Employment opportunities and benefits of employees and its multiplier effect or potential livelihood/ business opportunities
13	Rehabilitation and Resettlement of existing facilities	Potential damage to existing facilities during rehabilitation works.

ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK

14	Historical or archaeological sites	Damage or disturbance to historical or archaeological sites due to construction or rehabilitation works
Operation Stage Activities		
1	Air Quality	Impact on air quality due to operation of D.G set and fugitive emission due to movement of vehicles in unpaved depot areas
2	Water quality	Impact on water quality due to discharge of bus wash water and discharge of sewage generated from the depot
3	Water supply	Impact on water availability due to water usage competition and over exploitation
4	Waste Management	Contamination of land due to improper handling, storage, and disposal of hazardous and non-hazardous waste.
5	Soil quality	Contamination of land due to accidental spillage of hazardous chemicals
6	Occupational Health and Safety	Physical hazards to workers, which could be caused by handling of electrical equipment, machineries and tools, fire hazards, chemical hazards, and others
7	Community Health and Safety	Safety hazard and disturbance to traffic, businesses and communities
8	Socio-economic	Employment opportunities and benefits of employees and its multiplier effect or potential livelihood/business opportunities.
9	Climate Change	Potential climate change impacts on operation due to physical climate change risk such as flood, cyclone and extreme weather events such as heat waves.

D. Environmental and Social Compliance Audit of the Existing Facilities (associated facilities such as depot and charging station)

The SPV shall undertake an environment and social compliance audit of the existing facilities i.e. Pokhariput Depot and charging stations, including on-site assessments, to identify past or present concerns related to impacts on the environment, involuntary resettlement, indigenous peoples, and labor and gender aspects against the applicable reference framework.

For the audit, The SPV shall assess the facilities' environmental and social performance against the policies and procedures, requirements prescribed in applicable national laws and regulations, and ADB SPS and social requirements through desk-based review and site visits. The site visits shall consist of (a) visual observations of relevant areas directly and indirectly affected by the operations, (b) meetings with relevant individuals/entities to discuss the environmental and social issues; (c) if possible, representatives from local government agencies responsible for environmental compliance monitoring, land acquisition and resettlement and issues pertaining to ethnic minorities, scheduled castes, and scheduled tribes (d) interview with selected local residents and/or officials living within the host communities, and if applicable, interviews with local people from the village collective from whom lands were acquired and (e) obtain any additional information required.

The audit shall include but not be limited to the following:

- (i) Identify applicable local and national regulatory requirements and assess the project's compliance e.g. environmental assessment and environmental management plan

ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK

preparation, land use rights and right-of-way (ROW) acquisition, ethnic minorities, EIA clearance/approval, construction permits, and permits/license related to regulatory compliance.

- (ii) Review past and current performance to ascertain that environmental and social issues are identified and addressed at each stage of the project cycle from site selection, feasibility study, land acquisition, construction, and operation against the objectives, principles, and requirements of ADB SPS and other social requirements.
- (iii) Confirm categorization and determine the requirements of and compliance with ADB SPS SR1 (environmental safeguards requirements); SR2 (involuntary resettlement requirements); and SR3 (indigenous people's requirements).
- (iv) Review the existing organizational structure and the roles and responsibilities of relevant staff and how environmental, health and safety and social issues are being managed, monitored and reported by the project management, including monitoring and reporting internally.
- (v) Review and identify all project components, ancillary and associated facilities and assess conformance with applicable national regulatory requirements and, when applicable, good international industry practices.
- (vi) Review the environmental and social assessment and related studies that were prepared for the project and determine adequacy of these assessments and studies in covering the potential environmental and social risks and impacts in the context of the project's area of influence: (i) the primary project site and related facilities; (ii) associated facilities that are not funded as part of the project and whose viability and existence depend exclusively on the project and whose goods or services are essential for successful operation of the project, and (iii) areas and communities that may potentially be permanently or temporarily affected by the project.
- (iii) Determine and assess the adequacy of how Lithium Iron Phosphate (LFP) batteries wastes are managed (collected, stored, final disposal or any recycling activities) by the SPV and/or its operators.
- (iv) Determine the potential changes at the project sites as a result of climate change, such as temperature increase or decrease, altered precipitation regimes (more or less rainfall), more frequent and severe weather events such as storms and flooding, the impact of these changes to the project and corresponding measures that were incorporated in the project design, e.g., flood control measures.
- (v) Review the project's system to prevent workers accidents, injuries, diseases, and others associated with the project, and assess risks to the nearby communities and the plans to address these potential impacts.
- (vi) Assess adequacy of EHS&S monitoring and reporting program and documentation.
- (vii) Identify stakeholder groups and assess adequacy of stakeholder engagement activities. Describe environmental concerns/issues by stakeholders and measures/actions by the SPV. Conduct interviews with selected sensitive receptors, for them to share their relationship/interaction with the subprojects' E&S management.

ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK

On land acquisition and involuntary resettlement, the audit will review the process by which the SPV or other parties i.e. government authority, carried out screening, selection and acquisition of lands and how it was undertaken to build facilities and allied infrastructures, legacy issues in relation to land acquisition, if any, and process of avoiding environmentally pristine areas or undisturbed natural areas and lands with customary and traditional rights of the ethnic communities, scheduled castes, and scheduled tribes. The audit will also need to carefully look at the following concerns:

- (i) Review the process undertaken to acquire the land or land use rights for the development of the facilities and allied infrastructures and evaluate compliance with national laws and regulations and consistency with ADB SPS requirements.
- (ii) Define the land requirements for each of the facilities and area of land temporarily used during construction, including workers' accommodation.
- (iii) Identify the mode/method of land/ land use rights acquisition. Describe how the land ownership/ use rights were transferred from previous owners to the SPV and present proof of land ownership/ use rights that the project has legal tenure over the land. Provide information on the year land was acquired and by whom, type of land acquired and indicate number of households/entities whom the land/ land rights were acquired.
- (iv) Determine whether acquisition of the land or right of way, including expansion of access roads, required any physical or economic displacement or affected any buildings or structures and required the payment of compensation. Provide information on the amount of compensation paid for the land and whether the compensation has been completely paid, whether affected households satisfied with the compensation, whether compensation amount is equivalent to replacement value, whether replacement land was provided to affected household.
- (v) Conduct site visits and sample interviews of affected households in locations where there are impacts due to land acquisition to determine post-acquisition situation in re-establishing affected livelihoods, if applicable.
- (vi) Understand and document status of impacted households and their current livelihoods and sustenance activities (and if they have been able to restore livelihoods), if applicable.
- (vii) Identify whether there are poor and vulnerable affected people requiring assistance for livelihood restoration.
- (viii) Review and validate any other social/community development activities implemented for the affected households and for the residents of nearby communities.

On potential impacts to Indigenous Peoples, determine whether the establishment and operations of the SPV's facilities have resulted in or would entail positive and/or negative impacts on indigenous peoples, ethnic minorities, scheduled castes, or scheduled tribes. Determine the ethnic profile of the areas where the facilities are located and if identified ethnic groups meet the requirements of ADB SPS Safeguards Requirements 3 distinctiveness and vulnerability criteria.

On labor and working conditions, review the implementation of human resources policy of the SPV. Determine the workforce requirements for the deployment of e-buses, each facility, the terms of employment, and measures to ensure that the SPV's operations complies with applicable national labor laws and ILO core labor standards including but not limited to the following: pay mandated wages to technical, skilled and semi-workers and at least minimum wages to unskilled workers; pay insurance and other benefits, work hours and overtime work are voluntarily rendered and are all in accordance with law; presence and accessibility of worker's grievance redress mechanism; exercise their right to freely organize and confirm that there are no child labor or forced labor or any form of discrimination.

On procurement and contractor and supplier management. Determine how procurement and contractor and supplier management policies are implemented in existing facilities and in engaging contractors, subcontractors, and suppliers. Review selection process, terms of engagement, and monitoring activities related to environmental and social compliance. Determine if contractors, subcontractors and suppliers are compliant with national labor laws and requirements.

On stakeholder engagement, identify relevant stakeholders to the project, including CSOs (Civil Society Organizations) or NGOs (nongovernment organizations) i.e. those in the transport or commuter sector and identify conducted activities during project preparation up to the present and determine if stakeholder policies at the corporate level are properly being implemented at the project level. This will include activity dates, objectives, location, participants, and key discussion points. Determine if sufficient activities have been conducted to share information and solicit feedback related to land/land use acquisition, potential impacts to nearby communities, community health and safety. Determine if external grievance redress mechanism is functional and sufficient. Identify any pending grievances.

On climate risk, the Consultants are expected to identify if the existing operational facility and the facility that will be undertaken under the use of proceeds are at potential risk and if the SPV has systems in place to address that risk. The Consultant (i) shall set out the context of climate vulnerability for SPV's business model or stakeholders of influence; (ii) determine if the SPV conducts adaptation activities, has sustainability certifications that require practices associated with reducing climate vulnerability, and/or produces products or provides services that enable adaptation; and (iii) assess the institutional capacity and/or commitment to strengthen capacity, to report on related adaptation activities.

Where non-compliance is identified in the E&S Compliance Audit of existing facilities, a corrective action plan (CAP) agreed on by ADB and the SPV will be prepared. The CAP will cover all existing facilities and also have corporate level recommendations to ensure compliance with SPS requirements. The plan will define necessary remedial actions, responsible parties, budget for such actions, and the time frame for the resolution of noncompliance(s). The CAP will be taken into consideration in developing or enhancing existing corporate ESMS, as discussed and agreed with the SPV.

E. Environmental Assessment for Subprojects and/or Components

The component of the Project includes the two electric bus depots in the State of Odisha, 100 electric buses each to be procured as part of the GCC agreement will be operated and maintained at each of these electric bus depot sites. Further, charging stations shall also be set-up in these bus depots to charge the electric buses. The following general criteria will be adopted for greenfield depot sites for construction:

- The siting of all components shall not have any significant environmental impacts and trigger Category A as defined in the ADB Safeguard Policy Statement (2009).
- The activities of the components shall not result in any involuntary resettlement.
- All activities shall comply with the applicable regulatory requirements of Government of India.
- The SPV shall not finance activities listed in the ADB Prohibited Investment Activities List.

A final check on conformity with the selection criteria will be the submission of the activity's categorization form for ADB's clearance. Any activity, which does not meet the general criteria listed above, may be rejected.

The following procedures are to be followed in the environmental screening, assessment, and implementation of all activities to be financed. The environmental assessment for all activities/components shall follow both the ADB SPS and regulatory requirements of Government of India. The specific roles and responsibilities of the SPV in carrying out the process of screening and assessment of activities is provided in detail in Section F of this report. ADB will provide assistance to the SPV and its respective depot level team in carrying out its responsibilities and provide capacity building in terms of ADB's SPS requirements as required.

E 1. Environmental Screening and Classification

All electric bus depots shall be screened to determine its environment category. Categorization shall be based on ADB's Rapid Environmental Assessment (REA) Checklists. The category will be determined by the category of the most environmentally sensitive component of the activity, including direct, indirect, induced, and cumulative impacts.

Considering the nature and scale of possible activity works, the activities could be categorized as only Environment Category B or Category C. Therefore, only a review of environmental implications is required for activities classified as Category C. For activities classified as Category B, an initial environmental examination (IEE) needs to be undertaken.

The SPV, through its Project Implementation Unit (PIU), will be responsible for the initial screening of the succeeding activities and will ensure that the proposed activities conform with the the SPV's criteria and ADB's requirements. The PIU will prepare the environmental screening checklists for each succeeding activity and will submit it for review and approval of ADB. Subsequently, ADB will review and endorse the categorization of the activity.

E 2. Environmental Assessments and Environmental Management Plan

The basis of ADB's safeguard policy is to ensure that no person is left worse off after the construction and operation of the project than they were before it. Undertaking the environmental assessment will ensure that at an early stage of the activity, all potential direct, indirect, cumulative, and induced environmental impacts and risks to physical, biological, socioeconomic, and physical cultural resources are identified and corresponding mitigation measures are in place.

The construction stage of the project shall be the responsibility of the Authority, with no direct responsibility of the SPV. However, the SPV through its PIU shall ensure that relevant environment impact assessment and management measures are undertaken at the project sites.

The PIU, with the support of consultants, will conduct the assessment and prepare the required IEE for greenfield depot where the electric bus depot must be constructed. The assessment and preparation of the report (i.e. IEE and EMP) is required for each activity at the electric bus depot and shall be in accordance with ADB Safeguard Requirements 1: Environment.

The process of impact assessment requires two main sets of information – the specific sub-activities that may cause an impact and the information on the valued environment receptors (VERs). Identifying sub-activities which may significantly affect the environment should be carried out in a systematic manner. Site-specific information, including environment baseline on physical, biological, socio-economic, and physical cultural resources needs to be presented for all activities. The information should be collected through site visits and surveys within the activity's area of influence, as well as available sources of secondary information. The data required to conduct the assessment needs to relate to the activity being assessed and the activity's area of influence.

The Depot level sub-activity impacts and risks on the physical, biological, and socio-economic resources will need to be undertaken. Once potential impacts are identified, these should be assessed in terms of the potential severity of loss (consequence) and the probability of occurrence (likelihood). For each impact, corresponding mitigation measures need to be identified in order to reduce the consequence or severity of the potential impact.

An environmental management plan (EMP) will also need to be developed as part of an IEE. This shall describe the environmental management measures that will be carried out to mitigate the identified negative impacts or enhance the positive impacts during implementation, and the environmental monitoring to be conducted to ensure that mitigation is provided and is effective in reducing impacts. The EMP shall outline the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements,

capacity development and training measures, implementation schedule, cost estimates, and performance indicators.

The SPV, with the support of the consultants, will be responsible for the internal quality control of the IEE and EMP prior to submission to ADB for review and approval. After completing all investigations and public consultation processes (if required) for the IEE, SPV will endorse the draft IEE prepared and submit it to ADB in digital form for review and approval. Upon receipt of the IEE, ADB will review and approve the IEE, and endorse the disclosure of the final IEE on ADB website.

Where unanticipated environmental impacts become apparent during the implementation of activities, the SPV shall update the environmental assessment and EMP or prepare a new environmental assessment and EMP to assess the potential impacts, evaluate the alternatives, and outline mitigation measures and resources to address the impacts.

F. Consultation, Information Disclosure, and Grievance Redress Mechanism

The SPV shall conduct effective and meaningful public consultation and information disclosure during the project cycle as per the requirement of ADB's SPS. Meaningful public consultations will be carried out once the depot location is identified and a parking space license agreement has been executed with the Authority. Women and vulnerable groups (handicapped people, senior citizens, school children) will be encouraged to participate during these consultations, and every effort will be made to engage as many stakeholders as possible.

According to the requirements of the SPS, for environment category B projects the respective draft IEE will be disclosed before the Management Review Meeting (MRM), or equivalent meeting or approval of the respective tranche if there is no MRM. Project notice boards will be displayed at all depot sites. Information in these boards will include the following:

- Depot strength in terms of staff, drivers, maintenance workers and others
- Number of Electric Buses deployed at the depot
- Number of charging stations installed
- Name of the Contractors engaged and contract labour details

The information will be displayed in all three languages (English, Hindi and Local Language)

Public disclosure and complaints contact person will be designated by the SPV for each electric bus depot to help address all concerns and grievances of the local communities and affected parties. Contact details will form part of the depot identification display board that will be placed at the entrance of each electric bus depot.

If there are environmental issues concerning depot construction and operation, community consultation process that is transparent, gender responsive and accessible to all stakeholders, in accordance with ADB SPS will be conducted. Grievances, if any, will be considered at the depot level by the Grievance Redress Committee (GRC) formed at each depot. The GRC will meet for addressing grievances as needed. Grievance procedures, which can be easily understood by stakeholders, and preferably in the local language, will be disseminated to affected communities.

G. Institutional Arrangement and Responsibilities

ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK

The SPV is the Executing Agency (EA) and will be overall responsible for implementation of all E&S aspects of the Project. The SPV shall form a Project Implementation Unit (PIU) within the Company that will be responsible for implementation of the EARF. The PIU will have one dedicated E&S officer at the corporate level. Further, each electric bus depot shall appoint one E&S officer who shall be responsible for the day-to-day management of depot level E&S aspects.

With respect of ADB’s requirements for implementation of the environmental safeguard’s component of the Project, the responsibilities of the EA are to:

- Prepare rapid environmental and social screening checklist and classify projects in consultation with the Authority.
- Based on the environmental classification of projects, prepare terms of reference to conduct EIA/IEE studies.
- Hire an environmental consultant to prepare EIA/IEE reports including EMP for public disclosure.
- Ensure that an EIA/IEE is prepared in compliance with the requirements of the Government and ADB, and that adequate consultation with affected people is undertaken in accordance with ADB requirements.
- Undertake review of the EIA/IEE and EMP reports to ensure their compliance with the requirements of the Government and ADB.
- Obtain necessary permits and/or clearance, as required, from relevant government agencies, ensuring that all necessary regulatory clearances are obtained before commencing any civil work on the relevant sections.
- Submit to ADB the EIA/IEE, and EMP reports and other documents, as necessary.
- Ensure that any EMP including relevant mitigation measures needing to be incorporated during the construction stage by the contractor are included in the bidding documents.
- Ensure that contractors have access to the EIA/IEE and EMP reports of the projects.
- Ensure that contractors understand their responsibilities to mitigate environmental problems associated with their construction activities and train their staff in implementation of the EMP.
- Ensure and monitor that an EMP including an environmental monitoring plan will be properly implemented.
- Ensure that the Contractor submits monthly Environmental Monitoring Reports to the supervision consultant.
- Submit to ADB **Annual** Environmental and Social Monitoring Reports. In case unpredicted environmental impacts occur during the project implementation stage, prepare and implement as necessary an environmental emergency program in consultation with ADB.

H. Monitoring and Reporting

Monitoring and reporting of implementation of EARF will be undertaken across all stages of the project. This is to ensure that the procedures are being adequately implemented and to identify any modifications or corrective action that may be required to improve the efficiency of the framework throughout project implementation. The EARF monitoring will be incorporated into the overall project monitoring & evaluation and reporting system.

The parameters to be monitored at depot level is outlined in Table 3.

Table 3 Environmental Monitoring and Reporting Plan

S. No.	Environmental Aspect	Monitoring Parameter	Location	Method(s)	Frequency	Responsibility
Construction Phase						

ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK

1.	Vegetation	Trees and vegetation	Throughout construction site	Visual Observation	Before/After	Construction contractor/ Depot level E&S Officer
2.	Dust	Dust in air	Throughout construction site	Visual observation	During windy conditions	Construction contractor/ Depot level E&S Officer
3.		Covering of trucks and use of dust suppression methods	Throughout construction site	Visual observation	During windy conditions	Construction contractor/ Depot level E&S Officer
4.	Water Quality	Visible sediment, waste, or other pollutants in waterways and control measures (in case of nearby waterbodies)	At surface waterways and wells in vicinity of construction site	Visual observation	Weekly or after rain events	Construction contractor/ Depot level E&S Officer
5.	Air emission	Particulate Matter, SO _x , NO _x	At different location of construction site	Third-party monitoring	Monthly	Construction contractor/ Depot level E&S Officer
6.	Noise	Noise levels near sensitive receivers	At surface waterways and wells in vicinity of construction site	Observation	During noise generating activity (drilling, excavation, hammering etc.)	Construction contractor/ Depot level E&S Officer
7.	Waste Management	Construction & Demolition waste management	Throughout construction site	Visual observation	Ongoing	Construction contractor/ Depot level E&S Officer
8.	Traffic management	Disturbance and impact due to vehicle movement	Throughout construction site	Visual observation	Ongoing	Construction contractor/ Depot level E&S Officer
9.	Occupational Health & Safety	Worker related issues	Around construction zone	Observation	Ongoing	Construction contractor/ Depot level E&S Officer
<i>Operational Phase</i>						
10.	Air emission	Particulate Matter, SO _x , NO _x (against permissible limits as per NAAQS)	- Ambient conditions at site boundary - DG set stack emissions	Third-party monitoring	Monthly	Depot level E&S Officer
11.	Water Quality	BOD, COD, Total suspended solids, total coliform, oil/grease etc.	Waste water generated at Depot	Third-party monitoring	Monthly	Depot level E&S Officer
12.	Water supply	Water consumption	At the source of water supply	Water meter	Monthly	Depot level E&S Officer

ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK

13.	Soil quality	Contamination of land	Throughout the site	Visual Observation	Ongoing	Depot level E&S Officer
14.	Climate Change	Physical climate change impact (natural calamities)	Throughout the site	Visual Observation	Post natural calamity (cyclone, flood, heat waves etc.)	Depot level E&S Officer

The Depot level E&S Officer shall be responsible to conduct and maintain records of the depot level environmental parameters and report the same to the SPV's PIU on a **monthly** basis. The SPV PIU shall be responsible to collate the monitoring reports from all depots and submit it to ADB on **annual** basis.